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A comparative study of national government elite sport systems in Australia and Taiwan: A model for Olympic success

Hui-Yuan M. Tang
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**A COMPARATIVE STUDY OF NATIONAL GOVERNMENT
ELITE SPORT SYSTEMS IN AUSTRALIA AND TAIWAN:
A MODEL FOR OLYMPIC SUCCESS**

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MSc. International Sport Management
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**This thesis is presented in fulfilment of the requirements for the degree of
Doctor of Philosophy**

Faculty of Business and Law

Edith Cowan University
Western Australia

December 2007

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

ABSTRACT

This study was prompted by the stagnation facing the Taiwanese Government in promoting elite sport and pursuing sporting achievement at the Olympic Games. The main purpose of the study was to explore and compare the national government elite sport systems (NGESS) of Australia and Taiwan and make recommendations for Taiwan to improve its elite sport development and performances at future Olympics. To accomplish this purpose, the present study examined the similarities and differences between Australia and Taiwan in terms of stakeholders' viewpoints on the definition of Olympic success; the profiles of the current national government elite sport agencies; the mechanisms of the government elite sport agencies at national level; and environmental influences affecting elite sport and the mechanisms of the respective NGESS. The study utilised a qualitative design. Data were collected through document analysis and the Delphi technique. In conducting the Delphi technique, a four-round Delphi survey was undertaken in the respective countries using electronic questionnaires. Participants included 24 sport experts in Australia and 32 in Taiwan. A comparative data analysis of the documentary evidence and the Delphi survey was conducted and findings reported.

The major findings of this study are fourfold. Firstly, despite attaining different elite sporting accomplishments, the viewpoints of the definition of Olympic success held by the Australian and Taiwanese stakeholder panels were remarkably similar. Secondly, the results of the document analysis revealed marked differences between the Australian Sports Commission (ASC) and the National Council on Physical fitness and Sports in Taiwan (NCPFS) in the functions and mechanisms. Distinctively, the former had greater autonomy in administration; more employees, a wider range of activities, and more funding to promote elite athlete development. Thirdly, although both countries have a three-tier government system, the organisational network for elite sport in Australia was more comprehensive than that in Taiwan. Lastly, this study found that the political and sociocultural factors had a profound positive impact on Australia's elite sporting success (since the 1980s). In Taiwan, political, sociocultural and educational factors were found to hinder the progress of elite sport development. Based on the findings, recommendations are made to provide future policy directions to enhance Taiwan's elite sport development and future Olympic success. Given that little research was found to compare NGESS and environmental surroundings at international level, this study also provides practical information to practitioners in Australia and Taiwan towards a clearer understanding of the NGESS. A revised conceptual framework developed from key findings of environmental influences on the NGESS also offers a theoretical basis for further research.

DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

- (i) incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;
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ACKNOWLEDGEMENTS

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Dedication

I dedicate this thesis to my late father Tang Rong-Hua, and my late sister, Tang Hui-Xun.

I am sure they are still looking down, guiding me and keeping watch over me.

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ACRONYMS AND ABBREVIATIONS

(Legend: * Australia # Taiwan + other)

ABS	*	Australian Bureau of Statistics
ACE	*	Athlete Career Education
AIS	*	Australian Institute of Sport
AOC	+	Australian Olympic Committee
ASADA	*	Australian Sports Anti-doping Authority
ASC	*	Australia Sports Commission
AUS	*	Australian Dollar
BO	*	Business Operations
BAP	*	Beijing Athlete Program
CEPD	*	Council for Economic Planning and Development
CTOC	#	Chinese Taipei Olympic Committee
DAS	*	Direct Athlete Support
DCA	#	Department of Competitive Athletics
DCITA	*	Department of Communications, Information Technology and the Arts
DFAT	*	Department of Foreign Affairs
DISR	*	Department of Industry, Science and Resources
DEST	*	Department of Environment, Sport and Territories
DIS	#	Department of International Sports
DOE	#	Department of Education
DP	#	Department of Planning
DPE	#	Department of Physical Education
DPS	#	Department of Public Sports
DSF	#	Department of Sports Facilities
DSR	*	Department of Sport and Recreation
GAISF	+	General Association of International Sports Federations
GDP	+	gross domestic product
GIO	+	Government Information Office
GNP	+	gross national product
IFs	+	International Sports Federations
IOC	+	International Olympic Committee
ISCPES	+	International Society on Comparative Physical Education and Sport
ITCs	*	Intensive Training Centres
MOE	#	Ministry of Education

NCPFS	#	National Council on Physical Fitness and Sports
NESC	*	National Elite Sports Council
NESRP	*	National Elite Sports Research Program
NGESS	+	national government elite sport system
NLSAS	*	National Laboratory Standards Assistance Scheme
NOCs	+	National Olympic Committees
NSOs	+	national sport organisations
NSTC	#	National Sports Training Centre
OAP	*	Olympic Athlete Programs
OCA	+	Olympic Council of Asia
OCOGs	+	Organizing Committees for the Olympic Games
PRC	#	People's Republic of China
ROC	#	Republic of China
ROCSF	#	Republic of China Sports Federation
SAS 1	*	state academy of sport
SAS 2	*	Sport Assistance Scheme
SCORS	*	Standing Committee on Recreation and Sport
SIS	*	state institute of sport
SSOs	*	state sport organisations
SMA	*	Sports Medicine Australia
SPD	*	Sport Performance and Development
SRMC	*	Sport and Recreation Ministers' Council
TWD	#	New Taiwan Dollar
VET	*	Vocational Education and Training

CHAPTER 1

Introduction

Background to the Study

The Olympics in the modern world

The motto of the Olympic Games, *Citius, Altius, Fortius, (Faster, Higher, Stronger)*, projects a strong image to illuminate the prime nature of the Games. The pursuit of excellence, the surge of record-breaking performances and international co-operation are considered to be particularly notable achievements of the modern Olympic Games. The staging of elite sport competitions is the leading purpose of the Games. Every four years, thousands of elite athletes from five continents congregate in a host city for the opportunity to strive for their best performances against the world's best athletes. From the first summer Olympic Games held in Athens in 1896 to the recent Olympics, again held in Athens in 2004, the number of participating nations (delegations) increased from 14 countries in 1896 to 201 in 2004 (International Olympic Committee [IOC], 2004a).

According to the International Olympic Committee (IOC, 2004b, p. 10), "the goal of the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport that is practised without discrimination of any kind and in the Olympic spirit of friendship, solidarity and fair play." No other international sport event has sought to spread similar ideals to every corner of the globe (Segrave, 1988). The fundamental principle of the Olympic Movement is inclusive and is essence of the Games.

In contrast to the original ideals of the modern Olympic Games, a number of issues have emerged in recent decades. The reality of the Games shows that nationalistic expression, the growth of professionalism and commercialism, and global political interferences have profoundly influenced the Games (Embrey, 2000; Espy, 1988;

Magdalinski & Nauright, 2004; Nakamura, 1996; Toohey & Veal, 2000). As a result, the Games are not just sport competitions, but an international arena that enables individuals and nations to convey their own philosophy or ideology toward sport and through sport (Green, 2007; Green & Houlihan, 2005; Green & Oakley, 2001). There is little doubt that the Olympic stage has become a platform from which countries demonstrate their national image and pride, even superiority. Seppänen (1981, p. 94) claimed that:

Despite the heavy emphasis on individualism in the official ideology of the modern Olympic Games, the principal unit of participation has always been the political entity of the nation. Opening ceremonies where national anthems and flags symbolize nationalities are all expressions of the principal role of nationality in the Games.

As well as the manifestation of national identity and international recognition at the Olympic Games, the definition of Olympic success for a country is a debatable issue (Haag & Riesinger, 1988; Seppänen, 1981; Shaw et al., 1979). For a long time a nation's achievement at the Games was generally measured by the number of medals won. De Bosscher, De Knop, Van Bottenburg, and Shibli (2006, p. 185) argued that "Medal-counting has been used by politicians and the media to compare international success despite the International Olympic Committee's protestation that Olympic medal table is not an order of merit." Intriguingly, most participating individuals and nations relish the competition because the victories in one or more sports in some way represent their predominant status. Petrie (1975) wrote that the attraction of the modern Olympic phenomenon was that even a small measure of Olympic success can still provide much glory and prestige to a smaller country.

A sporting nation - Australia

Australia is arguably one of three countries that have participated in all summer Olympic Games since 1896 (Embrey, 2000; Farmer & Arnaudon, 1996; Houlihan, 1997). The role sport plays in Australia can be paralleled with the growth of the country. Bloomfield (2003, p. 195) pointed out that, "Sport has had a significant effect on the evolution of this nation, just as this country's development appears to have influenced the evolution of sport itself."

The staging of the summer 1956 and 2000 Olympic Games and the hosting of the 2002 Rugby World Cup and the 2006 Commonwealth Games, to some extent, reflected Australians' long-lasting fascination in the advancement of elite sport. A number of reports issued by the Australian Federal Government indicate that sport development contributed to the increase in the national economy in the last few decades (Australian Bureau of Statistics [ABS], 1993; Australian Sports Commission, 1999; Commonwealth of Australia, 1999). Specifically, sport is one of the top ten contributors to Australia's Gross Domestic Product (GDP).

Before the 1970s, the self-funded non-government organisations and club-based systems were the basis of sport structure in Australia (Shilbury & Deane, 2001). In this system, national sport organisations (NSOs) played key roles as they liaised with the Federal Government and the international sport organisations (Farmer et al., 1992). This system, adapted from the English model, helped Australia produce a number of well-known sporting heroes and heroines at the successive Summer Olympics, such as Herb Elliott, John Devitt, Dawn Fraser and Shane Gould. Many studies indicated that in Australia the government involvement in elite sport was nominal before the 1980s (e.g., Bloomfield, 2003; Houlihan, 1997; Stewart, Nicholson, Smith, & Westerbeek, 2004).

A sudden and dramatic downturn in performance at the 1976 Montreal Games became a stimulant to a succession of changes in Australian sport (Stewart et al., 2004). As a result of the public criticism and pressure, the Australian Government acknowledged the significance of elite sport progress in the nation. It also flagged that it could no longer rely on the "amateur" traditional system. The creation of a national government elite sport organisation, *the Australian Institute of Sport* (AIS) in 1981 and the subsequent establishment, *the Australian Sports Commission* (ASC) in 1985, consequently contributed to increasingly outstanding performances of the Australian athletes in international sport competitions (Bloomfield, 2003; Daly, 1985). The records showed that since 1976, Australia has achieved a steady increase in the number of medals at the Summer Olympic Games (see **Table 1.1**).

Taiwan and the Olympic Movement

The *two Chinas* issue, to some extent, has influenced the Olympic Movement in Taiwan (Lin, 1986; Slack, Hsu, Tsai, & Fan, 2002). As a consequence of a civil war during the 1940s on mainland China and the subsequent split of government into the communist People's Republic of China (PRC) and the nationalist Republic of China (ROC), the two Chinas dispute caused problems internationally (Espy, 1979; Hill, 1992; Lapchick, 1996; Macintosh, 1996). Taiwanese athletic delegations were not allowed to use the name ROC and its national flag and anthem in the Olympic Games as a separate nation. Consequently, many other international sport organisations including the Asian Games followed the rules to restrain Taiwan's participation in sport competitions (P. Chang, 1985; Lin, 1986). It was not until 1979, when both PRC and ROC were admitted to the international Olympic movement, the political impediment was seemingly resolved.

In 1981, the Taiwanese Government reluctantly accepted a compromise agreement made by the IOC to participate in the Olympic movement under the name "Chinese Taipei" and to only use the "team flag and team anthem" to compete in the Olympic Games. This arrangement is known as the Olympic Formula by all national Olympic committees (NOCs) (Lin, 1986; Tsai, 2002). Under the formula, the NOC in PRC is officially called the Chinese Olympic Committee, while the one in Taiwan is renamed as the Chinese Taipei Olympic Committee (CTOC). Lin (1986) and Slack et al. (2002) observed that political unrest had a crucial impact on Taiwan's elite sport development in the past and it remains restricted even twenty years later.

Apart from the political restriction, the configuration of Taiwan's sport [physical education] systems directly and indirectly impeded its elite sport development as well as Olympic achievements. Before 1997, the administration of sport at all levels was closely linked with the education system (C. J. Chang, 1997; M. C. Hsu, 1992). For example, sport associations at the national level were administered by the Department of Physical Education (DPE) under the Ministry of Education (MOE). Sport organisations at the city/county level were supervised by city/county government education departments (Physical Education Division). Such subordinate operating systems affected the government's priority on the allocation of the human resources and financial support for sport improvement. Accordingly, for a long time the development

Taiwan and the Olympic Movement

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of elite sport relied largely on non-government national sports organisations (NSOs) with limited public funding support (Hua, 1998).

In 1997, the establishment of a government sport agency at ministry level, entitled *The National Council on Physical Fitness and Sports* (NCPFS), was regarded as a milestone for the improvement of elite sport in Taiwan (M. C. Hsu, 1992; Lin, 1997). Following the formation of the NCPFS, the elite achievements in the subsequent Asian Games showed that Taiwanese athletes and teams were capable of better performances at the summer Olympic Games (NCPFS, 1998). The number of medals won at the Asian Games increased from 43 (seven gold) in 1994 to 77 (19 gold) in 1998 (see **Table 1.2**). However, these improved results were not sustained; the total medals gained at the same Games, as shown in **Table 1.2**, declined to 52 (10 gold) in 2002 and 46 (9 gold) in 2006.

Table 1.2
Taiwan's Medal Tally at the Asian Games 1951-2006

Year	Host City	*Ranking	Gold	Silver	Bronze	Total
1951	New Delhi	Did not attend				
1954	Manila	Did not attend				
1958	Tokyo	6	2	4	7	13
1962	Jakarta	5	6	11	17	34
1966	Bangkok	7	5	4	10	19
1970	Bangkok	12	1	5	12	18
1974	Teheran	Did not attend				
1978	Bangkok	Did not attend				
1982	New Delhi	Did not attend				
1986	Seoul	Did not attend				
1990	Beijing	16	0	10	21	31
1994	Hiroshima	7	7	13	23	43
1998	Bangkok	6	19	17	41	77
2002	Pusan	7	10	17	25	52
2006	Doha	10	9	10	27	46

*The ranking presented above is based on gold medals counts.

(Source: Olympic Council of Asia, 2006)

In addition to the fluctuating results at the Asian Games, Taiwan's Olympic performance has been relatively poor. From 1952 to 2004, the national athletes and

teams at the Olympic Games won only 15 medals in total (see **Table 1.3**). While political intervention and government interest appeared to affect elite sport achievements in Australia and Taiwan, it is intriguing to compare their government elite sport delivery systems, recognizing that both countries have comparable population size and government elite sport agencies at the national level.

Table 1.3
Taiwan's Medal Tally at the Summer Olympic Games, 1952-2004

Year	Host City	Gold	Silver	Bronze	Total	Event
1952	Helsinki	Did	not	attend		
1956	Melbourne	0	0	0	0	
1960	Rome	0	1	0	1	Decathlon
1964	Tokyo	0	0	0	0	
1968	Mexican	0	0	1	1	80m sprint
1972	Munich	0	0	0	0	
1976	Montreal	Did	not	attend		
1980	Moscow	0	0	0	0	
1984	Los Angeles	0	0	1	1	Weightlifting
1988	Seoul	0	0	0	0	
1992	Barcelona	0	1	0	1	baseball
1996	Atlanta	0	1	0	1	table-tennis
2000	Sydney	0	1	4	5	table-tennis, taekwondo, weightlifting
2004	Athens	2	2	1	5	archery, taekwondo
	Total	2	6	7	15	

(Source: International Olympic Committee, 2004a)

Comparison as an approach

The values of comparative studies in sport are widely recognised in academia (Devine, 1979; Haag, Pooley, & Vendien, 1994; Noah, 1984). However, to date, there is rather limited literature or studies to be found on the comparative study of sport organisations. A report issued by the *International Society on Comparative Physical Education and Sport* (ISCPES) revealed a lack of international comparative sport research over the last decade, especially studies of national sport delivery systems in developing and developed nations (Wilcox, 1994). Haag et al (1994, p. 518) also indicated a dearth of comparative studies in the area of sport. They encouraged future comparative research in order to:

- learn more about sport in other countries.
- learn more about one's own models through being exposed to other models (i.e., enhancing self-evaluation).
- search for human betterment through implementing "foreign" elements into one's own system.

In more recent years, abundant research in the area of sport science has contributed to the enhancement of higher sport performance. Furthermore, literature on national sports policy and factors affecting national Olympic success has been written in the context of sport sociology (e.g., Coakley, 2004; Digel, 2002; Green & Houlihan, 2004) and comparative research (De Bosscher, De Knop, & Heyndels, 2003; e.g., De Bosscher, De Knop, Van Bottenburg, & Shibli, 2006; Green, 2007; Lopez, 2000; Oakley & Green, 2001). Although the value of comparative studies in sport is widely recognised by researchers in the field of sport management, a review of related literature revealed a paucity of academic analysis that investigated environmental influences on national elite sport systems at the international level.

The study of an organisation and its environment is one of the core concepts of organisation theory that is regarded as a useful vehicle to fully understand the interrelationship between an organisation and its environment. The present study set out to examine the current government elite sport systems of Australia and Taiwan and attempt to investigate the environmental influences impacting on these systems. Through such comparisons, and a better understanding of the systems and the environment in which they exist, more effective and efficient policies and strategies can be developed and implemented, in particular, for Taiwan's future Olympic success.

Problem Statement

The problem driving this study was Taiwan's long-term stagnation in the development of high performance sport. In recent years, despite establishing a government sport agency at national level, restructuring the sport delivery systems, as well as increasing public funding support for elite athletic programs, the accomplishments of Taiwanese

athletes and teams in the international sport events, especially the Olympic Games, have shown no noticeable advancement [if the achievements are reflected in the medal count]. By contrast, Australia's constructive responses to sport and active intervention in elite sport, as well as the evidence of growing success at the Olympic Games, offer a positive example for Taiwan to explore.

Statement of purpose

The main purpose of this study was to examine and compare the national government elite sport systems in Australia and Taiwan in order to generate recommendations for Taiwan to improve its elite athlete development and management system and service delivery. It was anticipated that the recommendations emerging from the findings could provide guidance for the advancement of elite sport in Taiwan and lead to better performances at future Olympic Games.

Research objectives

In fulfilling this purpose, the following objectives were established:

- To identify the stakeholders' viewpoints of the definition of Olympic success in Australia and Taiwan.
- To examine and compare the profiles of the existing national government elite sport agencies in Australia and Taiwan.
- To identify the environmental influences on the national government elite sport systems in Australia and Taiwan.
- To compare the perceived environmental influences on the respective elite sport systems of Australia and Taiwan.
- To provide recommendations to the Central Government of Taiwan for development of elite sport delivery systems to enhance future success at the Olympic Games.

Research questions

Based on the problem statement and specific objectives described above, this study addressed six research questions:

1. How do the stakeholders (e.g., government officials, sport organisation administrators, Olympians, national coaches, and sport journalists) in Australia and Taiwan define Olympic success?
2. What are the profiles (e.g., organisational structure, policy direction, funding allocation, elite sport programs, and organisational network) of the current national government elite sport agencies in Taiwan and Australia?
3. What are the similarities and differences in the mechanisms of the national government elite sport agencies between Australia and Taiwan?
4. What environmental influences (e.g., geographic, demographic, political, economic, sociocultural, educational, and technological) are perceived to affect the development of elite sport in Australia and Taiwan?
5. What environmental influences affect the mechanisms of the national government elite sport systems in Australia and Taiwan?
6. What aspects of the Australian elite sport delivery models could be adapted to advance Taiwan's national government elite sport systems?

Rationale and significance

Before embarking on the PhD research journey, I had worked for the government in Taiwan in the administration of physical education and sport for more than 10 years. With personal experience, as a physical education teacher, an administrator at high school, and later as a sport administrator working in the promotion of physical fitness and sport, I had opportunities to contact a variety of sport organisations and sport experts from different settings. By virtue of the professional involvement in sport, I became aware of the vital role that government plays in the development of sport in a country in addition to the range of influences that affect sport. Such accumulative motives increasingly became a driving force to initiate the present study.

The background information discussed earlier together with my above-mentioned personal and professional orientation provided the rationale of this study. The significance of this study is threefold::

Firstly, this study provide practical and useful information to practitioners such as government officials, sport managers, sport scientists, to give a better understanding of the national government elite sport systems and its environment. Especially, by looking into the specific environmental factors surrounding the national government sport systems, the outcome proposes broader observations of the components of Olympic success. The findings are expected to enhance efforts of those in the respective sport systems and contribute to the development of sport at all levels.

Secondly, the application of generic organisation theory as a framework to understand diverse organisations has been highly visible for decades and in different fields (e.g., business, information technology and management). The use of organisation theory within sport management was a more recent phenomenon however (Slack, 1997). Literature in sport management revealed a paucity of sport studies in national government sport organisations and indicated a need for greater understanding of the various environments in which national sport organisations exist (Chelladurai, 2005; Slack, 1997). The present study represents an attempt to fill the gap in this domain in addition to the field of comparative research.

Finally, the conclusions of the present study endeavoured to produce a set of recommendations for the Taiwanese government to reconsider strategies and policies to more effectively and efficiently promote elite sport performance that may lead to increased Olympic sporting success. It is widely recognised that national success in international sport can bring benefits such as encouraging mass participation, generating economic activity, building up national pride, expanding government diplomacy, and advancing international status (De Bosscher et al., 2006; Stewart et al., 2004).

Key terms for this study

The following key terms that are frequently used in the present study should be clarified to enable a clearer understanding of their underlying meaning in the context of the research.

Elite sport(s): The popular notion of elite sport is similar to high performance sport and is connected with competitive sport. Specifically, elite sport refers to athletes and teams of the highest quality; they are usually selected on a national basis and trained for the goals, such as attaining medals at the Olympic Games with government support or corporate sponsorship (Coppell, 1995). By comparison, competitive sport is defined as all organized sport activities in which the level of performances meets high standards of expectation (Coakley, 2004). On the basis of the defined concepts and for the purpose of this study, the term elite sport is used to highlight national government involvement in the support of summer Olympic sports in Australia and Taiwan.

Elite sport system(s): This study explores the existing principal government elite sport agencies at the national level in Australia and Taiwan. In the main, this study uses the term *systems* rather than *organisations* to highlight the systems concept of organisations in order to build an analytic structure in relation to the environment of the sport system. As noted by Chelladurai (2005, p. 73), “the systems view of organisations draws out the basic elements common to all organisations, the relationships among these elements, and their interactions with the environment.”

The Olympic Games: It is widely acknowledged that the Olympic Games consist of the summer Olympics and winter Olympics that are held alternately every two years. The scope of the present inquiry, as shown in the previous discussions, concentrates on the summer Olympics. Thus, the terms “the Olympic Games” and “the Olympics” used throughout this study refer to the summer Olympic Games.

Olympic success: The medal counts as a basic measure to judge national sporting success have been widely exercised since the beginning of the modern Olympic Games,

despite lacking rational justification. This study took medal tallies as a starting point for preliminary examination and comparison of national Olympic success between Australia and Taiwan. However, in order to gain more insight into the meaning of Olympic success in these two countries, this study probes stakeholders' viewpoints for alternative definitions.

Structure of the thesis

This chapter has set the scene for this study by introducing the background to the present study, the problem and purpose statements, and specific objectives and research questions, as well as the rationale and significance of this study. Several key terms used in this study are also clarified. The next chapter (Chapter 2) is the review of literature which explores related topics. Chapter 3 describes the conceptual framework of this study. Chapter 4 gives an intensive account of the methodology used to collect and analyse the data. Chapters 5 and 6 discuss findings from documentary evidence of the profiles of the principal national elite sport agencies in Australia and Taiwan and environmental influences in the respective contexts. Chapter 7 presents results from the Delphi surveys. The final chapter (Chapter 8) of the thesis provides a summary of this study, draws conclusions, and makes a list of recommendations for Taiwan in the advancement of elite sport. Chapter 8 also recommends future research.

CHAPTER 2

Review of Literature

Introduction

The focal point of this study was to explore and compare the national government elite sport systems and environmental influences in Australia and Taiwan for the specific purpose of generating recommendations for Taiwan to improve its elite performances at the Olympic Games. This chapter discusses related literature to support the research framework. This literature review is divided into five main sections. The first section deals with comparative studies of sport. The second section focuses on the role of government in sport. The third section provides general background information on Australia and Taiwan as a context for sport and explains the development of national sport delivery systems in each country. In the fourth section, special attention is given to the Olympic Games and the notion of Olympic success. It includes an overview of the Olympic Movement, the measurement of Olympic success, and previous research on national success at the Games. The final section discusses the theoretical concepts underpinning this study and outlines the systems perspective of organisations derived from organisation theory.

Comparative studies in sport

This section describes comparative studies in sport settings. After a brief introduction of the evolution of comparative physical education and sport, it discusses the functions of comparative research and methodological concerns in sport studies. It also summarizes previous studies conducted in relation to elite sport development and national Olympic success.

Bennett, Howell, & Simri (1983, p. 9) noted that primitive communities utilized comparison to advance and benefit their lives. They observed that:

Comparative studies of one kind or another have been part of man's [sic] life from earliest times. When man first ventured out of his own 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.

Comparative research in the sport setting, however, is scant. Haag et al. (1994) noted that despite the abundance of historical literature on sport and physical education in the 1950s and 1960s, very little attention was given to the area of *comparative sport* and physical education before the 1970s.

Howell and Howell (1979) stated that the progress of comparative methodology in physical education and sport travelled a similar route to that of *comparative education*. They observed that both fields developed such studies from the earliest recorded observation to cultural borrowing; later information exchange between countries became a dominant trend. Until recent decades in academia the comparative scholars attempted to apply the more subtle methodologies of other disciplines, for example, comparative political science and comparative sociology.

Within the past few decades comparative education research methodology became more sophisticated. However, scholars in the field of sport and physical education frequently criticized the lack of progress toward suitable comparative methodologies (e.g., Bennett et al., 1983; Haag et al., 1994; Pooley, 1988). In view of this lack of progress, suitable frameworks were selected from comparative education to aid structured or consistent inquiries in sport and physical education. These frameworks included an historical-descriptive approach, national character approach, social-cultural approach, problem approach, and education as an instrument of national policy approach.

The foregoing description of comparative approaches from education suggests that the distinct approaches were created according to the purposes of comparative research. It is difficult to apply any of those existing frameworks to the present study, because they are based on the specific purposes of respective studies. Not surprisingly, Haag et al. (1994, p. 513) pointed out the continuing debates about a lack of a formal methodology (i.e., a universal framework and a consistent

technique) in physical education and sport research, noting that “survey methodology was common in the early years and remains so today.”

There was no universal agreement among comparative scholars as to what comparative sport and physical education should mean (Bennett et al., 1983; Haag et al., 1994; Pooley, 1988). In most cases, the changing topics and emphases of studies led to a variety of definitions. In order to clarify the functions of comparative sport and physical education, Anthony (1966, cited in Bennett et al., 1983, pp. 4-5) outlined the following goals for researchers:

- To establish reliable data on each country and system, separately and collectively
- To search for regularities by analyses of differences and similarities, with particular attention to the relation of theory to practice
- To try to understand the past, to predict future trends, and to assist in the formulation of policy
- To examine the need for the reform of one’s own methods and systems and to contribute a universal improvement of standards and knowledge
- To relate knowledge in the specific field of sport and physical education to that in all other relevant disciplines

Despite methodological concerns, the value of pursuing comparative research is broadly recognised in many fields. In education, for example, Noah (1984) emphasized that “comparative study can help us understand better our past, locate ourselves more exactly in the present, and discern a little more clearly what our educational future might be.” The application of comparative study in the context of education is characterized by the belief that through the examination of education systems in different countries, “one could improve one’s own system by borrowing from another nation” (Bennett et al., 1983, p. 10).

Similarly, in the sport settings, Devine (1979, p. 21) pointed out the advantages of conducting comparative inquiry and contended that “the process of studying sport in other countries is not only a means of understanding other people, but also a means of knowing ourselves better.” In addition, he stressed that “this practice permits us to deduce lessons for our system from the achievements and the mistakes of other systems, and appraise issues from a global rather than an ethnocentric perspective” (Devine, 1979, p. 21).

While the significance of conducting comparative research was generally acknowledged, a review of comparative literature in the field of sport revealed little research into government elite sport organisations. Previous studies on the subject of elite sport development and national Olympic success were mostly concerned with: success factors and Olympic achievement (e.g., Clumpner, 1994; M. C. Hsu, 1992; Seppänen, 1981); sports science research system (e.g., Xiong, 1988a), elite athlete training systems (e.g., C. C. Hung, 2001; Xiong, 1988b); non-government national sport organisations (e.g., De Bosscher, De Knop, & Heyndels, 2003; Lopez, 2000; Madella, Bayle, & Tome, 2005). The exceptions were studies in relation to structure of government sport agencies (e.g., Rule, 1998), national elite development strategies (e.g., Oakley et al., 2001), necessary resources for elite sport development (e.g., Digel, 2002), the role of sport in national building (e.g., Waters, 1996), and national sports policy of predominantly western countries (e.g., Chalip, Johnson, & Srachura, 1996; Green, 2005; Houlihan, 1997). Despite these, no attempt is evident of a comprehensive exploration and comparison of government elite sport systems and environmental influences on these systems. The next section explores the relationship between government and sport.

The role of government in sport

This section reviews government involvement in sport and the justification for governments becoming involved in sport events. In particular, it examines the reasons for the increasing government interest in elite sport.

From a sociological perspective, government involvement in sport becomes evident when sport activities become increasingly popular in society (Coakley, 2004). This association between sport activity and government interest is based on the belief that people participating in sport and sport organisations should be regulated and controlled, on the one hand; and on the other hand that government should provide resources such as sports facilities to meet people's needs. To interpret the driving forces of government concern with sport, Coakley (2004, p. 446) outlined seven reasons for the role that governments play in the sport development process, these include:

- To safeguard the public order;
- To maintain health and fitness among citizens;
- To promote prestige and power of a group, community, or nation;
- To increase support for political leaders and government;
- To promote economic development in a community or society;
- To promote a sense of identity, belonging, and unity among citizens; and
- To reproduce values consistent with dominant ideology in a community or society.

The term *sport* can refer to a broad range of physical activities from informal play to formal games. The type of sport that government promotes to maintain public health may be termed *public sport* (or *sport for all*). Governments may also take an interest in traditional sport that many people play and watch generate a sense of identity; *cricket* in Commonwealth countries, *sumo* in Japan, and *wushu* in Chinese society are typical examples. As noted by Hoye, Smith, Westerbeek, Stewart, and Nicholson (2006), "because of sport's potential to deliver significant social benefits, there are a number of sound reasons for the State wanting to invest in it." Such variety and practical functions of sport attracted governments' attention.

Bedecki (1979) stated that "throughout history, governments have been involved in promoting and developing sport – their initial utilitarian purposes now including significant legislation, stated objectives and purposes, administrative and organisational structures and programming and financial assistance." Specifically, in

order to promote public sport and improve physical fitness of the people, governments might enact regulations and allocate funding for physical activity campaigns and their promotion. Likewise, to stimulate elite athletic performance at international competitions, training programs and incentive schemes might be put in place. Nevertheless, he further noted that:

National governments are giving increased recognition to the responsibility to promote both physical fitness and amateur sport programs; there is a greater tendency to allocate public monies to support of amateur sport programs; and there is also a growing emphasis upon participation and achievement in international sport competition. But although there are these similarities, each country's involvement was developed in its own economic, social and political climate (Bedecki, 1979, p. 137).

Despite the fact that the role of respective governments in elite sport differs and the degree of their involvement varies, Bennett et al. (1983) explained that the creation of a sport agency under a national body is a noticeable feature. For instance, some governments instituted sport agencies allied with the ministry of education (e.g., Finland, Japan and Taiwan) or youth (e.g., France and Indonesia), while others formed departments associated with culture and arts (e.g., Korea, Greece and Australia) or tourism (e.g., New Zealand and South Africa)(C. J. Chang, 1997).

A study by C. J. Chang (1997) showed that many national governments steadily increased the role they play in the participation in sport to “fit in” with the international sport movement. By surveying the 64 countries that won at least one gold medal at the 1996 and 2000 Olympic Games, he found that only 9 of these gold-medal winning countries did not have any government sport agency at national level. Surprisingly, the United States and Italy are exceptional cases of this observation.

To this point, it is interesting to look at the reasons for the increased government intervention in elite sport. Coe (1985, cited in Oakley et al., 2001, p. 84) presented four arguments from a study of national elite sport development systems in western countries by Oakley et al. (2001) and these provide a persuasive justification:

- Sporting success develops national identity and makes people proud to belong to their country. Sporting failure has the reverse effect; people blame each other and feel less committed to the national cause.
- International prestige is important. A country's image abroad is influenced by individual or team success; thus, directly and indirectly, they can help to sell national products and services and earn foreign currency.
- Sporting achievement creates role models who can be used to encourage and inspire others.
- In any field, elite achievers should be given the freedom and opportunity to realize their potential partly for themselves but also for their communities.

In addition to the recognition of the value of elite sporting success, in the same study, Oakley et al. (2001) observed that the expansion of government awareness was due to the increasing competitiveness of high performance sport in the international sport arena. In this regard, Australia is a typical example. As earlier noted, in 1976, the Australian Olympic team recorded its worst performance at the Montreal Olympic Games (zero gold, 1 silver and 4 bronze medals; ranking 32nd on the medal tally). At the time, in response to public concern and sport professionals' recommendations, the Federal Government changed its conservative attitude to adopt a more active intervention in national elite sport development. The increased Federal Government intervention in elite sport and the financial assistance, along with the establishment of the AIS in 1981 in Canberra and later the ASC in 1985, are regarded as the reasons for the growing prosperity of Australian high performance sport, especially the remarkable achievements at the subsequent Olympic Games (Bloomfield, 2003; Farmer et al., 1996; Oakley et al., 2001; Shilbury et al., 2001).

By comparison, in Taiwan, in response to the growing trend toward the need for government involvement in sport (particularly in elite sport), a government special sport agency at ministry level, the NCPFS, was established in 1997 (NCPFS, 1998). Prior to this, the promotion of sport for the most part relied on the non-government

national sport organisations, with limited public funding support from the Department of Physical Education within the education system.

In view of the value of comparative research, this study examined and compared the current national government elite sport systems in Australia and Taiwan. The next section explores the sport development in the national context of these two countries.

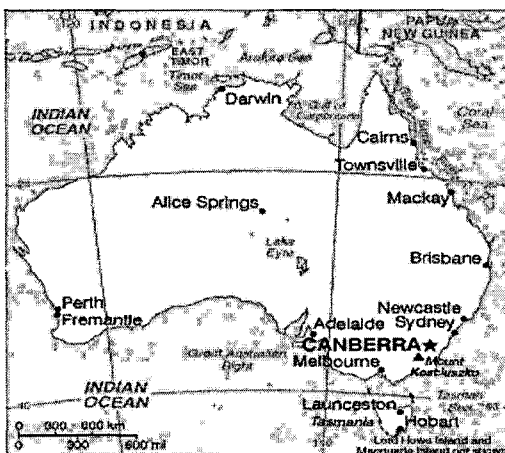
The sport development in the context of Australia and Taiwan

This section presents general background information on the context of Australia and Taiwan respectively as a context for examining the emergence of their elite sport systems. The review focuses on the geography, demography, and the nature of governing institutions, educational systems and economic development. This is followed by an explanation of the development of sport and government sport agency in each country. Further, a comparison of the common characteristics and dissimilarities between the two countries are discussed.

Australia: general background information

Geographic and demographic features

Located between the Indian Ocean and the South Pacific Ocean, Australia is the sixth largest nation with a total land area of approximately 7.68 million square kilometres (see **Figure 2.1**).



- Total land area: 7,686,850 sq km
- Coastline: 25,760 km
- Population: 20,090, 437 (July, 2005 est.)
- Language: English
- Life expectancy: 80.39 years (2005 est.)
- GDP: US\$ 624.7 billion (2004 est.)
- GDP per capita: US\$ 30,700 (2004 est.)
- Military expenditures: US\$ 1.665 billion

Figure 2.1 Map of Australia (Central Intelligence Agency, 2005a)

This land is composed of diverse natural features such as plains, beaches, low plateaus with deserts, and rainforests. Despite the vast size, more than one-third of the continent is desert and 70 per cent of the land area is arid or semi-arid. Only 6.55 per cent of the land is arable (Central Intelligence Agency [CIA], 2005a). Rainfall varies greatly each year and is distributed unevenly but the annual mean rainfall in this island is only about 465 millimetres. However, by and large the climate in Australia is temperate; most areas enjoy warm summers and mild winters (Department of Foreign Affairs and Trade [DFAT], 2005a).

In contrast to its huge land area, Australia has a relatively small size of population. In 2004, Australia's total population reached 20 million. More than 75 percent of the population lives in the major coastal cities (DFAT, 2005a). Since the late 1940s, as a result of the Federal Government immigration policies, there have been over six million immigrants from around the world mainly from European countries. In recent years, an increasing proportion of immigrants are from Asian countries such as China and Vietnam (DFAT, 2005a).

The population of Australia is comprised of 92 percent Caucasian, 7 percent Asian, and 1 percent indigenous people. As to age structure, about 19.8 percent of the population is under the age of 14, 67.2 percent between 15 and 64 years, and 12.9 percent is over 65 (CIA, 2005a). Nevertheless, cultural diversity and immigration are important features underpinning Australian society. In many aspects, migrants have had a marked influence on Australian society. People born overseas make up almost one quarter of the total population. Although Australia is an English-speaking country; more than 4 million Australians speak a second language (DFAT, 2005b).

Government structure

There are three distinct levels of government in Australia to share the responsibility for governing the continent; federal, state and local. At the first or federal level, the

Federal Government is formed of the Executive Government, the Legislature (i.e., the House of Representatives and the Senate), and the Judiciary. Its powers are limited by the Constitution to nationally significant matters such as defence, foreign affairs and the economy (CIA, 2005a).

At the second or state level, there are six states and two territories with similar structures and statutes to the Federal Government. Under the Federal Constitution, the powers of the state government are primarily charged with public affairs that are not administrated by the Federal Government. These include education, health, agriculture, transport, and law enforcement.

At the third or local level, there are more than 900 local government bodies (e.g., cities, towns, and regions) in Australia. Based on the relevant legislation in each state or territory, the powers of local governments are derived from respective state and territory governments, and they are also responsible for regional administration, for example, town planning, community infrastructure, and public health (Shilbury et al., 2001).

Education system

The Australian education system is divided into five areas: preschool (i.e., kindergarten), primary school; secondary school; vocational education and university/tertiary institutions. Preschool in most states commences at age four and is optional. However, for children between the ages of six to 15 the attendance of primary school and early secondary school (Year 10) is compulsory. In recent years, an increasing number of students completed the full 13 years of primary and secondary education (Department of Education, Science & Training [DEST], 2005). In 2004, there were 9,615 schools in Australia, of which 72.2 percent were government-funded “public” schools and 27.8 percent were non-government “private” schools (ABS, 2005b).

Australia has two types of tertiary education programs: vocational education and training (VET), and university/tertiary institutions. The VET system is designed to

provide students with career-oriented education and is delivered by both public providers and the private sector. There are 37 public universities, three private universities, and some 100 other institutions (e.g., theological colleges) in Australia, which provide a range of programs for students from undergraduate to postgraduate awards. In 2003, more than 930,000 students were enrolled in undergraduate and postgraduate higher education courses (DEST, 2005).

A lack of official and integrated physical education programs within school systems was, and is still, a debatable issue in Australia (Farmer et al., 1996). By and large, the responsibility for curriculum development in health and physical education lies with state and territory education (or sport) authorities. As a general rule, a curriculum council is established in each state or territory under relevant regulations enacted by state/territory governments. These curriculum councils are responsible for curriculum policy directions for kindergarten to Year 12 schooling. In addition, a range of non-government associations at state level are organized and supported by education authorities under state/territory governments for the coordination and promotion of sport programs, activities and competitions at a regional, and interstate and international level, for example, *School Sport WA* in Western Australia and *School Sport Victoria* in Victoria (Commonwealth of Australia, 2006).

Economic development

Australia has a stable economy. Primary products in agriculture, minerals and energy have long contributed to Australia's economic development. Australia's largest trading partners are Japan, the USA, China, and Korea (DFAT, 2005b). Over the last decade, Australia's changing stock market capitalization showed a shift from a resources-based economy to a services-based one; more than 70 per cent of GDP was attributed to the service sector. Tourism, for example, has become Australia's largest service export and most important industry. As a result of an economic revolution in the last 15 years, Australia emerged as one of the world's most open and stable economies (DFAT, 2005b). With the stable economic situation, Australia enjoys a high standard of living. In 2004, the GDP was US\$ 624.7 billion and the GDP per capita was US\$ 30,700 (CIA, 2005).

The development of sport and delivery systems in Australia

Australia has a unique sport history set against a background of distinctive geographical and sociocultural features (Adair & Vamplew, 1997; Cashman, 1995; Lynch & Veal, 2006). Before the Commonwealth of Australia was formed in 1901, the British sporting tradition had a profound effect on the development of Australian sport. As Lynch et al. (2006, p. 263) described, “In the colonial era, sport was one of the key social forms through which the values of the British Empire were cemented into the Australian culture...”. The club-based systems and national sport organisations for a range of sports were progressively organized, such as cricket, horse-racing, lawn tennis and rugby; meanwhile, sport events and competitions between clubs and regions developed. After Federation in 1901, sport naturally became an integral part of the processes that shaped Australian culture; it allowed Australians to develop lifestyle and build up a national image (Cashman, 2002).

Cashman (2002, p. 19) observed that, “Cricket was the first team sport played in Australia. Games were played as early as 1803 in Sydney but it was not until 1826 that newspapers reported that the Australian Cricket club – the first known cricket club in the country had been formed.” This traditional English sport was, and still is, one of the most popular sports in Australian society and Australia’s success in this sport is well documented. Houlihan (1997, p. 26) noted that “from middle to the turn of the nineteenth century, sport, particularly cricket, was an important mirror of the changing conception of Australian identity.” Because of the consistent popularity of cricket in Australia, many writers address the connection between cricket matches and Australians’ ideology toward sport. For example, Cashman (2002) noted that the Australian cricketers’ victories in the 1870s and 1880s enhanced Australians’ growing sense of national identity. Vamplew (1994, p. 2) observed that “beating the mother country [England] at her own sport was regarded as sign of colonial maturity.”

Apart from the popularity of traditional sports, in the first half of the twentieth century, Australians performed well in the international sport arena, but government support for sport and the Olympic movement was limited. Cashman (1995, p. 118)

stated that during this period, “governments for the most part continued to believe that sports should run themselves, raise their own funds and develop their own talent.” In general, the responsibility for fund-raising to participate in the Olympics was mainly left to the Australian Olympic Federation. Until the 1970s, the Australian Government involvement in sport was still minimal. As Houlihan (1997, p. 68) noted, “The Federal Government was content to leave sport in the hands of voluntary bodies.”

The election of a new government in 1972 (Labour Party 1972-1975) was regarded as a watershed for Federal Government involvement in sport (Bloomfield, 2003; Green et al., 2005; Semotiuk, 1986). Specifically, Stewart et al. (2004, p. 48) noted that the Labour Government re-visited the previous government’s views on sport and held a belief that “it should exert more control over both economic and cultural affairs, including sport”. In this regard, Booth and Tatz (2000, p. 162) wrote that:

Gough Whitlam, the new leader, promised to replace the old Australian way of life with a “new nationalism”.... Sport fitted Whitlam’s domestic and foreign policy agendas. Labour initiated a sport-for-all policy, explicitly linked sport to foreign policy, and laid the foundations for an elite sports policy.

The first sport agency – *the Department of Sport, Recreation and Tourism* was established in 1972. Foundation funding was also distributed to the state and local governments to build up infrastructure and financial support for NSOs to host and participate in international sport competitions (Shilbury, Deane, & Kellett, 2006): During the Labour administration, the Minister for Tourism and Recreation commissioned a group of sport experts to prepare reports addressing the issues concerning Australia’s future development of sport – the Bloomfield report in 1973 and the Coles report in 1975 (Bloomfield, 2003). Nevertheless, the project and momentum were not sustained following the Labour Government was dismissed in 1975. Meanwhile, the Department of Sport, Recreation and Tourism was also abolished. Under the new government administration, national sport affairs were administrated by the Department of Environment, Housing, and Community Development (Stewart et al., 2004).

The Australian team's debacle at the Montreal Olympic Games in 1976 (only 1 silver and 4 bronze, ranking 32nd on the medal tally) caused a public concern and raised arguments regarding the function of the Australian "traditional" sport system and the degree of the government support to sport. Four years later, political intervention at the 1980 Moscow Olympics eventually became a catalyst drawing the Australian Federal Government into more active involvement in sport (Cashman, 1995; Farmer et al., 1996; Houlihan, 1997).

As a result of the Soviet Union's invasion of Afghanistan before the staging of the Moscow Olympics, some 40 Western countries advocated boycotting the Games. At the time, despite the decision of the Australian Olympic Federation to send a national delegation to participate, the Federal Government strongly backed the boycott and offered monetary incentives to national sport teams and individuals who supported the action (Embrey, 2000). Historically, it was the first time the Federal Government was directly involved in the Australian Olympic movement (Embrey, 2000; Farmer et al., 1996) aside from the financial support for the host of the summer Olympic Games in Melbourne in 1956.

In 1981, the first national government elite sport agency, the Australian Institute of Sport (AIS), was founded and located in Canberra. The AIS assists Australia's top level athletes and teams to develop their potential. Four year later, another government sport agency at the national level – the Australian Sports Commission (ASC) – was formed. The ASC set out to provide financial assistance and services for a broader range of programs to support national sport development. In 1989, the Federal Government took a further action by incorporating the AIS with the ASC. Since then, ASC is the Australian Federal Government's sole sport agency that deals with national sport development (ASC, 1985b; Stewart et al., 2004).

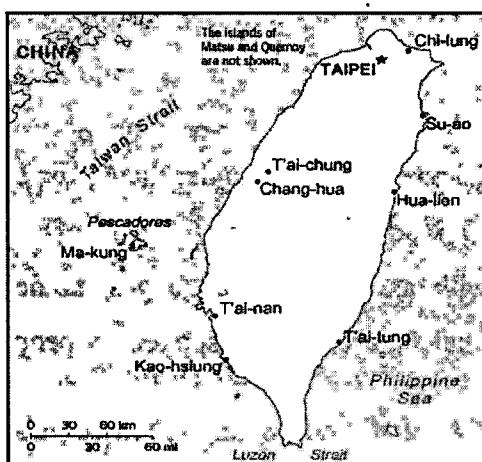
Cashman (1995) asserted that from an historical perspective, political and economic factors contributed to Australia's increasing prosperity in sport. More specifically, Embrey (2000) suggested that, Australia's sport history and success in Olympic performances was intimately connected with Australia's nationalism, political ideology, social reform, and economic change. She added that without historical

circumstances, such as the absence of gold medals at the Montreal Olympics and the boycott of the Moscow Olympics, the Australian sport system might have had a completely different development. Bloomfield (2003) examined the progress of Australia's elite sport and contended that aside from the contribution of the voluntary sport organisations, Australia's increasing sporting success was thanks to the continuous support from the government at all levels.

Taiwan: general background information

Geographic and demographic features

Taiwan, located off the south-eastern coast of Asia, is separated from mainland China by the Taiwan Strait and has a total land area of about 36,000 square kilometres, including the Pescadores (Penghu), Quemoy (Kinmen), and Matsu (see Figure 2.2).



- Total land area: 35,980 sq km
- Coastline: 1,566 km
- Population: 22,894, 384 (July, 2005 est.)
- Language: Mandarin Chinese
- Life expectancy: 77.26 years (2005 est.)
- GDP: US\$ 576.2 billion
- Per capita GDP: US\$ 25,300 (2004 est.)
- Military expenditures: US\$ 7.574 billion

Figure 2.2 Map of Taiwan, ROC (CIA, 2005b)

The main island of Taiwan (also known as Formosa) is about 394 km long and 144 km wide at its broadest point (CIA, 2005b). From a geographical perspective, the distinctive characteristic of Taiwan is that there is a row of mountains longitudinally occupying almost half of this main island (i.e., the Central Mountains). As a consequence, the majority of the population lives along the coastal areas (Government Information Office [GIO], 2005).

The climate in Taiwan is tropical in the south and subtropical in the north. Generally, the weather is temperate with the average of around 28 degrees centigrade in summer times and 14 degrees centigrade in winter (GIO, 2005). Rainfall is abundant but fluctuates, depending on seasons and locations. Every year, typhoons recurrently strike Taiwan during the summer season (in particular, between June and August). These usually bring a large amount of water to supply the island, but sometimes cause damage as well. On average, the annual rainfall in Taiwan is about 2515 millimetres per year (GIO, 2005).

In 2005, the total population of Taiwan was approximately 22.9 million. It is composed of 84 percent Taiwanese (i.e., early Han Chinese immigrants from China's south-eastern provinces), 14 percent mainland Chinese (i.e., the mainlanders, moved to Taiwan after a civil war in 1949), and 2 percent indigenous people (CIA, 2005b). With 627 people per square kilometre, Taiwan is one of the most densely populated areas in the world (Council for Economic Planning and Development [CEPD], 2005).

In terms of age structure, about 19.7 percent of the population is under the age of 14, 70.7 percent between 15 and 64 years, and 9.6 percent is over 65. The official language in Taiwan is Mandarin Chinese, with another two languages, namely Minnanese (known as Taiwanese) and Hakka dialect, are broadly spoken by people on the island (GIO, 2005).

Government structure

Taiwan has a four-tier system of government: central, provincial/special municipality, city/county, and local (i.e., towns/villages). At the top or central level, the Central Government consists of *the Presidency*, *the National Assembly* (a constitution council), and the five governing branches: *the Executive Yuan* (Cabinet), *the Legislative Yuan* (the Parliament), *the Judicial Yuan* (the highest judicial organ), *the Examination Yuan* (overseeing the public service), and *the Control Yuan* (in charge of impeachment, censure and audit). In general, the Executive Yuan and the Legislative Yuan are the most important branches; as the former is responsible for

making and executing national policy and the latter represents the people in the passage of legislation and supervises the Executive Yuan (GIO, 2005).

At the second or provincial/special municipality level, the provinces of Taiwan and Fujian, and the Taipei and Kao-Hsiung municipal city governments are presided over by the provincial governors and city mayors. The Taiwan Provincial government exercises jurisdiction over 16 counties and three cities on the island (except for the two special municipalities, the Taipei city and Kao-Hsiung city), while the Fujian provincial government oversees the regional affairs of Kinmen and Lien-Chiang County. The corresponding legislative arm at this level is made up of the Provincial Assembly and the city councils (CEPD, 2005).

It is important to note that since the year 2000 the Provincial level of government was downsized and downgraded following a government restructure based on regulations in the *Act on Local Government System* in 1999. As a consequence, the organisation of the Provincial Assembly was dissolved and the administrative function and power was returned to the city/county government (GIO, 2005). Accordingly, the city/county governments at the third level are operating within a similar administrative system to the municipal cities.

At the third level, the city/county governments are responsible for the local government administration. They are led by the city mayors and county magistrates, and overseen by respective city and county councils. At the lowest level, the local governments have mayors and chiefs responsible for the public affairs of the administrative areas such as towns and villages. It is widely acknowledged that since the year 2000 the government structure in Taiwan operates under a three-tier system, that is, the Central, city/county, and local level.

Education system

The education system in Taiwan is generally operated under a 6-3-3-4 structure, namely, six years of primary school, three years of junior high-school, three years of senior high-school or vocational school, and four years of higher education at

university or college. The nine-year compulsory education program (i.e., from primary school to junior high-school) was implemented in 1968 (Ministry of Education [MOE], 2005). In 2004, there were 2,638 elementary schools, 2627 junior high-schools, 302 senior high-schools, 164 vocational high-schools, and 139 universities/ colleges in Taiwan (MOE, 2005)

The educational structure reflects the Taiwanese people's high regard for academic attainment. The Entrance Examinations system plays an important role for students wishing to continue in higher education. After completing the nine-year compulsory education, students who graduate from junior high-school are required to pass the Entrance Examinations to enter senior high-schools, vocational high-school, college and university, and graduate schools. In order to reduce the level of competitive pressure, in recent years the MOE has undertaken education reform by providing alternative processes, for example, application or special selection. According to the MOE (2005), the proportion of the population aged 15 or older with a college or university degree increased from 7.4 per cent in 1976 to 30.5 per cent in 2004.

In Taiwan, physical education is a compulsory subject in schools. The Department of Physical Education (established in 1973) within the Ministry of Education is the statutory authority in charge of the formation of physical education policy and curriculum. All students from primary school to senior high-school, and the first two years of university, are required to take at least two hours of a physical education course each week in schools. Apart from the compulsory courses, schools at different levels also organize a range of elective courses or extracurricular sport activities for students according to their individual interests (MOE, 2005).

Economic development

Taiwan's economy evolved from the pursuit of economic stability and self-sufficiency in the 1950s to an advanced knowledge-based economy (i.e., electronics, information and communications industry). The Government regards economic development as the nation's priority; it has made Taiwan one of Asia's "economic tigers". The growth of per capita GNP from US\$ 1,000 in 1976 to US\$

14,032 in 2004 appears to be a positive indication. Taiwan's estimated GDP in 2004 was US\$ 576.2 billion (CEPD, 2005).

In the last decade, as the result of the shift of the centre of world economic "gravity" from West to East, the Taiwanese Government modified its economic policy to meet a practical need in two ways. Firstly, the Central Government eased bans on indirect investment in China by Taiwanese citizens. Over a decade, an increasing number of Taiwan's industries set up factories in China due to their cheap labour and low overhead costs. Secondly, the Government promoted a "southward policy" in order to expand the trade and investment into the Asia-Pacific region. In recent years Taiwan's trade with countries of this region steadily increased (CEPD, 2005).

In 2004, Taiwan's export volume was 174 billion and import volume was 167.9 billion. The major trading partners were the United State of America (USA), Japan, China and Hong Kong. Before 1995 the USA was Taiwan's most important export market; however, its share of Taiwan's total exports dramatically declined from 26.2 percent in 1994 to 16.2 percent in 2004. Instead, Taiwan shipped 19.5 percent and 17.1 percent of its export to China and Hong Kong respectively making them the largest and the second largest export market worldwide (CEPD, 2005).

Similarly, because of geographical factors and industrial complementarities, Japan and the USA were Taiwan's major suppliers; before 1995 these two countries consistently provided more than half of Taiwan's total imports. Nevertheless, the import volume decreased between 1994 to 2004 from 29.0 per cent and 21.1 per cent to 26.0 per cent and 12.9 per cent. Additionally, due to the Government support for applied technological development in conjunction with the promotion of technology-intensive industries in the private sector, from 1985 to 2004, high tech-intensive products increased the share of total exports from 18.8 per cent to 54.0 per cent (CEPD, 2005).

Taiwan ranked the world's 15th largest exporter and 16th largest importer in 2004. It also held the world's third-largest foreign exchange reserves (CEPD, 2005). In order

to help maintain the level and revive the national economy, the Central Government launched an economic project entitled the *Challenge 2008 National Development Plan*. This project emphasizes such goals as strengthening international competitiveness, upgrading the quality of life, and promoting sustainable development (GIO, 2005).

The development of sport and government sport agencies in Taiwan

From an historical point of view, the elite sport development in Taiwan was influenced by early foreign invasion (i.e., the Japanese occupation) and political turmoil (i.e., two Chinas controversy). Following the Sino-Japanese War on mainland China in 1895, Taiwan was ceded to Japan and under colonial rule for 50 years (1895-1945). During this period, the government introduced sports and games to the Taiwanese community through education (Slack et al., 2002).

Slack et al. (2002, p. 345) noted that, in the first decade of Japan's colonial rule, baseball rapidly developed to become popular in Taiwanese society. At the time the Taiwanese team's victory in the baseball field was regarded as an indication that the Taiwanese were equal to their "colonial oppressors." As a result of the historical influence, baseball in Taiwan remains the most popular sport event among a range of competitive sports.

In 1945, Taiwan was returned to the Chinese Government after World War II. Despite the change, the nationalist Kuomintang (KMT) government fled to Taiwan and reconstituted a "new" government on the island in 1949. During this period, Taiwan suffered political unrest and economic depression. As a result of inadequate material resources on this island, the government support to physical education and sport was minimal. As Slack et al. (2002, p. 346) noted:

The island was in a state of devastation from the destruction of the war and the turmoil over the relocation of the KMT and the lack of material resources and the poor conditions on the island meant that sport was offered a low priority.

During the 1950s and 1960s, “official” sport organisations were formed within the education system, but government participation in the promotion of sport was still limited (Slack et al., 2002). Due to the lack of funding, only a number of popular events, for example, track and field, baseball and basketball, were organized nation-wide and mainly for students participation.

In 1973, the Central Government established the Department of Physical Education (DPE) under the Ministry of Education. Subsequently, a similar structure was set up within the education department (e.g., health and physical education division or office) at the municipal, city/county level. Despite this progress, only limited human resources and budgets were available to manage physical education and sport programs (C J Chang, 2001).

As a result of the establishment of the DPE within the MOE, further attempts were made by cooperating with national sport organisations (NSOs) and providing elite training programs for potential athletic individuals and teams to prepare them for international competition, especially, the Asian Games and the Olympic Games. In order to encourage elite sport performance, the Central Government also implemented special medal awards and monetary incentives (known as Guo-Guang Award Program) through the DPE since 1983 as stimulants to promote elite performance (GIO, 2005).

In the late 1980s and the early 1990s a number of scholars and administrators in the field of physical education and sport recommended a separation of sport from the government education system. They strongly advocated the establishment of a special sport agency at ministry level instead of sport being a sub-department under the Ministry of Education (J. S. Chen, 1992; Lin, 1993; Wu, 1988; Zhao, 1991; Zhen, 1992). Yet, it was not until 1997 that, for the first time in Taiwan, a government sports organisation was found under the Executive Yuan (the Cabinet), titled the *National Council on Physical Fitness and Sports* (NCPFS).

With the creation of the NCPFS in 1997, the promotion of elite sport was enhanced. A vigorous elite sport movement appeared to make some progress. At the 2000 Sydney Olympics Taiwan's delegation produced better performances than ever before (one silver and four bronze), yet the target for a gold medal was not reached. In the 2004 Olympic Games in Athens, the Taiwanese team for the first time achieved a best-ever result of two gold medals, two silver medals and one bronze medal. This section has provided a background for both countries. The following section outlines the Olympic Games and Olympic success.

The Olympic Games and Olympic success

This section deals with subject matter in relation to the Olympic Games. First, it provides an overview of the Olympic Movement. Second, it outlines different measures used to describe national Olympic success. Finally, it discusses previous studies investigating factors associated with national elite sport achievement at Olympic Games.

An overview of the Olympic Movement

The Olympic Movement is the concerted, organized, universal and permanent action, carried out under the supreme authority of the IOC, of all individuals and entities who are inspired by the values of Olympism. It covers the five continents. It reaches its peak with the bringing together of the world's athletes at the great sports festival, the Olympic Games. Its symbol is five interlaced rings (IOC, 2004b, p. 9).

Brief history

The exact origin of the Olympic Games has been lost, despite many legends surrounding its beginnings. What is generally known is that between 776 BC and 393 AD the Games were held every four years in ancient Greece as a religious festival. Subsequently, they were banned by the Roman Emperor Theodosius and as a result the form of the ancient Olympics was halted until late in the nineteenth century when Baron Pierre de Coubertin, the founder of the modern Olympic Movement, advocated reviving the Games (Toohey et al., 2000).

The Olympic Movement of the modern era was initiated in 1894 at the International Athletic Congress in Paris. In the Congress, de Coubertin presented his idea of re-establishing the Olympic Games and put it on the agenda for discussion. Chu and Segrave (1988, p. 107) reported the results of the Congress that, “a total of 79 delegates representing 49 sport associations from 12 countries unanimously voted for the restoration of the Olympic Games and for the creation of a permanent and stable International Olympic Committee.”

By virtue of the foundation of the *International Olympic Committee* (IOC), the first modern Olympic Games were successfully organized and took place in Athens, Greece in 1896. Since then, the modern Olympic Games are regularly celebrated at a different site in a four-year cycle (i.e., Olympiad); except during World War I and World War II (i.e., 1916, 1940, and 1944). Over the past century, the Games continued to grow in terms of the number of individuals, organisations and countries involved. In this respect, Lucas (1992, p. 89) noted that “the modern Olympic Games are among the fastest growing and most important social phenomenon of our times.”

The Olympic system

Over the past century the IOC and the Olympic Games have become the premier force of sport and the most noticeable sporting festival in the world. No other sport activities have effectively created a notable symbol (the five interlaced rings) and inspiring ideas, for example, the Olympic Motto and the Olympic Creed, to promote the value of sport and international social improvement. No other international sport events have successfully built up exclusive networks with groups of individuals and international organisations throughout the world.

The Olympic Movement consists of an interlocking series of organisations and individuals who agree to be guided by the Olympic Charter under the supreme authority of the IOC (IOC, 2004c). By and large, the IOC, the *International Sports Federations* (IFs), and the *National Olympic Committees* (NOCs) are three main components of the Movement, whilst it also encompasses *Organizing Committees for the Olympic Games* (OCOGs), national sport associations, and other persons who are

recognised by the IOC. The IOC is composed of 130 members (including the IOC president) split among five continents who meet in Session at least once a year. Its main responsibilities are to supervise the organisation of the Olympics and to ensure the continuity of the Olympic Games. **Figure 2.3** illustrates the Olympic system and its network of individuals and organisations all over the world.

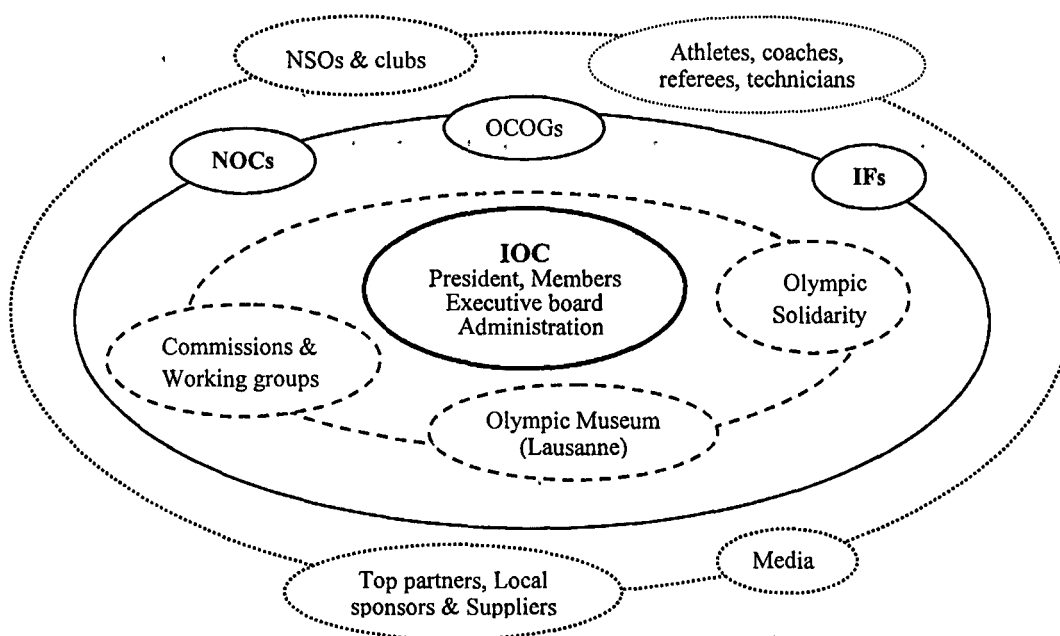


Figure 2.3 The Olympic system and its global network

(Source: IOC, 2004c)

In the Olympic system, the organisation of IFs is made up of the various international sport federations, which are in charge of technical codification and personnel with respect to sport competitions of the Olympic Games. There are 28 summer and winter sports recognised by the IOC. Each IF governs its sport at the international level and ensures its development. The role of NOCs, on the other hand, is to manage the national teams that take part in the Olympic Games. In 2004, there were a total of 202 NOCs engaged in the promotion of the Olympic Movement in their respective countries (IOC, 2004c). It is important to note that the IOC is a non-government and non-profit-making organisation; it receives the majority of income from selling the Olympics television broadcasting rights and makes its revenue from various marketing and sponsorship programs.

According to the Olympic Charter (IOC, 2004b, p. 10), “the goal of the entire Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport practiced in accordance with Olympism and its values.” Thus, the characteristics of the Olympic Movement, aside from the most manifest activity – the Olympic Games, can also be broadly recognised through many other associated actions such as:

- Promoting sport and competitions through the intermediary of national and international sports institutions world-wide
- Cooperation with public and private organisations to place sport at the service of mankind
- Advancement of women in sport at all levels and in all structures, with a view to achieving equality between men and women
- Opposition to all forms of commercial exploitation of sport and athletes
- Promoting sports ethics and fair play
- Raising awareness of environmental problems
- Financial and educational support for developing countries through the IOC institution Olympic Solidarity
- Assistance to develop "Sport for all"
- The fight against doping (IOC, 2004c)

In recent decades, the organisation of the Olympic Movement evolved and adapted to the environment of the modern society in which sport exists. Notwithstanding, numerous criticisms have emerged concerning the conflicts between the ideals (or ideas) of the Olympic Movement and the manifestation of nationalism, professionalism, and commercialism in recent decades (Guttmann, 2002). In most cases, researchers argued that the Olympic Games appear to be a stage for international politics rather than a sport ground for individual athletes. Seppänen (1981, p. 113) criticized this trend, noting that “instead of advancing peaceful coexistence and understanding between nations, competitive sport may also have a political function of an entirely different nature.” Toohey et al. (2000, p. 4) stated

that “The Olympic Games are no longer – if they ever were – just a sport event: they are also a cultural, political and economic phenomenon.”

Measuring national Olympic success

Traditionally, a nation’s achievement at the Olympic Games has been measured by the number of medals won. The “medal tables” by country are highly publicised in the media throughout the world, with gold medals taking priority over silver and bronze. This is despite the fact that the IOC makes a statement on its official website – “the International Olympic Committee does not recognise global ranking per country; the medal tables are displayed for information only” (IOC, 2004a).

Haag et al. (1988) argued that using the “traditional” medal table to judge national Olympic achievement for countries is neither fair nor legitimate; furthermore, gold, silver, and bronze medals should not be counted as of equal value for ranking countries. They contended that researchers in relevant studies should attempt to offer *alternative indicators* to improve social perceptions. In their study of the comparison of results of the 1984 Olympic Games, they proposed the following methods claiming that, compared with a simple medal tally, “a much higher degree of objectivity can be developed” (Haag et al., 1988, p. 83):

- Distribution of 3 (gold), 2 (silver) and 1 (bronze) points [for medals]
- Distribution of 8 to 1 points for the [top eight] places in the finals
- Relating the gained points (3, 2, 1) to each country’s total population
- Relating the gained points (3, 2, 1) to the number of competitors

In contrast, Seppänen (1989, p. 277) asserted that the records of the medal winners of the Olympics provided the best available data and most reliable material for researchers to investigate cross-national elite sport. For this reason, a variety of scoring methods based on the medal records have been employed in many studies. Other researchers attempted to apply different weighted scores in the distribution of medals or the places in the finals to calculate different results. For instance, instead

of using the distribution of 3 (gold), 2 (silver) and 1 (bronze) point system, some score 4-2-1 for each medal. Alternatively, some use such a scoring method such as 10-7-6-5-4-3-2-1 for the places in the finals (e.g., Kiviahio & Makela, 1978). Furthermore, the total raw scores might be weighted by the population (e.g., M. C. Hsu, 1992; Seppänen, 1989) or by GNP/GDP (e.g., Gärtner, 1989; Shaw et al., 1979).

In the present study, the historical records of the medal tables in the Olympic Games in Australia and Taiwan provided fundamental information for initial analysis and comparison, as this is the most common method. However, in the light of the focus of this study – exploring and comparing the government elite sport systems in the national context of Australia and Taiwan – a new attempt was made to probe alternative meanings of Olympic success by means of surveying stakeholders' perspectives in respective countries. It is believed that the perceived differences might influence goal-setting and policy-making and eventually might affect the national pursuit of elite excellence at the Olympics.

The definition of Olympic success for a country is a debatable issue. Similarly, what makes one nation more successful than another is a central topic for speculation and investigation. The next section discusses previous research on factors associated with Olympic achievement in national context.

Factors associated with Olympic success

For more than three decades, many researchers have explored possible factors that may account for national Olympic success (e.g., Ball, 1972; Clumpner, 1994; Colwell, 1981; Green et al., 2001; Krüger, 1987; Novikov & Maximenko, 1972; Seppänen, 1981, 1989). A review of literature in this field found that the results varied widely depending on focuses of research, type of analyses, and postulated determinants being studied. This section discusses the findings from previous studies in chronological order because each one was influenced by previous research. A summary of these findings is presented in **Table 2.1**.

Table 2.1*Summary of research on factors associated with Olympic success in national context*

Author (year)	Research findings
Ball (1972)	A country's Olympic success was subject to human and economic resources, and the centralized forms of political decision-making and authority
Novikov & Maximenko (1972)	Calories of food consumption per population, average life expectancy, and per capita national income affected the level of national Olympic performance.
Shaw & Pooley (1979)	Population size, GNP, military expenditure, and Olympic sport taught in school were correlated with national Olympic achievements in Western developed countries, socialist countries, and third world countries.
Colwell (1981)	Developed a framework by a review of previous studies and addressed five assumptions for future research.
Seppänen (1981)	National Olympic success was related to ideational conditions and religious tradition (e.g., social expectations, values, and ideology of countries).
Kruger (1987)	A framework contained 17 factors for the analysis and/or improvement of national Olympic performance.
Seppänen (1989)	Western countries enjoyed greater success than Eastern countries in the Olympic Games since 1896 due to their cultural values and cultural ethos of their societies in sports.
Clumpner (1994)	Adequate financial support, a well-connected support system, and athletic talent were prerequisites for national Olympic success.
Oakley & Green (2001)	A growing trend toward a single model for elite sport development. By comparing six selected western countries' elite sport development strategies and institute networks, 10 common characteristics were identified.

In the 1970s

A study by Ball (1972) tested 55 variables in investigating different countries' Olympic success, ranging from demographic and economic indicators to social and political factors. In Ball's study, 36 medal-winning countries (i.e., countries that won at least one medal in the Games) at the 1964 Olympic Games were selected as samples for the inquiry. Ball's findings suggested that a country's Olympic success was linked to "the possession of resources, both human and economic and the centralized forms of political decision-making and authority which maximize their allocation" (Ball, 1972, p. 186).

Novikov et al. (1972) asserted that national sporting success was related to social and economic development of a nation. Their study probed the relationship between socioeconomic influences and the level of national Olympic performance. Six

socioeconomic indicators (i.e., per capita national income, calories of food consumption per population, average life expectancy, percentage of illiteracy, percentage of urban population, and number of residents) were used to examine the countries that attained the final six places at the 1964 Olympics. The results indicated that calories of food consumption per population, average life expectancy and per capita national income were significantly correlated with national Olympic achievement.

Shaw et al. (1979) examined the relationship between Olympic success and selected socioeconomic, political and educational indicators (i.e., size of population, GNP, military expenditure, and whether the Olympic sport was taught in school). In this study, 51 medal-winning countries were categorized into three “homogenous” groups, i.e. Western developed countries, socialist countries, and third world countries. Their findings indicated that for all three groups, population size, GNP, military expenditure, and Olympic sport taught in school were significantly correlated with Olympic success to varying degrees.

In the 1980s

Colwell (2002) reviewed the general findings from previous studies (e.g., Ball, 1972; Novikov et al., 1972; Shaw et al., 1979) and incorporated economic, political, and social factors – earlier thought to be important to national Olympic success – into a conceptual framework (see **Figure 2.4**).

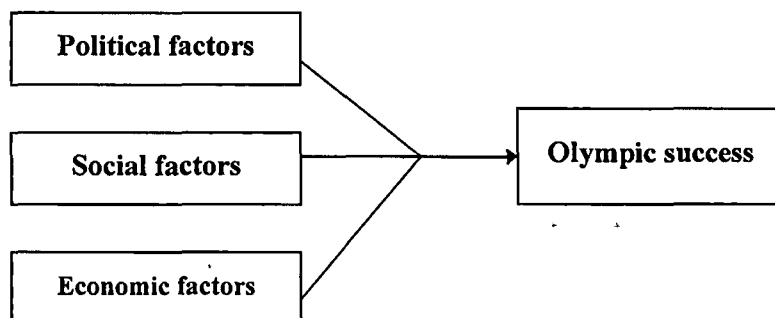


Figure 2.4 Colwell’s conceptual framework accounting for Olympic success

(Source: adapted from Colwell. 1981. p. 250)

to 1972 compared to four types of societies (i.e., Socialist, Protestant, Catholic, and mixed Protestant-Catholic countries). The results of his study suggested that among the four types of societies, Socialist and Protestant countries have greater success than other countries in the Olympic Games. He further explained that elite sport in Socialist countries have particular functions in building and promoting Socialist ideology. At the same time, Protestant countries have traditionally played a leading role in the Olympic Movement (Seppänen, 1981, p. 104).

Krüger (1987) quoted 17 factors identified by Lempart (1977, cited in Krüger, 1987, p. 215) to overall review potential factors affecting national Olympic success. According to Krüger, these factors developed by Lempart were derived from general recommendations spread over various publications (predominantly from European countries). These included (Krüger, 1987, pp. 216-222):

1. Social and political conditions
2. The economic conditions
3. The geographical conditions
4. The traditions of sports
5. The training system and methods
6. The level and number of experts available
7. The material basis
8. The level and the amount of sport-related research
9. The social position of sport outside the schools
10. The personal conditions of the athletes
11. The spreading and development of sport around the world
12. The development of sport organisations
13. Rational systems of long-term planning in sports
14. The application of optimal training loads
15. The development of techniques in particular sports
16. The perfection of sporting gear and installations
17. The optimal relationship between these factors

To some extent, the 17 factors indicated by Krüger's study reflected at least three levels of influences on national sporting success. These included influences resulting from individual factors (e.g., the personal condition of the athletes), environmental factors (social and political condition), and organisational factors (e.g., the development of sport organisations) in the national context.

Interestingly, these factors were used by M. C. Hsu (1992) in a PhD study as a theoretical model for comparing factors contributing to China's and Taiwan's achievements at the 1984 and 1988 Olympic Games. Specifically, the first three environmental factors mentioned above were topics in the review of literature. The remainder were used as a general guide to develop questionnaire and/or interview items for the research. Despite his use of Krüger's framework, the major themes were focused on comparing China and Taiwan in terms of the development of sport organisations and administration; the application of resources; and the scientific training practices.

By comparing factors contributing to China's sporting success at the Olympics in the 1980s, the conclusions of M. C. Hsu indicated problems confronting Taiwan's progress on Olympic performances were due to a lack of professional coaches and systematic sports training system in general, and a lack of government policy direction and funding support in particular. Moreover, he suggested that "it would be useful to expand the Physical Education Department of the Ministry of Education into the Ministry of Physical Education," on the ground that "13 national administrative personnel are [were] an insufficient number to administer national sporting affairs" (M. C. Hsu, 1992, p. 170).

In another study, Seppänen (1989) continued his earlier contention from 1981 regarding the important influence of ideational conditions of societies in the pursuit of elite sporting excellence. In the latter study, he compared the *value systems* in the Western and Eastern culture. Intriguingly, he quoted Jeu (1987, cited in Seppänen, 1989, p. 276) on the distinction between the Western and Eastern attitude toward competitive sport and noted that:

Despite the obvious evidence that competitive rituals are to be found in the cultural tradition of each continent, the very essence of competition is different in the Occident and the Orient. As the traditional context of Western culture since ancient Greece has been characterized by a feature which can be considered agonistic [sic] and which is in harmony with the evaluation of victory in sports, the traditions of India and China, in particular, in the form of Buddhism and Taoism, emphasize the vanity of desire and the illusionary nature of the world. Consequently, the sport victory in the Western sense of the word is not an important thing in the Orient but rather an unrealistic [sic] demonstration of human action.

In consideration of Jeu's statement, Seppänen, (1989) observed that the reason for Western countries achieving greater success than Eastern countries in the Olympic Games since 1896 was due in part to their cultural values and cultural ethos of their societies in relation to sport. These elements encouraged western countries to put more efforts into the pursuit of elite sport and as a consequence they received higher sport achievements at the Olympics.

In the 1990s and at the turn of the twentieth-first century.

Clumpner (1994) claimed that the differences in medal-winning countries were diminishing and elite sport systems were rapidly moving closer together. On the basis of an assessment of common elements among disparate systems, Clumpner (1993, p. 362) identified the following three essential conditions that he believed to be responsible for ensuring national sporting success at the Olympics:

- Adequate financial support – financial assistance in training centres and personnel (e.g., full-time coaches and scientists).
- A well-connected support system – an unbroken line up through the system, communication network, international Olympic sport exposure, and ongoing international competition.
- Athletic talent – a large diverse population, access for all, early [talent] spotting, and dedicated and motivated athletes.

In a review of Clumpner's work, Oakley et al. (2001) studied the elite sport development system at the international level and asserted that in recent years many more countries "sought to manage success in the form of elite sport development

strategies and institute networks” (Oakley et al., 2001, p. 85). In particular, they noted a growing tendency around the world toward “a homogenous model of elite sport development.” In substantiating their speculation, they compared the elite sport development system in six western countries (including Australia, Canada, France, Spain, UK, and USA) and identified the 10 common factors that these countries applied in their development of elite sport. These included :

1. A clear understanding about the role of the different agencies involved and an effective communication network which maintains the system;
2. Simplicity of administration through common sporting and political boundaries;
3. An effective system for the statistical identification and monitoring of the progress of talented and elite athletes;
4. Provision of sports services to create an excellence culture in which all members of the team (athletes, coaches, managers, scientists) can interact with one another in a formal and informal way;
5. Well structured competitive programmes with ongoing international exposure;
6. Well developed and specific facilities with priority access for elite athletes;
7. The targeting of resources on a relatively small number of sports through identifying those that have a real chance of success at world level
8. Comprehensive planning for each sport needs
9. A recognition that excellence costs, with appropriate funding for infrastructure and people
10. Lifestyle support and preparation for life after sport

This section outlined issues on the subject of the Olympic Games and Olympic success. It reviewed the evolution of the modern Olympic Games and prominent features of the Olympic system. It also discussed a range of measures used to gauge national Olympic success. Previous studies into factors related to national success at the Olympics were chronologically examined. From the findings of the literature, it can be argued that the exploration of factors affecting national Olympic success is a

complex phenomenon. In most cases, it is not only subject to available material and human resources within and between national support systems and networks. Moreover, the environmental influences surrounding the systems such as political, economic, sociocultural, and educational factors were also decisive.

The focus of the current study is on the examination and comparison of the national government elite sport systems in Australia and Taiwan. In an attempt to develop a sound research framework for this study, apart from the findings from the previous discussions, some knowledge from literature of organisation theory is considered useful. The next section presents the theoretical basis underpinning this study.

Application of organisation theory in this study

This section discusses the theoretical context of this study. While this study is not specifically a study of organisations per se, it does draw on some organisation theory for the analysis of the two national sport agencies of Australia and Taiwan. It begins with a brief introduction of organisation theory, then, it explains *systems theory*, and finally, *open system theory*. The discussion also examines the relevance of these components of organisation theory to sport organisation. It is only in relatively recent years that findings from research of other types of organisations have been used to explain the functions of sport organisation (e.g., Hoye, 2007; Mason & Slack, 2001; O'Brien & Slack, 2003; Taylor, Darcy, Hoye, & Cuskelly, 2006). In particular, this study was interested in exploring the relationship of an organisation with its environment (Chelladurai, 2005; Slack, 1997).

Brief introduction of organisation theory

Over the last century, organisation theorists from diverse disciplines have contributed explanations about organisation and how they function. Organisation theory is defined as “the study of how organisations function and how they affect and are affected by the environment in which they operate” (Jones, 2004, p. 8). Hatch (1997, p. 4) noted that “in organisation theory, perspectives accumulate, and over time they

influence one another as organisational theories take in more and more of the ideas this field of study offers.” The expansion of organisation theory from different domains aids researchers as a source of information and approaches in understanding organisations.

Hatch (1997, p. 4) indicated that “organisation theorists often justify the diversity of organisation theory and its multiple perspectives by pointing out the complexity of organisation.” Due to its complexity, the term *organisation* in organisational studies has been defined in many different ways. For example, Katz and Kahn (1978) described an organisation as a social device for fulfilling stated purposes through group means. More specifically, Ford, Armandi, and Heaton (1988) defined an organisation as a group of people, divided up into parts engaged in three types of activities; achieving objectives, maintaining the internal systems, and adapting to the external environments. In the sport context, Slack (1997, p. 5) defined the sport organisation as a social entity involved in the sport industry; it is *goal-directed*, with a consciously *structured activity system* and a relatively *identifiable boundary*. Such diverse definitions in organisational studies appear to suggest that by looking at organisations from different aspects, a more comprehensive understanding of organisations can be revealed.

Apart from exploring various definitions of organisations, for the purpose of this study, it was important to recognise the distinction between *organisation theory* (OT) and *organisational behaviour* (OB). Robbins and Barnwell (2002, p. 8) described OT as an analysis of organisational structures without much concern for the individuals within the organisation, with its unit of analysis as the organisation itself or its primary sub-units; while OB looks at members and groups in detail without considering the structural dimensions. Slack (1997, p. 8) referred to OT as organisational analysis from *a macro approach*, whereas the OB focuses on individuals and small groups within the organisation from *a micro approach*.

This distinction also suggested that when studying an organisation from a macro level, it is necessary to scrutinize not only the characteristics of its *internal*

environment (e.g., its departments and groups) that make up the entire organisation, but also the features of the *external environment*. Similar to the macro perspective to understanding organisations, there is a dominant viewpoint encouraging the application of *systems thinking* (systems theory) for organisational research. Both these approaches provide theoretical bases for the present study.

The next section outlines the systems view of organisations pertaining to this study. The subsequent section further explains the open system theory. It discusses the relationship of organisation and its environment in the theoretical context and the relevance to this study of elite sport systems and national Olympic success.

In this study, the sport system can be defined to include all the sport organisations from community level clubs, to State, National and International Associations, through to the Olympic organisation that is generally perceived (or accepted) as the elite sport agencies of both Australia and Taiwan, such as the Australian Sports Commission (ASC) and the Australian Olympic Committee (AOC) in Australia, the National Council of Physical Fitness and Sports (NCPFS) and Chinese Taipei Olympic Committee (CTOC) in Taiwan, as well as the International Olympic Committee (IOC) at the international level.

Systems thinking

System theory is a useful concept to apply to the complex management of agencies that contribute to elite sport development in both countries. The systems perspective of organisations suggests that every organisation can be conceptualized as a system that is made up of identifiable component parts (e.g., units and sub-units) that work together to produce a total outcome greater than the sum of the separate system's parts (Ford et al., 1988). Robbins et al. (2002) noted that what distinguishes an organisation from a system is that the latter requires differentiation to recognise its sub-systems and integration to ensure that the system (i.e., the organisation in question) does not break down into separate components. The system approach offers researchers an abstract model that is applicable to any kind of organisations

(systems) and to departments or divisions (sub-systems) within them (Hall, 1982; Hatch, 1997).

From a different standpoint, Patching (1990, p. 9) elucidated that “there is no such thing as a system, that it is just a convenient concept that enables us to view a collection of interrelated items as an ordered arrangement which, as a whole, achieves some purpose.” That is to say, in organisational studies the rationale of using the term *system* instead of *organisation* was to supply a flexible basis to build analytical structures, and more importantly, to facilitate the examination of the entire organisation, including sub-systems within it.

Many organisational studies researchers commonly support the systems theory and regard it as one of the most helpful theoretical approaches to understanding organisations (Robbins et al., 2002; Chelladurai, 2005; Hatch, 1997; Jackson, Morgan, & Paolillo, 1986). While the systems concept of organisation provides a theoretical orientation to explore sport organisations at different levels, the *open system theory* that evolved from systems theory appears to be more inclusive, and therefore more appropriate. The following section discusses the concept of organisations as open systems and its relevance to the present study.

Organisations as open systems

Katz et al. (1978, p. 267) stated that “traditional organisation theories have tended to view the human organisation as a closed system. This tendency has led to a disregard of differing organisation environments and the nature of organisational dependency on environment.” The closed system theory suggests that organisations are self-contained and do not interact with their environments. On the contrary, the open system theory tends to view every organisation as an open system. An open organisation consistently interacts with its environment; to survive, it must engage in various forms of exchange with its surroundings (Ford, et al., 1988; Robbins et al., 2002). In other words, it is suggested that changes in organisations affect their environments; equally, changes in any part of the environment have an effect on organisations. Chelladurai (2005, p. 73) explicitly noted that:

Organisations are open systems in that they influence and are influenced by the social, cultural, and economic conditions of the community in which they operate. They depend on society for their resources, and in exchange, they provide products or services for that society.

Hatch (1997) explained that the word *open* in systems theory implied all systems depending on their environment for *input*, and discharge *output* to the *environment* through a transformation process (*throughput*) to supply and support their existence. In an elite sport organisation, for example, the inputs may include human resources, material resources, and goal setting; the outputs may contain athlete services, sports facilities, and elite attainment. The throughput may encompass organisational structure, strategic plan, elite sport programs, and organisational networks (see **Figure 2.5**). The environment, on the other hand, includes anything that exists outside the boundary of the organisation which do not control, but influence the system, directly or indirectly Chelladurai (2005). Hatch (1997) explained the notion of organisational environment and suggested that the definition and classification of the organisational environment should depend on the researcher's knowledge and experience with the organisation being studied.

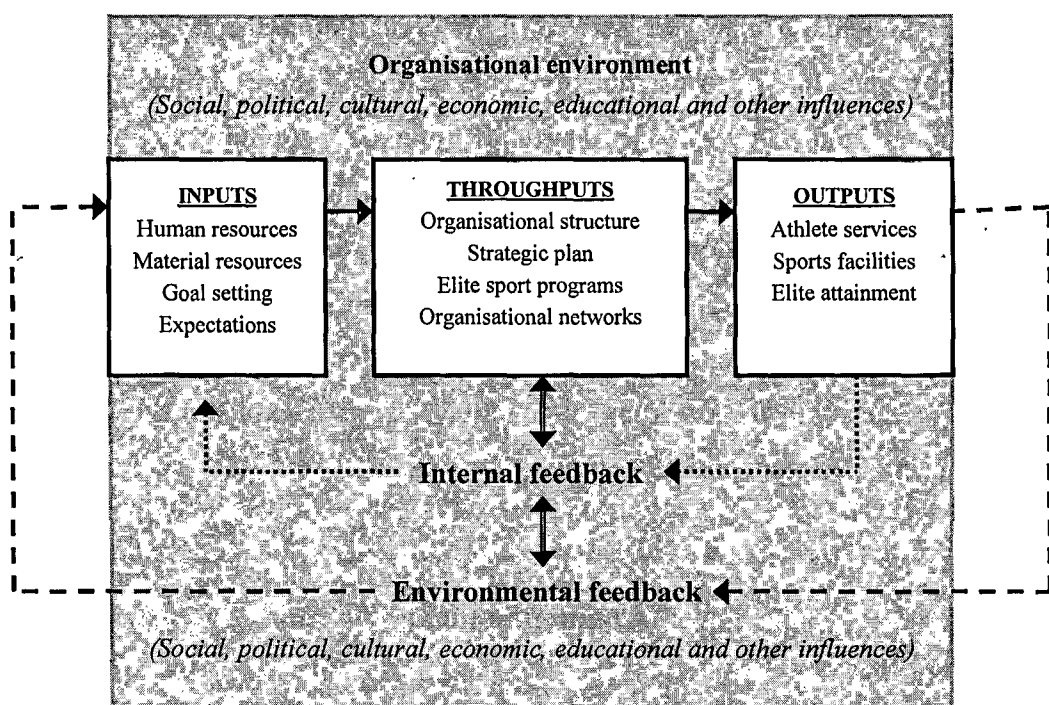


Figure 2.5 An open system view of a sport organisation

(Source: Based on Chelladurai, 2005, p. 82)

The application of organisation theory in sport setting has emerged in recent years. Nevertheless, these sport organisation studies tend to focus more on organisational structure (e.g., Bradish, 2003; Rule, 1998; Thibult, Slack, & Hinings, 1991), organisational culture (e.g., Colyer, 1995; Colyer, Soutar, & Ryder, 2000; Hoye & Kappelides, 2004), organisational effectiveness (e.g., Colyer, 1993; Lu, 1998), and changes in sport organisations (e.g., Hoye & Nicholson, 2006; Kikulis, Slack, & Hinings, 1992; O'Brien & Slack, 2003). Although systems thinking for the analysis of sport organisations in the theoretical context was proposed by sport management scholars (e.g., Chelladurai, 2005; Slack, 1997), few studies were found in examining the performance end of public sport agencies and the environmental factors surrounding them. More than a decade ago, Slack (1996) expressed concern that development in the discipline of sport management and encouraged researchers to investigate sport organisations in a broader context. He suggested that:

If we are to move sport management forward into the next 10 years, then, as I have outlined, I believe we need to expand the domain of our operations to encompass all those organisations that make up the sport industry. We need to provide a strong theoretical base to our studies... (Slack, 1996, p. 10)

While the systems perspective derived from organisation theory has supplied a theoretical foundation for researchers to diagnose organisations, a review of relevant organisational studies revealed a dearth of research pertaining to the study of government sport agencies in a national context. Furthermore, the relationship between a sport organisation and its environment has not been well explored. The present study made a new attempt to shed some light on the use of systems theory to examine the existing national government elite sport organisations in Australia and Taiwan together with the environmental influences, as it explored the meaning of Olympic success in respective countries.

Chapter Summary

This chapter presented a review of relevant literature on comparative approaches to sport research, and the role of government in sport, particularly in elite sport development. It also offered a geographical, political, and social context for

examining sport development systems in Australia and Taiwan. A brief overview of the history of the Olympic Games and the many ways of determining “success” at the Games were discussed. In addition, the notion of open systems, drawn from organisation theory, offered another conceptual structure for assessing and comparing elite sport provision in Australia and Taiwan.

Against the environmental context of these two countries, the literature contributed to the conceptual framework of the present study. It is expected that findings from other research into Olympic success could be evident in the findings of this comparative study. In addition, it is expected that the comparison of the two elite sport systems will highlight the particular features that are attributed with the relative Olympic success of the two countries. On the basis of the review of literature in conjunction with the theoretical approaches underpinning this study, the next chapter presents a conceptual framework of this study.

CHAPTER 3

Conceptual Framework

Introduction

The problem driving this study was Taiwan's stagnation in the advancement of elite sport. This study seeks to "diagnose" the functions and mechanisms of the existing national government elite sport system (NGESS) of Taiwan compared with the counterpart in Australia. The preceding chapter, highlighted the value of comparative research, the role of governments in elite sport, and described the background of the two countries in the general and sporting context. It reviewed previous research on factors affecting national Olympic success and discussed how the systems concept of organisation theory provided a theoretical basis that guided the focus of the study.

The current study aimed to explore and compare the NGESS between the two countries and environmental influences surrounding the respective systems for the specific purpose of generating recommendations for Taiwan to improve its elite delivery system. This chapter presents a conceptual framework for this study (see **Figure 3.1**). This conceptual framework is designed to illustrate how this comparative study is structured and progressed in order to aid exploration of the six research questions addressed in the introduction chapter. More importantly, it helps elucidate what dimensions of the NGESS (system boundaries) were studied to attain the research objectives.

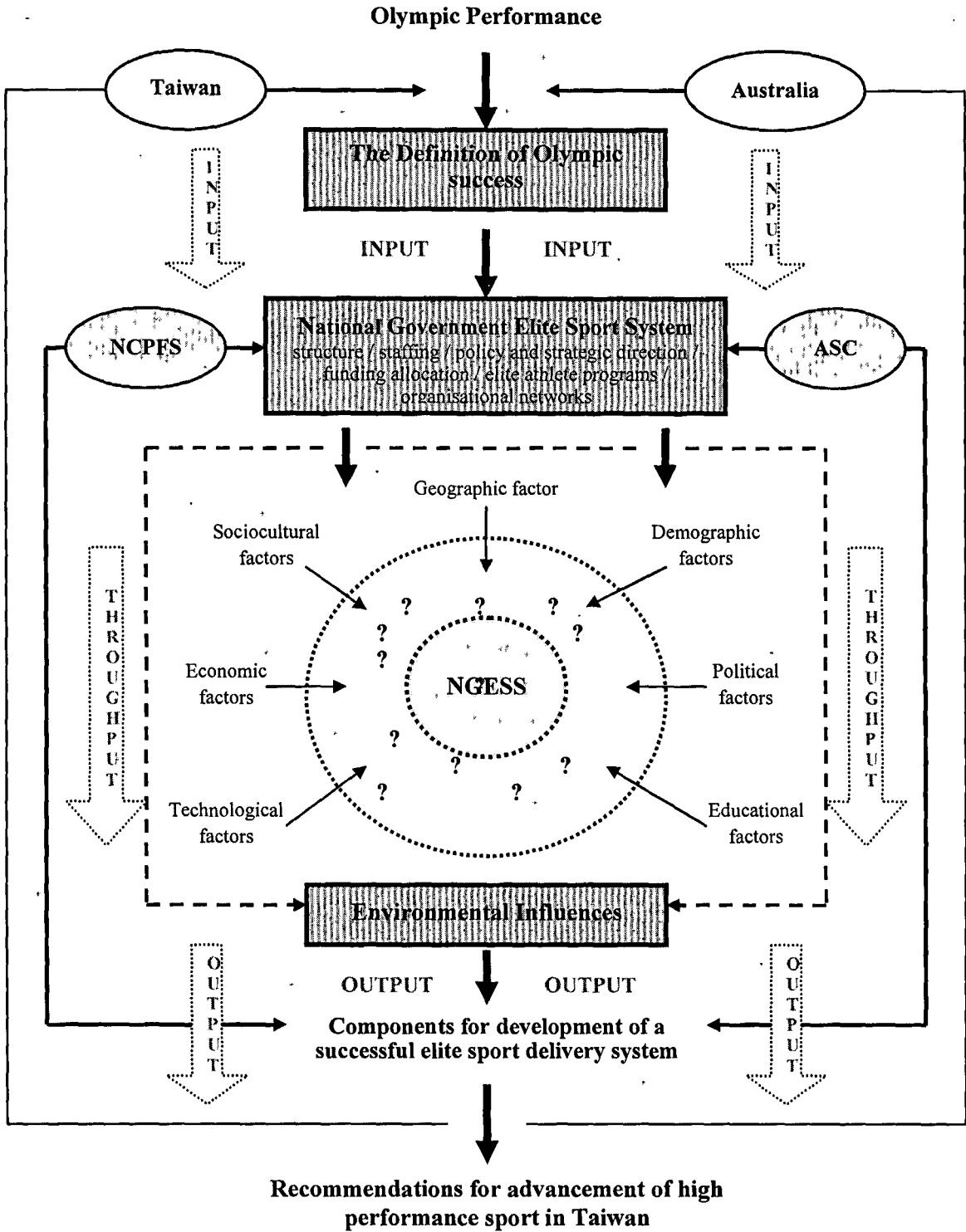


Figure 3.1 Conceptual framework for comparing national government elite sport systems in Australia and Taiwan

Components of conceptual framework

Three main components that emerged from the review of literature, as shown in **Figure 3.1**, are considered essential in this comparative inquiry. These are:

- *The definition of Olympic success*: from the stakeholders' points of view (the top box)
- *National government elite sport systems*: the mechanisms of national government elite sport agencies (the second box and the inner circle)
- *Environmental influences*: the environmental factors surrounding the national government elite sport system (the third box)

The following sections explain the aspects of each component in detail.

The definition of Olympic success

Earlier the literature review disclosed that various medal count methods or points scores based on the places in the finals were used as indicators to measure national Olympic achievements (e.g., Bloomfield, 2003; Colwell, 1981; Haag et al., 1988; M. C. Hsu, 1992; Seppänen, 1981). Although these methods provided researchers with convenient samples for investigation, it can be argued that national success in the Olympics should not only be characterised by “quantity”.

For example, in a study of the “Role of Sports in Brazil” by Figueiredo (1976, cited in Howell et al., 1979, p. 163), the author considered “an Olympic country not to be defined by the medals it is able to win, but for its love of sports” and asserted that under this criterion “Brazil is truly an Olympic country.” This suggested that national Olympic success could mean different things to different countries. More often than not, it depends on individuals' judgement and perception.

In order to gain a better insight into the similarities and differences in the meaning of Olympic success to Australia and Taiwan, the first research question addressed the

exploration of the stakeholders' viewpoints in terms of "what does Olympic success mean to them in their countries?" It is speculated that stakeholders' viewpoints of the definition of Olympic success, to a certain degree, would influence national government elite sport agencies' goal-setting and policy-making process. In other words, the expectations held by the stakeholders might have impact on the *inputs* of material and human resources for pursuing Olympic success.

The abovementioned *stakeholders* refer to professional individuals who share common interests and rights in the sport industry, such as elite athletes, sport coaches, sport administrators and managers in public and private organisations. To obtain the most informed sources from Australian and Taiwanese stakeholders, this study used the *Delphi technique* for data collection. The research design and methodological framework are detailed in chapter 4.

The NGESS: the ASC vs. the NCPFS

The exploration of national government elite sport systems (NGESS) in Australia and Taiwan is the central part of this comparative inquiry, which is constructed as the second component of the framework. Specifically, the focus of the analysis is on the existing principal government sport agencies at national level in Australia and Taiwan, the ASC and the NCPFS, shown in the second box of the diagram.

It is important to note that this study used the term "elite sport systems" to describe the two government elite sport agencies under discussion. As earlier explained, the perspective of systems thinking provided a flexible basis to build an analytical structure in a broader context. This study therefore set out to look into the internal environments of the ASC and the NCPFS in detail using the systems theory. At the same time, it examined and compared the external environmental influences on the mechanisms of the two agencies and the possible impact on elite sport development.

While the national government elite sport agencies are viewed as systems, there are six elements of system that are deemed fundamental. These included *organisational structure, staffing, policy and strategic direction, funding allocation, elite athlete*

programs, and *organisational networks*. These key elements were identified from the review of the literature (e.g., Bedecki, 1979; C. J. Chang, 2001; Coakley, 2004; Oakley et al., 2001; Stewart et al., 2004) and the researcher's experience in sport administration. On the theoretical basis of systems thinking, these elements were essential, as they supported and supplied the NGESS to function the *throughput* process and discharge organisational *outputs* (e.g., the perceived Olympic success). For the purpose of this study, each of these elements was scrutinized to gain a clear picture of the mechanisms of the ASC and the NCPFS. This was achieved mainly through documentary analysis and supplemented by relevant research and literature obtained from Australia and Taiwan.

Environmental influences on the NGESS

While the exploration of the *internal environment* of the ASC in comparison to that of the NCPFS is the centre of this study, the examination and comparison of environmental influences surrounding the respective systems are also considered to be essential. As stated by Chelladurai (2005, p. 75), "In any discussion of the properties of an organisation as an open system, it is important to consider the external environment." Systems theory suggested that all organisations constantly interact with the environment. To remain effective with efficient management, they must adapt to the environment in which they exist and operate (Chelladurai, 2005; Hatch, 1997; Slack, 1997).

The study of an organisation's external environment is a complex phenomenon. Slack (1997, p. 133) stated that "in one sense everything outside of the organisation being studied is a part of the environment, but such a broad definition has little practical or theoretical use." To address the complexity of an organisational environment and identify distinctive influences, many organisation theorists attempted to divide the organisation's general environment into different dimensions.

Hatch (1997) separated a general environment of an organisation into seven dimensions, encompassing political, economic, technical, legal, social, cultural, and physical factors. In a slightly different way, Slack (1997) grouped the general environment of a sport

organisation into political, economic, technical, legal, sociocultural, demographic and ecological sectors. In attempting to develop a more focused approach to understanding the environmental influences on the NGESS' in the respective countries, the organisational environment in this study is categorized into seven aspects. These include: geographic, demographic, political, economic, sociocultural, educational, and technological factors. To specify the boundary of the NGESS, these environmental factors previously defined are delimited as follows:

- *Geographic factors* refer to land size, geographic location, population distribution and density, weather conditions, and availability of sports facilities.
- *Demographic factors* involve population size and ethnic composition.
- *Political factors* refer to political parties' ideology and support and national/international political climate.
- *Economic factors* refer to sources of funds from three levels government and corporate sponsorship.
- *Sociocultural factors* refer to sporting culture and tradition, and the role of sport in society.
- *Educational factors* involve physical education, sport education, and the coaching education and accreditation system.
- *Technological factors* refer to the organisations and development of sports science in the elite sport systems.

Chapter summary

This chapter presented the conceptual framework for this study. The framework identified three main components to be studied in connection with the research questions previously addressed. To facilitate the exploration and comparison of the NGESS between Australia and Taiwan, the scope of this study in terms of the internal environment (the ASC and the NCPFS) and external environment (seven environmental factors) were delimited and defined. The next chapter explains and justifies the selection of methodology and research design. The methods used to collect and analysis data and the procedure are described. The limitations and ethnical consideration also present.

CHAPTER 4

Methodology

Introduction

This chapter presents the research design and describes the rationale for the selection of research methodologies. First, it illustrates the qualitative research design. Second, it explains the rationale for the use of the documentary method and the Delphi technique for data collection; and the comparative approach and content analysis for the data analysis. This is followed by a description of the procedures of the Delphi study. Next, it details the administration of the Delphi surveys. Finally, it addresses the limitations and ethical issues of the study.

Qualitative research design

Sarantakos (1998) and Patton (2002) identified the advantages of qualitative approaches as those that stress interpretations and meanings to help achieve a deeper understanding of research targets. May (2001) noted that the purpose of qualitative research is to develop concepts that help us to understand social phenomena in natural settings. Qualitative methods are predominantly used to examine a small number of cases and allow researchers to gather detailed data about unique cases. For the purpose of the present study, qualitative design is considered most suitable in this inquiry. **Figure 4.1** summarizes research design and outlines research methodologies in the present study. Four types of methods were chosen and applied in combination for best effect. These included the comparative approach, the documentary method, the Delphi technique and content analysis.

In this qualitative research design, data and materials were obtained through the documentary method and the Delphi technique from Australia and Taiwan. Specifically, the documentary evidence method was applied for preliminary

exploration and comparison of the profiles of national government elite sport systems and possible environmental influences in both countries. This process was further complemented by the data gathered from the Delphi technique. Content analysis and comparative approaches were utilized as an ongoing vehicle to sift data and information. More detailed description of the selection of these research methodologies is given in the next sections.

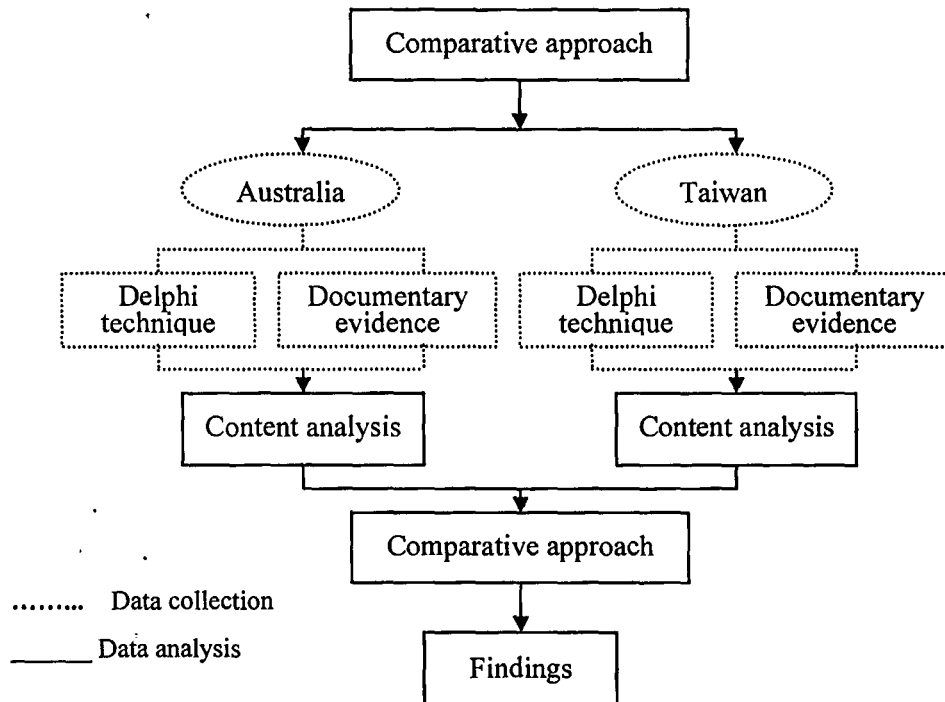


Figure 4.1 Summary of research design

Selection and justification of the research methodology

The documentary method

One of the qualitative data collection approaches selected for this study was the documentary method. This involved examination and comparison of the national government elite sport systems and environmental influences. The documentary method in qualitative research covers a broad range of sources of data collection (May, 2001). The process of the documentary method involves identifying, collecting, interpreting and comparing information contained in relevant documents

(Kayrooz & Trevitt, 2005; Sarantakos, 1998). Yin (1993) noted that documents can be utilized to corroborate and enhance evidence from other sources.

For the purpose of this study, it was important to gain information from Government and sport organisations in Australia and Taiwan, in addition to those obtained from academic institutions and library systems. Documentary data, such as organisational charts, government policy statements, annual reports and accessible internal documents, can provide rich information for practical comparison and in-depth investigation. To access more useful information between the two countries, the researcher searched relevant websites and contacted government departments (e.g., NCPFS in Taiwan and ASC in Australia) for inquiry.

Patton (2002, p. 432) indicated that “the challenge of qualitative analysis lies in making sense of massive amounts of data. This involves reducing the volume of raw information, sifting trivia from significance, structuring a framework for communicating the essence of what the data reveal.” Neuman (2003) suggested that a better approach in qualitative inquiry is to use the documentary method to supplement other methods. Marshall and Rossman (1995) proposed combining the documentary method with content analysis, emphasizing the advantages of using both together as an overall approach and an analytic strategy. The next section explains the reason for choosing the Delphi technique, a detailed description of the procedures of the Delphi study is given in the subsequent section.

The Delphi technique

“Delphi” refers to the site of the most respected oracle in ancient Greece from whom forecasts and advice from the gods were sought through mediators (Linstone & Turoff, 1975). Delbecq, Van de Ven, and Gustafson (1975) reported that the modern application of Delphi technique using multiple expert sources was developed by Dalkey at Rand Corporation in the 1950s in the United States. The Delphi technique was used as a forecasting tool to predict potential events and to examine defence problems in war situations. In following decades the Delphi technique has been

extended to different settings and employed in a variety of areas, such as information technology, public health, business management, social policy and education.

Over recent years, the Delphi technique has also been applied in sport and leisure. For example, Colyer (1993) and Hoye (1992) respectively applied the Delphi exercise to identify criteria for local government and sport organisation effectiveness; Costa (2005) adopted the method to explore the future direction of sport management research. More recently, Thompson, MacAuley, McNally, and O'Neill (2004) attempted to define the role and responsibilities of sports medicine using a Delphi survey, and Hung and Cheng (2004) employed the Delphi to probe physical education policy.

The Delphi technique is conceived as a structured process for collecting information from "experts" by means of a series of questionnaires (Jenkins & Pigram, 2003). It allows a group of well-informed individuals to deal with problems systematically (Ziglio, 1996). The unique features of the Delphi are structured communication, feedback to the participants, opportunities for participants to revise comments, and anonymity of the responses.

Meyrick (2001) pointed out that the major advantage of the Delphi technique is that a group of well-informed persons can be surveyed repeatedly together (i.e., via mail, electronic mail, or telephone) without being brought directly together. It is therefore possible for a number of selected experts to work together regardless of geographical restriction. In addition, the anonymity in the Delphi study can also eliminate so-called "group influence", which might frequently occur in face-to-face interviews and group meetings. Moreover, the iterative process provides the Delphi panellists the maximum opportunity to consider the issues in question, so that a reliable consensus can be achieved (Meyrick, 2001; Ziglio, 1996).

A number of pitfalls in using the Delphi technique were reviewed by Meyrick (2001), and some were pertinent to the present study. These included inappropriate selections of participants, deficient interaction with participants, superficial analysis of the participants' responses, and manipulation of the responses. In terms of the

former two pitfalls, Meyrick suggested that they could be eliminated by careful thought, such as thorough planning and management before the commencement of the Delphi survey. As to the latter two pitfalls, she recommended that researchers ensure that all of the survey records should be rigorously kept and that the entire process must be able to withstand inspection.

Ziglio (1996) asserted that the technique can be a useful tool for improving data collection when knowledge or possible solutions are required but are not readily available or are inadequate. Cuhls (2003) further emphasized that the Delphi technique is particularly helpful when long term issues need to be addressed or assessed, as this method has a subtle procedure to identify topics or issues that are applicable for the future. Thus, in the present study, the Delphi technique was considered the most appropriate approach to explore topical issues. Accordingly, the Delphi technique was chosen as the main source of the data collection. The specific objectives of the Delphi study were:

- to identify criteria for defining Olympic success;
- to identify direct factors contributing to Olympic success; and
- to identify indirect factors contributing to Olympic success.

The procedures of the Delphi study

The process of data collection in the Delphi study involved determining the size, selection and recruitment of the two panels, as well as the design of survey instruments and questionnaires and a system for dealing with the responses. The following sections describe how the Delphi process was managed in this inquiry.

Panel size

The size of a Delphi panel needs to be sufficient for the purpose of the inquiry. According to Delbecq et al. (1975, p. 89), “the size of the respondent panel is variable. With a homogeneous group of people, 10 to 15 participants might be enough.” However, they also suggested that “few new ideas are generated within a homogeneous group once the size exceeds 30 well-chosen participants.” Previous

studies using the Delphi technique have used approximately 20 experts. For example, Colyer (1993) recruited 21 experts who worked in local government recreation to explore a range of criteria to evaluate organisational effectiveness. Costa (2005) organized a panel of 17 scholars to probe the status and future direction in the field of sport management. To optimise the value of responses in this present study, it was decided to stratify the sample. Thus, the heterogeneous and stratified organisation of the Delphi panel initially involved 7 different categories of profession or position (see **Table 4.1**). It was anticipated that 23-42 panel members from each country would be adequate to approach to participate in this investigation on the understanding that not all would be able to participate.

Table 4.1
Criteria for Selection of the Delphi Panellists

Profession / Position	No. of panellists (each target country)
A. Government administrator (e.g., ASC/AIS & NCPFS/NSTC)	4 – 7
B. Non-government, CEO (e.g., NOCs, NSOs)	4 – 7
C. Coach (at national level with academic background)	3 – 6
D. Retired Olympian and/or medallist	3 – 6
E. Educator or scholar (in the field of sport or physical education)	5 – 8
F. Sport Journalist or Commentator (working for different media)	2 – 4
G. Politician (with responsibility for sport, e.g. Minister)	2 – 4
Acceptable panel total	Approx 23-42

Panel selection

The selection of Delphi panel members is a critical step in the Delphi process if a Delphi study is to be successful (Delbecq et al., 1975). In choosing potential participants, the representation of the professions and the degree of expertise must be taken into account (Ziglio, 1996). Given the objectives of the present study, it was essential to gather a wide range of opinions from different professions. Therefore, the criteria for selecting the Delphi panel members were eventually set in terms of occupation, work experience, and expert knowledge or skill. As a result, people who

met the criteria were considered “appropriate experts” for this inquiry. **Table 4.1** shows the category of position and the intended number of the sport experts sought. The first 5 categories required a minimum of five years’ relevant work experience.

Based on the selection criteria listed above, two groups of potential participants (i.e., Australian panel and Taiwanese panel) were initially nominated. For advice regarding the organisation of a Delphi panel in Australia, the researcher enlisted the assistance of sport management academics, Dr Lynn Embrey, Dr Sue Colyer and Dr Kandy James. In selecting Taiwanese panel members, the researcher’s professional background and work experience in the government sport organisation (i.e., NCPFS) and the department of physical education facilitated the recruitment of sport professionals in Taiwan. The identification of prospective participants’ qualifications was obtained through government directories, sport organisation annual reports, the official websites, and telephone inquiries.

Recruitment

To ensure the selected sport experts were available and willing to participate in the Delphi survey, an invitation (**Appendix A**) with an explanation of the project (**Appendix B**) and a consent form (**Appendix C**) with stamped return addressed envelope were posted by mail to 42 potential participants in Australia and the same number of prospective participants in Taiwan in early October 2004. In case unexpected difficulties were found in gaining involvement of the first choice subjects, another eight qualified experts in respective countries who met the selection criteria were also identified and listed as “reserves”.

Twenty-one sport experts in Australia and twenty-eight from Taiwan replied positively to the invitations with the completed consent forms, in which personal contact information was included (e.g., email address, phone number). Additional invitations were sent to other qualified experts on the reserve list. By the end of October 2004, 3 more sport experts in Australia accepted, as did 4 more in Taiwan. As a result, a total of 24 panellists in Australia and 32 in Taiwan were recruited. For confidentiality and convenience, these panellists were respectively labelled as A1, A2...to A24 (Australian panel) and T1, T2...to T32 (Taiwanese panel).

It is important to note that given the different official languages in Australia and Taiwan (English and Chinese), the translation of invitations and questionnaires for Taiwanese panel surveys was necessary throughout the Delphi study. In this regard, the researcher initially undertook the translating process. In order to ensure the validity and reliability (for example, whether panellists' responses and opinions were properly translated and conveyed), two scholars, one from each country were invited to be "auditor" to inspect the process of data analysis. In particular, the bilingual auditor in Taiwan was required for the validation of the accurate translation.

Accordingly, Dr Sue Colyer from Edith Cowan University in Australia and Professor Peter Chen from Chinese Culture University in Taiwan were invited to inspect the process of data analysis. The auditing process took place through face-to-face meetings or via telephone discussions from time to time prior to the commencement of each survey round. More detailed explanation with respect to the auditing process is given later in the questionnaire and response administration section.

Delphi survey instrument

Linston et al. (1975, p. 88) stated that the Delphi process might take five iterations, but with appropriate methodological improvement, this is usually reduced to three. In many applications of the Delphi technique (e.g., Colyer, 1993; Costa, 2005; Hoye, 1996; C. W. Hung & Cheng, 2004), it has taken three or four rounds to gain consensus. The Delphi survey in the current study involved four rounds of communication with the selected Delphi panellists in each country over a six-month period.

The electronic questionnaire was produced and circulated to all panellists via their personal email address that they had provided on the consent form. The data (panellists' responses) from each round were collected from a special email address set up for the researcher and stored in classified electronic files. All of the responses from the two countries were treated separately and independently in the process of the Delphi survey. The translation of questionnaires and results from Chinese into English were also subjected to the Chinese auditor's inspection. **Figure 4.2** illustrates

the procedure of the four rounds of the Delphi study. A detailed description is presented in the subsequent section.

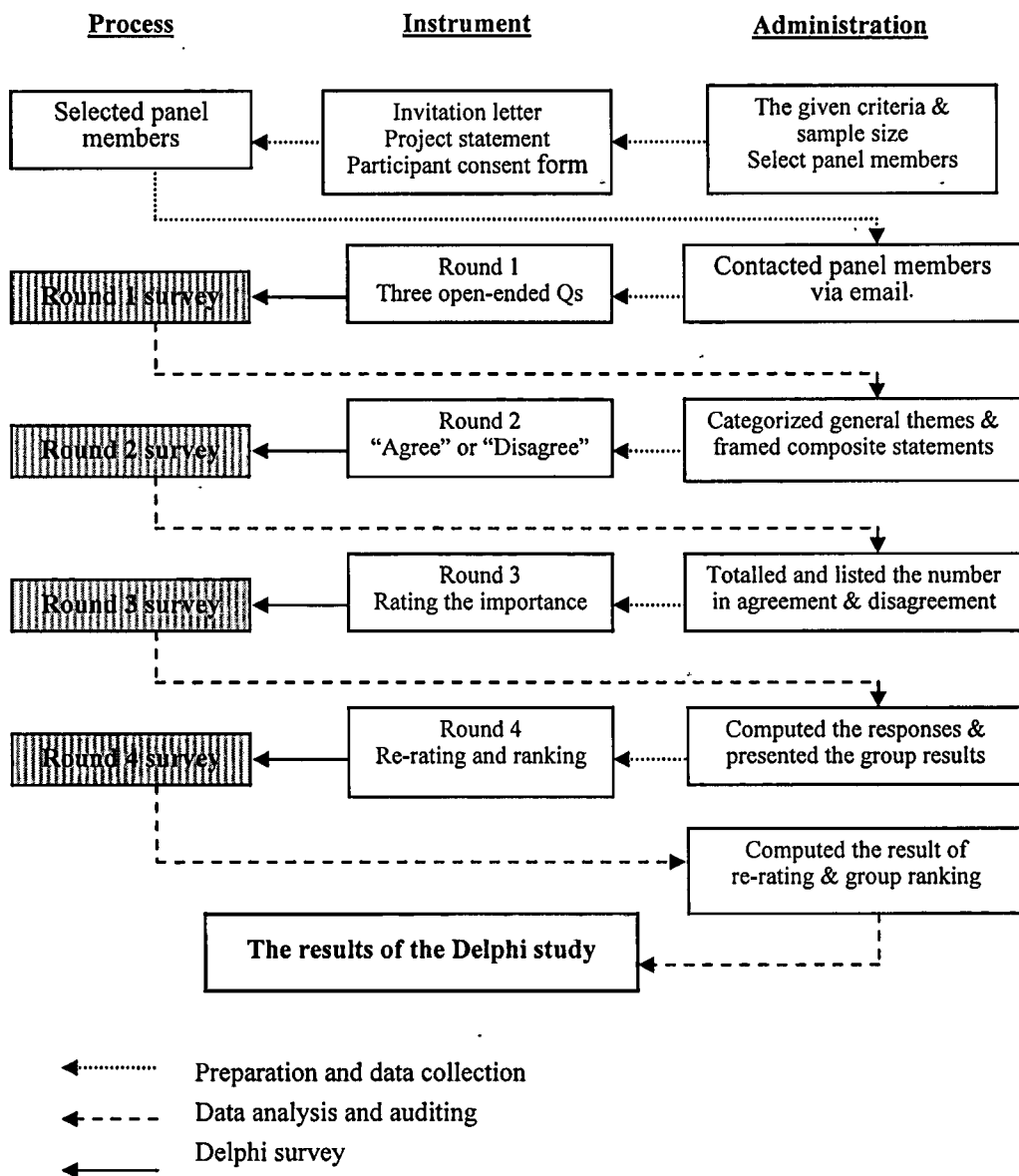


Figure 4.2 Procedure of the four rounds of the Delphi Study

Round 1 – The first round of the questionnaire (**Appendix E**) included three open-ended questions that were designed to elicit panellists' spontaneous responses as to what Olympic success meant to them and what direct and indirect factors they believed contribute to Olympic success for their countries. It was expected that this style of question would enable panellists to freely express their opinions based on.

their professional background in sports. The questionnaires with a cover letter (**Appendix D**) were sent to all panellists. The cover letter briefly elucidated the purpose of this study, the importance of their participation, and the suggested response date of the questionnaire. The Chinese questionnaire containing the same three open-ended questions was sent by email to the bilingual auditor in Taiwan for inspection prior to the commencement of the first round survey. These processes were conducted in each round of the Delphi survey.

Round 2 – In the second round of the questionnaire (**Appendix G**), the same three question topics remained, but each specific question provided a list of composite statements for a further inquiry. These composite statements for each country were based on the opinions all respondents from that country expressed in the first round. It should be noted that responses for each country were kept completely separate throughout the Delphi process. Panellists were asked to register their “agreement” or “disagreement” with each statement. Additional space was provided next to each statement for panellists to make further comments or suggestions related to the statement. Similarly, another cover letter (**Appendix F**) was prepared with a brief explanation of the purpose of this round and sent to all the panellists in Australia and Taiwan. Again, the Chinese questionnaire was sent to the auditor in Taiwan for inspection prior to the commencement of the second round survey.

Round 3 – In the third round of the questionnaires (**Appendix I**), the same three question topics were presented. Each composite statement was further refined according to panellists’ comments. Panellists were provided the tallies (the number of respondents who agreed or disagreed with each statement) from the second round survey to enable them an opportunity to perceive other panellists’ judgments and to modify their opinions if they desired to do so. This round of the survey asked panellists to rate the level of importance of each completed statement. A five point Likert-type scale was used, with 1 indicating “not important” and 5 indicating “very important”. Additional space was again provided for each statement for panellists to make further comments or clarification of their responses. A cover letter (**Appendix H**) with an explanation of the process of identification was sent together with the

round 3 questionnaire in Australia and Taiwan. Similarly, the Chinese questionnaire was sent to Taiwanese auditor for inspection prior to the commencement of the third round survey.

Round 4 – The fourth (final) round questionnaire (**Appendix K**) restated previous composite statements by listing main topics (question one) and headings (questions two and three). In this round, panellists were given the group mean scores for importance for each statement; their own scores from round 3 and another opportunity to check and change their rating scores after reviewing each group's response. They were finally requested to rank (question one) and re-rate each statement (question two and three). A cover letter (**Appendix J**) with additional information concerning the respondent rates in the last three round surveys was provided for the two panels.

Questionnaire and response administration

Panellists' responses to the first round survey (three open-ended questions) were analysed manually and summarized by similarity and essence. The data were further categorized and grouped to frame an array of general statements for the next round survey. A list of composite statements for each question emerged and each statement provided a brief description derived from relevant themes provided by panellists. To facilitate the focus of composite statements, a main theme with capital bold type (question one) or a heading (question two and three) for each statement was highlighted. For example:

Q1: Olympic success for Australia means...

... not only maintaining medal position, but also improving **RANKING ON THE MEDAL TALLY** by having more athletes/teams qualified, participating in the Games, reaching the finals and winning more medals across a number of sport.

Q2. The factors that contribute directly to Olympic success for Australia are...

GOVERNMENT FUNDING AND SUPPORT: Money is a major direct factor contributing to Olympic success. It costs so much to commit to support elite sport programs and performances, i.e. training, coaching, officiating, facilities, competitions.

Q3: The issues that indirectly affect Olympic success for Australia are...

POLITICAL CLIMATE AND POLITICIANS' SUPPORT: Stable political environments, political attitude, and politicians' belief in the perceived importance of sport in nation building encourage the continued advance of elite sport.

It is important here to restate that the auditing process was implemented after the first round survey. All of the responses from Australian panellists and a "draft" of the subsequent round questionnaire were sent to the Australian auditor for inspection, while the Taiwanese responses together with a "draft" of the Chinese questionnaire were sent to the auditor in Taiwan. The purpose of this inspection was to ensure that all of the panellists' opinions were properly captured and conveyed to the next round with minimal bias.

Responses to the second round survey were analysed manually and statistically. Any further comments or suggested amendments from panellists were taken into account in refining the composite statements. Based on the results of the second round survey, the numbers of agreement and disagreement responses to each statement were tallied. The third round questionnaire was produced and designed to feed back to panellists for them to reconsider and re-examine their previous views.

Responses to the third round were analysed statistically to determine the rating of the statements. Processing included the entry of all results into Microsoft Excel to calculate the mean and standard deviation of each statement. In the third round questionnaire, the composite statements in each question were revised and/or refined according to panellists' further comments from round 2. In addition, based on the results of the second round survey from Australian panel, four composite statements in question one were removed from further analysis. This was because the majority of the Australian panel members registered their disagreement on these statements. As can be seen in the third round questionnaire, more than half of the responses disagreed with these statements.

Responses to the final round were analysed to determine the ranking and re-rating of the statements. A similar process was conducted to calculate the mean and standard deviation of each statement. The group ranking and re-rating were to assess the degree of consensus. The criteria (question one) and factors (question two and three) identified by the two panels in the final round together with the statistical analysis between round 3 and round 4 were organized in “tables” for further comparison.

The next section describes how the comparative approach was applied in conjunction with the content analysis as an ongoing vehicle for conducting this study.

Comparative approach

This study was primarily structured based on the comparative methodology. The comparative approach has long been regarded as a useful means of highlighting similarities and revealing differences between two or more communities and societies. Through an appropriate research design, the comparative method helps to attain a deeper understanding and a greater awareness of the issues in question.

Pooley (1988, p. 8) defined comparative research as “the examination of two or more phenomena for the purpose of noting their similarities and differences.” Specifically, he suggested that three issues need to be addressed when conducting comparative research, which to some extent illustrates the fundamentals of the current inquiry. These are:

- how the two or more phenomena are the same and different
- under what conditions they are the same or different
- why they are the same or different (Pooley, 1988, p. 8)

The previous review of related literature revealed that comparative research in the sport setting is a relatively new field of study. To search for rigid guidelines or common patterns is a challenge confronting most researchers. In relation to methodological concerns, Haag et al. (1993, p. 513) asserted that “the topical approach depended upon the individual, the locale, and availability of instruments to

be used. Most of all, some concept of flexibility was necessary in order to understand and utilize new approaches that could benefit a study.”

This study set out to apply comparative approaches to examine the existing national government elite sport systems in Australia, as a means of evaluating its counterpart in Taiwan. To do this properly, it was critical to frame an analytical structure for comparison. Bereday’s four-step comparative model (i.e., *description*, *interpretation*, *juxtaposition* and *comparison*) derived from comparative education is frequently proposed by comparative scholars in sport (Haag et al., 1993, p. 513; Howell et al., 1979, p. 23; e.g., Bennett et al., 1983, p. 14; Morrison, 1979, p. 92) and it provides a logical guide for this present study.

As noted by Howell et al (1979, p. 33), “the real advantage of the Bereday model was that at least a framework was suggested for scientific comparison.” Bereday’s four-step comparative model offered a systematic framework to support this study. The subsequent paragraphs explain the four-step comparative approach according to Bereday (1969) and Jones (1971).

Step 1 – description

The description is mainly concerned with recording “what has been seen”. It requires the acquisition of “facts” relating to the issues in question and requires the development of statistical tables and analytical categories. In the present study, the introduction to the sport history of Australia and Taiwan and their past Olympic performances was one example.

Step 2 – interpretation

The interpretation refers to the evaluation of data in terms of general background information and the topical issue in question. According to Jones (1971), the interpretation of data evaluates only how the features are characterized rather than why they are developed. For example, statements presented in Chapter 2, regarding the development of sport in the national context, and the comprehensive

interpretation of documentary evidence in Chapter 5 and Chapter 6 attempted to do this.

Step 3 – juxtaposition

The juxtaposition deals with matching the data and preparing them for preliminary comparison. The data obtained from countries under investigation are grouped under comparable categories in general. For example, annual budgets were converted from Australian dollars and new Taiwan dollars to US dollars for preliminary inquiries. In this study, all data and material collected from the documentary method and the Delphi technique were classified in order to make further comparisons, such as the documentary evidence provided at the end of Chapter 5 and 6, and the results of the Delphi study in Chapter 7.

Step 4 – comparison

The final step of comparative analysis is the comparison itself. It involves unifying findings or concepts that resulted from the previous juxtaposition with a view of arriving at the research objectives. This study presented the research outcomes based on the principles in Chapter 8.

Content analysis

Henderson (1991) and Neuman (2003) defined content analysis as a technique (or a process) used in gathering and analysing documents in a textual form. Patton (2002, p. 453) described that content analysis “sometimes refers to searching text for recurring words or themes.” Due to its unobtrusive feature, content analysis in qualitative research is deemed an all-around data collection and analysis method that allows any form of written materials or other form of communication to be objectively and systematically examined and classified (Grinnel, 1993; Holsti, 1969).

Sarantakos (1998) noted that this method implied more sophisticated analysis in documentary research. With content analysis, Neuman (2003) recommended that a researcher could possibly compare content across many texts and analyse it using quantitative techniques (e.g., matrices). Holsti (1969, p. 95), however, suggested that

the establishment of categories in qualitative research should derive from a single principle. More importantly, the categories should reflect the research objectives. The most noticeable benefit of combining both documentary method and content analysis, according to Kayrooz et al. (2005), was to minimize any misinterpretation in the use of primary data associated with secondary sources.

As the present study was a cross-national study that attempted to examine the current government elite sport systems and the nature of environmental influences, it set out to gather primary and secondary sources through documentary method and the Delphi technique from respective countries. Correspondingly, content analysis was considered the best approach to facilitate the identification and comparison throughout the present study. The identification of specific characteristics and the creation of the categories were essential tasks in this study. This qualitative research technique enabled the researcher to summarize and categorize information objectively and systematically. In addition, it established comparable characteristics and manageable information.

The application of content analysis in this study was to identify relevant issues involving the extent to which two national governments constructed their respective elite sport systems and national Olympic success. As a consequence, the data obtained from the Delphi technique were analysed based on the survey questions to provide collective and definite opinions, while the documentary evidence collected from Australia and Taiwan was used to evaluate and support the results from the Delphi surveys. The next section presents how the conduct of the Delphi surveys.

The conduct of the Delphi surveys

The participants

The data collection of the four-round Delphi surveys began in November 2004 and was completed in August 2005. Prior to the commencement of the first round, the two Delphi panels were recruited during October 2004. Initially, a total of 42 selected sport experts from seven professional categories (see **Table 4.2**) in each country were invited to participate in the Delphi study. Of these invitees, 24 from

Australia and 32 from Taiwan accepted the invitations to be part of the Delphi panel. **Table 4.2** shows the final number of sport experts in Australia and Taiwan participating in the Delphi study.

Table 4.2

The actual number of participants from Australia and Taiwan in the Delphi study

Profession category	Australian panel	Taiwanese panel
A. Government sport administrator	4	7
B. Non-government sport administrator	5	7
C. Coach (at national level)	3	4
D. Olympian	4	3
E. PE / Sport educator and scholar	5	6
F. Journalist/Commentator	2	4
G. Politician (senator / legislator)	1	1
Total	24	32

The four rounds of the Delphi surveys

The process of the four rounds of the Delphi survey started with an open-ended questionnaire with three questions (see **Appendix E** round 1 questionnaires) to elicit panellists' unprompted responses to identify the issues, including the definition of Olympic success for their countries (question 1) and direct and indirect factors contributing to national Olympic success (question 2 and question 3). The three questions were re-iterated in the successive rounds to attain panellists' consensus.

Round 1

The qualitative data obtained from the first round were categorized and summarized using a manual method of content analysis. The object of round 1 was to identify the issues pertaining to each question mentioned above of 24 who had agreed to participate. Nineteen Australian panellists completed the first round survey. The respondents to question one produced 12 different criteria to define Australia's Olympic success. For question 2 and question 3, they reported 17 direct factors for question 2 and 18 indirect factors for question 3 that contributed to Australia's Olympic success. In the first Taiwanese round, 32 (of 32) Taiwanese panellists

completed the survey, identifying 12 issues to define Taiwan's Olympic success. They further reported 18 direct factors and 17 indirect factors that they believed to affect Taiwan's Olympic success. Each country's responses were kept separate throughout the process.

In light of the Australian and Taiwanese panellists' responses to the first round questionnaire, a list of composite statements for each question was produced and formed the second round of each country's questionnaire (see **Appendix G** round 2 questionnaires for the Australian and Taiwanese panels).

Round 2

The round 2 survey was designed to confirm the issues from the array of responses for each question. It was sent to all panellists for each country regardless of whether they had participated in round 1. The process of analysing data for this round was mainly to compute and verify the panel members' agreement on the statements gathered from round 1. In this second round questionnaire, the two panels were requested to register their agreement or disagreement with each composite statement.

Twenty-four Australian panellists completed the round 2 survey. As a result of respondents' comments, four criteria previously addressed in round 1 to define Australia's Olympic success (for question 1) were removed on account of the panel members' disagreement. These were: *the cost of medals*, *long-term media support*, *what the government and media declare*, and *the broad measure of national health*. One additional criterion was added to the list based on participants' further comments. This was *the greater number of athletes/teams reaching the finals and winning medals across a greater number of sports*. Consequently, nine revised statements resulted for question 1 for Australia to define Olympic success. In respect of question 2 and question 3, the 17 direct factors and 18 indirect factors previously identified by the Australian panel were confirmed with general agreement.

In Taiwan, 32 panel members completed the second round survey. Twelve criteria, 18 direct factors, and 17 indirect factors identified by the panel in round 1 remained the same, as participants' responses to round 2 reached common agreement to some extent. However, two new indirect factors were added to the list according to

panellists' further comments. These new factors were *convenience of access to facilities and drugs in sport*.

The responses of the two panels to round 2 resulted in a number of revised and supplementary statements that subsequently formed the basis of the round 3 survey (see **Appendix I** round 3 questionnaires for the Australian and Taiwanese panels).

Round 3

In the third round survey, the refined statements with summary statistics from round 2 (i.e., the number of agreement and disagreement) were fed back to the panel members. The panellists were asked to rate each statement based on a five-point Likert-type scale (1=not important, 5=very important). The objective of round 3 was to identify the level of importance to these revised statements. Twenty-three Australian panellists and 32 Taiwanese panellists completed the third round survey. The two panels' responses to round 3 were analysed separately using Microsoft Excel system to compute the group mean and standard deviation.

Round 4

The fourth round questionnaire contained a list of summary statements identified in the third rounds for each question, along with the respondents' initial ratings and statistical averages (see **Appendix K** round 4 questionnaires for the Australian and Taiwanese panels). The participants were requested to review their own responses to round 3 by comparison them with group means and to re-rate each statement (they could keep their initial ratings or change them by giving them new ratings). Furthermore, they were requested to rank their top 5 criteria (in question 1) and top 10 direct/indirect factors (in questions 2 and question 3) for importance in contributing to Olympic success. Twenty-one respondents from Australia and 31 from Taiwan completed the final round survey. The objective of the final round Delphi survey was to seek consensus on issues identified by the two Delphi panels in round 3 and to distinguish the levels of importance by ranking.

Twenty-one respondents from Australia and 31 from Taiwan completed the final round survey. The data gathered from the final round were further processed and

summarized with descriptive statistics to describe the panel rating and ranking of identified criteria and factors. **Table 4.3** below summarizes the number of participants each round and response rates of the four-round Delphi surveys. There was a high response rate from both Australian and Taiwanese panels throughout the Delphi study. The higher response rate from Taiwanese panellists can be attributed to the fact that Taiwanese panellists had more to gain from this study than Australian panellists in terms of future Olympic success. A detailed analysis of the Delphi study results in Australia and Taiwan is presented in the following sections.

Table 4.3***Response rate of the four-round Delphi survey***

Stage	Australian panel		Taiwanese panel	
	Responses (n=24)	Response rate	Responses (n=32)	Response rate
Round 1	19	79 %	32	100 %
Round 2	24	100 %	32	100 %
Round 3	23	95 %	32	100 %
Round 4	21	87 %	31	97 %

Limitations and validities

Patton (2002, p. 433) noted that “the human factor is the great strength and the fundamental weakness of qualitative inquiry and analysis – a scientific two-edged sword.” The present study has several limitations relating to “human factors” that needed to be acknowledged. These limitations are concerned with the design of the study, the sample size and language issues. Correspondingly, the internal validity of the data analysis of this study and the external validity of findings are addressed.

This study used the Delphi technique for data collection. The initial process of the Delphi survey involved using open-ended questions to elicit panellists’ views on specific themes. It presented a challenge for all participants and at the same time the researcher had no control over panellists’ interpretation of the questions. This potential problem was modified by providing a project explanation (see **Appendix B**)

during the invitation phase and was further diminished by presenting other participants' opinions (anonymously) in the subsequent round of surveys.

The Delphi study was confined to 24 sport professionals in Australia and 32 in Taiwan who were invited and accepted to be part of the Delphi panels in respective countries. Although the number of participants in the Delphi survey was rationally justified, the small sample size could still be seen as another limitation in this study. In attempting to increase the validity of primary sources, the researcher endeavoured to gather sport experts from different professions in each country so that a variety of data sources were obtained.

Other limitations were related to the data analysis procedure and language issues. Since the researcher was a physical education teacher and a sport administrator with considerable teaching and administration experience in Taiwan, undocumented preconceived ideas might have existed that could be considered as a limitation. The researcher's supervisors independently reviewed the result of each round of the Delphi survey to minimise potential bias.

Moreover, the Delphi study utilized questionnaires in two different languages for data collection during the four rounds of the Delphi survey. The responses received from the Taiwanese panel involved a Chinese to English translation process. The degree of accuracy could be affected by the researcher's language skill at translating, although these were moderated by a bilingual auditor's inspections throughout the process.

Thomas and Nelson (2001) defined validity as the soundness of the interpretation of a test. This study heightened the internal validity (or credibility) of the data analysis of the Delphi responses by using a follow-up auditing procedure in each round of the Delphi survey (as shown in **Figure 4.2**). In addition, to enhance the internal validity of the document analysis and reduce the researcher's bias, the review of documentary evidence was further confirmed through personal communication with the officials in the ASC and the NCPFS. With regard to the external validity (or transferability) of the findings to other settings, this study endeavoured to map out the similarities and

differences of factors affecting Olympic success in the Australian and Taiwanese contexts and provided detailed information to readers, and therefore caution should be exercised when generalizing the results of the present study to other settings. For the specific purpose of this study, the recommendations presented at the end of this thesis were only applicable to the Taiwanese context. In summary, despite the limitations noted, none of these limitations was believed to critically compromise the quality of the current study.

Ethical considerations

Ethics approval for this study was given by the Edith Cowan University's Human Research Ethics Committee. Accordingly, the following five important considerations were strictly applied to maintain confidentiality of this study and protect the participants.

- All panellists involved in this study were informed of the purpose and the importance of this study.
- Panellists' consent was obtained and they had the right to withdraw at any time.
- Individual panel members' responses were confidential and no panel member was revealed to any other. Panel members were asked not to discuss the Delphi study or their responses with anyone else.
- The data gathered from questionnaires (Delphi method) were not used for any other purpose.
- All the responses and feedback from questionnaires were kept secure during the study and will be destroyed after the completion of the research.
- A brief summary of the Delphi results was provided to all panellists.

Chapter summary

This chapter outlined the research design and methods used to collect and analyse data. It explained the underlying methods of the documentary method and the Delphi survey procedures, described the comparative approach and content analysis, and the conduct of the Delphi surveys in detail. Limitations and ethical considerations were also discussed. The following chapters discuss the results obtained from the documentary method and the Delphi survey. Chapters 5 and 6 focus on findings from a review of the documentary evidence. Chapter 7 presents the results of the Delphi survey, and Chapter 8 draws conclusions, recommendations, and suggests future research.

CHAPTER 5

Exploring the Profiles of the ASC and the NCPFS: Documentary evidence

Introduction

This chapter presents the outcomes of a review of documentary evidence available to describe the national government elite sport systems in Australia and Taiwan. The data for evidence are based on material gathered from both countries. These include government publications, organisational annual reports, and internal documents (see **Appendix O** a list of documents) and are supplemented with other literature pertaining to the current study, such as books and articles in sport organisational studies by scholars, researchers, journalists.

The focus of the analysis is on the description and comparison of the existing principal government sport agencies at national level in respective countries: *the Australian Sports Commission (ASC)* and *the National Council on Physical Fitness and Sports (NCPFS)* in Taiwan. In the first and second sections, the two agencies are discussed in turn under six subheadings: *organisational structure; profile of staffing; policy and strategic direction; government funding and allocation; elite athlete development programs; and organisational networks.*

These descriptive discussions are followed by juxtaposition and comparison in order to understand their similarities and differences. Primarily, the outcomes of these analyses were used to answer two research questions, namely:

- *What are the profiles of the current national government elite sport agency in Australia and Taiwan?*
- *What are the similarities and differences in the mechanisms of the national government elite sport agencies between Australia and Taiwan?*

The Australian Sports Commission (ASC)

In the review of literature it was found that the Australian Government involvement in elite sport was minimal before the 1980s. The reports prepared by Dr Bloomfield in 1973 and Dr Coles in 1975 called initially drew political leaders' attention to the importance of sport to the nation (Bloomfield, 2003). The national teams' debacle at the 1976 Montreal Olympics, the government interference in the boycott of the 1980 Moscow Olympics became catalysts that caused successive changes. The Australian Institute of Sport (AIS) was set up in 1981 for the enhancement of elite sport. In 1985, the Federal Government further established the ASC to integrate national resources for national sport development (Commonwealth of Australia, 1999). The next sections describe the role of Federal departments in sport provision and discuss the current organisational structure of the ASC.

Organisational structure

The sport portfolio in the Australian Federal Government has undergone much relatively recent structural transformation. In 1993, the ASC moved to the *Department of Environment, Sport and Territories (DEST)* from the *Department of Arts, Sport, Environment and Territories (DASET)*. In 1998, the ASC was part of the portfolio of the *Department of Industry, Science and Resources (DISR)* as a result of the restructure of the Federal departments. During the period this study was conducted, the ASC was under the supervision of the *Department of Communications, Information Technology and the Arts (DCITA)* portfolio

The DCITA is a multi-function Federal department that has wide ranging responsibilities apart from sport, such as arts and culture, broadcasting and online regulation, information and communications technology, telecommunications and post (DCITA, 2005). Because of these various responsibilities, within the DCITA, there are a number of *quasi-autonomous, non-governmental organisations* (i.e., quangos) operating under the relevant departments, two of which are related to sport. These are the ASC and the Australian Sports Anti-doping Authority (ASADA).

The *quangos* have several distinctive features that distinguish them from general public organisations. As noted by Lynch et al. (2006, p. 176), “these organisations have a separate legal existence, established by the Acts of Parliament; each is overseen by its own board of trustees or a council, whose members are usually appointed for fixed terms by the minister of relevant department”. Instead of being governed and administered by government officials and public servants, these organisations are managed by substantial professionals from particular areas and more importantly, these professional workers are employed by the board or the council rather than by the Government. Lynch et al. (2006, pp. 176-177) explained the reasons for creating and operating *quangos* under the Federal portfolios and noted that:

The principle behind the establishment of such organisations is that politicians and public servants should not be responsible for the day-to-day management of these areas of public enterprise, partly because of the presumed inability of government bureaucracy to provide appropriate management or professional skills, and partly because of a belief that the particular community should run itself according to its own criteria of excellence, whether these be to do with the arts, broadcasting, sport or environment.

The ASC was formed as a quasi-independent administrative agency under the *Australian Sports Commission Act 1989* funded through the DCITA, a major role of the ASC is to provide policy advice to the Federal Government, through the Minister for Sport. The Board of Commissioners appointed by the Sport Minister has dual functions to govern the ASC and to advise the Minister. Thus, the ASC has an arm’s length legislative responsibility for the implementation of sports policy.

The ASC Board consists of a chairperson, a deputy chairperson, an ex officio secretary to the Department (i.e., DCITA) and five to ten other members in accordance with the *Australian Sports Commission Act 1989*. An executive director (i.e., Chief Executive Officer) and directors/general managers of core units are appointed by the ASC Board to direct and manage day-to-day operations. The Board has a number of standing sub-committees to deal with general issues (e.g., auditing) or special programs (e.g., Anti-doping and Active After-school Communities program). These subcommittees are constituted by the Board members.

According to the ASC 2004/05 *Annual Report* (ASC, 2005), the Board of the ASC comprised 13 commissioners from different areas such as sport, business, the media, and law. Four standing sub-committees operate under the ASC Board's organisation that included the Audit Committee, the Emolument Committee, the Anti-doping Committee, and the Active After-school Communities Committee (ASC, 2005). Under the Act, the ASC board and standing sub-committee meetings do not have to be held on a regular basis, but can take place as necessary for efficient performance (ASC, 1989). In addition to the structure of the Board, the ASC provides specific operational areas to implement government policy and deliver public funding and services to sport. The ASC 2004/05 *Annual Report* (ASC, 2005) depicted the structure as having three core units. These include: the *Australian Institute of Sport* (AIS), *Sport Performance and Development* (SPD), and *Business Operations* (BO). **Figure 5.1** demonstrates the organisational structure of the ASC in 2005 and lists responsibilities of the three units. A detailed illustration of the ASC organisational chart and definition of the sub-units and divisions is presented in **Appendix L**.



Figure 5.1 Australian Sport Commission organisational structure 2005

(Source: ASC annual Report 2004/05, p. 12)

Australian Institute of Sport (AIS)

The AIS is responsible for sport excellence on a national basis. It provides integrated resources and training environments for developing pre-elite and elite athletes, such as facilities, coaches, sports science, medical services, and scholarships, athlete welfare and career education. Before being incorporated into the ASC, the Institute once operated as a public company incorporated under the Company Ordinance (Shilbury et al., 2006). The amalgamation with the ASC in 1989 notwithstanding, the functions and objectives of the AIS remain the same: to develop and implement national programs for high performance sport. In 2005, the AIS consisted of three sections (i.e., sub-units). These include: Sport Programs Planning and Evaluation, Athlete and Coach Services, and Technical Direction (ASC, 2005).

Sport Performance and Development (SPD)

The SPD is the primary agent for NSOs elite sport programs and the coordination of the national high performance planning. Its major responsibility is to provide financial assistance and targeted services to NSOs and help them to meet their obligations and objectives, such as raising standards of coaching, officiating, volunteers and administration and encouraging both excellence and participation. The SPD also works with state and local governments to develop a nationwide approach to community sport activities for targeted groups, such as juniors, women, indigenes, and people with disabilities. In brief, the SPD administers both sport excellence and public sport to ensure pathways are in place for various groups of people to participate at different levels in sport. In 2005, there were five sections under the SPD, including: National Junior Sport, Planning and Reporting, Sport Innovation and Best Practice, Sports services, and Sport Programs (ASC, 2005).

Business Operations (BO)

The BO unit is responsible for providing corporate and support services to the ASC. These services encompass financial and human resource management, information management, property and facilities management, business and sponsorship development, policy coordination, as well as communication and media services. In addition, this unit is in charge of the Australian Sport Foundation and delivering

international programs. In 2005, nine sections operated under the BO, these entail: Australian Sport Foundation, Business Development and Research, Commercial Operations, Corporate Communications, Facilities Services, Finance, Human Resources, Information Management, and International Relations.

Profile of staffing

For its diverse functions, the ASC employs people from a wide range of fields to fit in with its practical requirements under the ASC Act 1989. Aside from the service of general administration, professionals from coaching, sports science and medicine, club and facility management, information technology and commercial operation are staffed. **Table 5.1** shows the staffing of the ASC between 1997/98 and 2004/05. The Annual Report (ASC, 2005) noted that the number of employees had substantially increased in 2004/05 as a result of the introduction of a new program – *Active After-school Communities* (AASC). The new recruits were assigned around different states and territories, with the majority of the staff being placed in the Australian Capital Territory (ACT) where the ASC head-quarters are situated (see **Table 5.2**).

Table 5.1

Comparison of staffing in ASC 1997–2005

Year	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
Staff	422	410	410	378	384	453	458	655

(Source: Compiled from ASC Annual Reports 1997/98 – 2004/05)

Table 5.2

The distribution of ASC staffing by location 2005

Location	Personnel	Location	Personnel
Australian Capital Territory	465	South Australia	23
New South Wales	29	Western Australia	20
Queensland	32	Northern Territory	5
Victoria	42	Tasmania	5
Total personnel			*621

* 34 casual staff is not included. (Source: ASC Annual Report 2004/05)

Table 5.3 illustrates the distribution of the staff in the three core units and the new program (i.e., AASC) in 2004/05. There were 655 personnel engaged in full-time, part-time, or casual positions (ASC, 2005, p. 149). Among these staff, 312 held full-time positions and 284 were fixed-term full-time employees. The rest of the employees worked as part-time or casual workers. Among the three core units, AIS and BO were allocated relatively larger number of full time employees.

Table 5.3

The distribution of ASC staffing by program and employment type 2005

	AIS	SPD	BO	*AASC	Total
Ongoing (full time)	92	46	172	2	312
Fixed term (full time)	83	6	20	175	284
Ongoing (part time)	6	2	10	-	18
Fixed term (part time)	6	0	1	-	7
Casual employment	6	1	27	-	34
Total	193	55	230	177	655

* The Active After-school Communities (Source: ASC 2004/05 Annual Report)

Policy and strategic direction

Sport traditionally occupies a central position in Australian life. Numerous government reports recognise that sport is not only a source of health and entertainment in Australian society, but also a binding element for enhancing national identity and pride (e.g., ABS, 1993; ASC, 1999; Commonwealth of Australia, 1999). The mission of the ASC – *to enrich the lives of all Australians through sport* – reflects the views of the Australian public and Government toward sport. As Shilbury et al. (2006, p. 99) stated, “The mission nicely captures the quality of life that participation in sport offers the community, as well as being broad enough to include strategies for enhancing elite performance.” Correspondingly, the general objectives of the ASC are legitimately formulated in the Australian Sports Commission Act 1989. These are twofold: to increase participation and to improve performance of Australians in sport.

In accordance with the ASC Act 1989 (ASC, 1989), the ASC develops its strategic plan every four years and prepares an operational plan each year. These set out the direction and strategies for the organisations. Both the strategic plan and the annual operational

plan are based on the previous plans. The functions of the strategic plan are as follows (ASC, 2002):

- to signal the directions and priorities of the Commission to its stakeholders;
- to identify areas in need of particular attention to ensure continued success;
- to guide internal management and operational planning activities including priority setting, resource allocation, performance monitoring processes, and an accountability framework; and
- to set key goals against which the Commission will report to the Parliament and its stakeholders.

Since 1989, the Federal funding appropriate to the ASC has also been adjusted on the basis of a four-year funding cycle in conjunction with their four-year strategic plan. More importantly, the strategic plan was founded in the Federal sports policy. For instance, the first four-year Federal sports policy plan launched in 1989 was entitled *The Next Step* (Commonwealth of Australia, 1989c) as a result of the Parliamentary inquiry into government funding and administration, known as *Going for Gold* (Commonwealth of Australia, 1989b) and *Can Sport be bought?* (Commonwealth of Australia, 1989a). The most significant outcome of these reviews was that the Federal Government realized the need for improvement in the administration of sport and particularly in the coaching and competition system development (Shilbury et al., 2006). Subsequently, the second plan implemented in 1992 was known as *Maintain the Momentum* (ASC, 1992).

Initially, such a four-year program and its funding was aligned to the Olympiad, but was altered, when the IOC awarded the 2000 Olympic Games to Sydney in September 1993. As a consequence, a six-year policy – *Olympic Athlete Program* was devised for the preparation of the Sydney Olympics. This additional policy program was implemented in cooperation with the preceding plan (i.e., *Maintain the Momentum*) and was extended to cover the period from 1994 until 2000.

In 2001 the Federal Government announced a policy direction entitled *Backing Australia's Sporting Ability: A More Active Australia* (Commonwealth of Australia, 2001). This sports policy was projected to extend Federal financial support for high

performance sport throughout the next decade. In essence, the objective of the project was twofold: to assist the best elite athletes to continue to reach new peaks and to increase the pool of talent from which developmental elite athletes could emerge (Commonwealth of Australia, 2001). **Table 5.4** depicts the Federal policy plan since 1989 and the budget appropriation for the execution of the policy plans.

Table 5.4

Australian Federal policy and funding for sport 1989~2010

Year	Federal sports policy plan	Budget (AUSS\$ m)
1989 – 1992	The Next Step	217 m.
1992 – 1996	Maintain the Momentum	293 m.
*1994 – 2000	Olympic Athlete Programs	135 m.
2001 – 2010	Backing Australia's Sporting Ability: A More Active Australia	547 m.

* The Federal Government initiated a six-year policy with additional funding support for the preparation of the 2000 Olympics in Sydney.

The most recent strategic plan was initiated by the ASC in 2002, namely strategic plan for 2002-2005. This four-year strategic plan was derived from the Federal policy and set out the directions with two objectives and eleven strategies as follows (ASC, 2002, pp. 10-11) highlighted added:

- **Objective one** : *to secure an effective national sporting system that offers improved participation in quality sports activities by Australians:*
 1. Through Active Australia Partnerships, develop and implement targeted initiatives that encourage national sport organisations to expand the membership, reach and business capability and sustainability of grass-roots clubs and associations.
 2. Through Active Australia Partnerships, provide more effective pathways for participation by all Australians especially young and Indigenous people, women and people with disabilities.
 3. Encourage best practice in the management of Australia's national sport organisations by providing leadership, funding, support, consultancy services, information, education and training, and business tools that promote improved efficiency, effectiveness and outcomes.

4. Continue to develop and make available education and accreditation programs that assist national sport organisations to recruit and retain administrators, coaches, officials and volunteers.
 5. Ensure that national sport organisations embrace the values of fair play and implement policies and guidelines to ensure a quality sport experience for all participants.
 6. Demonstrate leadership and act as a role model in the development of initiatives to increase sources of and opportunities for non-government funding.
 7. Encourage contestability and a higher level of commercial activity on the part of national sport organisations, the ASC and its facilities.
- **Objective two:** *to secure excellence in sports performance by Australians:*
8. Provide funding and support to, and strengthen national sporting structures so that Australian athletes and coaches have the support systems and programs to sustain and build international sporting success.
 9. Actively promote a sporting environment free from drug cheats.
 10. Strengthen the effectiveness of the Australian Institute of Sport through the adoption of a continuous improvement philosophy.
 11. Provide innovative and integrated support services at the Australian Institute of Sport to enhance athlete and program performance.

The sport funding pattern and strategic direction of the Australian Government were already well established in the recent decade, as Farmer et al. (1996, p. 20) noted that:

There is no longer a debate in Australian sporting circles as to whether funding for sport is a government priority. It seems certain that the pattern of four-year funding cycles of sport, set against strategic plans of organisations such as the ASC and accompanied by a regular evaluation process and reviews, is now part of the ongoing scene for Australian sport.

The ASC's four-year strategic plans in the periods from 1994-1997, 1998-2001 and 2002-2005 are compared and presented in **Appendix M**. The government funding and allocation for the 2002-2005 strategic plan is explored in the next section.

The Federal Government funding and allocation

The Federal Government's financial assistance to Australian sport progressively increased since the institution of the ASC in 1985, although the levels of public funding to sport fluctuated from government to government (Shilbury et al., 2006). These unstable circumstances were notably modified from 1989 and in particular after Australia received the honour of hosting the 2000 Olympics in 1993 (Farmer et al., 1996; Shilbury et al., 2006). The following sections examine the Federal Government budget appropriation to the ASC.

Table 5.5 presents the Federal budget appropriation to the ASC from 1997/98 to 2004/05. It is noticeable that the government funding to the ASC was increased from some AUS\$ 89 million in 1997/98 to almost AUS\$ 110 million in 1999/00. Despite of a decline between 2000/01 and 2001/02 (after the 2000 Sydney Olympic Games), the budget was restored in 2002/03. This increase was due to the Federal Government's announcement of a new policy direction in 2001 (i.e., *Backing Australia's Sporting Ability: A More Active Australia*) (see **Table 5.4**), and reflected in the 2002/03 budget.

Table 5.5

The Federal Government appropriations to ASC 1997/98~20004/05

Year	Government appropriation (AUS\$ 000)	Generated revenue (AUS\$ 000)
1997/98	89 977	9 000
1998/99	89 284	16 947
1999/00	109 944	23 200
2000/01	97 612	12 095
2001/02	89 977	20 700
2002/03	134 300	22 700
2003/04	125 592	22 357
2004/05	145 794	24 812

(Source: Compiled from ASC Annual Reports 1997/98~ 2004/05)

Another remarkable initiative that can be seen in Table 5.5 is the increase of revenue generated by the ASC. Under the ASC Act 1989 (ASC, 1989, p. 7), in addition to sponsorship from private sources, the ASC is authorized to raise revenue by means of the provision of facilities, programs, services, and information. According to ASC Annual Report, the generation of revenue commenced in 1995/96 and significantly

boosted in 1999/00. Although there was a slight downturn after 2000/01, the ASC's ability to enlarge revenue to supply the annual expenditure on programs was evident in recent years.

The government funding for the ASC is allocated in accordance with the four-year strategic plan. During the period from 2001-02 to 2004-05, a total of AUS\$ 545 million was expended on the basis of 2002-2005 strategic plan. The funding was primarily allocated to fulfil two objectives of the plan, that is, to secure an effective national sport system that offers improved participation in sport and to secure excellence in sport performance by Australians. **Table 5.6** overleaf describes the Federal funding allocation in relation to the 2002-2005 Strategic Plan and the ASC programs and activities from 2001/02 to 2004/05.

It is apparent that the budget appropriation for this strategic plan during the four-year period was largely disbursed for high performance sport. Distinctively, more than three-fourths of the budget was concentrated on the AIS programs and services (e.g., AIS 35 scholarship programs in 26 sports) and Sport Excellence Program (e.g., high performance grants for national sport organisations), whereas only some 24 per cent of funding was appropriated for the development of participation in sport. The next section outlines the elite sport development programs for the training and development of elite athletes and teams.

Table 5.6***The Federal government funding allocation to 2002~2005 Strategic Plan***

Objective one: to ensure an effective national sport system that offers improved participation in quality sports activities by Australians				
Year	2001/02	2002/03	2003/04	2004/05
Annual budget (AUS\$ 000)	31 500	29 500	28 600	42 100
Total budget allocation: AUD\$ 131 700				
Programs and activities: Business improvement / Sport development grants program / Information management support and research / Sport education / Participation promotion and event / Community programs and social policy / International activity / Leadership and partnership / Active Communities / Research / Commercial activities / International development assistance				
Objective two: to ensure excellence in sports performance by Australians				
Year	2001/02	2002/03	2003/04	2004/05
Annual budget (AUS\$ 000)	108 000	104 800	97 000	103 700
Total budget allocation: AUD\$ 413 500				
Programs and activities: AIS programs and services / Sports excellence program / National leadership				

(Source: Compiled from ASC Annual Reports 2001/02 ~ 2004/05)

Elite athlete development programs

Prior to the establishment of the ASC in 1985, an elite athlete development program, known as the AIS scholarship program has been initiated by the AIS in 1981. The AIS provided young athletes with an access to quality coaching and world class training environment for them to develop their full potential. Despite being incorporated with the ASC in 1989, the AIS scholarship program continued its essential role in the development of elite sport.

During the 1990s, in particular, after the 2000 Olympic Games was awarded to Sydney, on the basis of Federal sports policy, the ASC conceived a range of national programs for advancing high performance sport and preparing for the Games. Some programs provided direct support to elite athletes or teams (e.g., AIS scholarship program and Direct Athlete Support), while others offered funding assistance to state departments of sport and recreation (DSR) and National sport organisations (NSOs) for targeted work (e.g., intensive training centres and high performance management).

By and large, the elite athlete support system was constructed through a variety of programs of the ASC. The following sections outline the major programs relating to the elite athlete development and the Olympic preparation (*Unless indicated otherwise, the following information is primarily derived from the ASC Annual Reports from 1996/97 to 2004/05*).

AIS scholarship program

The AIS scholarship program commenced in 1981 with eight foundation sports (i.e., track and field, gymnastics, swimming, weightlifting, tennis, basketball, soccer, and netball) based in Canberra. This sport scholarship program was an original concept that formed the central part of the AIS, through which “eligible elite athletes” from around the country are invited to “reside in training centre” so that they have opportunities to access world class coaching and training facilities, leading sports science and medical support for their sporting success.

Bloomfield (2003, p. 57) described this program in the initial stages that “One hundred and fifty-three scholarships were awarded from among the 800 applicants and eight sports were initially included in the program.” Over two decades, the AIS scholarship program expanded greatly from eight sports based in Canberra in the initial stages to 26 sports (including some winter Olympic sports and non-Olympic sports) across 35 programs around the country (ASC, 2005).

Intensive Training Centre (ITC)

The ITC program was developed in 1989 and provided decentralized delivery of sports services to elite athletes. This program allowed the government and non-government sport agencies at Federal and State level to fully coordinate and integrate resources for elite athletic training. Initially, seven sports were chosen (i.e., swimming, track and field, cycling, rowing, canoeing, basketball and hockey) in selected capital cities (for example, hockey was based in Perth, Western Australia, and cycling was located in Adelaide, South Australia). In the ITC program, the additional funding was available to hire an international-level coach for each sport and to make international competition more available for athletes and teams. This program was given greater support when the

Olympic Athlete Program commenced in 1994 for the preparation of the 2000 Sydney Olympics and it contributed to more effective cooperation between the AIS and the Institutes of Sport at state level.

Sport Assistance Scheme (SAS₁) and Direct Athlete Support (DAS)

The SAS₁ is the ASC's primary program to disburse financial support to NSOs for the improvement of sport management, coaching and officiating, international competition, and training camps. Distinctively, the DAS program offers direct funds to selected elite athletes in order to assist in their daily living, training environment costs, and overseas competition expenses. The DAS selection is based on an athlete's medal potential and individual need.

Olympic Athlete Program (OAP)

The OAP was launched in 1994 after Sydney was confirmed as host to the 2000 Olympic Games. The special program was designed to assist elite athletes and teams with additional funding and integrated resources in order to maximize their performance in the 2000 Olympics. Between 1994 and 2000, the Federal Government appropriated approximately AUS\$ 140 million to support this program. According to the ASC Annual Reports, OAP funding was mainly allocated for international competition, elite coaching and national program coaches, sports science and medicine support, intensive training centres and equipment, national training camps and direct athlete support, as well as high performance management, education, career planning, sport research, and information services. The ASC 2000-2001 Annual Report specifically noted that a total of 875 athletes received grants and professional assistance. It is widely acknowledged that the OAP was one of the major contributors to Australia's "best ever" achievement at the 2000 Olympic Games. This program concluded after the 2000 Sydney Olympics.

National Talent Search Program (NTSP)

The talent identification project was initially developed by Dr Allan Hahn in 1988 for the rowing program at the AIS. Before 1994 several NSOs made attempts to apply similar methods to look for talented athletes in their sport (e.g., cycling, track and field,

and canoeing). Following the announcement of Sydney as host city for the 2000 Olympics, the Federal Government allocated AUS\$ 500,000 a year for two years under the OAP for a national talent identification program. The major focus of the funding was to identify talent and fast-track athletes for the 2000 Olympic Games.

Eight sports were chosen for involvement in this talent identification program. These were: track and field, cycling, canoeing, swimming, rowing, triathlon, water polo and weightlifting. Between 1994 and 1996 this program was conducted nationally through the employment of coordinators in the AIS and SIS/SAS. The Federal funding for the program concluded in 1996. The AIS continues to provide technical advice and services to help NSOs to conduct broad based screening through state talent search coordination and education system.

Athlete Career Education (ACE)

Launched in 1994, the ACE is a cooperative program between the AIS and state-based institutes and prospective employers (ASC, 2005; Shilbury et al., 2006). It was designed to provide eligible elite athletes (AIS scholarship holders) with personal development services and transitional support. Technically, this program combines public services with educational guidance, career planning and job skilling assistance to help elite athletes develop their career in the future. Bloomfield (2003) estimated that by 2003, more than 3000 elite athletes had access to the program.

National Elite Sports Research Program (NESRP) and National Laboratory Standards Assistance Scheme (NLSAS)

The NESRP was designed to provide funding to SIS/SAS and collaborate with sport scientists to conduct research to more strategic and effective approaches to elite athlete higher performance. Similarly, the NLSAS was designed to support NSOs to use accredited laboratories for the testing of athletes within programs. This scheme was conceived in 2001-02 and commenced in 2003. The NESRP and NLSAS were part of the AIS programs operated by the Technical Direction unit within the AIS.

Beijing Athlete Program (BAP)

In preparation for the 2008 Beijing Olympics, a new program entitled the Beijing Athlete Program was initiated in early 2005. In this program, 24 sports were targeted based on their potential to win medals (see **Table 5.7**).

Table 5.7

The targeted sports selected in the Beijing Athlete Program in ASC

Category	Targeted Sports
Group 1	athletics, gymnastics, swimming, cycling, rowing, sailing, canoeing, water polo, hockey, basketball, soccer, volleyball (significant ASC investment)
Group 2	archery, diving, shooting, triathlon, and skiing (multi-medal or potential multi-medal)
Group 3	judo, table tennis, badminton, and taekwondo (increased potential through Asian linkage)
Others	baseball, softball, and equestrian (medal potential)

(Source: Nihill, 2005)

According to the ASC (2005), in order to achieve sustained high performance success, the major objective of this program is to conduct a strategic overview of the challenges faced by the targeted sports. Based on the review, it will help determine how the available resources (finance and service) can be effectively allocated. Under the BAP, each targeted sports will have a management committee responsible for overseeing the progress and preparation for the 2008 Olympics. In general, the elite sport development programs operated by the ASC can be categorized into four key areas. These included *athletic training, athlete support and services, financial assistance, and technical support* (See **Figure 5.2**). It is clear that the ASC is initiating and integrating specific programs into the national elite athlete development and support system.

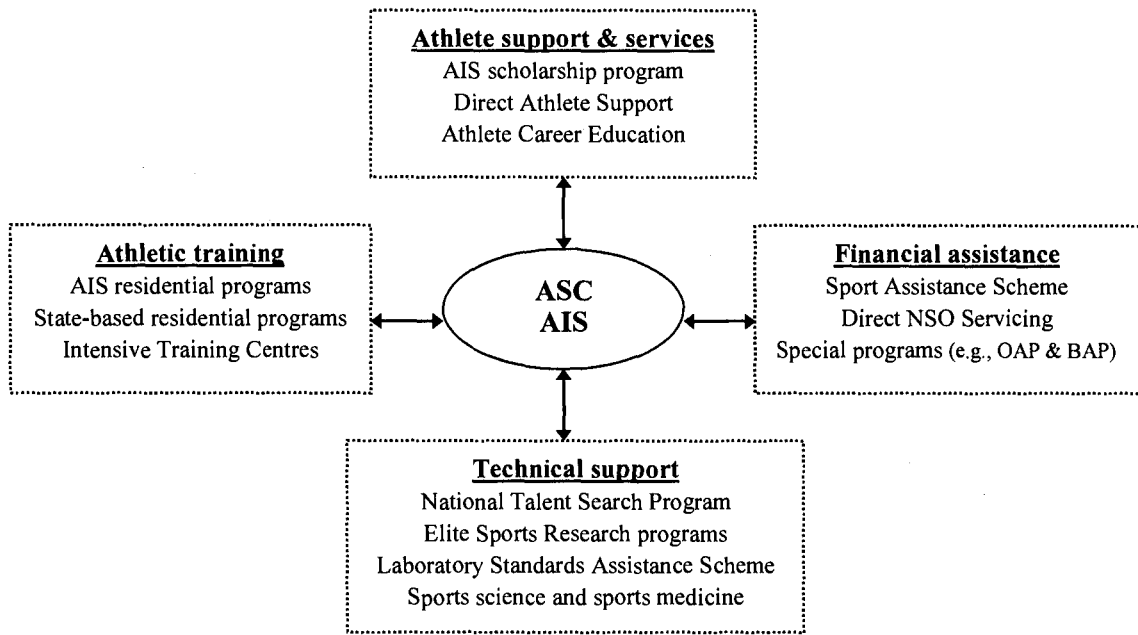


Figure 5.2 The elite athlete development programs in the ASC

As well as these various programs directed by the ASC, one of the key determinants of Australia's elite sport development was the expansion of organisational networks in the sport system. The ASC could not operate in a vacuum, despite viable strategic plans and comprehensive elite athlete development programs. The next section explores the organisational network in the Australian elite sport system.

Organisational networks

To some extent, the elite athlete development system in Australia mirrors its three-tier political structure that involves the federal, state and local levels. At various levels each sport agency, both government and non-government, has its distinctive role in facilitating the development of elite sport development networks (see **Figure 5.3**). These networks are essential to build up linkages between the ASC and other sport agencies. The following paragraphs describe the role the respective sport agencies play in the promotion of elite sport.

	<i>Government</i>	<i>Non-government</i>
<i>National level</i>	ASC AIS	AOC NSOs
<i>State level</i>	DSR SIS/SAS ITCs	SSOs
<i>Local level</i>	Regional academy of sport Local government facilities Community sports organisations/clubs Public/private schools sport teams	

Figure 5.3 Organisational networks for Australian elite sports

National level

The ASC at national, on behalf of the Federal Government, plays a leading role in offering essential funding and integrated services to NSOs and state departments of sport and recreation (DSR) to ensure that elite athlete development pathways are accessible throughout the country. Equally, the AIS at this level provides national leadership on the training and development of elite athletes through various national programs. NSOs are responsible for the management of the overall elite athlete pathway in their sport.

In addition to the ASC, the AIS, and NSOs, the Australian Olympic Committee (AOC) at national level also plays a key role within the network. Although the AOC did not directly engage in the elite athlete training programs, it offers financial assistance to NSOs for the cost of international competitions and shares responsibility for selecting and sending national teams to the Olympic Games. More importantly, it provides monetary incentives to Olympic medallists and coaches through special projects and programs. It is important to note that the AOC is a not-for-profit independent organisation. The funds required for its organisational activities are by and large generated through its marketing and fundraising programs (AOC, 2005).

State level

At State level, the involvement of eight state/territory governments, together with the institutes and academies of sport, is highly regarded as an essential element in the network. Each state/territory government has a department (or office) responsible for sport (see **Table 5.8**) and each department is given its powers in accordance with an Act of Parliament (Shilbury et al., 2006). Following the creation of the AIS in 1981, by the 1990s all state/territory governments had established well-developed state-based training centres, such as state institute of sport (SIS) or state academy of sport (SAS). The state-based institutes and academies of sport are funded by the respective state government through their departments of sport.

Table 5.8***The government sport agencies at state level in Australia***

State/territory	Government sport agency (The State Government Portfolio)	State-based sport institute s
South Australia	Office for Sport and Recreation (in the Department of Administrative and Information Service)	SA Institute of Sport (since 1982)
Western Australia	Department of Sport and Recreation	WA Institute of Sport (since 1984)
Tasmania	Sport and Recreation Tasmania (in the Department of Economic Development)	Tasmania Institute of Sport (since 1985)
Australia Capital Territory	Sport and Recreation ACT (in the Department of Economic Development	ACT Academy of Sport (since 1989)
Victoria	Sport and Recreation Victoria (in the Department for Victoria Communities)	Victoria Institute of Sport (since 1990)
Queensland	Sport and Recreation Queensland (in the Department of Local Government, planning, Sport, and Recreation)	Queensland Academy of Sport (since 1991)
New South Wales	NSW Sport and Recreation (in the Department of Tourism, Sport, and Recreation)	NSW Institute of Sport (since 1996)
Northern Territory	NT office of Sport and Recreation (in the Department of Community Development , Sport, and Cultural Affairs)	NT Institute of Sport (since 1996)

(Source: Bloomfield, 2003; Shilbury et al., 2006)

The purpose of the SIS/SAS is to assist elite and developmental athletes in their administrative regions to have access to specialist support and maximize their potential. By closely working with state sport organisations (SSOs), the SIS/SAS provides an

integrated pathway for talented athlete development at state level. Having both federal and state institutes along with a number of the Intensive Training Centres (ITCs) located in capital cities for targeted sports at middle level has enabled the ASC to develop a variety of sophisticated training programs and “more flexible” elite athlete development pathways.

Local level

Numerous reports applaud the important role that local governments play in elite development by indicating the great amount of funding they invest in sport infrastructures (e.g., Bloomfield, 2003; Houlihan, 1997; Shilbury et al., 2001). The local government involvement in the delivery of elite sport is mainly in the provision of required facilities and services for community sport organisations and local clubs. Moreover, many local governments support regional institutes of sport or sport academy programs to develop targeted sport activities in their areas. Such support networks between State and local governments eventually make a sequential pathway available from all levels.

An additional network

A report to the Federal Government – Shaping Up (Commonwealth of Australia, 1999, p. 65) claimed that the development of the Australian sport system was a result of “unplanned” growth or at least has “no centralized planned” expansion. Despite not being integrated, it appeared that the system had mechanisms to facilitate communication and coordination and enabled government and non-government agency teamwork across geographic and administrative boundaries. **Figure 5.4** shows these additional networks for elite sport development between the governments and programs at various levels.

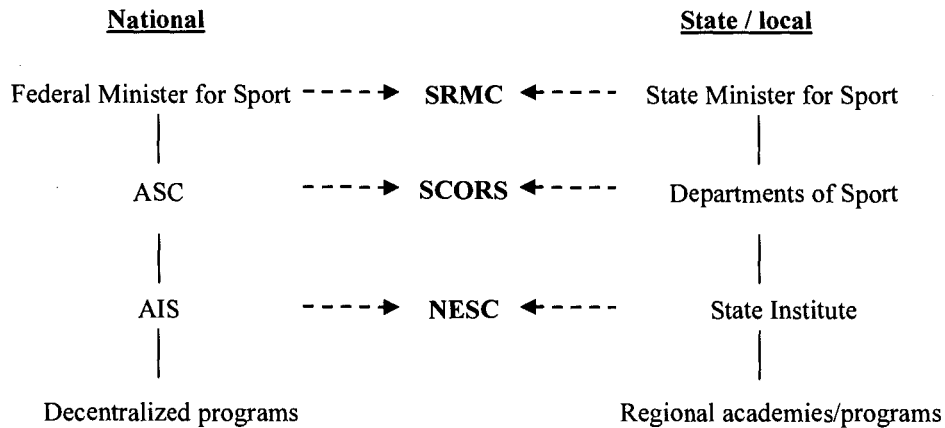


Figure 5.4 Additional networks for elite sports in Australia

(Source: *Shaping Up*, Commonwealth of Australia, 1999, p. 70)

SRMC = the Sport and Recreation Minister's Council
 SCORS = the Standing Committee on Recreation and Sport
 NESC = the National Elite Sports Council

As illustrated in **Figure 5.4**, there is an organisation at the top level entitled the Sport and Recreation Minister's Council (SRMC) operating between the federal minister and state ministers. This Council comprises the Federal and State/Territory Ministers with responsibility for sport and recreation. The Council meeting is held annually for liaison and coordination of sports policies and strategies. At the middle level, the Standing Committee on Recreation and Sport (SCORS), consisting of representatives of the relevant Ministers' departments and the ASC, is organized to provide advice and administrative support to the Ministerial Council mentioned above. The meeting of SCORS is held twice a year for information sharing and exchanging views on relevant sport and recreation issues.

The National Elite Sports Council (NESC), established in 1993, play a major role in the coordination of services and programs for Australian elite athletes and elite sport development. The Council comprises the Chief Executive Officer of the ASC, the Director of AIS and the Directors of State and Territory institutes and academies (i.e., SIS/SAS). In addition, the AOC attends the council meetings as an observer in the NESC. The role of the NESC became more important since 1994, with the Federal Government's allocation of funds through the OAP. The Council functioned as a co-ordinator to facilitate the national elite sport development network.

Summary

This section presented the results of the documentary analysis in relation to the profile of the ASC and the mechanism for developing elite sport. It outlined the organisational structure, staffing, Federal policy and strategic direction, and the public funding allocation to the ASC. It also described elite sport development programs and organisational networks for high performance sport. The next sections explore the profile of the NCPFS based on material obtained from Taiwan.

The National Council on Physical Fitness and Sports (NCPFS)

In Taiwan, prior to the founding of the NCPFS in 1997, elite sport development was part of the physical education portfolio in the education system (NCPFS, 1998). As a consequence, the management of elite sport programs relied on the non-government national sport bodies (for example, the Republic of China Sports Federations) with the Central Government's financial support. The inception of the NCPFS was deemed a milestone in the national sport development. The following sections describe the profile of the NCPFS in detail under the same sub-headings.

Organisational structure

The NCPFS was formed within the Executive Yuan (the Cabinet) and under the *Organisational Statute of the National Council on Physical Fitness and Sports* enacted in 1997. In accordance with the organisational statute, the Minister for Sport (also chairperson of the NCPFS) is appointed by the Premier of the Executive Yuan to lead the administration of national sporting affairs. The Sport Minister appoints two to three Deputy Ministers (vice chairpersons) and one Chief Secretary to assist and share in the day-to-day operations. A council of 15 to 19 members meets monthly to supervise the work of the NCPFS. In general, the members of the Council are recommended by the Sport Minister and then appointed by the Premier (NCPFS, 2001).

In 2004, there were 19 members in the Council consisting of representatives from sport, academia, the media and business. In theory, the role of the Council is to oversee the administration of the NCPFS and approve national sports policies by means of regular meetings. In reality, as the Council meetings are operated under the level of the Sport Minister and Deputy Ministers, the Council is organized as “an advisory body” (NCPFS, 2005).

Under the leadership of the Sport Minister, the Deputy Ministers, and the Chief Secretary, five major departments manage specific national sporting affairs. These include: the *Department of Planning*, the *Department of Public Sports*, the *Department of Competitive Athletics*, the *Department of International Sports*, and the *Department Sports Facilities*. As well as these departments, three offices handle general administration, namely the Accounting Office, the Personnel Office and the Secretariat. In addition, three standing committees are organized to take care of special issues. These are: Sports for the Disabled Committee, Petitions and Appeals Committee, and Legal Affairs Committee (NCPFS, 2005). **Figure 5.5** illustrates the organisational structure of the NCPFS in 2005.

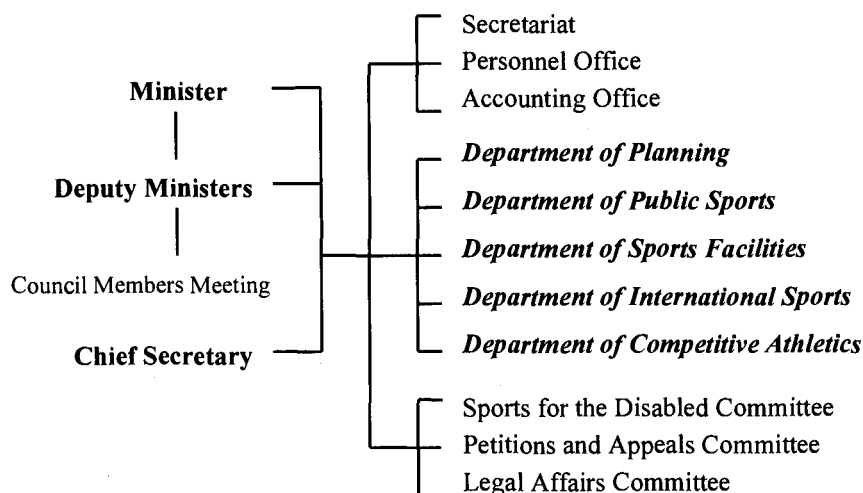


Figure 5.5 National Council on Physical Fitness and Sports organisational structure 2005

(Source: NCPFS 2005)

The formation of the five major departments is in accordance with the *Organisational Statute* passed by the Executive Yuan (NCPFS, 1998). The following paragraphs briefly explain the portfolios of the five major departments. A more detailed description of the department and division responsibilities is presented in **Appendix N** (the NCPFS organisational chart).

The Department of Planning (DP)

This department consists of three divisions (sub-units) that are responsible for the formulation, implementation, and coordination of relevant sports policies and regulations, which are designed to facilitate overall sport development. Its functions mainly include planning national sport conferences, conducting public opinion surveys, promoting sport education, raising sport funds from the private sector, evaluating national sport organisations, guidance of sport foundations, and sport information management.

The Department of Public Sports (DPS)

This department comprises three divisions that share in the responsibilities of developing all kind of sports and activities, but excluding the sports that are selected and categorized in the Olympics and the Asian Games. Public sports are the non-Olympics and non-Asian Games sports. The objectives of this department are to encourage public participation in sport through the promotion of non-competitive sport, such as traditional sport, indigenous sport, and sport for people with disabilities. This department is also in charge of the management of the Sports for the Disabled Committee.

The Department of Sports Facilities (DSF)

This department has three divisions; to provide financial assistance for the government to improve sports facilities at all levels, to encourage the private sector to invest in building sports facilities, and to oversee the quality of facility services. In addition, this department also deals with formulating relevant regulations (i.e., licensing systems) to train professionals to operate and manage public and private sports facilities.

The Department of International Sports (DIS)

This department has two divisions respectively dealing with international sport activities and cross-straits (between China and Taiwan) sport activities. It deals with the planning and coordination of international sport exchange policies and directions, liaison with and guidance for outstanding athletes residing abroad, as well as assistance for international exchange in school sport. This department is also responsible for the collection of foreign sports information and administration of matters regarding foreign athletes, coaches, and referees.

The Department of Competitive Athletics (DCA)

This department consists of four divisions respectively in charge of the promotion and development of Olympic sports and the sports selected in the Asian Games. The tasks of the Department include drafting regulations for sponsoring elite sports activities, subsidizing overseas training and competitions, formulating awards systems for athletes and coaches, and providing assistance to national sport organisations in selecting athletes for international competitions. This department is also responsible for cultivating a research environment and strengthening national expertise in sports medicine and sports science.

Profile of staffing

Similar to the organisational structure, the employment of the NCPFS is based on the Organisational Statute and other relevant regulations. **Table 5.9** illustrates the staffing of the NCPFS between 1997 and 2005. Since the operation of the NCPFS, approximately 99-117 employees were engaged in the full-time basis. Of these employees, it is observed that around 80 percent of the formal staff was employed under civic service hiring laws and 20 percent of contract workers were hired in accordance with the relevant employment regulations. All of the staff was located in the central office situated in the Taipei City (NCPFS, 2005).

Table 5.9***Comparison of staffing in NCPFS 1997-2005***

Year	1997/98	1998/99	1999/00	2001	2002	2003	2004	2005
Staff	107	117	117	111	100	114	99	107

(Source: Compiled from NCPFS internal documents and Annual Reports 2001~2005)

Table 5.10 shows the distribution of the staff within the departments of the NCPFS in 2005. According to the NCPFS (2005), there was a total of 107 staff working in the NCPFS in 2005. These contained 80 formal employees and 27 contract workers; the former were appointed or engaged according to relevant public servant employment laws, while the latter were hired under other provisions. Of the total, 59 staff (55 percent) were assigned in the five major departments, 35 employees (33 percent) were allocated to deal with general administration (i.e., secretariat, personnel and accounting), and the rest of the personnel (12 percent) were distributed in the office of Sport Minister, the Deputy Minister and the Chief Secretary office.

Table 5.10***The distribution of NCPFS staffing 2005***

Departments	Personnel	Offices	Personnel
Planning	7 (3)	Secretariat	12 (16)
Public Sports	11 (3)	Personnel	3 (0)
Sports Facilities	8 (2)	Accounting	4 (0)
International Sports	9 (1)	Others	13 (0)
Competitive Athletics	13 (2)		
Total	80 (27)		32 (16)

Note: Numbers in parentheses are contract staff

It is important to acknowledge that there are no formal positions in the three Standing Committees, (i.e., Sports for the Disabled Committee, Petitions and Appeals Committee, Legal Affairs Committee); all the work of these Committees was shared by existing personnel who were appointed by the Minister. All of the staff worked in the central office located in Taipei City. The next section explores the development of sports policy in Taiwan and strategic direction set up by the NCPFS.

Policy and strategic direction

The economic growth in recent decades provided a strong basis for the Taiwanese Government to develop sport. At the same time, people in Taiwan became aware of the need to improve health and lifestyle through the participation in sport activities. Moreover, because of Taiwan's "unique" political circumstances, the general public increasingly recognised the value of using sport as a vehicle to improve Taiwan's national image (NCPFS, 1999).

The Central Government passed the *National Sports Act* in 1982 to promote sport and thus the role of sport in the Taiwanese society was officially addressed (NCPFS, 2006a). The Act stated that "The purpose of national sport is to promote healthy bodies, cultivate ethical attitudes, inspire national spirit, and fulfil the daily lives of citizens" (NCPFS, 1999, p. 167). Despite the formal announcement, the Central Government had little involvement with the advancement of elite sport in the early stages, except for the provision of public subsidies through the DPE to national sport organisations and the encouragement of sport activities in school.

The Central Government's active involvement in the promotion of sport was a relatively recent phenomenon. It was not until the institution of the NCPFS, that the Government's policy to reinforce sport development became manifest. The amendment of the *National Sports Act* three times between 1998 and 2000 to some extent displayed the Government's momentum. It is by virtue of the amendments that the NCPFS was given legitimate powers to fulfil its functions (NCPFS, 1999).

The amended Act (NCPFS, 2006a), for example, included that, "Financial needs in national sport promotion shall be prepared by all levels of governments and schools, and financial support from enterprises is permitted" (Article 12, National Sports Act, 2000). For the advancement of elite sport, the Act additionally indicated that, "Governments shall found a system for the development of outstanding athletes, with regulations enacted by the responsible authority in the Central Government" (Article 13). Consequently, over the years, the government's policy on sport has focused on two goals. These are to promote sports for all people and to elevate the preparedness of elite athletes for international competitions.

The first policy on sport in Taiwan was projected by the NCPFS in its inaugural stage, known as the Four-wheel Drive Plan. According to the NCPFS (1999, p. 3), the name of the scheme was derived from an inspiration that “the four-wheel drive vehicle can negotiate virtually any kind of terrain”. In general, this scheme was deemed a blueprint for “accelerating” the progress of national sport. The NCPFS introduced the plan with two main objectives, namely “to promote the participation of citizens in sport and to help them enhance their physical fitness”, and, “to improve athletic standards and raise competitiveness in sport and athletics” (NCPFS, 1999, p. 12). Specifically, the Four-wheel Drive Plan devised four major strategies to highlight the functions and missions of the NCPFS (1999, p. 13). These four strategies were:

- To build a comprehensive set of sports laws, regulations, policies, systems, projects, measures and activities
- To strengthen infrastructure construction, and to build and improve athletic fields, gymnasiums, community recreational areas and free-access recreation and exercise facilities
- To enhance research and development in athletics, sports science and technology and to encourage and sponsor sports activities
- To upgrade the training of potential athletics and recruit volunteer workers

Following the staging of the first National Physical Education [and Sport] Convention in July 1999, the ideas of the Four-wheel Drive Plan were consolidated into the *Republic of China Physical Education White Paper*. This White Paper was regarded as the first comprehensive policy on sport in Taiwan (NCPFS, 1999). However, surprisingly, no specific projects or follow-up relating to the White Paper were found in the following years. It is observed that this was as a result of the Cabinet reshuffle after the Presidential Election in 2000.

In 2001, the NCPFS publicized its Mid-term Administrative Policy Plan for national sport development in compliance with new administrative regulations initiated by the Executive Yuan. This policy plan covered the four-year period between 2001 and 2004 and developed the Central Government’s policy on sport in the upcoming years. Five major objectives and 16 specific strategic goals resulted as follows (NCPFS, 2001):

- *To improve the citizens' physical fitness*
 1. To organize sporting activities for children/ women/ youth/ senior citizens
 2. To ensure sports opportunity for minority groups
 3. To implement the national physical fitness scheme
- *To increase elite sports competitiveness*
 4. To build up training and competition systems
 5. To foster pre-elite and elite athletes
 6. To improve the elite sports training environment
 7. To enhance sports science and research
- *To enhance international sporting exchange*
 8. To promote international sporting exchange
 9. To formulate principles for cross-straits sporting exchange
- *To build up a quality sports environment*
 10. To improve community sports facilities
 11. To upgrade sports facilities at city/county level
 12. To develop sports centres at a national level
- *To integrate national resources*
 13. To encourage research on physical education and sport
 14. To combine resources between public and private sectors
 15. To build up an accreditation system for sports professionals
 16. To integrate sports information

In accordance with the policy plan, the five departments within the NCPFS prepared detailed action plans respectively in line with their responsibilities. Take, policy for high performance sport, for example. In order *to increase elite sport competitiveness* between 2001 and 2005, the Department of Competitive Athletics undertook its major tasks by:

- Formulating a graded training system
- Enhancing the outstanding athlete career counselling scheme
- Improving the school training facility program
- Improving the training centre environment program

- Cultivating sport specialist programs
- Integrating a sport information scheme
- Structuring athletic statistics and resource bank

As a general rule, the five departments within the NCPFS carried out annual action plans in conjunction with their annual budget appropriation. The Central Government budget was appropriated based on the annual reviews of previous policies and performance effectiveness. In 2005, the second Middle-term Administrative Policy Plan was prepared by the NCPFS covering the years from 2005 to 2008. The same five major objectives with 24 strategic goals were developed (NCPFS, 2005). The following section examines the government appropriation to the NCPFS and the budget allocation to the five Departments of the NCPFS.

The Central Government funding and allocation

The DPE was the responsible authority for sport at ministry level before the NCPFS was founded in 1997. For a long time, limited human resources in the DPE (i.e., lack of sport administrators) resulted in the day-to-day running of national sports being dependent on the Republic of China Sports Federation (ROCSF). The ROCSF was the primary non-government national governing body in charge of amateur sports in Taiwan, and the Chinese Taipei Olympic Committee (CTOC). In particular, the ROCSF took major responsibility for the supervision of the NSOs and the management of National Sport Training Centre (also known as Tzuo-Ying Training Centre), while the CTOC assisted the government to deal with international sport. As a result, the government funding for NSOs was chiefly routed through the ROCSF and the CTOC (H. Y. Liu, 2003).

Table 5.11 shows the change of the Central Government allocation to the DPE and the NCPFS from the 1997/98 to 1998/99 financial year. **Figure 5.6** illustrates the model of government funding for sport prior to the inception of the NCPFS. Such operational patterns were fundamentally changed after the NCPFS took charge of national sport affairs. Consequently, the Central Government budget appropriation to sport was transferred from the DPE to the NCPFS.

Table 5.11

Comparison of public funding allocation to DEP and NCPFS 1997/98-1998/99

Financial year	DPE (TWDS 000)	NCPFS (TWDS 000)
1997/98	2,472,536	160,116
1998/99	493,256	2,915,289

Note: TWD\$ = Taiwanese dollars (Source: *Republic of China Physical Education White Paper*, the NCPFS, 1999)

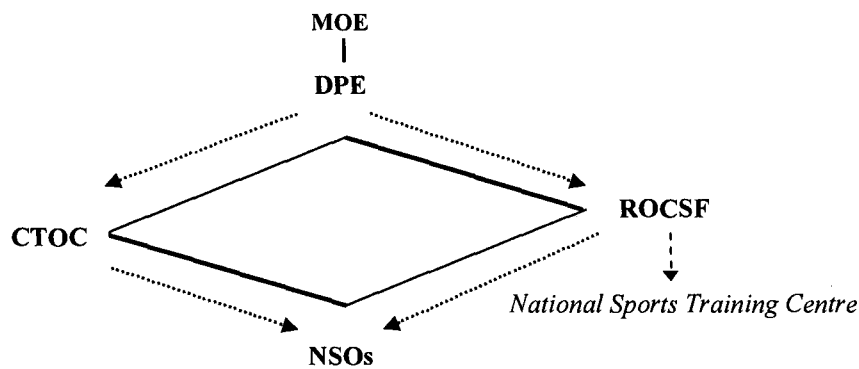


Figure 5.6 Model of the Central Government funding for sport in Taiwan before 1997

As a result of the inception of the NCPFS, the sport delivery system at the national level and the public funding subsidy for the CTOC and NSOs was restructured and directly undertaken by the NCPFS. **Figure 5.7** displays the new model of the public funding support to national sport organisations since 1998.

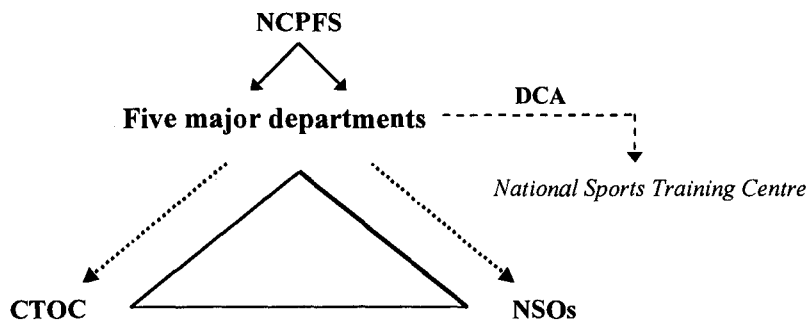


Figure 5.7 Model of the Central Government funding for sports in Taiwan since 1997

In accordance with the Organisational Statute, the structure of the five Departments within the NCPFS is designed to share in the tasks of national sport development. Therefore, the budget appropriations to the NCPFS are mainly distributed to the five departments, with the exception of personnel. **Table 5.12** demonstrates the Central Government budget appropriation to the NCPFS between 1998 and 2005 (NCPFS, 2000, 2001, 2002a, 2003, 2004, 2005) and the allocation of the funding to the five major departments. To a degree, the proportion of government budget to the five departments reflects the weight of the emphasis of government policy on sport.

Table 5.12***NCPFS annual budget and allocation 1998-2005***

Year	Budget (TWDS 000)	DSF (%)	DCA (%)	DPS (%)	DIS (%)	DP (%)
1998-99	2 915 289	23	23	20	11	5
*1999-00	*4 320 088	23	29	18	10	5
2001	2 511 483	33	25	16	13	6
2002	2 821 700	47	22	12	8	4
2003	2 825 049	46	28	8	7	4
2004	2 995 105	48	27	8	7	4
2005	2 696 749	48	28	7	7	4

Note: The annual budget for personnel and general administration are not included in this Table.

*The financial year in 1999-2000 spanned 18 months (Source: NCPFS annual budget report 1998/99 and 2005).

For example, the proportion of annual budget allocated to the Department of Sports Facilities (DSF) increased from 23 per cent in 1998/99 financial year to 48 percent in 2005 financial year, during the same period, the funding appropriated to the Department of Public Sports declined from 20 per cent of annual budget to 7 per cent. It shows that over the years the major work of the NCPFS substantially concentrated on the improvement of sports facilities and the development of high performance sports, as the budget proportion to the Department of Sports Facilities (DSF) was relatively high since 2002. As can be seen in Table 5.12, nearly half of the annual budget was appropriated for the improvement of sport infrastructure.

It is essential here to note that before the year 2000 the financial year in Taiwan started in July and ended in June the next year (e.g., in 1998-99 the financial year was from

July 1998 to June 1999). The financial system was changed in 2001 to start in January and end in December. Therefore, the financial year in 1999-2000 spanned 18 months.

The review of the Central Government budget appropriations to the NCPFS found that in the early stage, the lack of a special agency in the government system was the main impediment for the development of elite sport. The inception of the NCPFS since 1997 was the catalyst for improving national sport infrastructure, as more public resources were provided. For instance, the most recent government report (GIO, 2005), between 1998 and 2003 the NCPFS (through the Department of Sports Facilities) granted TWD\$ 4.7 billion to the city/county governments to renovate or build public sports facilities. These included 27 sport parks, 35 swimming pools, 48 county stadia, 62 community recreation centres, and 100 district playgrounds. Apart from upgrading sport infrastructure at various levels, the NCPFS also developed national approaches to promoting high performance sport. The next section outlines the elite sport development programs carried out by the NCPFS.

Elite athlete development programs

The Department of Competitive Athletics (DCA) is the only responsible unit in the NCPFS for elite sport. Given the role of the DCA involved all facets of tasks, the development of elite sport related programs were in the main through the enactment of administrative regulations. Since the inception of the NCPFS, the DCA built up a variety of sport regulations and measures to develop outstanding athletes (NCPFS, 2004a). These regulations in a way enable the NCPFS to establish mechanisms to legitimately channel government funding into city/county governments and private sport agencies (i.e., NSO) for operating elite athlete development programs.

In most cases, the elite sport development programs operated by the DCA can be categorized into four areas. These include *athletic training programs*, *general funding programs*, *special funding for targeted sports*, and *monetary incentive schemes*. **Figure 5.8** illustrates the four components of elite sport development programs operated by the DCA of the NCPFS. The following paragraphs describe these components in detail.

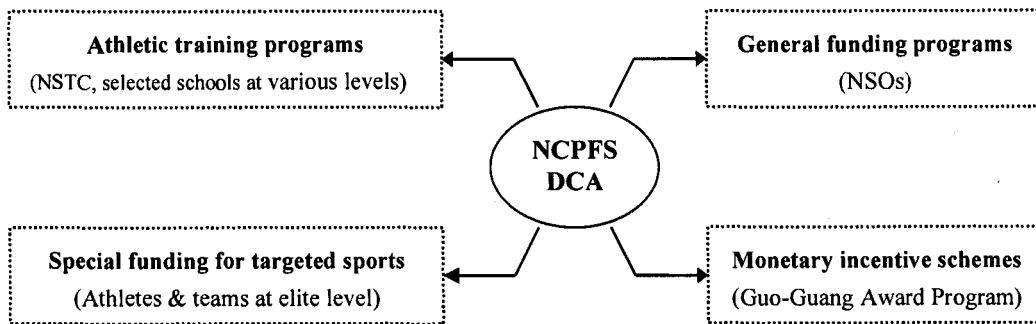


Figure 5.8 Components of elite athlete development programs in NCPFS

Athletic training programs

The lack of an integrated training system was one of the challenges facing the NCPFS. Since its establishment, a four-level athlete graded system was progressively developed based on the enactment of relevant regulations with a clear defined division of jurisdiction and staged training for the different grades of athletes (NCPFS, 2003). On the top level, the *National Sports Training Centre* (NSTC) is responsible for providing standard sports facilities and accommodations for elite athletes and teams to prepare them for Asian Games and the Olympics (NSTC, 2006). On the second level, pre-elite athletes and teams are trained in the physical education colleges and selected universities. On the third level, the training programs are operated in selected senior high schools across the country, by which developmental athletes are fostered. Similarly, on the basic level, the training camps are organized in selected junior high and primary schools to cultivate and search for talented athletes.

The four-level athlete graded training programs were carried out through the coordination and cooperation with NSOs and city/county government sport agencies (under the education departments). All of these training programs were economically supported by the NCPFS (mainly through the DCA) according to relevant regulations. The most recent official report (Known as *Challenge 2008 Golden Plan*) (NCPFS, 2006b) indicated that by 2005 there have been some 19000 athletes (students) participating in 876 training centres/camps (predominantly located in schools) at the different levels.

General funding programs

In order to provide financial assistance to NSOs for the improvement of training environment and operation of elite athlete development programs, the NCPFS enacted the regulations governing subsidies for private national athletic groups (NSOs). Under these regulations, at the beginning of each financial year NSOs were required to submit annual operational plans. Based on inspection of these, the DCA appropriated annual subsidies for NSOs to carry out various high performance activities such as elite athlete training and overseas competitions. These regulations were also designed not only to provide economic support to NSOs, but also to review their annual performances and administrative effectiveness.

Special funding for targeted sports

Apart from the enactment of regulations for governing and providing funding support to NSOs on a regular basis, the DCA also projected special funding and intensive training programs for targeted sports. These programs aimed to offer additional financial assistance to “qualified” athletes and teams to do intensive trainings and prepare for Asian Games and the Olympic Games. As a general rule, the DCA formulates the regulations governing selection, training, and participation in competition for coaches and athletes in national delegations. According to relevant regulations, NSOs are required to prepare a selection plan for inspection prior to performing the selection process and the training programs. The provision of special funding and administrative support are thus put into action for targeted sports. These programs enable selected NSOs to have sufficient funding for planning domestic and overseas intensive training and participate in international competitions for Olympic preparation (NCPFS, 2001).

Monetary incentive scheme

Dated back in 1983, a monetary incentive scheme, entitled the *Regulation governing the issuance of Guo-Guang athletic medals and scholarship* (Guo-Guang Award Program), was drafted and executed by the DPE to encourage elite athletes and teams to maximize their performances. For over two decades, the monetary incentive scheme in Taiwan was and still is considered the most important stimulant for attracting potential athletes to sustain their efforts and to achieve higher performances in international sport

competitions. However, it is a paradox that this monetary incentive scheme did not appear to improve Taiwan's results at the past Olympic Games.

The records showed that since the scheme was carried out, only two gold, five silver, and six bronze medals were attained. Notwithstanding, from 1983 to 2005, the government awarded more than US\$ 79 million and 9,000 Guo-Guang medals to athletes (and coaches) to recognise their achievements (GIO, 2006). In fact, the incentive scheme was amended seven times between 1990 and 2005, including increasing the amount of money for medal winners at the Olympics, modifying the process of awarding cash incentives, and terminating coaches' incentives. According to an amended regulation, a gold medallist at the Olympics may receive a total of TWD\$ 12 million as incentive (or TWD\$ 75,000 monthly for life), while a silver-medal winner may be awarded TWD\$ 7 million (or TWD\$ 38,000 monthly for life) (NCPFS, 2005).

Challenge 2008 Golden Plan

As a result of the Taiwanese team's best-ever performance at the 2004 Athens Olympics, for the first time, the NCPFS mapped out its Challenge 2008 Golden Plan with the Central Government's commitment to provide US\$ 34.5 million for special training programs. This Golden Plan selected 14 targeted sports and aims to recruit 500-600 potential athletes who had won international competitions to participate in this plan (GIO, 2005). The targeted sports selected in this plan are divided into three groups, including potential medal winning sports (taekwondo, judo, weightlifting, archery, shooting, table-tennis, badminton, softball), mainstream sports (athletics, gymnastics, and swimming), and sports for *marketing Taiwan* (baseball, tennis, and golf). The implementation of the plan was separated into two phases; the first phase covers two years from 2004 to 2006 and the second phase will end after the 2008 Beijing Olympic Games (NCPFS, 2006b).

Apart from the enactment of relevant administrative regulations and the provision of financial support, it is also of great importance for the NCPFS to build up organisational networks for the delivery of elite sport related programs around the country. The next section examines the existing networks for the development of elite athlete pathways in Taiwan.

Organisational networks

Despite the founding of the NCPFS, the government sport agencies at city, county and local level remained the same. Thus, it became critical for the NCPFS to develop its **alternative system* (see **Figure 5.9**) and encourage teamwork through non-government sport agencies for better outcomes.

	<i>Government</i>	<i>Non-government</i>
<i>National level</i>	<p>NCPFS DCA <i>*National Sports Training Centre</i></p>	<p>CTOC NSOs</p>
<i>City/county level</i>	<p>Department of Education Physical Education office/divisions <i>*Targeted sports training centres</i></p>	<p>City/County sports organisations</p>
<i>Local level</i>	<p>School facilities/sport clubs/teams in public/private schools <i>*Basic level targeted sports training camps</i></p>	

Figure 5.9 The existing organisational networks for elite sports in Taiwan

National level

Within the NCPFS, the DCA is the sole sport unit in charge of elite sport playing a vital role in the administration and management of competitive sport. Under this circumstance, it becomes crucial for the DCA to seek effective strategies through teamwork with the CTOC and NSOs, as well as to increase effectiveness and efficiency in the management of the current elite athletic training system (the four-level athlete graded system). The NSTC under the supervision and funding support of the DCA also share responsibility for carrying out elite training programs at this level.

The foundation of the NSTC dates back to the 1970s when the former responsible authorities, the Ministry of Education made a long-term agreement with the Department of Military Defence to use a military training centre (Tzuo-Ying Training Centre) for athletic training and preparation of international competitions (NSTC, 2006). Before the establishment of the NCPFS, the Tzuo-Ying Training Centre was operated by the

Republic of China Sports Federation (ROCSF) for the execution of elite athlete training programs with the DPE funding support (as shown in **Figure 5.6**).

Since 1997, the NCPFS (through DCA) became responsible for the operation of this training centre (as shown in **Figure 5.7**) under the supervision and funding support from the NCPFS (NSTC, 2006). In the year 2000, this centre was renamed as NSTC and worked closely with the DCA and NSOs for the selection, training, and preparation of elite athletes and teams for participating in the Asian Games, the Olympic Games, and other international competitions.

The National Olympic Committee (NOC) in Taiwan – the Chinese Taipei Olympic Committee (CTOC) – is a non-for-profit body officially recognised by the IOC. Like the NOCs in other countries, the mission of the CTOC is to promote the Olympic Movement in Taiwan and send an elite sport delegation to the Olympic Games, in accordance with the charter of the IOC. The CTOC works closely with a number of international sport organisations, such as the Olympic Council of Asia (OCA) and the General Association of International Sports Federations (GAISF). Under the Central Government's jurisdiction and financial assistance (mainly through the NCPFS), the CTOC works closely with the NCPFS to deal with international sport affairs. For example, apart from the Olympic Movement, the CTOC assists in the participation in the Asian Games, East Asian Games and other IOC recognised games. It also helps NSOs handle overseas sports information and international sporting exchanges. At the same time, the NSOs manage their sports to foster potential athletes based on the relevant regulations and elite sport programs.

City/county and local level

At these two levels, the elite sport related programs are mostly carried out through the coordination between the DCA and DOE (P.E. office or division) of city and county governments. To provide guidance and funding for training developmental elite sport, the DCA selected targeted sport and set up the locations for middle and basic level targeted sport training (NCPFS, 2004). For the most part, the training centres/camps were located in schools depending on the accessibility of training facilities. The role of

the city/county sport organisations within the networks was in the provision of coaching expertise and services and the staging of sport events at city/county level.

Summary

This section outlined the results of the documentary analysis with regard to the profile of the NCPFS and the mechanism established for elite sport development. It presented the organisational structure, staffing, policy administrative plan and sports policy direction, and public funding allocation to sport. It also discussed the elite sport development programs and organisational networks for elite sport. The next section juxtaposes and compares the findings from the documentary analyses between the ASC and the NCPFS based on the outcomes of previous descriptions and discussions.

Comparison of the ASC and the NCPFS

Earlier evidence indicated that since the introduction of the AIS in 1981 and the ASC in 1985, Australia has showed a steady increase in the number of medals gained at the Olympics. By contrast, the NCPFS was not founded until 1997, making it a much younger organisation than the ASC. Perhaps, this is why Taiwanese athletic performance has not made comparable progress. In tracing developments of the NGESS in the two countries, the preceding sections provided comprehensive *description* and *interpretation* of the ASC and the NCPFS in relation to: organisational structure, staffing, policy and strategic direction, funding allocation, elite athlete related programs, and organisational networks. The next sections build on the explanatory evidence to further examine and compare the similarities and differences of the two agencies.

Organisational size

There are various ways to measure and compare the size of sport organisations, for example, the physical capacity, the discretionary resources, and/or staffing (Kimberly, 1976). Notwithstanding, Slack (1997) suggested that using available personnel of an organisation as a measure of size is the best and most common approach, as it provides a comparable standard between organisations. Thus, the exploration of organisational

size is based on this theoretical assumption. **Table 5.13** juxtaposes the staffing in the ASC and the NCPFS between 1997 and 2005.

Table 5.13

Comparison of staffing in ASC and NCPFS 1997-2005

Year	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05
ASC	422	410	410	378	384	453	458	655
Year	1997/98	1998/99	1999/00	2001	2002	2003	2004	2005
NCPFS	107	117	117	111	100	114	99	107

Note: The number of staff included full-time, part-time, and casual employment in the ASC, and formal and contract employees in the NCPFS.

It is clear that the ASC had a much larger number of employees than the NCPFS. The number of employees in the NCPFS remained about the same (between 99 and 117) since its establishment. By comparison, the engagement of personnel in the ASC fluctuated during the same period and in particular between 2000 and 2005. The number of employees, while downsized in 2000/01 (n=378), it significantly boosted in 2004/05 (n=655) due to the recruitment for a new project (i.e., Active After-school Community program). It is estimated that the staffing ratio between 1997 and 2004 was about 4:1 (the ASC : the NCPFS) and it increased to 6:1 in 2005.

Table 5.14 juxtaposes the staffing in the respective units responsible for sport between the ASC and the NCPFS in 2005. By comparison, it is observed that the five major departments of the NCPFS were much smaller than the three core units of the ASC. Specifically, only 59 personnel (including contract workers) were assigned in these NCPFS departments to deal with all kinds of national sport affairs, while in the ASC there were a total of 478 personnel (including part-time staff) within the three main units to share different responsibilities for Australian sport. Comparing available personnel in the elite sport unit, not surprisingly, Australia's AIS (n=193 in 2005) it was approximately 16 times difference between the AIS to that of the DCA of the NCPFS (n=15 in 2005). As a result of this striking contrast, it can be argued that the lack of human resources to handle elite sport development tasks could be one of the major factors affecting the high performance outcomes for Taiwan.

Table 5.14***Comparison of staffing in the core units, in NCPFS and ASC 2005***

NCPFS	Staff	ASC	Staff
Department of Competitive Athletics	13 (2)	Business Operation	192 (38)
Department of Public Sports	11 (3)	Australian Institute of Sport	175 (18)
Department of Sports Facilities	8 (2)	Sport Performance & Development	52 (3)
Department of International Sports	9 (1)		
Department of Planning	7 (3)		
Total	48 (11)		419 (59)

Note: Numbers in parentheses denote contract staff in the NCPFS and part-time staff in the ASC.

In terms of geographic distribution of personnel, earlier evidence showed that all employees of the NCPFS were allocated to the central office in Taipei City, while the ASC had about 25 per cent of staff allocated to different states and territories, and 75 per cent working at the headquarters in Canberra (see Table 5.2 in the earlier section).

A number of organisation theorists (Meyer, 1972; Slack, 1997) contended that organisational size can be one of the key influences affecting organisational structure. For example, a study by Meyer (1972) on size/structure relationship found that organisational size had direct impact on the number of units (and sub-units). As well as the size/structure relationship, organisation theorists suggested that the formulation of organisational policy and strategy is also an essential determinant that influences organisational size and structure (Slack, 1997). On the basis of this presumption, the following section examines and compares organisational structure between the ASC and the NCPFS. The possible impact of the policy formation and strategy formulation on organisational size and structure between the two agencies is also examined and compared.

Organisational structure

Table 5.15 juxtaposes the level of hierarchy (vertical structure) between the ASC and the NCPFS according to documentary evidence derived from organisational charts (see **Appendix L**, ASC organisational chart and **Appendix N**, NCPFS organisational chart). From the Minister down to particular divisions and sub-divisions, the ASC had a 7-level

hierarchy in its managerial structure in 2005. In comparison, the NCPFS had six-levels of administrative hierarchy. Despite the similarity in the levels of hierarchy, in fact, they were very different in horizontal structure. The ASC had more number of sub-units and divisions than the NCPFS.

Take the structure of the AIS for example. On level 5, there were 3 sub-units under the AIS, i.e., *Sport Programs Planning and Evaluation*, *Athlete and Coach Services*, and *Technical Direction*, responsible for specific programs. On level 6, 10 divisions were organized under these 3 sub-units. For example, Canberra residential programs, state-based residential programs, national camps programs were structured under the *Sport Programs planning and Evaluation* unit to deal with elite athlete training and development programs (see **Appendix L** the ASC organisational chart for details). By contrast, in the NCPFS, a total of 14 sections (level 5) were organized under the 5 major departments (level 4); nevertheless, on level 6 no specific divisions were structured under the 14 sections, except for job definitions for respective sections.

Table 5.15

Comparison of the hierarchical structure in ASC and NCPFS 2005

ASC	Hierarchy	NCPFS
Minister	Level 1	Minister
ASC Board	Level 2	Deputy Ministers
Chief Executive Officer	Level 3	Chief Secretary
Director/General Managers (Three core units)	Level 4	Directors (Five major departments)
Managers/officers of sub-units (17 sub-units under three core units)	Level 5	Heads of sections (sub-units) (14 sections under the five departments)
Managers/officers of division (46 divisions under the 17 sub-units)	Level 6	Members of sections (no separate division under the sections)
Managers/officers of sub-divisions	Level 7	—

(Source: Based on the ASC and the NCPFS organisational chart, see **Appendix L** and **Appendix N** for details).

Apart from the comparison of the vertical and horizontal structure between the two agencies, it is important here to note that the Board (Council Member Meeting) of the NCPFS was excluded in the juxtaposition of the hierarchical levels (as shown **Table 5.15**). An examination of the functions of the Boards of the ASC and the NCPFS

disclosed that, while they operate under the respective Sport Minister, the role of the ASC Board (and members) was markedly different from that of the Council within the NCPFS. **Table 5.16** juxtaposes the structure and functions of the Board between the ASC and NCPFS. The ASC Board members are paid positions appointed by the Sport Minister to take responsibility for directing and overseeing a range of the ASC policies and programs.

Unlike the ASC, the Council members of the NCPFS are voluntary appointments, and serve as an advisory council, selected by the Premier of the Executive Yuan to assist in the policy-making process. Apart from attending the monthly council meetings (chaired by the Sport Minister or the deputy ministers) to provide policy recommendations through the meeting, the NCPFS council members are not directly involved in the administration and management. According to the NCPFS Organisational Statutes, it is the three Deputy Ministers and Chief Secretary (appointed by the Sport Minister) responsible to the Sport Minister and overseeing the implementation of specific projects and programs.

Table 5.16

Comparison of board structure and functions in ASC and NCPFS

	ASC Board	NCPFS Council
Statute	ASC Act 1989	Organisational Statute
Appointer	Sport Minister	Premier (The Cabinet)
Position	Paid position	Unpaid position
Responsibility	Governing body	Advisory body
Meeting	Taking place as necessary	Monthly meeting
Chair	Chairperson	Sport Minister
The number of members	13 commissioner (2005)	19 members (2005)

The next section examines the similarities and differences in policy and strategic direction between the ASC and the NCPFS. It compares the major objectives set out in their strategic/policy plans. It also outlines the possible impact of policy formation on the organisational size and structure. The comparison of government budget allocation to the two agencies is explored in subsequent sections.

Policy and strategic direction

Table 5.17 juxtaposes the policy direction and major objectives between the ASC and the NCPFS. The comparison shows that the ASC had the four-year strategic plans (based on federal sports policy) with common objectives that focused on “excellence in sport performance” and “improved participation”. In contrast, the NCPFS had Four-wheel Drive Plan in the initial stages (1997-2000) to provide a broad policy direction to guide operational planning for elite sport. Since 2001, however, five major objectives (mirrored in the tasks of five major Departments) were set in the four-year administrative policy plan.

Table 5.17

Comparison of policy direction and major objectives in ASC and NCPFS

Policy direction	ASC	Policy direction	NCPFS
	Major objectives		Major objectives
1994-1997 Strategic Plan	<ul style="list-style-type: none"> ▪ Excellence in sports performance by Australians ▪ Increased participation in sport and sports activities by Australians 	1997-2000 Four-wheel Drive Plan	<ul style="list-style-type: none"> ▪ To build a comprehensive set of sports laws, regulations, policies, systems, projects, measures and activities ▪ To upgrade the training of potential athletes and recruit volunteer workers
1998-2001 Strategic Plan	<ul style="list-style-type: none"> ▪ Excellence in sports performance by Australians ▪ The development and maintenance of an effective national sport infrastructure ▪ Improved participation in quality sport activities by Australians 		<ul style="list-style-type: none"> ▪ To strengthen infrastructure construction, and to build and improve athletic fields, gymnasiums, community recreational areas and free-access recreation and exercise facilities ▪ To enhance research and development in athletics, sports science and technology and to encourage and sponsor sports activities
2002-2005 Strategic Plan	<ul style="list-style-type: none"> ▪ To secure excellence in sports performance by Australians ▪ To secure an effective national sporting system that offers improved participation in quality sports activities by Australians 	2001-2004 Administrative policy plan	<ul style="list-style-type: none"> ▪ To improve citizens' physical fitness ▪ To increase elite sports competitiveness ▪ To build up quality sports environment ▪ To integrate national resources ▪ To enhance international sporting exchange

Furthermore, the juxtaposition of the major objectives set out in the policy direction and the ASC and the NCPFS found that the ASC has a more focused objective for elite sport development than the latter. Despite having dual goals of elite support and mass participation, the ASC seemed to have a clear goal aiming to use both top-down and bottom-up approaches to promote high performance sport. By comparison, the major objectives set out by the NCPFS under the Four-wheel Drive Plan and Administrative policy plan were varied, with more emphasis was placed on the improvement of sport infrastructure and public fitness.

On close examination of the impact of policy formation on organisational structure and size, the examination of relevant documents revealed that under the ASC Act 1989 (ASC, 1989, p. 6), “the Commission has powers to do all things necessary or convenient to be done for, or in connection with, the performance of its functions...” (Section 8, Article 1). Furthermore, the Act (ASC, 1989, p. 23) indicated that, “The Executive Director may, on behalf of the Commission, employ such persons as the Commission considers necessary for the performance of its functions and the exercise of its powers” (Section 41, Article 1). Accordingly, the ASC Board and the Executive Director have authority to adjust internal structure and recruit professionals from different areas to fit in with the practical need.

In contrast to the ASC’s administrative autonomy, the structure of the NCPFS was strictly formed under the Organisational Statute. Additionally, more than 90 percent of formal employees (public servants) were engaged in compliance with the civil service hiring laws. These distinctions resulted from the organisational statutes to some extent explain why the number of employees in the ASC fluctuated from time to time, while the staffing in the NCPFS did not make obvious changes since its inception.

In addition to the differences in the policy formation and strategic direction, it is observed that some dissimilarities in relation to the implementation of strategic/policy plans and funding allocation are also found between the two agencies. The next sections compare government funding allocation between the two agencies.

Government funding and allocation

Table 5.18 juxtaposes the annual budget of the ASC and the NCPFS between 1998 and 2005 in US dollar. As earlier indicated, the ASC annual budget noticeably increased in the last decade and the NCPFS also received steady financial support from the Central Government since 1998. The NCPFS annual budget was distributed to the five main departments in accordance with the major objectives set in the Mid-term Administrative Policy Plan. In contrast, the ASC funding was based on the four-year strategic plan in conjunction with Federal policy direction.

Table 5.18

Comparison of annual budget between ASC and NCPF 1998~2005

Year	ASC (US\$)	Year	NCPFS (US\$)
1998/99	56,894,157	1998/99	91,659,902
1999/00	67,305,785	1999/00	*134,004,001
2000/01	53,474,307	2000/01	74,070,860
2001/02	79,252,225	20/02	81,610,991
2002/03	79,406,374	2003	82,080,568
2003/04	86,561,445	2004	89,614,775
2004/05	109,217,170	2005	80,763,166

(*Note: the NCPFS financial year in 1999-200 spanned 18 months)

Despite the fact that the two agencies received comparable financial support from their Federal/Central Governments, previous evidence also showed that the annual budget of the NCPFS was increasingly disbursed for improving sport infrastructure at various levels (through the Department of Sports Facilities). The appropriation to this department between 1998 and 2005 increased from 23 per cent in 1998/99 financial year to 48 per cent in 2005 (see **Table 5.12** in the earlier section).

In contrast with the NCPFS in this regard, there is little evidence that the ASC had any programs to fund facility construction at state and local level in recent years, with the exception of the funding for operation and maintenance of the facilities located in Canberra. Previously, it was acknowledged that, in Australia, the main providers of sports facilities were sub-national authorities. A recent official report produced by the

House of Representatives Standing Committee on Environment, Recreation and the Arts (Commonwealth of Australia, 1997, p. vii) stated that:

The Commonwealth Government's role in providing significant support for sport and recreation is fairly recent. In the last 25 year, however, it has contributed through a number of different programs to the construction of facilities at all levels, ranging from international to community standard, as well as to programs for the development of athletes. At present no Commonwealth funds are provided for sporting and recreational facilities: none has been available for community facilities since 1994, and none for elite facilities since the final contribution promised by the Commonwealth Government for Olympic facilities in Sydney was paid in 1995/96.

Table 5.19 juxtaposes the funding allocation for elite sport in the ASC and the NCPFS in US dollar based on their respective four-year strategic/policy plan, specifically, the ASC 2002-2005 Strategic Plan and the NCPFS 2001-2004 Administrative Policy plan. The numbers demonstrate a similarity between the two agencies in the total funding for the four-year strategic/policy plan, but a marked difference in the funding proportion for elite sport.

Table 5.19

Comparison of government funding for elite sport in ASC and NCPFS

ASC 2002-2005 Strategic Plan				NCPFS 2001-2004 Policy Plan			
Year	Annual budget (US\$)	**Elite sport (US\$)	* (%)	Year	Annual budget (US\$)	***Elite sport (US\$)	* (%)
2001//02	79 252 225	58 676 518	74	2001	74 070 860	18 942 308	25
2002//03	79 406 374	67 968 091	85	2002	81 610 991	17 954 418	22
2003//04	86 561 445	71 334 020	82	2003	82 080 568	22 982 559	28
2004//05	109 217 170	79 160 305	72	2004	89 614 775	24 195 989	27
Total	353 437 214	277 139 934			327 377 194	84 075 274	

Note: *The proportion of total budget to elite sports.

** The annual budget allocated to objective 2: to ensure excellence in sports performance by Australian.

*** The annual budget allocated to the Department of Competitive Athletics of the NCPFS.

It is clear that the two agencies had comparable financial support from the respective Federal/Central Governments during the four-year policy and strategic plan, approximately US\$ 353 million for the ASC compared to about US\$ 327 million for the

NCPFS. However, during its 2002-2005 strategic plan, the ASC invested more than US\$ 277 million in continuing the enhancement of high performance sport for Australia, while for the years 2001 to 2004, the NCPFS spent roughly US\$ 84 million on elite sport development for Taiwan. A further comparison of the proportion of funding to elite sport indicated that the ASC allocated more than 75 per cent of annual budget on elite excellence, while the NCPFS provided only some 25 per cent of funding to develop elite sport.

The evidence suggested that the ASC expended three times the amount of money for elite sport advancement than the NCPFS. The way in which these funds were used could be expected to have significant influences on the formation and operation of elite sport development programs as well as the respective elite sport outcome for each country.

The foregoing sections examined and compared the ASC and the NCPFS in terms of their organisational structure, staffing, policy direction, and funding allocation. The next sections focus on the analysis of similarities and differences in the implementation of elite sport development programs between the two agencies.

Elite athlete development programs

Earlier evidence suggests that the elite athlete support system in the ASC was constructed through a variety of programs. These programs in general entailed athletic training, athlete support and services, financial assistance, and technical support (as shown in **Figure 5.2**). It is observed that the majority of the programs related to elite athlete development were operated under the AIS by delivering technical support and integrated services for pre-elite and elite athlete development. Examples include the AIS scholarship program, the Canberra and state-based residential programs, the National Talent Search program, the National Athlete Career Education, the National Elite Sport Research Program, and the National Laboratory Standard Assistance Scheme. Additionally, some other elite sport programs in relation to providing expert advice and managing the Government's grants to NSOs were operated by the Sport Performance

and Development unit (SPD), for example, the Direct NSO Servicing, the Direct Athlete Support, and Governance and Management Improvement program.

In contrast with the ASC's "direct" involvement in a variety of programs for high performance sport, the elite sport development programs conducted by the NCPFS appeared to be "indirect". As earlier noted, in the NCPFS the programs relating to elite athlete development were mostly undertaken by the DCA and operations were based on the enactment of administrative regulations. Despite the fact that these regulations covered a range of financial assistance schemes for operating training programs at various levels, it appeared that the main function of the DCA was limited to deal with the administration and appropriation of public funding to other government and non-government sport agencies for conducting elite sport programs.

Table 5.20 juxtaposes the major programs for elite sport conducted by the ASC and the NCPFS. The juxtaposition of the elite sport development programs between the two government sport agencies found that there is a striking difference in terms of four key areas, namely athlete support and services, athletic training, financial assistance, and technical support.

Table 5.20

Comparison of elite athlete development programs between ASC and NCPFS

Key areas	ASC	NCPFS
Athlete support & services	<ul style="list-style-type: none"> - AIS scholarship program - Direct Athlete Support - Athlete Career Education 	<ul style="list-style-type: none"> - Monetary incentive scheme (i.e., Guo-Guang Award Program)
Athletic training	<ul style="list-style-type: none"> - AIS residential programs - State-based residential programs - Intensive Training Centres 	<ul style="list-style-type: none"> - The four-level athlete graded training through NSTC and schools system
Financial assistance	<ul style="list-style-type: none"> - Sport Assistance Scheme - Direct NSO Servicing - Special programs for targeted sports 	<ul style="list-style-type: none"> - General funding to NSOs - Special funding for targeted sports (through NSOs)
Technical support	<ul style="list-style-type: none"> - National Talent Search Program - Elite Sports Research programs - Laboratory Standards Assistance - Sports science and sports medicine 	<ul style="list-style-type: none"> - Research incentive scheme

In terms of the provision of athletic support and services, it is clear that the monetary incentive scheme was the only “scholarship” and the most important support that the NCPFS provided to elite athletes and teams. Paradoxically, such an incentive is not obtainable until (unless) they became top level athletes in their fields and/or have won medals in international competitions. In contrast with offering monetary incentives, the ASC awarded scholarships to pre-elite and elite athletes after they are “qualified” to attend national training programs. In addition to the financial aid for living costs and overseas competition expenses, these scholarship holders may also receive other services throughout their participation in training programs, such as access to international standard facilities, high quality coaching, and career education and planning.

Another noticeable difference found is related to the provision of technical support (as shown in Table 5.20). Earlier evidence indicated that the ASC employed specialists from different fields working in the AIS to direct diverse research schemes (e.g., talent identification) and provide technical advice to the AIS, NSOs and state-based institutes to assist in the selection and training progress. Unlike the ASC, the appointment of personnel in the NCPFS was restricted to civil service hiring laws. A lack of professionals in this field was one of the reasons that the NCPFS was not involved in sports science and research programs. According to documentary evidence, seeking professional assistance from high education institutes through incentive schemes was the government agency’s present solution to this problem.

The comparative analysis of the elite athlete development programs revealed that while both agencies supported high performance sport by providing financial aid and services, the ASC had a more comprehensive system to deliver public support and services to elite sport community. This was mostly because the ASC had a more flexible mechanism (e.g., in terms of the employment of professional staff) to manage a range of elite programs (by virtue of its semi-autonomous organisational character).

In contrast, the operation of elite sport programs within the NCPFS seemed to be subject to its organisational structure and the personnel available for carrying out elite sport programs. As a consequence, more often than not, the NCPFS had to enact

relevant regulations and used third parties (e.g., NSOs and school systems) to deliver national sports policy outcomes. The next section compares the elite sport national networks between Australia and Taiwan. For the purpose of this study, the focus of the analysis is on the government sector.

Organisational networks

Table 5.21 juxtaposes the organisational networks at national, middle, and local levels in Australia and Taiwan. In principle, it showed that both countries have a three-tier organisational network for elite sport development. In practice, Australia appeared to have a comprehensive organisational framework, in which the three levels of government shared responsibilities for elite athlete development pathways; by contrast, this did not seem to be the case in Taiwan.

Table 5.21

Comparison of organisational networks for elite athlete development

	Australia		Taiwan	
	Government	Non-government	Government	Non-government
National level	ASC/AIS	AOC/NSOs	NCPFS/DCA (NSTC)	CTOC/NSOs
Middle level	DSR SIS/SAS ITCs	SSOs	DOE Physical education offices/divisions <i>Targeted sports training in schools</i>	City/county sports organisations
Local level	Regional academies/institutes for sport Community organisations & clubs Public/private schools		Public/private schools <i>Targeted sports training camps in schools</i>	

In Australia at the local level, as earlier noted, a long-standing club-based system for community sport was available for different groups of people. At the same time, in responding to the need of space and facilities for sporting activities, the local government took responsibility in the provision of required sport infrastructure. At middle level, each state and territory governments has a department responsible for sport and recreation (DSR) alongside a state-based institutes/academies (SIS/SAS) for elite sport working closely with state sport organisations (SSOs) in order to deliver services and support for elite athlete in respective administrative regions. At national

level, it is clear that the AIS is the centre for high performance sport, in which the Federal funding and assistance are provided through a range of elite sport development programs.

By comparison, in Taiwan, despite the fact that the NCPFS was established to undertake a mission for developing elite sport at national level, it was clearly evident that the lack of responsible sport agencies at middle level was a major impediment faced by the NCPFS. While physical education divisions/offices of the Department of Education (DOE) of the city/county governments supported the implementation of elite sport programs at the middle level within school systems (i.e., targeted sports training centres and training camps), doubts arose between the NCPFS and the Ministry of Education regarding the jurisdiction and structural relationship between the administration of education (Taipei Municipal Physical Education College) and sport.

In contrast with the problems faced by the NCPFS in terms of the structure of organisation for elite sport, it can be argued that the most visible achievement in Australia's elite sport system was the development of elite athlete development pathways at all levels outside the school systems for Australians who have athletic ability and aspiration to gain access to specialized training, high performance coaching, and access to sports facilities.

Chapter Summary

This chapter examined and compared the profile of the ASC and the NCPFS based on the documentary evidence. It scrutinized the two agencies in detail regarding: organisational structure, staffing, policy/strategic direction, funding allocation, elite sport programs, and organisational networks. It also juxtaposed and compared the similarities and differences between the two agencies. **Table 5.22** overleaf presents a summary of the profiles of the ASC and the NCPFS. The major findings from the comparative analysis are outlined as follows:

Staffing (organisational size): The ASC was empowered to recruit employees for the performance of its diverse functions because of its semi-independent feature. By contrast in the NCPFS, under the government bureaucracy, the number of employees and its recruitment were confined to civic service hiring laws. As a consequence, the ASC had a much larger number of employees than the NCPFS (see **Table 5.13** and **Table 5.14**); the staffing ratio was about 6:1 in 2005. The ASC had about 25 percent of staff allocated to different states/territories, while all employees of the NCPFS worked in the central office.

Organisational structure: Despite having similar levels of hierarchy between the ASC and the NCPFS, the ASC had larger number of subunits and working groups on lower levels compared to the NCPFS (see **Table 5.15**). On the top level, the Sport Minister of the NCPFS had more direct involvement in administration than the ASC counterpart. Compared to the Council of the NCPFS, the ASC Board had greater administrative autonomy (see **Table 5.16**).

Policy and strategic direction: The ASC and the NCPFS were markedly different in policy formation process and strategic direction. The ASC strategic direction was formed on a four-year cycle to direct policy priority and guide annual planning. The policy of the NCPFS was formulated under the Organisational Statute to guide annual administration. The ASC had more focused objectives than the NCPFS (see **Table 5.17**); the ASC four-year strategic plan consistently pursued twin goals (i.e., sport excellence and mass participation). The NCPFS undertook “additional tasks” of missions of sport infrastructure, international sport and national resource.

Funding allocation: The ASC and the NCPFS received comparable annual budgets between 1998 and 2005 (see **Table 5.18**); nevertheless, the ASC allocated much larger amount of funding to elite sport than the NCPFS (see **Table 5.19**). In recent years, the NCPFS allocated nearly half of annual budgets to construct sports facilities.

Elite athlete development programs: The ASC had a more integrated elite athlete development framework and more flexible mechanism to manage elite sport program

than the NCPFS (see **Table 5.20**). For example, the ASC offered scholarships and Athlete Career Education program to developmental athletes, while the Guo-Guang Award Program was the only incentive that the NCPFS provided to top level athletes.

Organisational networks: Australia had more comprehensive networks for elite sport development than Taiwan. In Australia, the three-level governments and sport organisations shared responsibilities for offering elite athlete development pathways. In Taiwan, the lack of sport agencies at the middle and local level outside the school system (**Table 5.21**) was an impediment.

The next chapter examines and compares the environmental influences on elite sport development in Australia and Taiwan based on documentary evidence.

Table 5.22

Summary of the profile of ASC and NCPFS: Documentary evidence

Components	ASC (since 1985)	NCPFS (since 1997)
Structure	<ul style="list-style-type: none"> ▪ ASC is a quasi-independent administrative agency under the DCITA portfolio of the Federal Government. ▪ Under the ASC Act 1989, the Minister for Sport appointed ASC Board to supervise and oversee ASC. The Board members are paid positions. ▪ The daily operations are headed by a CEO (Chief Executive Officer) who is appointed by ASC Board (see Figure 5.1). ▪ From Sport Minister down to particular sub-divisions, the ASC has a 7-level hierarchical structure (see Figure 5.16). ▪ ASC has three core units: AIS, BO, and SPD, 17 sub-units, 46 divisions and a number of sub-divisions (see Appendix N). 	<ul style="list-style-type: none"> ▪ NCPFS was established as a ministerial agency formed under the Organisational Statute. ▪ Sport Minister (Chairperson) and Council members are appointed by the Premier. ▪ The daily operations are directed by the Sport Minister, Deputy Ministers, and Chief Secretary. The Council is an advisory body and the Council members are voluntary appointments (see figure 5.5). ▪ From Sport Minister down to members of each section, NCPFS has 6 levels of administrative hierarchy (see Figure 5.16). ▪ NCPFS has five major departments (DP, DPS, DSF, DIS, and DCA), 15 sections. No specific division was formed under respective sections (see Appendix N).
Staffing	<ul style="list-style-type: none"> ▪ The CEO was authorized to employ staff for the performance of its diverse functions. ▪ 655 staff were engaged in ASC in full-time (n=596), part-time (n=25), and casual (n=34) positions. A total of 419 full-time and 59 part-time staff worked in the three core units (see Table 5.3). ▪ 465 staff worked in Canberra Headquarters and the remainder worked in other states/ territories (see Table 5.3). 	<ul style="list-style-type: none"> ▪ The employment of staff was subject to the civic service hiring laws; formal employees had to pass national public servant examination to be qualified workers. ▪ 107 staff were employed in NCPFS, including formal full-time staff (n=80) and full-time contract workers (n=27). Of the total, only 59 staff were assigned to the five major departments for sport and the remainder were responsible for general administration (i.e., personnel and accounting) (see Table 5.9). ▪ All staff worked in the central office in Taipei City.
Policy & strategy	<ul style="list-style-type: none"> ▪ The general objectives of ASC are twofold: to improve performance of Australians in sport and to increase mass participation. ▪ Since 1989, a four-year strategic plan in line with federal sports policy plan and a four-year funding cycle was formulated under the ASC Act 1989. ▪ The four-year strategic plan was designed to: signal priorities, allocate available 	<ul style="list-style-type: none"> ▪ Despite the enactment of the National Sport Acts in 1982, the Central Government policy on sport was not evident. ▪ NCPFS projected the first sports policy in its inaugural stage, entitled Four-wheel Drive Plan; under this plan four major strategies were framed by focusing on two goals: to promote sport for all and to accelerate elite sport competitiveness.

	<p>resources, guide internal management, and monitor performance process.</p> <ul style="list-style-type: none"> ▪ Since 1994, special policy programs were developed for Olympic preparation (e.g., Olympic Athlete Program and Beijing Athlete Program). ▪ In recent years, ASC focused on two objectives: <ul style="list-style-type: none"> - to secure excellence in sports performance by Australians - to secure an effective national sporting system that offers improved participation in quality sports activities by Australians. 	<ul style="list-style-type: none"> ▪ The four-year Mid-term Administrative Plans were developed in 2001, through which five major objectives were set up corresponding to the specific responsibilities of the five major departments as follows: <ul style="list-style-type: none"> - to improve the citizens' physical fitness - to increase elite sports competitiveness - to enhance international sporting exchange - to build up a quality sports environment - to integrate national resources
Budget & allocation	<ul style="list-style-type: none"> ▪ The Federal funding appropriated to ASC constantly increased since ASC was formed in 1985 (see Table 5.5). ▪ The budget allocation to sport was based on federal sports policy and the major objectives of ASC's strategic plan on a four-year basis (see Table 5.6). ▪ ASC budget was chiefly disbursed for high performance sport, e.g., under 2002-2005 strategic plan, more than three-quarters of the funding was appropriated for AIS and sport excellence programs. 	<ul style="list-style-type: none"> ▪ Prior to the founding of NCPFS, the Central Government funding for sport was allocated in DPE of MOE. The public funding for sport transferred from DPE to NCPFS since 1997 (see Figure 5.6, Figure 5.7, and Table 5.10). ▪ The budget appropriation to NCPFS was mainly distributed to five major departments and the proportion reflects the weight of the government policy direction (see Table 5.11). ▪ Since 2002 more than 46 per cent of budget was allocated to improve sports facilities, while about 22-28 percent of the funding was disbursed for elite sport (see Table 5.11),
Elite athlete development programs	<ul style="list-style-type: none"> ▪ The elite athlete development programs carried out by ASC consisted of four parts: athletic training (e.g., AIS and state-based residential programs), athlete support and services (e.g., AIS scholarship program and athlete career education), financial assistance (e.g., Sport Assistance Scheme), and technical support (e.g., Laboratory standards assistance scheme and elite sport research programs) (see Figure 5.2). ▪ AIS scholarship program was one of the major elite athlete development programs carried out since the inception of AIS in 1981. ▪ ASC developed Intensive Training Centres in 1989 for targeted sports located in 	<ul style="list-style-type: none"> ▪ Four key areas were constructed by DCA to develop elite athletes and prepare for the Olympics, including monetary incentive scheme, four-level athlete graded system, general funding support (to NSOs), and special funding and intensive training programs for targeted sport (see Figure 5.8). ▪ The monetary incentive scheme was drafted and executed by DPE in 1983 and is still regarded as an important stimulant for encouraging high performance sport. ▪ The four-level athlete graded system aims to foster potential athletes. In this system, NSTC was responsible for top level elite athlete training, while the training programs at other three levels were located in school systems.

	<p>capital cities in respective states.</p> <ul style="list-style-type: none"> ▪ Various elite sport development programs developed by ASC were consolidated by the Federal Government's initiative of Olympic Athlete Program in 1994 for preparing the 2000 Olympics. ▪ In 2005, Beijing Athlete Program (BAP) was initiated by ASC for Olympic preparation for the 2008 Olympics. 	<ul style="list-style-type: none"> ▪ The funding support to NSOs was based on the enactment of regulations and special funding and intensive training programs focused on the provision of additional funding for qualified elite athlete and teams. ▪ Due to the remarkable improvement of elite performances at the 2004 Olympic Games, for the first time, the Central Government made a commitment of special funding for NCPFS to develop the Challenge 2008 Golden Plan.
Organisational Networks	<ul style="list-style-type: none"> ▪ The organisational networks for elite sport were structured in line with the Australian three-tier political system and included special sport agencies in public and private sector at national, state, and local level (see Figure 5.3). ▪ At national level, ASC, AIS, NSOs, and AOC share responsibilities in specific areas and provide different support and services for elite sport development. ▪ At middle (state) level, each state and territory has a sport department and a sport institute responsible for elite athlete development pathways (see Table 5.8). ▪ At basic (local) level, local governments provide sports facilities and services to regional academies of sport and support community sport organisation and clubs ties for training programs. Public and private school teams work closely with local clubs for the connection of elite athlete pathways. ▪ Additional networks were constructed between Federal Sport Ministers and State Sport Ministers, ASC and DSR, AIS and SIS/SAS to facilitate communication and coordination mechanisms through the organisation of councils (i.e., SRMC and NESC) or standing committee (i.e., SCORS) (see Figure 5.4). 	<ul style="list-style-type: none"> ▪ At national level, DCA is the sole sport unit within NCPFS in charge of national elite sport development. The NSTC and NSOs under the supervision and funding support of the NCPFS share responsibility for elite athlete training programs. ▪ At middle and basic levels, each city and county government has a PE office or division under DOE to assist the coordination of the schools system and build up the middle and basic level targeted sports training centres/camps for elite athlete development pathways. ▪ The government and non-government sport agencies (i.e., NSOs and city/county sport organisations) at national and middle levels play key roles in providing coaching services and technical support within the networks. ▪ Because of a lack of the government sport agencies at city/county and local level, it became critical for NCPFS to develop elite athlete development pathways by working closely with school systems (see Figure 5.9) and encouraging teamwork through non-government sport agencies.

CHAPTER 6

Identifying Environmental Influences on Elite Sport Development in Australia and Taiwan: Documentary Evidence

Introduction

The previous chapter explored and compared the profiles of the national principal government sport agencies in Australia and Taiwan on the basis of documentary analysis. This chapter focuses on environmental influences affecting elite sport progress in the respective countries. The sources of evidence encompass a range of documents and literature obtained from each country, such as official documents, statistical reports, and literature pertaining to topics in question. These are supplemented by the researcher's personal experiences and observations. This chapter is divided into three main sections. The first section examines environmental influences on elite sport in the Australian context. Specifically, the seven environmental factors previously defined in Chapter 3 are discussed. These are: *geographical, demographical, political, economic, sociocultural, educational, and technological factors*. In the subsequent section, a similar structure is applied for the discussion in the Taiwanese context. The final section explores the similarities and differences of the possible impact that environmental influences have on Olympic performances in both countries. The general findings from the documentary evidence are used to assist in answering the two research questions in the study:

- *What environmental influences are perceived to affect the development of elite sport in Australia and Taiwan?*
- *What environmental influences affect the mechanisms of the NGESS in Australia and Taiwan?*

The Australian context

This section examines the environmental influences on elite sport development in the Australian context. The seven environmental factors are discussed in turn based on documentary analysis.

Geographic factors

- *Geographic factors refer to land size, geographic location, population distribution and density, weather conditions, and availability of sports facilities.*

Australia is the sixth largest country in the world in terms of land area. With a relatively small population size, its population density is among the lowest in the world, only 2.6 people per square kilometre (ABS, 2005a). It is not surprising that the huge land size and geographical location (in the Southern Hemisphere) once were deemed barriers that hindered the movement of national and international sport.

A government report to the Sport Minister in 1983 (Commonwealth of Australia, 1983, p. 18) noted that Australia's isolation from the rest of the world and the huge distances between major centres within the country imposed geographic and financial hardship on athletes in the participation of international and national competitions. These geographic barriers were reduced by more rapid air travel in general and by government financial assistance in particular.

On the other hand, Australia's geographic features cultivated people's interests in sport. Several more recent studies (e.g., Cashman, 1995; Light & Rockwell, 2005) attributed the country's elite sport progress to the advantages of rich natural resources (e.g., plenty of open space, an abundant of suitable coastline, and a temperate climate). A study on the history of successful development in competitive swimming in Australia by Light et al. (2005, p. 32), for example, stated that:

Prior to the merging of science with sport and growth in the political and economic importance of sport, Australia's climate, which allows year-round swimming, and the population's access to swimming pools, made a significant contribution to the development and standard of Australian Swimming.

In addition, Light et al. (2005, p. 33) noted that “a total of 85 per cent of Australians live within an hour’s drive of the coast, and the beach forms both a significant influence in the development of Australian children and a central icon of Australian culture.”

Aside from the influence of natural environment, there was evidence to indicate that over the past decades the three-tier of governments invested considerable funding in the construction of sport infrastructure (Commonwealth of Australia, 1997; Green et al., 2001). This has led to sports facilities being gradually built up and well distributed throughout the country.

A government inquiry into the funding of sports facilities by Causley (Commonwealth of Australia, 1997) indicated that since 1975 the Federal Government, through a number of different programs, has provided AUS\$ 286 million for the development of sports facilities, ranging from community recreation centres to international standard sports facilities. At the same time, the state and local governments spent considerably more funding than the Federal Government on this area. Specifically, the government report (Commonwealth of Australia, 1997, p. 18) pointed out that between 1979/80 and 1989/90, the state and local governments spent AUS\$ 2,463 million and AUS\$ 2,374 million respectively on sport infrastructure.

A similar result was found in the recent data issued by the ABS (ABS, 2005a), which indicated that in the financial year of 2000/01, while the state and local government spent AUS\$ 280.2 million and AUS\$ 997.5 million respectively on sport and recreation venues, ground, and facilities, the Federal Government expenditure was only AUS\$ 14.5 million. This evidence suggests that in Australia, the major providers of sports facilities are at sub-national levels of governments (Green et al., 2005; Shilbury et al., 2001). A government report explained the reason why the state and local governments allocated more of their budget than the Federal Government to sport infrastructure and noted that:

There is no constitutional impediment to the Commonwealth Government funding sporting and recreational facilities, but neither is there any obligation that it should. Constitutional responsibility for the provision of sport and recreation services rests with the states and territories. In practice, they share

this responsibility with Local Governments, which generally responsible for the provision of sport and recreation services at community level (Commonwealth of Australia, 1997, p. 15).

The foregoing examination of geographic influences found that conducive climate and natural environment were regarded as advantages of fostering Australians' interests in sport. Nonetheless, the state and local governments' long-term investment and support for the development of sport infrastructure to provide easy access to sport and recreation facilities were a major contributing factor that underpinned Australia's elite sport development.

Demographic factors

- *Demographic factors involve population size and ethnic composition.*

Australia is characterized by its cultural and ethnic diversity. The population of 20 million includes a minority of indigenous people (only 1 percent). The majority comprises early British migrants, European new settlers after World War II, and extensive immigration from many different countries in recent decades; the top 10 being UK, New Zealand, Italy, Vietnam, China, Greece, Germany, Philippine, India, and Netherlands (ABS, 2005b). The 2001 census figures indicated that approximately 22 per cent of Australians were born overseas (DFAT, 2005a).

Because of the diverse ethnic composition, it is not surprising that people from different backgrounds have opportunities to engage in a wide range of sports. Mosely, Cashman, O'Hara, and Weatherburn (1997) wrote that while British colonists formed the basis of Australia's sporting culture, immigrants from other countries added their sport traditions to enrich Australian sport. As a result of ethnic diversity, sport in Australia has a particular role in enhancing social cohesion and community (and national) identity.

Apart from the abovementioned demographic influences on Australian sport, it is essential to acknowledge that due to a small population size, Australia is aware of the importance of talent identification. As noted in Chapter 5, since 1994 the ASC has

carried out the National Talent Search Program (also known as the National Talent Identification and Development program) to “fast track” the development of potential elite athletes in a number of targeted sports (ASC, 2005). Rather than traditional selection processes through watching players in competition at local, regional, and state levels, a systematic and integrated process in cooperation with the state-based institutes and NSOs has been undertaken in recent years.

Political factors

- *Political factors refer to political parties' ideology and support and national/international political climate.*

The earlier evidence indicated that the boycott at the 1980 Moscow Olympics inevitably resulted in the Federal Government intervention in sport. The creation of the AIS in 1981 and the ASC in 1985 demonstrated a greater government concern for sport since the early 1980s. An official report published by the Australian Government in 1985 declared that “Sport is important to Australia and Australians – to our well-being, our self-esteem, our morale and patriotism. These are intangible things, but nonetheless vital to our quality of life and our reputation as a nation” (ASC, 1985a, p. xi).

Adair et al. (1997) indicated that since the 1980s the Australian Federal Government (Labour or Liberal Government) has come to view Olympic success as fundamental to both the nation’s prestige and their electoral popularity. A study by Semotiuk (1986) provided insight into the issue in terms of different philosophy and position taken by two major political parties (the Labour Party and the Liberal Party).

Semotiuk (1986) examined the level of the Federal Government involvement between 1972 and 1981 (specifically, the Labour Government from 1972 to 1976 and the Liberal-led Coalition Government from 1976 to 1981). This study indicated that while both political parties considered sport important enough to develop policies on agenda, the Labour government tended to be more actively involved and allocated a higher priority to sport than the Liberal counterpart during their administration.

A similar result was found in a more recent study by Green et al. (2005). In investigating the process of Australian policy on elite sport, they wrote that “Throughout the 1970s and early 1980s Liberal-led Coalition and Labour administrations exhibited somewhat divergent philosophies towards sport as a policy sector, with the former generally adopting a more non-interventionist approach than the Labour Party” (Green et al., 2005, p. 38) Yet, their further analysis pointed out, “from the inception of the AIS in 1981 and the ASC in 1985, the policies of Australia’s two dominant political parties converged in the prioritization of international sporting success” (Green, 2007, pp. 941-942; Green et al., 2005, p. 38).

It is clear that since 1980s the sustained promotion of high performance sport has become a bipartisan policy. Thus, the continuing support from the Federal Government over the last two decades has enabled the national sport agencies to develop their strategic plans in elite sport-related programs (Green, 2007; Green et al., 2005). Green et al. (2005, p. 2) observed that, “Importantly, a large degree of political consensus across the country’s two main political parties underpinned these developments. What has emerged in the intervening years is a systematic, planned and increasingly scientific approach to developing the country’s elite athletes.”

Economic factors

- *Economic factors refer to sources of funds from three levels of government and corporate sponsorship.*

Previously, in the exploration of the Federal Government appropriations to the ASC, it was found that the annual budget was increased from AUS\$ 90 million in 1997/98 to AUS\$ 145 million in 2004/05. It is intriguing to acknowledge how much funding the three levels of government spent on sport. **Table 6.1** illustrates the Australian three levels of government funding for sport and recreation in the financial year of 2000/01 as an example.

Table 6.1**Government funding for sport and recreation 2000/01, Australia** (AUS\$ million)

Category of funding	Level of government \$			Total \$	Proportion %
	Federal	State	Local		
Administration & regulation					
Administration, policy & planning	29.8	74.2	37.3	141.2	6.6
Regulation & control	39.7	20.3	4.6	64.6	3.0
Total	69.5	94.4	41.9	205.8	9.7
Venues, grounds & facilities					
Venues & sports grounds (a)	14.5	185.8	410.1	610.5	28.7
Recreation parks & waterways	--	94.4	578.4	681.8	32.1
Total	14.5	280.2	997.5	1,292.2	60.8
Participation & special events					
Participation by clubs, teams & individual	2.4	67.0	6.5	75.9	3.6
Special events (b)	77.0	347.9	--	451.9	21.3
Total	79.4	441.9	6.5	527.8	24.8
Other services					
Horse & dog racing	--	22.5	n.a.	22.5	1.1
Coaches & training	24.4	26.5	n.a.	50.9	2.4
Other support services	11.2	9.6	n.a.	20.8	1.0
Total	35.5	58.6	4.2	98.4	4.6
Total AUS\$	198.9	875.2	1,050.1	2,124.2	100

(a) Includes funding for the 2000 Sydney Olympic and Paralympic Games venues.

(b) Includes funding for the 2000 Sydney Olympic and Paralympic Games, excluding venues.

(Source: 1301.0 – Year Book Australia, ABS, 2006)

Note: some figures do not add up to totals, but are as statistics original.

By comparison, it was found that state governments allocated the relatively greater proportion of money to participation and special events (AUS\$ 441.9 million), compared with the Federal and local government. While the expenditure on coaching and training was shared by the Federal and state governments, and local governments did not provide any funding for elite training programs. As earlier noted, local governments have been the major providers for sports facilities, and thus it is not surprising that the local governments spent the largest amount of budget on venues, grounds and facilities.

In terms of corporate sponsorship for sport, Stewart (1985) indicated that in the 1970s and early 1980s Australian sport underwent a number of changes, such as a growing professionalism in administration and coaching and advances in sports science; and a greater public and government concern for sport excellence. Importantly, these changes led to the need for sport organisations to seek additional financial aid in order to satisfy

organisational demands. In general, financial sources can be government grants, fund raising, or corporate sponsorship. According to the ABS Business Generosity Survey (ABS, 2005), during 2000/01 sport and recreation activities received AUS\$ 628 million funding support from private sector business. This comprised AUS\$ 480 million of sponsorship, AUS\$ 109 million of donations, and AUS\$ 39 million of business-to-community founded projects.

Sociocultural factors

- *Sociocultural factors refer to sporting culture and tradition, the role of sport in society (i.e., value systems).*

Stewart et al. (Stewart et al., 2004, pp. 13-14) pointed out that “By the beginning of Australia’s federation, in 1901, sport had become a taken-for-granted part of its popular culture.” Cashman (2002, p. 238) claimed that for many Australians, “sport is their inherent right and is their birthright, as it was one of the most prominent and authentic forms of Australian culture at the time of the birth of the nation.” Farmer et al. (1996, p. 1) had previously observed Australians’ obsession about sport and said that: “To be an Australian and not have some involvement in sport is almost considered unpatriotic.”

Numerous studies portrayed Australia’s strong sporting culture and Australians’ obsession with sport (e.g., Booth et al., 2000; Cashman, 1995; Daly, 1985; Stoddart, 1986). In the Report of the Australian Sports Institute Study Group, Dr Alan Coles wrote that:

The combined tentative evidence from economists, historians and sociologists would certainly indicate that an enormous amount of time and money was spent on sport - thinking it, talking it, reading and writing about it, saving and spending for it, watching and doing it and above all “loving it” (Coles, 1975, p. 4).

Daly (1985, p. 15) described Australia’s grass roots sport tradition and sporting lifestyle and noted that “Community sport is available to anybody and everybody. ... Saturday afternoon inter-community sport is a well-enshrined practice in Australia that cater for large numbers of the population and encourages local support and interest.” Similarly,

Jenkinson et al. (2003, p. 21) illustrated that “For the majority, the Saturday afternoon holiday became a chance to watch or to play sport.”

Oldenhove (1996) noted that traditionally, sport clubs are the basis for sport delivery that cater mainly for competitions, ranging from modified, graded, and social levels. Farmer et al. (1996) stated that despite a small population size, over 150 sports are actively played in the country and the sport clubs can be easily found in all communities. According to the statistics issued by the ABS (2005), there were 1,937 sport clubs, 1,259 sports and physical recreation support services, 755 sports administrative organisations, and 630 government organisations providing sport and recreation services. These figures suggest that many Australians are actively participating in sport. A survey conducted by the ABS (2005) showed that in the year 2002, 38.6 per cent of Australians participated in sport activities at least weekly. The participation rate was highest for the 18-24 year age group (72.6 percent); however, the rate for persons aged 65 years and over also reached 45.6 percent.

Sport provided entertainment for a significant number of Australians to develop relationships with others; it also helped to promote national pride (Adair et al., 1997), 1997). For example, Cashman (1995) indicated that in Australia, sport had a function in reducing tensions from different ethnic groups and building a broader common ground of community identity. Similarly, Booth et al (2000) pointed out that sport in Australia provided similar or different ethnic groups to develop a sense of collective identity and group loyalty. Vamplew, Moore, O’Hara, Cashman, and Jobling (1992, p. 252) noted that “Sporting success has been one of the most enduring symbols of Australian progress and in this way has contributed directly to the creation and maintenance of nationalist sentiment.” These statements can be further elucidated by the following facts (ASC, 1999; Oakley et al., 2001; Stewart et al., 2004):

- 92 per cent of Australians feel proud of Australia’s achievements in high performance sport
- Seven of the ten most inspirational moments were sport-related.
- Over 25 per cent of the *Australian of the Year* awards have been bestowed on sport people.

Educational factors

- *Educational factors include physical education, sport education, and the coaching education and accreditation system.*

In Australia, education is the responsibility of the states. The development and jurisdictions of curriculum and programs in the areas of health, physical education and sport vary from state to state; they also differ between different types of schools (e.g., public and private schools). According to Oldenhove (1996, p. 248), it was “quite ironic that the private school system, representing 26 per cent of all schools, has maintained a strong commitment and obligation to providing all their students with a comprehensive and sometimes compulsory sport program.”

In general, state education authorities require schools to provide physical education and sport activity classes for students; nevertheless, there is no compulsory requirement with regards to the proportion of courses. In other words, what and how these courses are organized depend on school authorities (Commonwealth of Australia, 2006). According to an official report by Bartlett (Commonwealth of Australia, 2006, p. 34), the development of integrated physical education and sport education programs was still under inter-governmental agreement. He stated that:

Under new Commonwealth funding arrangements for schools, state and territory governments and non-government education are required to include in their curriculum at least two hours of physical activity per week for primary and junior secondary school children (Commonwealth of Australia, 2006, p. 34).

Despite a lack of coherent sport and physical education policies at state level, there are a number of school sport associations in each state responsible for coordinating and organizing a competitive school sport program at primary and junior level. These associations are generally supported by the education or sport authorities in terms of personnel and finance, and promote junior sport, such as School Sport Western Australia, or the Victorian Secondary Schools’ Sport Association (Commonwealth of Australia, 2006). In addition, Oldenhove (1996) indicated that in Australia, students who are interested in competitive sport also have opportunities to take part in

community clubs in order to attend more serious training and regular competitions. She described that:

Most of these clubs are sport-specific and generally cater to all age groups from the 5-year-old to the mature participant. Most youth participants progress through the clubs' various age groups and through stages of development from modified to adult sport" (Oldenhove, 1996, p. 246).

With regard to the development of sport education outside the school systems, it is found that during the late 1980s and early 1990s, the ASC conducted a series of successful junior sport programs (known as AUSSIE SPORT) for young Australians age from 3 to 20 to foster their interest in sport. Bloomfield (2003, p. 113) pointed out that "In 1985 a grant of almost AUS\$ 1 million was allocated to develop modified rules to suit young children. These were tested by a group of sport development officers from instructional material required for the various sport." He further noted that the introduction of AUSSIE SPORT program attracted 8000 primary schools around the country, and by 1995, all of Australian primary schools utilized this program.

It is not possible to have a successful program like AUSSIE SPORT without quality coaches. The *National Coaching Accreditation Scheme* (NCAS) initiated by the National Coaching Council (later known as the Australian Coaching Council) for the development of appropriate coaching education and accreditation in 1978 was considered a major contributor to these programs as well as Australia's advancement of elite sport (Adair & Vamplew, 1997; Bloomfield, 2003). Under the NCAS, each sport developed three-level accreditation courses; coaches who were accredited through the scheme were recognised by national and state sport organisations and the ASC (ASC, 2005). Bloomfield (2003) stated that the NCAS was an outstanding example of the cooperation between government and sport. Coaches in Australia regarded this coaching education and accreditation as requirements for their coaching careers at all levels. Since the creation of the ASC, the NCAS was operated under the Coaching and Officiating Unit in cooperation with over 70 sports (ASC, 2005).

Technological factors

- *Technological factors refer to the organisations and development of sports science in the elite sport systems.*

The development of sports science in Australia dated back in the late 1940s and early 1950s, research in the physiology of training and talent identification tests emerged from the University of Sydney during this period (Bloomfield, 1985). In terms of sports science specialist education, Bloomfield (1985) noted that the first sports science course was established in the Division of Physical Education at the University of Western Australia in 1968, and prior to this, Sports Medicine Australia (SMA) was founded in 1963.

Despite these beginnings, sports science for elite sport outside the university sector was not effectively functional until a sports science unit was organized under the AIS in 1981. Following the creation of the sports science unit under the national elite sport centre, the demand for sports science services grew rapidly at the AIS. According to Bloomfield:

Since 1981 the Sports Science Section of the Institute has been steadily developing its services, not only to the eight resident sports, but also to another 20 sports whose national squads have taken part in the Institute's National Training Centre program. The demand on AIS resources has been extremely heavy, because the various sporting associations have found the testing and advice given by the sports scientists to be very valuable (Bloomfield, 1985, p. 78).

The Australian Government recognised the importance of advancing sports science standards to compete with the rest of the world. In order to expand the function of the AIS as a national training centre of sport excellence, the *Sports Science and Medicine Centre* was established in Canberra in 1991 under the management of the ASC. This progress has enabled elite athlete in the AIS as well as other high level athletes under the elite sports programs to receive sophisticated sports science assistance in training.

In addition to the development of sports science education and the provision of sports science support and services from the AIS, the sports science centres (or units) were

gradually formed during the 1980s and early 1990s, along with the establishment of state-based institute of sport around the country for improving sport training and coaching standard. For example, Shilbury et al. (2006) indicated that most of the state-based institutes of sport set up goals to promote the use of sports science and provided their elite athletes to access to specialists for scientific and technical assistance.

By 2003, at least 12 universities in Australia had sports science units that were the equal of those in the better American or European universities (Bloomfield, 2003). Australia's application of sports science was prominent in a number of areas, for example, coaching techniques, training monitoring and talent identification. "Currently Australia has a great many well-trained sports scientists, both in its various university departments of human movement and the state institutes or academies of sport" (Bloomfield, 2003, p. 149).

Summary

This section outlined environmental influences on elite sport development in the Australian context relative to geographical, demographical, political, economic, sociocultural, educational, and technological factors. The next section examines environmental influences on elite sport progress in the Taiwanese context.

The Taiwanese context

This section examines environmental influences affecting Taiwan's elite sport development. Again, the seven environmental factors are discussed in turn. Due to a lack of equivalent literature and documents, as were available for setting the context of Australia, the analysis is based on the researcher's personal experience and observation. As mentioned earlier, before embarking on this study, the researcher had worked for the Taiwanese Government in physical education and sport administration for more than ten years. To minimize potential bias, the discussion is supplemented by available sources where possible.

Geographic factors

Taiwan has a total land area of about 36,000 kilometres. The most significant geographic feature of Taiwan is that two thirds of its land area is covered by forested mountain ranges (i.e., the Central Mountains) which stretch along the island from north to south. For this reason, most of the population is concentrated in cities alongside the western coastal plain, such as Taipei, Taichung, Changhua, Tainan, and Kaohsiung (GIO, 2005). The number of inhabitants of the major cities is surprisingly high. Take the two largest cities of Taiwan, Taipei and Kaohsiung, for example. The statistical data issued by the Ministry of the Interior (2006) showed that in 2005, the population density of these two cities were 9,626 and 9,835 people per square kilometre respectively. Knowing Taiwan's limited land resources and high population density, it is understandable that a government report stated that for people in Taiwan, "it takes time, money, and determination to participate in a sport, just finding a place to play tennis or go jogging is often a major undertaking" (GIO, 2000b, p. 400).

During the 1970s and 1980s, the Central Government took steps to improve the sport environment. Initially, a *Five-year Development Plan* was carried out by the Ministry of Education (MOE) in 1974. Another sports facility development project was carried out under a *Complete Citizen's Sport Education Plan* in 1979. These plans were aimed to increase sports facilities for school sport and physical education. In 1989, under the *National Physical Education Development Medium-Range Plan*, the MOE further allocated US\$ 740 million during a four-year period to offer funding for city/county governments to construct track and field areas, stadia, swimming pools and community recreation centres (GIO, 2005).

Previously, on the examination of the NCPFS funding allocation, evidence showed that since 2001 the upgrading of the nation's sport environment was a high priority. The findings indicated that the administrative policy of the Department of Sports Facilities of the NCPFS was twofold: to provide financial support for schools to improve facilities in conjunction with athlete training programs in general; and to assist city/county governments and national sport organisations (NSOs) to seek opportunities to stage international sporting events (NCPFS, 2005). In terms of the latter project, a number of successful cases resulted between 2001 and 2005. To name a few, the World Baseball

Championship in Taipei city in 2001 and the FIFA Futsal (indoor football) in Taipei in 2004; furthermore, the World Games and the Deaf Olympic Games will be staged in Kaohsiung and Taipei city respectively in 2009 (GIO, 2005).

In recent years, the accessibility of sports facilities for school sport and the general public were relatively improved. However, in terms of the provision of “special training centres” for pre-elite and elite athletes, very little has changed. Evidence indicated that by 2000 the NSTC (National Sports Training Centre) was the only training centre available for national teams’ training. The inadequacy of international standard venues to cater for elite athletes and teams was a critical issue (NCPFS, 1999), and remains so (Cheng, 2004).

Apart from the lack of availability of land for sport fields and relevant geographic feature, there is little evidence to link geographic location and weather conditions with elite sport development. The other environmental factors appear to have more impact on Taiwan’s elite sport advancement.

Demographic factors

The population of Taiwan was estimated at 22.9 million in 2005 (CIA, 2005b). This included about 98 percent of Han Chinese immigrants’ descendents and 2 percent of indigenous people from different tribes. Of these Han Chinese, 84 percent were descendants of early Han immigrants; these immigrants included 70 percent of the Fukienese and 14 percent of the Hakka people. The remaining 14 percent of Han Chinese were known as mainlanders, who came with the retreating nationalist army (i.e., Kuomintang) after the civil war in 1949.

In Taiwan, the mutual influences between ethnic groups and elite sport are not evident, even though the ethnic groups are distinctly classified into the four groups: Fukienese, Hakka, mainlander and indigene. Regardless of ethnic background, people in Taiwan identify themselves as “Taiwanese”. For example, Slack et al. (2002) argued that although the national teams had some success at the Asian Games in the 1950s and 1960s, “many of those who competed for Taiwan were actually people with Taiwanese

background who resided in other countries” (Slack et al., 2002, p. 347). They indicated that the football team winning a gold medal at the 1954 Asian Games was from Hong Kong; another two gold medalists – Wu Min-Kao in weightlifting at the 1958 Games and Wu Doug-Yuan winning three gold medals in shooting at the 1966 Asian Games – were resident in the Philippines and the US.

The Government publications usually report two “native” Taiwanese athletes’ remarkable performances on the world sport stage during this same period (the 1950s and 1960s). Yang Chuan-Kwang, who won the first Olympic medal for Taiwan, was from A-mei indigenous tribe in Taitung County. Yang gained a silver medal in the decathlon at the 1960 Rome Olympics (NCPFS, 2002c). Prior to this, he had won two gold medals at the 1954 and 1958 Asian Games in the same event. Another well-known Olympic medalist from native Taiwan was Chi Cheng. Chi won a bronze medal in the women’s 80 metres hurdles at the 1968 Mexico Olympic Games. In the late 1960s and early 1970s, she also set eight world records and 23 Asian records and the records encompassed different events such as sprints, hurdles, long jump, and relays. Chi is acknowledged as the top Asian woman track and field athlete of the twentieth century (NCPFS, 2002a).

Previously the review of literature revealed that the game of baseball was introduced by Japan to Taiwan during the period of Japanese rule and now is the most popular sport on the island (NCPFS, 2002b). Numerous studies into Taiwanese baseball history indicate that baseball in Taiwan was a special vehicle to promote national identity. For instance, Slack et al. (2002, p. 351) indicated that:

...in the 1970s and 1980s, under the KMT, little league baseball played an important role in supporting a nationalistic Taiwanese identity based on a belief in reunification with the PRC and on creating a favourable comparison for Taiwan. Victory in baseball presented an image that Taiwan was modern and could compete with the West; yet it also exemplified the traditional Confucian values of respect for authority and hard work.

Another study by Morris (2006, p. 66) observed that “in Taiwan, baseball is more than just a sport. It is a colonial legacy, an aspect of Taiwanese culture that was planted and

sunk deep roots during the fifty-year Japanese occupation of the island.” Importantly, in the conclusion of Morris’s study, he pointed out that:

...a history of Taiwanese baseball is just as appropriate a window on the complicated histories and cultures of modern Taiwan. Starting with the games’ Japanese origins, and then the high-profile success of Taiwanese Little League baseball from the 1960s to the 1980s, baseball was an important avenue by which Taiwanese people navigated the histories of colonial and military oppression at the hands of the Japanese, the Chinese Nationalists and their America allies (Morris, 2006, p. 77).

The arguments described above suggest that although there was little evidence to identify the relationship between elite sport and ethnic groups, elite sport in Taiwan was considered as an avenue to promote ethnic representation and Taiwanese identity (NCPFS, 2002b). To a greater extent, these arguments reflect Taiwan’s recent history and political development that had significant effects on elite sport development. The next section examines environmental influences on elite sport from the political context.

Political factors

At the outset of this study, it was suggested that the two Chinas controversy had an impact on Taiwan’s Olympic Movement and elite sport development. The Republic of China (ROC) was founded in 1912 by the Chinese Nationalist Party (Kuomintang or KMT). At the time, the KMT was the only major party ruling the nation. After the end of Chinese Civil War, the KMT government retreated to Taiwan in 1949, when the Communist Party gained control of the mainland and established the People’s Republic of China (PRC). Since then, the two Chinese governments have been operating on each side of the Taiwan Strait as two sovereign states. However, the two Chinas issue remains unresolved nationally and internationally, due to the fact that the PRC government insists on its “One China Principle” and regards Taiwan as part of “China”, while the ROC government in Taiwan asserts its political status as a de facto independent state (C. P. Liu, 1994).

In recent decades, both sides of governments have been more willing to adopt positive measures to promote the *cross-strait relations*; nonetheless, political conflict arises on

many international occasions. In sport, evidence indicates that Taiwan's efforts to bid for the right to host international sport events (in particular, mega-sport events) were frequently baffled by China's political interference. Examples included the bid to host the 1998 and 2002 Asian Games, and the 2001 and 2007 World University Games (NCPFS, 2005). In 2004, the Kaohsiung city's success in the bid to host the 2009 World Games was considered as a big breakthrough for Taiwan's sport history (Taiwan Review, 2004). Intriguingly, Chung (2000) argued that one of the reasons that Kaohsiung won the bid without China's political interference was because the sport competing in the Games did not include Olympic sports.

In terms of the political parties' interest in sport, it is essential to mention that between 1949 and 2000, Taiwan was under the KMT's one party rule. During this same period, the national sport governing bodies were also directed by the KMT government. Thus, the sport leaders (presidents/chairpersons) of the national sport governing bodies, such as the Republic of China Sports Federation (ROCSF) and National Olympic Committee (NOC), were politically appointed. In the late 1980s, the KMT began to lose its dominant status after the first opposition party, the Democratic Progress Party (DPP), was formally formed in 1986. Prior to this, the organisation of opposition political parties was banned under Martial Law (Peng, 2002).

The political scene was further changed when the DPP won the presidential election in 2000. A study on political control over sport in Taiwan by Liu (2003, p. 24) noted that "the change of government resulted in changes in relations among the key actors and groups in the central government as well as the government agency for sport." As to for DPP's policy on sport, H. Y. Liu (2003, p. 29) wrote that:

The DPP in coming to power in 2000 has initiated a situation of political affiliation in sport through which it has partly sought to "modernize" by the development of rational criteria for grant aid, and by diminishing the influence of the ROCSF, which had been a bastion of KMT influence.

At the international level, the political influence on elite sport resulting from a diplomatic crisis in the early 1970s was also significant. In 1971, Taiwan was expelled by the United Nations and the seat was replaced with the PRC. In the wake of the development, many nations transferred their diplomatic recognition from Taiwan to

China. Following the diplomatic changes, the Taiwanese athletes' and teams' "sporting chances" were restrained internationally. As Slack, et al. (2002, p. 355) noted, "Taiwan missed out on most major international competitions between 1970 and 1984." As previously described, the problem was solved when the Taiwanese Government accepted a compromise by using "Chinese Taipei" as Taiwan's international sporting title (since 1981), and Taiwanese athletes' right to participate in international competitions was restored.

Overall, it is argued that political unrest in the past had primary impact on Taiwan's elite sport development. The Central Government support for elite sport grew steadily in recent years, particularly, after the establishment of the NCPFS in 1997. In spite of that, political parties' interests in sport were limited. Sports policy was not a feature of political parties' platforms. Due to Taiwan's special political status, it seemed impossible for political parties to separate sport from politics.

Economic factors

Waters (1996, p. 43) stated that "While fortuitous economic conditions seem to be advantageous to cities, states, and nations concerning sport development and performance, it appears that economic and political success may not be associated with success or achievement in sport." Waters' comment, to a certain extent, mirrored Taiwan's contrast between economic growth and elite sport stagnation. Over the past decades, although Taiwan was able to make international headlines for its "economic miracle", it retained a low profile in the world's sport arena.

A government report (GIO, 2005) revealed that due to the small sport industry and limited market base, Taiwan's elite athletes were unable to pursue their careers in sport in Taiwan. In most cases, only a small number of mainstream sport received sponsorship from government-run corporations and the private sector, such as baseball, basketball, badminton, table-tennis, golf and tennis.

On the whole, the Central Government played a key financial role in assisting the promotion of elite sport. As discussed in the previous chapter, the responsibility of the

NCPFS involved in elite athlete development programs at all levels, ranging from operating the National Sports Training Centre to financing city/county governments to conduct training programs (in school systems), and to providing subsidies for sport organisations, to implementing high performance activities, to awarding monetary incentives to elite athletes. There was little evidence to indicate that city/county governments allocated funding to conduct elite sport related training programs.

Sociocultural factors

In Taiwanese society, great importance is given to education. As a part of Chinese culture, physical education is regarded as an essential ingredient of education. The government sport agencies were therefore subsumed in the education system (Zhen, 1992). As a result, to many Taiwanese, a combination of physical education and sporting culture to a notion that, when sport is mentioned, it means physical education. More often than not, “sports news” in the media is called “physical education news”; likewise, “sports journalists” are referred to as “physical education journalists”. These suggest that a lack of an intensive “sports” culture outside the education system can be one of the hindrances for Taiwan’s high performance sport development.

Sport in Taiwan is organized in a pyramid structure. At the bottom of the structure are sport activities for the general public and at the top are competitive sports or high performance sport (C. S. Chen, 2006). Paradoxically, the heavy emphasis on education (and physical education) did not encourage a stronger sporting culture at the local level. According to the ROC White Paper (NCPFS, 1999), in Taiwan, there were only 294 sport organisations at the national level and 46 sport-related associations at city/county level. A survey reported in the same document showed that more than 15 percent of Taiwan’s population were not involve in any form of exercise; more than 81 percent of population did not engage in sporting activity on a regular basis. In 2001, a survey commissioned by the NCPFS further indicated that 33 percent of Taiwan’s population did not engage in any form of sporting activities (GIO, 2003).

Peng (2002) asserted that Taiwanese culture is different from Chinese culture even though they are both strongly influenced by Confucian tradition. He compared the physical and sporting culture between mainland China and Taiwan and asserted that sport competitiveness in China was considered as a form of national power. For decades, the PRC government devoted considerable resources and efforts to create physical culture and enhance elite sport. As a consequence, to pursue a successful sport career in China was a popular trend.

By contrast, in Taiwan, people's attitudes toward sport were influenced by the heavy emphasis on education and academic performance. In addition, the limited sport industry affected potential athletes' motivation to engage in sport training. Many consider that elite athletes have little chance to successfully develop their professional careers in their sports. This made it difficult for sport coaches to persuade parents to let their children attend sport practice. The next section further discusses educational influences on Taiwan's elite sport progress.

Educational factors

In Taiwan, students at all levels are required to attend physical education classes two hours each week. The purpose of compulsory physical education classes, according to the Department of Physical Education (MOE, 2005), is to enhance students' overall physical fitness, foster their interest in sport, and cultivate life-long habits (MOE, 2005). As a general rule, sport education is included in physical education courses to allow students to become involved in intra-school and interschool sport competitions.

Schools at all levels organized sport clubs or school teams based on physical education teachers' expertise and the availability of coaches and sports facilities. In general, more than half of schools at various levels had basketball and track and field teams, with the exception of primary schools (GIO, 2004). Popular sports taught in school include basketball, volleyball, badminton, and table-tennis. For the development of elite sports at a junior level, high schools are encouraged to organize *athletic aptitude classes* to enable students who have interests in particular sports to attend regular training programs in the school system. These athletic aptitude programs were financially

supported by the NCPFS for coaching and relevant expenditure was made through the coordination and cooperation with the city/county education departments (GIO, 2004).

As mentioned earlier, education in Taiwanese society is highly valued as a better pathway to well-paid jobs and high-profile social status. Criticisms of teachers and parents placing excessive pressure on students have been addressed for years (T. M. Hung, 2004). Although parents did encourage children to attend extra sporting activities at schools, most families do not support them choosing sport as a profession. As a consequence, students with talent for sport often withdrew from training programs at junior or senior high level in order to prepare for their senior school and college/university entrance examination and fulfil their higher academic achievements.

In consideration of this trend, in the early 1980s the DPE passed the *Regulation for the Counselling and Academic Advancement of Athletically Gifted Students at the Secondary School Level* (GIO, 2000). This regulation provided eligible athletes with alternative options to receive their higher education and encourage them to continue pursuing their higher sporting achievements. For example, there are three public physical education and sport colleges provide an integrated system for potential athletes to continue their education and training. At the same time, the NCPFS also offer monetary incentives to award outstanding athletes (GIO, 2000a).

While the abovementioned regulations and incentive schemes were carried out to stimulate young athletes staying in training, the shortage of professional coaches and effective coaching was another obstacle that hindered the progress of elite sport in school systems. In Taiwan, school teams were coached by physical education teachers who were enthusiastic about particular sports. A study by the NCPFS (1999) showed that 62.8 percent of school teams were trained by physical education teachers, and of these teachers, only 6.4 percent were compensated by reducing their teaching hours. In other words, school training programs for the most part relied on physical education teachers who were willing to dedicate themselves to find, organize, and train athletes and school teams.

In order to overcome these obstacles, the DPE (the Department of Physical Education) conducted a full-time school-coach training scheme in 1989 (NCPFS, 1999). Under this scheme, applicants who majored in physical education and sport-related subjects at universities and passed examinations were eligible to attend three months of coaching training programs. After completing the training programs, they were assigned to selected schools as full-time coaches. Initially, this project was deemed a cornerstone for accelerating the development of elite sport in the school system, however, it was unsuccessful and not sustained in recent years.

A study by Chou and Yu (2006) into the effect of a full-time school-coach scheme on athletic development revealed that, although this scheme initially attracted 436 coaches to work as full-time workers in schools at different levels, by 2006, only 173 coaches continued their positions. Chou et al. (2006) argued the main reason these qualified coaches left their jobs was because they received lower salaries, lower status, and less job security compared to physical education teachers. In order to resolve these situations, in 2005, the NCPFS enacted a new regulation entitled *the Rules Governing Qualifications of Full-Time Coaches Employed at Any Educational Institution* (NCPFS, 2005). It is expected that the “new” rules will assist to enhance coaches’ status in schools and reinforce their job security.

Apart from the policy and arrangements of the school-coach system, little evidence indicated that the NCPFS has further involvement in the coach accreditation system. As a general rule, it was the ROCSF and NSOs that took charge in overseeing and implementing relevant projects with the financial support of the NCPFS.

Technological factors

In recent decades, economic prosperity and technological development raised the quality of life in Taiwan to the level of developed countries. Nevertheless, the advancement of applied science in high performance sport has not kept up with those countries that have injected extensive resources into sport-related research. In spite of the fact that a sports science unit has been in place in the NSTC since 1987, according

to Chung (2000) and M. C. Hsu (1992), a lack of full-time professional staff was a major hurdle confronting the training centre. The statistical data issued by the NCPFS (1999) showed that by 1999 there were only 140 graduated from post graduate schools in sports science and 14 of these had doctoral degrees.

Apart from the shortage of full-time sports scientists in the NSTC to offer scientific approaches to assist in elite athletic training, a more recent study of the competitive sport development system in Taiwan by S. Y. Hsu (2006) pointed out another major impediment confronting elite sport development. He asserted that most of experts in sports science worked in higher degree institutions and failed to be actively involved in elite athletic training. A majority of professionals in sports science received their postgraduate education in the US and most of them worked in the tertiary education sector. He argued that this specialized knowledge was not effectively reaching the coaches and athletes (S. Y. Hsu, 2006).

The development of sports science research in Taiwan started comparatively late and still lags behind other countries (Chung, 2000). The first graduate school to provide sports science program was established in 1989 under the *National College of Physical Education and Sports*. The goal of this institute is to build up a sport information system and help enhance their students' athletic performance. By 2005, there were more than eight universities around the island providing similar programs to cultivate specialists in sports science.

In order to reinforce research and development in sports science, in 2001, the NCPFS passed a regulation to provide cash incentives for encouraging applied research in the field such as sports medicine, physiology, psychology, biomechanics, nutrition, and scientific training. According to the NCPFS (2004), it was expected that the incentive scheme would attract more sports experts and scientists to assist national coaches in athletic training with the aim of enhancing elite athletes' higher performance.

Summary

This section explored the environmental influences affecting the progress of elite sport in Taiwan in the geographical, demographical, political, economic, sociocultural, educational, and technological contexts. This documentary evidence is applied to juxtapose and compare with the findings from the Australian counterparts.

Juxtaposition and comparison

The previous two sections outlined the possible influences of the external environment on elite sport development in Australia and Taiwan. The abovementioned seven environmental factors were discussed in turn based on the documentary evidence and the researcher's observations. **Table 6.2** overleaf presents a summary of the findings from the Australian context against its Taiwanese counterpart. The comparative analysis of these environmental factors is outlined as follows.

Geographic factors: The vast land area gave Australians great advantages in fostering sporting culture; in contrast, Taiwanese people's interest in sport was hindered by the limited open space and availability of sports facilities. In addition, compared to Australia, in which local governments were the main providers of sports facilities, Taiwan's Central Government was the major contributor to the improvement of sport infrastructure.

Demographic factors: Despite having different historical settings, Australia and Taiwan could be regarded as "immigration countries" because both countries were consisted of a minority of indigenous peoples and a majority of immigrants. However, the various immigrants in Australia were affected by the mutual influence between ethnic groups and sport; sport was a vehicle for diverse ethnic groups to enhance a collective sense of identity in society. In Taiwan, the immigrants were predominantly made up of the Han Chinese (98 percent). These Chinese immigrants, on the one hand, placed heavy emphasis on education and lacked interest in competitive sport; on the

other hand, they sought to generate a “new Taiwanese identity” through sport in order to distinguish themselves from the Chinese in mainland.

Political factors: The two Chinas problem, caused by the split Chinese governments since 1949, had the most significant impact on Taiwan’s subsequent progress in elite sport; the political unrest reduced political parties’ interests in elite sport. By contrast, the Australian Government’s political intervention in the 1980 Olympic Games became a watershed in Australian sport, as the two dominant political parties reached a consensus on the importance of elite sport on the national status and their electoral popularity.

Economic factors: Taiwan’s economic affluence did not appear to lead to increases in sport industry and elite sport progress. Due to the limitation of corporate sponsorship from the private sector, the Central Government played a key financial role for elite sport. In contrast with Taiwan, the emergence of professionalism and commercialism in sport in Australia since 1970s led to the growing development of sport sponsorships and donation from private enterprises. The economic investment from three-tiers of government also accelerated elite sport progress.

Sociocultural factors: The grass roots sport tradition and the popularity of sports clubs enabled Australia to build up its strong sporting culture. By contrast, Taiwan’s heavy emphasis on education and the inadequacy of sport organisations outside the education systems hampered elite sport development. In Australia, elite athletes were regarded as national role models; high performance sport was highly linked to national standing. In Taiwan, the small sport industry affected elite athletes’ motivation to select sports as careers after the completion of their education.

Educational factors: In Australia, physical education policy differed between states/territories. Junior sport was developed through sports clubs at community level that provided students with alternative options to attend serious training and regular competitions outside the school system. The coach education and accreditation system entitled the NCAS has been well-established since the late 1970s. By contrast in Taiwan,

physical education was a compulsory subject in schools at all levels. However, a lack of school coaches was an obstacle facing education departments. Statistics indicated that 60 percent of school teams were coached by physical education teachers.

Technological factors: In Australia, sports science education began in the late 1960s. The sports science services in the elite sport system were developed when the AIS was formed in 1981 and was further consolidated in 1991 following the creation of the Sports Science and Medicine Centre in 1991 under the ASC consolidation. By 2003, 12 universities had sports science units providing a great number of well-trained sports scientists for elite sport advancement. By comparison, the first graduate school to provide a sports science program in Taiwan was established in 1989. Most sports scientists worked in higher degree institutions and failed to be involved in elite athletic training. Although the NSTC has had a sports science unit, the unit was not effectively operating due to the shortage of full-time employees in sports science. The NCPFS passed a regulation in 2001 to offer cash incentives to encourage applied research to assist national coaches and elite athletes to enhance their coaching and performance.

Chapter summary

This chapter explored the environmental influences on the respective systems. It discussed the possible environmental influences from the political, economic, sociocultural, educational, technological, geographic, and demographic contexts. The next chapter (Chapter 7) reports the results of the Delphi study. The final chapter (Chapter 8) discusses the research questions, draws conclusions from the finding of the documentary evidence and the Delphi results, and addresses recommendations pertaining to theoretical and practical implications for this study.

Table 6.2

Summary of main findings of environmental influences on elite sports in Australia and Taiwan: Documentary evidence

Factors	Australia	Taiwan
Geographic	<ul style="list-style-type: none"> ▪ A vast land area, a temperate climate, and plentiful open space were deemed great asset to Australians for fostering interests in sport and developing sporting culture. ▪ In addition to the advantages of natural resources, the well-distributed sports facilities around the country (a result of the three-tier governments' cooperative effort and shared responsibilities since 1970s) had significant influence on elite sport development. 	<ul style="list-style-type: none"> ▪ The availability of sports facilities were affected by limited land resources and high population density, which has been a critical issue confronting governments at various levels and sports organisations. ▪ The upgrading of sports environments has been a high priority of the Central Government since the 1970s and remains so since the NCPFS was established. Evidence indicated that the early sport infrastructure programs were aimed at the improvement of school sports facilities.
Demographic	<ul style="list-style-type: none"> ▪ Australia is aware of the importance of adopting talent identification to accelerate elite athlete development because of a small population size. ▪ By virtue of the ethnic diversity, a wide range of sports was developed and enriched Australia's sporting traditions; at the same time, due to the diverse ethnic composition, sport became a convenient vehicle for enhancing community cohesion and improving a sense of national identity. 	<ul style="list-style-type: none"> ▪ The mutual influences between ethnic groups and sports are not evident. Rather, evidence suggests that people in Taiwan sought to express a nationalistic Taiwanese identity through sport. ▪ Because of the recent history and political development, elite sports (e.g., baseball) become a medium for ethnic representation and national identity.
Political	<ul style="list-style-type: none"> ▪ Despite divergent opinions in sports policy at early stages, the "Montreal debacle" in 1976 and the "Moscow boycott" in 1980 eventually called political parties' attention to view Olympic success as fundamental to both the national standing and their electoral popularity. ▪ A high degree of consensus between two dominant political parties (Liberal and Labour Party) has been reached since the 1980s that has facilitated the Federal Government to offer consistent financial support for sustained development of elite sports. 	<ul style="list-style-type: none"> ▪ The political unrest caused by the two Chinas issue since 1949 had a significant effect on the progress of elite sports as well as political parties' interests. Sports policy was not a feature of political parties' platforms. ▪ The KMT's one-party rule from 1949 to 2000 and its political control over national sport governing bodies (e.g., NOC) were deemed as a drawback because the leaders of these organisations were politically appointed.
Economic	<ul style="list-style-type: none"> ▪ The development of professionalism and commercialism in sport since 1970s led to the need for sport organisations to seek corporate sponsorship and extra 	<ul style="list-style-type: none"> ▪ Taiwan's economic affluence did not appear to lead the increase of sport industry and elite sport progress. Corporate sponsorship from private sector was minimal.

	<p>financial aid from the private sector. ABS statistics indicated that the sponsorships and donation from private sector were substantial.</p> <ul style="list-style-type: none"> While earlier evidence indicates that the Federal funding for elite sports was increased in recent years, the ABS statistics showed that state governments allocated the greater amount of funding for coaching and training and local governments spent the greatest amount of money on venues, grounds and facilities (see Table 6.1). 	<p>The small sport industry and limited market base suspended people's interests from the pursuit of professional careers in sports.</p> <ul style="list-style-type: none"> The Central Government played a key financial role in assisting the development of elite sports. Little evidence suggests the city/county governments' financial support for elite sport development.
Sociocultural	<ul style="list-style-type: none"> Numerous studies portrayed Australia's sporting culture and Australians' passion for sport. For examples, grass roots sport tradition and Saturday afternoon inter-community sport were popular forms in society; Australians were proud of their national elite sporting success in elite sports. The popularity of sports clubs at the community level reflected Australia's strong sporting culture. The official statistics indicated that more than 4,000 sport clubs and organisations operated around the country. Sporting success was widely regarded as a symbol of national standing. High performance sport provided Australians with daily entertainment, and more importantly, an expression of a sense of collective identity. 	<ul style="list-style-type: none"> As a part of Chinese culture, physical education is regarded as an essential ingredient of education. Therefore, the public sport agencies were subsumed in the education system. Yet, the heavy emphasis on physical education did not seem to help cultivate sporting culture. A lack of an intensive "sports" culture outside the education system were the hindrances for Taiwan's elite sport development; only about 240 sport organisations at national or city/county level provided sport and recreation support and services. Potential athletes' motivation for sport training was affected by Taiwan's limited sport industry. Many consider that little chance was given to them for developing professional careers.
Educational	<ul style="list-style-type: none"> Physical education policy differs from state to state. The requirement of proportion of physical education classes per week depends on state government policy and school authorities. Outside the school systems, sports clubs at the community level facilitated students who were interested in particular sports to attend serious training and regular competitions. The AUSSIE SPORT programs conducted by the ASC during the 1980s and early 1990s were regarded as successful policy on junior sport education and pre-elite sport development. 	<ul style="list-style-type: none"> Physical education was compulsory subject in schools at all levels to enhance students' physical fitness and interests in sport. Sports clubs and school teams were also organized based on physical education teachers' expertise and availability of coaches and sports facilities. For the development of elite sports at junior level, high schools were encouraged to organize athletic aptitude classes. These programs received annual funding supported by the NCPFS. The shortage of coaches in schools was an obstacle confronting education departments. Statistics indicated that more than 60 percent of school teams were

	<ul style="list-style-type: none"> ▪ The National Coaching Accreditation Scheme (NCAS) formed in 1978 was considered a significant contributor for Australian sports. This scheme is now operated under the ASC's supervision. 	<p>coached by physical education teachers.</p> <ul style="list-style-type: none"> ▪ A full-time school-coach training scheme was conducted by the DPE in 1989. This scheme was not successful due to the coaches' low status and low pay condition in schools. ▪ A lack of integrated coach education and accreditation system appeared to be a critical issue facing the government and sport organisations.
Technological	<ul style="list-style-type: none"> ▪ The development of sports science dated back to the late 1940s and early 1950s. Specialist education in sports science began in 1968 at the University of Western Australia. ▪ The use of sports science and techniques was not effectively functional until a sports science unit was formed within the AIS in 1981. The application of sports science was further enhanced after the creation of the Sports Science and Medicine Centre in 1991. ▪ In addition to the AIS, in recent years the state-based institutes of sport (i.e., SIS/SAS) also provided scientific and technical assistance to their local elite athletes. ▪ By 2003, at least 12 universities had sports science units. A great number of well-trained sports scientists worked in various academia and the sports institutes for elite sport advancement. 	<ul style="list-style-type: none"> ▪ A sports science unit was structured under the NSTC in 1987; however, the unit was not efficient due to the shortage of full-time employees who were experts in sports science. ▪ The first graduate school to provide a sports science program was established in 1989 under the National College of Physical Education and Sports, which meant the development of sports science research started late and still lagged behind other countries. ▪ Most experts in sports science worked in higher degree institutions and failed to be actively involved in elite athletic training. Their specialized knowledge did not effectively reach the coaches and athletes. ▪ In 2001, the NCPFS passed a regulation to offer cash incentives to encourage applied research to assist national coaches and elite athletes to enhance their coaching and performance.

CHAPTER 7

Results of the Delphi Study

Introduction

The previous chapter examined and compared the profiles of the national government sport agencies in Australia and Taiwan (i.e., organisational structure, staffing, policy direction, funding allocation, elite sport programs, and organisational network) and the environmental factors surrounding these elite sport systems (i.e., geographic, demographic, political, economic, sociocultural, educational, and technological influences) by means of documentary analyses. This chapter presents the results of the Delphi study which addressed the following three research questions in this study:

- *How do stakeholders in Australia and Taiwan define Olympic success?*
- *What environmental influences are perceived to affect the development of elite sport in Australia and Taiwan?*
- *What environmental influences affect the mechanisms of the NGESS in Australia and Taiwan?*

As explained in Chapter 4, the current study conducted a four-round Delphi surveys to generate responses and achieve some consensus on the issues raised by two groups of sport professionals (i.e., the Australian and Taiwanese panel). In this four-round Delphi exercise, the two panels were asked to identify:

- Criteria for defining their country's Olympic success
- Direct factors contributing to their country's Olympic success
- Indirect factors affecting their country's Olympic success

The findings from the Delphi study are treated as leading sources for further exploration and comparison, as the specific objectives of the Delphi study were designed to explore the three research questions above. The Delphi results are presented in three major

sections: the description of the results of the Delphi survey in Australia; the description of the results of the Delphi survey in Taiwan; and the juxtapositions and comparisons of the results between the two countries.

Delphi results: Australia

This section reports the Delphi results based on the Australian panel's responses to the three questions under review in round 3 and round 4. For each question, the data obtained were tabulated with statistical summaries and descriptive analysis. The outcomes are presented in **Table 7.1**, **Table 7.2**, and **Table 7.3**. At the end of this section, a summary of the findings from the Delphi surveys in Australia is provided.

Criteria for defining Australia's Olympic success

The Australian panel's collective opinions of criteria for defining Australia's Olympic success are presented in **Table 7.1**. Nine issues were identified by the panel as important for defining Australia's sporting achievement at the Olympics. As indicated, the range of mean scores among the nine issues was 4.11 to 3.56 in round 3, compared to the range of 4.19 and 3.57 in round 4. Among these criteria, two issues showed a very slight increased dispersion from round 3 to round 4 suggesting reduced agreement as to the importance of these criteria in defining Olympic success for Australia. These were: *the elite sport system in Australia is validated* and *a comparatively high number of medals won per head of population*.

In the final round, the panellists agreed that *a stronger sporting tradition and culture* was the most important criterion for defining Australia's Olympic achievements, which received the highest mean rating (M=4.19, SD=0.68). *Increased public interest and participation in sports* obtained the second highest mean rating (M=4.14, SD=0.79). The aspect of *enhanced national pride and confidence* followed (M=4.05, SD=0.59). *The public perceives that Australian team was successful* obtained the lowest mean score, but the rating remained high (M=3.57, SD=0.81) with relatively strong agreement.

Table 7.1***Criteria for defining Australia's Olympic success***

Criteria	(n=24)	Rank		Mean (SD)	
		R4	Sum	R4	R3
1. Increased public interest and participation in sports		1	55	4.14 (0.79)	4.06 (0.84)
2. Enhanced national pride and confidence		2	54	4.05 (0.59)	4.00 (0.76)
3. A stronger sporting tradition and culture		3	49	4.19 (0.68)	4.11 (0.72)
4. The elite sport system in Australia is validated		4	37	3.90 *(0.70)	4.00 (0.62)
5. The greater number of athletes/teams reaching the finals		5	29	3.90 (0.77)	4.00 (0.79)
6. A comparatively high number of medals won per head of population			27	3.71 *(0.72)	3.89 (0.69)
7. Best performance and fair play by athletes and teams			26	3.90 (0.83)	3.94 (0.84)
8. A high number of medals won and a high ranking on medal tally			24	3.76 (0.83)	3.78 (0.83)
9. The public perceives that Australian team was successful			14	3.57 (0.81)	3.56 (0.95)

Note: The asterisk * denotes an increased dispersion from round 3 to round 4.

In terms of *ranking* the importance, rather than rating the items, the panellists selected *increased public interest and participation in sports* as the top priority in defining Australia's Olympic success (sum=55). It was closely followed by the criterion of *enhanced national pride and confidence* (sum=54). The third and fourth criteria indicated by Australian panel were *a stronger sporting tradition and culture* (sum=49) and *the elite sport system in Australia is validated* (sum=37). The lowest rank order of the top five was *the greater number of athletes/teams reaching the finals* with a ranking score of 29.

Direct factors contributing to Australia's Olympic success

The Australian panel's judgments on direct factors contributing to Australia's Olympic success are presented in **Table 7.2**. The panellists identified 17 direct factors that they believed to be essential for Australia to achieve sporting success. Among these factors, 4 show a slightly increased dispersion from round 3 to round 4. These were: *government funding and support*, *a structured and stable sport system*, *access to high quality competition*, and *access to good facilities*.

Table 7.2***Direct factors contributing to Australia's Olympic success***

Direct Factor (n=24)	Rank		Mean (SD)		Mean (SD)	
	R4	Sum	R4	R3	R3	
1. Government funding and support	1	157	4.62	*(0.50)	4.61	(0.49)
2. A structured and stable sport system	2	150	4.71	*(0.56)	4.78	(0.46)
3. Access to high quality competitions	3	118	4.71	*(0.46)	4.78	(0.43)
4. Quality coaches and officials	4	108	4.52	(0.68)	4.50	(0.74)
5. Athlete support	5	103	4.48	(0.60)	4.44	(0.73)
6. Access to good facilities	6	102	4.43	*(0.68)	4.56	(0.67)
7. Elite training programs	7	101	4.62	(0.50)	4.61	(0.50)
8. Advanced technology and sports science support	8	75	4.29	(0.78)	4.28	(0.78)
9. Sporting tradition and culture	9	62	3.95	(0.67)	3.94	(0.72)
10. Competent management in sporting bodies	10	61	4.57	(0.60)	4.44	(0.67)
11. Talent identification system		40	4.05	(0.75)	3.89	(0.79)
12. Junior sport programs		36	3.95	(0.92)	3.89	(0.95)
13. Financial support from private sector and corporate		22	4.29	(0.56)	4.28	(0.73)
14. Media support		10	3.81	(0.81)	3.89	(0.81)
15. Political interest		7	3.52	(0.81)	3.78	(1.01)
16. Economic situation		7	3.48	(0.87)	3.56	(0.91)
17. Immigration and multi-cultural society		3	3.43	(0.87)	3.61	(0.91)

Note: The asterisk * denote an increased dispersion from round 3 to round 4.

As shown in **Table 7.2**, the range of mean scores among the 17 direct factors was 4.78 to 3.56 in round 3, compared to the range of 4.71 and 3.43 in round 4. In the final round, *a structured and stable sport system* and *access to high quality competitions* were rated equally as the most important direct factors contributing to Australia's Olympic accomplishments in round 4, both of which received a mean score of 4.71. *Government funding and support* and *elite training programs* had the same mean scores (M=4.62, SD=0.50) placing next most important direct factors.

In fact, 11 of 17 direct factors received the mean scores at 4.05 or above in the final round; the remaining factors were rated in the range from 3.95 to 3.43. This statistical evidence signified panellists' strong agreement and suggests that the majority of the direct factors indicated by the panel were indispensable to Australia's Olympic success.

In terms of *ranking*, the panel identified 10 direct factors in order of importance. *Government funding and support*, *a structured and stable sport system*, and *access to high quality competitions* were ranked as the top 3 direct factors that contributed to Australia's Olympic success, which obtained the sums of ranking scores of 157, 150, and 118 respectively. *Quality coaches and officials*, *athlete support*, *access to good facilities*, and *elite training programs* were ranked from 4 to 7, receiving a score between 108 and 101.

Interestingly, *sporting tradition and culture* was selected to be one of the essential factors contributing to Australia's Olympic success, ranked ninth, despite a relative low mean score ($M=3.95$). It was also identified in question 1 as a criterion to define Australia's Olympic success. In addition, *competent management in sporting bodies*, despite obtaining the third highest *rating* mean score ($M=4.57$) in the top 10, was *ranked* at tenth position with a score of 61. It is also interesting to note that *financial support from private sector and corporate* received a high rating score (Mean=4.29) which is equal to the eighth position (i.e., *advanced technology and sports science support*). However, it was not ranked in the top 10.

Indirect factors affecting Australia's Olympic success

The Australian panel's general agreement on indirect factors affecting Australia's Olympic success is presented in **Table 7.3**. Eighteen indirect criteria previously indicated by the panel were re-examined in round 3 and round 4. Among these factors, three show an increased dispersion from round 3 to round 4, these included *volunteer involvement in sport*, *changing government policies* and *international political scene* suggesting marginally less agreement about the role these factors play in developing Australia's Olympic performances.

Table 7.3***Indirect factors affecting Australia's Olympic success***

Indirect Factor (n=24)	Rank		Mean (SD)		Mean (SD)	
	R4	Sum	R4	R3	R3	R3
1. Physical education in schools	1	145	4.29 (0.90)	4.33	(0.95)	
2. The progress of sport in other countries	2	135	4.14 (0.57)	4.17	(0.59)	
3. Grass roots sport strategy	3	114	4.05 (0.74)	4.00	(0.82)	
4. Athletic role models	4	111	4.10 (0.62)	4.11	(0.66)	
5. Volunteer involvement in sport	5	104	4.05 *(0.86)	4.11	(0.77)	
6. Public interest	6	87	4.05 (0.67)	4.00	(0.68)	
7. Political climate and politicians' support	7	68	3.90 (0.62)	3.94	(0.72)	
8. Media and corporate bias	8	64	3.71 (0.72)	4.00	(0.77)	
9. Drugs in sport	9	62	3.95 (0.86)	4.11	(0.97)	
10. Conducive environment	10	60	3.76 (0.62)	4.00	(0.69)	
11. A small talent pool		59	3.62 (0.97)	3.83	(1.05)	
12. Geographic location		56	3.71 (0.78)	3.83	(0.84)	
13. Changing government policies		43	3.52 *(0.93)	3.50	(0.91)	
14. Economic/cultural/religious differences		18	3.48 (0.87)	3.39	(0.91)	
15. Insurance and liability concerns in sport		11	3.33 (0.91)	3.56	(1.01)	
16. International political scene		9	3.00 *(1.05)	3.22	(1.01)	
17. Health concerns		8	2.86 (1.06)	2.83	(1.17)	
18. Judges' bias in subjective sports		2	2.81 (0.87)	3.17	(1.10)	

Note: The asterisk * denote an increased dispersion from round 3 to round 4.

As can be seen in **Table 7.3**, the range of mean scores among these indirect factors was 4.33 to 2.83 in round 3 compared to the range of 4.29 and 2.81 in round 4. In the third round 9 of 18 indirect factors were rated at 4.00 or above; whereas in the final round, only six remained; these indirect factors were: *physical education in schools* (M=4.29), *the progress of sport in other countries* (M=4.14), *grass roots sport strategy* (M=4.05), *athletic role models* (M=4.10), *volunteer involvement in sport* (M=4.05), and *public interest* (M=4.05). In round 4, there was no agreement about two indirect factors affecting Olympic achievements (lower than 3.00), these were *health concerns* (M=2.86) and *judges' bias in subjective sports* (M=2.81).

Correspondingly, the six indirect factors mentioned above were also determined by the panel to be the most important factors in ranking from 1 to 6 with relatively high ranking scores (from 145 to 87). The three next factors, *political climate and*

politicians' support, media and corporate bias, drugs in sport, and conducive environment, were ranked between 7 to 10.

Summary

The Australian panel identified nine criteria for defining Australia's Olympic success together with 17 direct factors and 18 indirect factors that they believed affected Australia's sporting success at the Olympics. By re-rating and ranking in round 4, the panel identified the five most important criteria, the ten most important direct factors, and the ten most important indirect factors. The following sections present the results of the Delphi surveys according to the Taiwanese panel's opinions and responses to round 3 and round 4.

Delphi results: Taiwan

This section reports the Taiwanese panel's response to the three issues in question. The qualitative data (the items identified by the panel) and statistical summaries for each question are presented in **Table 7.4**, **Table 7.5**, and **Table 7.6**. A summary of the findings from the Delphi surveys in Taiwan is also provided at the end of this section.

Criteria for defining Taiwan's Olympic success

Table 7.4 presents the Taiwanese panel's consensus on criteria for defining Taiwan's Olympic success. Twelve criteria were identified by the panel members to be important for Taiwan to define national Olympic success. Eleven of the 12 criteria were rated with a range of rating mean scores between 4.69 and 4.19 suggesting a high level of agreement for these criteria. Among the 12 criteria, the aspect of a *high number of medals won as a percentage of population* was the only criterion that was rated at a rating mean score below 4.00. This one obtained the lowest rating mean score and highest standard deviation ($M=3.41$, $SD=0.91$) suggesting much less agreement on relevance of this criterion to Olympic success.

Table 7.4
Criteria for defining Taiwan's Olympic success

Criteria (n=32)	Rank		Mean (SD)	
	R4	Sum	R4	R3
1. Increasing international exposure and building up national reputation	1	124	4.69 (0.47)	4.68 (0.48)
2. Promoting athletes' social status	2	63	4.56 (0.55)	4.58 (0.60)
3. Winning more [gold] medals across a number of sports	3	54	4.44 (0.62)	4.45 (0.62)
4. Attracting more corporations' sponsorship	4	52	4.50 (0.62)	4.52 (0.66)
5. Successful team-work of national sports organisations	5	41	4.66 (0.56)	4.65 (0.56)
6. Promoting national identity and a united society		37	4.19 (0.75)	4.26 (0.81)
7. Increasing the public interest and mass participation		29	4.34 (0.70)	4.35 (0.78)
8. The investment of financial and human resources in the Olympics		25	4.22 (0.62)	4.26 (0.62)
9. Attracting the media to support elite sport development		19	4.22 (0.74)	4.26 (0.75)
10. Best performance at the Olympics		16	4.38 (0.71)	4.29 (0.76)
11. More athletes and teams qualified and participating in the Olympics		11	4.25 (0.83)	4.23 (0.83)
12. A high number of medals won as a percentage of population		0	3.41 (0.91)	3.23 (0.97)

Increasing international exposure and building up national reputation received the highest rating mean score and strong agreement (M=4.69, SD=0.47). *Successful team-work of national sports organisations* obtained the second highest rating mean score (M = 4.66, SD=0.56). The third and fourth rated criterion, *promoting athletes' social status* and *attracting more corporations' sponsorship*, received a mean score of 4.56 (SD=0.55) and 4.50 (SD=0.62) respectively. The remaining aspects were rated between 4.44 and 4.19, which signified the Taiwanese panel's high level of consensus on these issues.

With respect to *ranking*, the majority of panel members ranked *increasing international exposure and building up national reputation* as the top priority in defining Taiwan's Olympic performance with a significantly high ranking score (sum=124). *Promoting athletes' social status* (sum=63) and *winning more [gold] medals across a number of sports* (sum=54) followed as the second and third priority, which had relatively low ranking scores. No panellist ranked the aspect of *a high number of medals won as a*

percentage of population as an important criterion to define Olympic success for Taiwan. According to this analysis, the Taiwanese panel reached a high degree of consensus on the issue of defining Taiwan's Olympic success.

Direct factors contributing to Taiwan's Olympic success

Panellists identified 18 direct factors that affected Taiwan's Olympic performance. **Table 7.5** shows Taiwanese panel's collective opinions of direct factors contributing to Taiwan's Olympic achievements. Among these factors, five show a slightly reduced mean, and a slightly increased dispersion from round 3 to round 4. These were *sustained training programs, quality coaches, the application of sports science, elite athlete incentive scheme, and the development of sport for all*.

Table 7.5

Direct factors contributing to Taiwan's Olympic success

Direct Factors (n=32)	Rank		Mean (SD)	
	R4	Sum	R4	R3
1. Sport leaders' perception	1	236	4.78 (0.42)	4.81 (0.42)
2. Sustained training programs	2	178	4.78 *(0.59)	4.81 (0.54)
3. Selection and promotion of target Olympic sports	3	168	4.66 (0.62)	4.65 (0.62)
4. Quality coaches	4	145	4.78 *(0.42)	4.71 (0.40)
5. Mechanism and effectiveness of national sport organisations	5	115	4.56 (0.50)	4.55 (0.57)
6. Application of sports science	6	109	4.56 *(0.77)	4.48 (0.75)
7. Sport professionals' education	7	103	4.69 (0.55)	4.71 (0.55)
8. The number of elite athletes	8	101	4.44 (0.41)	4.45 (0.61)
9. Government support and effectiveness	9	97	4.31 (0.42)	4.32 (0.47)
10. Elite athlete incentive scheme	10	65	4.44 *(0.71)	4.42 (0.67)
11. The development of sport for all		63	4.25 *(0.79)	4.29 (0.75)
12. Outstanding coach incentive scheme		59	4.53 (0.72)	4.48 (0.73)
13. The form of talent identification system		57	4.50 (0.61)	4.52 (0.62)
14. Government funding support		55	4.16 (0.50)	4.06 (0.50)
15. Coach education and accreditation system		44	4.41 (0.72)	4.48 (0.72)
16. The employment of foreign coaches		43	4.22 (0.51)	4.23 (0.57)
17. The improvement of sports facilities		42	4.41 (0.81)	4.45 (0.90)
18. Access to overseas training and international competitions		23	4.28 (0.59)	4.35 (0.63)

Note: The asterisk * denote an increased dispersion from round 3 to round 4.

The rating mean scores among the 18 direct factors were close. The range was from 4.81 to 4.06 in round 3 and 4.78 and 4.16 in round 4. *Sport leaders' perception*, *Sustained training programs*, and *Quality coaches* obtained the same rating mean scores (M=4.78), which were the highest rating. These were followed by *sport professionals' education*, *selection and promotion of target Olympic sports*, *application of sports science*, and *mechanism and effectiveness of national sport organisations* with the rating mean scores between 4.69 and 4.56. *Government funding support* and *the employment of foreign coaches* received the lowest rating mean scores (4.16 and 4.22 respectively).

In order of importance, the panellists ranked *Sport leaders' perception* as the top direct factor with a significantly high ranking score (sum=236), compared with other direct factors identified by the panel. *Sustained training programs*, *selection and promotion of target Olympic sports*, and *quality coaches* were ranked at the second, third, and fourth position, their ranking scores were 178, 168, and 145 respectively.

Indirect factors affecting Taiwan's Olympic success

The Taiwanese panellists' judgements on indirect factor affecting Taiwan's Olympic success are presented in **Table 7.6**. They identified 19 direct factors, three of which showed an increased dispersion from round 3 to round 4. These were: *the progress of professionalism*, *cross-strait relationship and international political scene*, and *Olympic education*.

The range of rating mean scores was from 4.61 to 3.45 in round 3 compared to the range of 4.56 and 3.31 in round 4. 17 were rated at 4.00 or above in round 3, while in round 4, 14 remained. Fifteen of 19 indirect factors were rated at 4.00 or above in the final round. *Support from private sector* obtained the highest rating mean score with a score of 4.56 (SD=0.67). It was followed by *values of sport in the society* (M=4.53, SD=0.67) and *progress of professionalism* (M=4.53, SD=0.87), which had an equal score. *Physical education in schools*, *national political climate and economic development*, and *access to up-to-date information* received the same rating mean score at 4.50. The remaining 4 indirect factors had a range of mean scores from 3.31 to 3.91. These included: *emphasis*

of Olympic sports in other countries, drugs in sport, Olympic education, and limitation on the development of aquatic sports.

Table 7.6

Indirect factors contributing to Taiwan's Olympic success

Indirect Factor (n=32)	Rank		Mean (SD)		Mean (SD)	
	R4	Sum	R4	R3	R3	R3
1. Support from private sector	1	183	4.56	(0.67)	4.61	(0.67)
2. Values of sport in the society	2	175	4.53	(0.67)	4.48	(0.71)
3. Planning and effective implementation of sports policy	3	174	4.47	(0.57)	4.45	(0.61)
4. Physical education in schools	4	171	4.50	(0.97)	4.42	(1.00)
5. National political climate and economic development	5	160	4.50	(0.64)	4.45	(0.65)
6. International sporting exchanges	6	134	4.31	(0.57)	4.39	(0.57)
7. Progress of professionalism	7	118	4.53	*(0.87)	4.52	(0.82)
8. Access to up-to-date information	8	101	4.50	(0.57)	4.48	(0.61)
9. Athlete's social status	9	97	4.34	(0.87)	4.35	(0.92)
10. Sporting culture	10	74	4.28	(0.79)	4.32	(0.87)
11. ** Cross-strait relationship & international political scene		62	3.63	*(0.62)	3.65	(0.56)
12. Convenience of access to facility		57	4.22	(0.57)	3.45	(0.62)
13. Changes of international sports profile		54	4.22	(0.68)	4.26	(0.68)
14. Quality workers in the media		38	4.13	(0.67)	4.16	(0.72)
15. Emphasis of Olympic sports in other countries		35	3.81	(0.82)	4.00	(0.86)
16. Quality officials		17	4.00	(0.98)	4.13	(0.98)
17. Drugs in sport		13	3.44	(1.12)	4.48	(1.13)
18. Olympic education		14	3.91	*(0.91)	4.06	(0.88)
19. Limitation on the development of aquatic sports		6	3.31	(1.13)	4.29	(1.13)

Note: The asterisk * denote an increased dispersion from round 3 to round 4.

** The words *cross-strait* refers to the People Republic China and the Republic of China, Taiwan.

In terms of ranking, the panel members identified *support from private sector*, *values of sport in the society*, and *planning and effective implementation of sports policy* as the top 3 indirect factors affecting Taiwan's Olympic performance with the sum of ranking score at 183, 175, and 174 respectively. *Physical education in schools* and *National political climate and economic development* were closely followed ranking top 4 and top 5 with a score of 171 and 160. The remaining top 10 ranking indirect factors included *international sporting exchanges*, *progress of professionalism*, *access to up-to-date information*, *athlete's social status*, and *sporting culture* with ranking scores between 134 and 74.

Summary

The Taiwanese panel determined 12 criteria for defining Taiwan's Olympic performance and 18 direct factors and 19 indirect factors affecting Taiwan's sporting achievements at the Olympics. By re-rating and ranking in round 4, the panel identified the five most important criteria, the ten most important direct factors, and the ten most important indirect factors. The next section discusses the Delphi results between Australia and Taiwan by comparing the similarities and differences.

Juxtaposition and comparison

The following sub-sections juxtapose and compare the results of the final round Delphi survey. They focus on the rankings as to top 5 criteria (in question 1) for defining Olympic success and top 10 direct/indirect factors (in questions 2 and question 3) contributing to Olympic success in Australia and Taiwan. The purpose of the re-rating ranking process sought to identify the level of importance of the list of summary statements previously recognised by each panel in the third round.

Criteria for defining Olympic success

The juxtaposition of the top five criteria for defining national Olympic success in Australian and Taiwan is presented in **Table 7.7**. The results disclosed marked differences between the two countries in terms of criteria and priorities. The Australian panel ranked *public interest and participation in sport, nation pride and confidence* and *a stronger sporting tradition and culture* as the most fundamental criteria to identify Australia's Olympic success. In contrast, the Taiwanese panel acknowledged that *increasing international media exposure* and *building up national reputation, promoting athletes' social status, and winning more [gold] medals across a number of sports* were the most crucial criteria for Taiwan.

Table 7.7***Comparison of the top five criteria for defining Olympic success, Australia and Taiwan***

Australia	Rank	Taiwan
Increased public interest and participation in sports	1	Increasing international media exposure and building up national reputation
Enhanced national pride and confidence	2	Promoting athletes' social status
A stronger sporting tradition and culture	3	Winning more [gold] medals across a number of sports
The elite sport system in Australia is validated	4	Attracting more corporations' sponsorship
The greater number of athletes/teams reaching the finals	5	Successful team-work of national sport organisations

Comparison of the results revealed that while sporting achievements are emphasized by the function of the Olympic Games, responses are different for each country. In Australia, sporting success at the Olympics is highly regarded as relevant to promoting community sports (top-down strategy, for example), reinforcing national or cultural identity, and extending sporting culture, which has a positive impact on social values. By comparison, in Taiwan, elite athletes' participation and performance at the Games are associated with nation building and sport education. While the validity of an elite sport system is highlighted by both nations, the support of sport sponsorship is stressed by Taiwan.

Direct factors contributing to Olympic success

Table 7.8 juxtaposes the top 10 *direct factors* contributing to national Olympic success identified by the Australian and Taiwanese panels. The results indicated some similarities between the two countries. For example, *government support, quality coaches, elite training programs, the application of sports science, and competent management in sporting bodies* were identified by both panels. Nevertheless, the Taiwanese panel ranked *sport leaders' perception, the selection of target Olympic sports, professional education, and the number of elite athletes* as the critical factors for Taiwan to achieve Olympic success. In contrast, the Australian panel placed more emphasis on *a structured and stable sport system, access to high quality competitions, and athlete support* as other key factors for Australia.

Table 7.8***Comparison of direct factors contributing to Olympic success, Australia and Taiwan***

Australia	Rank	Taiwan
*Government funding and support (TW9)	1	Sport leaders' perception
A structured and stable sport system	2	*Sustained training programs
Access to high quality competitions	3	Selection and promotion of target Olympic sports
*Quality coaches and officials (TW4)	4	*Quality coaches
Athlete support	5	*Mechanism and effectiveness of NSOs
Access to good facilities	6	*Application of sports science
*Elite training programs (TW2)	7	Sport professionals' education
*Advanced technology and sports science support (TW6)	8	The number of elite athletes
Sporting tradition and culture	9	*Government support and effectiveness
*Competent management in sporting bodies (TW5)	10	Elite athlete incentive scheme

Note: The asterisk * on this table denotes similarity between Australia and Taiwan

Number in bracket indicates the relative ranking in Taiwan

Indirect factors affecting Olympic success

Table 7.9 juxtaposes the top 10 *indirect factors* affecting national Olympic success between Australia and Taiwan. The responses uncovered many distinctive differences in terms of indirect factors in both nations. For example, *the progress of sport in other countries, grass roots sport strategy* and *athletic role models* were especially identified by the Australian panel, whilst the Taiwanese panel acknowledged that *support from private sector, value of sport in the society, and the planning and effective sports policy* were vital factors affecting Taiwan's Olympic performances. Two parallel indirect factors were identified by both panels, viz. *physical education in schools* and *political climate*, although ranked differently.

The indirect factors identified by the two panels appear to be varied. However, apart from the similarities in educational factor (i.e., physical education) and political factor (e.g., political support), a close examination showed that sociocultural factors seem to be most influential in both countries.

Table 7.9***Comparison of indirect factors affecting Olympic success, Australia and Taiwan***

Australia	Rank	Taiwan
*Physical education in schools (TW4)	1	Support from private sector
The progress of sport in other countries	2	Values of sport in the society
Grass roots sport strategy	3	Planning and effective implementation of sports policy
Athletic role models	4	*Physical education in schools
Volunteer involvement in sport	5	*National political climate and economic development
Public interest	6	International sporting exchanges
*Political climate and politicians' support (TW5)	7	Progress of professionalism
Media and corporate bias	8	Access to up-to-date information
Drugs in sport	9	Athlete's social status
Conducive environment	10	Sporting culture

Note: The asterisk * on this table denotes similarity between Australia and Taiwan

Number in brackets indicates the relative ranking in Taiwan

Findings and discussion

Previously, a conceptual framework for this study was established to recognise possible environmental influences (e.g., geographic, demographic, political, economic, sociocultural, educational, and technological factors - see **Figure 3.1**). Based on the results of the Delphi study, it is opportune to further discuss and compare the findings from the Delphi results to enable a deeper understanding of the study outcomes in relation to the stakeholders' perception of Olympic success and the environmental factors surrounding the respective national government elite sport systems. The data analyses are presented in the following sections.

The values defining Olympic success

Arguably, the definition of Olympic success (or Olympic values) can be measured in quantitative and qualitative terms. Table 7.10 illustrates and compares criteria for defining national Olympic success previously identified by the Australian and Taiwanese stakeholder panels in terms of traditional values and additional values of Olympic success. The term traditional values refer to the motto of the Olympic Games, to be "Faster, Higher, Stronger", which is generally regarded as the initial aim of the

Olympic Games. The additional values, in contrast, refer to other benefits obtained from participating in the Games. It is suggested that the traditional values are more tangible, as all participants' performances at the Games can be statistically measured and shown in "numbers", (e.g., time, length, height, and scores). Conversely, the additional values tend to be more intangible depending on individual and national stance.

In discussing the stakeholders' consensus over the definition of Olympic success from these viewpoints, it is clear that the emphasis on traditional values was a dominant feature in both countries (see Table 7.10) while the additional values, such as increased public interest in sport and expanded national reputation, were considered to be meaningful for the respective countries.

Table 7.10

Matrix of the values defining Olympic success: the Delphi results

Australian stakeholders' consensus	Tr	Additional values				
		Po	Sc	Ed	Ec	Og
The greater number of athletes/teams reaching the finals (5) A comparatively high number of medals won per head of population A high number of medals won and a high ranking on medal tally Best performance and fair play by athletes and teams	Tr					
	Tr					
	Tr					
				Ed		
Enhanced national pride and confidence (2)		Po	Sc			
A stronger sporting tradition and culture (3) The public perceives that Australian team was successful Increased public interest and participation in sports (1)			Sc			
			Sc			
			Sc	Ed		
The elite sport system in Australia is validated (4)						Og
Taiwanese stakeholders' consensus	Tr	Additional values				
Winning more [gold] medals across a number of sports (3) More athletes/ teams qualified & participating in the Olympics A high number of medals won as a percentage of population Best performance at the Olympics	Tr					
	Tr					
	Tr					
				Ed		
Increasing international exposure & building up national reputation (1) Promoting national identity & a united society		Po				
		Po	Sc			
Promoting athletes' social status (2) Increasing the public interest & mass participation			Sc	Ed		
			Sc	Ed		
Attracting the media to support elite sport development (4) Attracting more corporations' sponsorship					Ec	
					Ec	
Successful team-work of national sports organisations (5) The investment of financial & human resources in the Olympics						Og
						Og

Key: Tr = Traditional values Sc = Sociocultural values Po = Political values
Ed = Educational values Ec = Economic values Og = Organisational values

Note: Number in bracket indicates the results of the Delphi study in terms of ranking.

Traditional values of Olympic success

The findings showed that although Taiwan did not reach Australia's high achievements in past Olympic Games, traditional values of Olympic success (e.g., the greater number of athletes reaching the finals and a high ranking on the medal tally) were supported by both Australian and Taiwanese stakeholders. Moreover, despite ongoing criticisms over the conflicts between the initial ideals of the Olympic Movement and the trends of the Games towards nationalism, professionalism and commercialism (Guttmann, 2002; Lucas, 1992; Nakamura, 1996), the results indicated a strong similarity in the pursuit of traditional values of Olympic success, namely the quest for higher performance at the Olympic Games.

Additional values of Olympic success

As shown in **Table 7.10**, the most important additional values of Olympic success held by the stakeholder panels in both countries, were *sociocultural values* and *educational values*. By and large, these additional values identified were related to the enhancement of national pride and an increase in public interest. The Australian stakeholders emphasized the sociocultural values of reinforcing the sport tradition and culture by means of participating in the Olympic Games. By contrast, the Taiwanese stakeholders considered, elite sporting success at the Games to be an important vehicle to raise athletes' social status, as expressed by the Taiwanese stakeholders.

Despite their cultural differences, both the Australian and Taiwanese stakeholder panels identified the *political values* of Olympic success with the rise of national standing. Nevertheless, due to Taiwan's unique political status in international society (resulting from the two Chinas controversy), the Taiwanese stakeholders saw the Olympic Games as a great opportunity for Taiwan to increase international exposure through its athletes' participation. The statistical analysis of the Delphi results from Taiwan clearly demonstrated that such political values outweighed all other values. Similarly, the Olympic values identified by the Australian stakeholders tended to be far more significant than just taking part, with the national teams' performances generally interpreted as a vehicle for enhancing national pride and confidence.

As well as the political implications, the success of Taiwanese athletes at the Olympic Games was expected to attract corporate sponsorship and media support. It is speculated that sponsorship from the private sector and media interest will only be possible when athletes and teams are “successful”. Taiwan’s long-term stagnation in elite sport has affected the growth of its sport industry in many aspects; especially in attracting commercial, private and media support. In contrast, intriguingly, the Australian panel did not make any comments on this issue. For decades elite sport development in Australia has been closely linked with professional sport and commercial activities (Adair et al., 1997), and therefore, the economic values of Olympic success may be taken for granted in Australian society, at least by the stakeholders in the Australian Delphi panel.

Earlier evidence showed that in recent decades many governments were increasingly aware of the additional values of elite sporting success and thus were more willing to devote government resources to improve elite athletic performance in international competitions (Green et al., 2005; Oakley et al., 2001). From the observation of this growing trend, it is not surprising that the organisational values of Olympic success were clearly identified by both countries’ stakeholders in this study. Despite arriving at different levels of success in past Olympic Games, the national teams’ performance in the Games was naturally considered as a test of the capability and validity of their elite sport systems. In Australia, Nihill (2005, p. 22) noted that “the primary way the Australian sport system is judged by the public is by the success we have at the Summer Olympics and to a lesser extent the Commonwealth Games and Winter Olympics.”

Overall, the findings of the Olympic values held by the two panels indicated a large degree of consensus across both countries. This suggested that while the traditional values of Olympic success in relation to pursuing higher performance and winning more medals were principal objectives, the additional values of Olympic success in the contexts of politics, sociocultural issues, education, economics as well as in the organisational perspective, particularly caught stakeholders’ attention in the respective countries. The next section provides further explanations of the top 10 direct and indirect factors contributing to Olympic success in both countries in terms of organisational and environmental influences.

Organisational and environmental influences

Table 7.11 and Table 7.12 illustrate and compare the top 10 *direct* and *indirect* factors contributing to Olympic success identified by the stakeholder panels in both countries. By means of an inductive analysis, both direct and indirect factors are classified as organisational factors and/or as environmental factors. Furthermore, based on the findings of the Delphi study, these factors are marked by different symbols to highlight primary impact and secondary impact on national Olympic success

Table 7.11

Matrix of direct factors contributing to national Olympic success: The Delphi results

Top 10 direct factors contributing to Australia's Olympic success	Og	Environmental influences						
		Po	Sc	Ec	Ed	Te	Ge	De
1. Government funding and support	●	○		○				
2. A structured and stable sport system	●	○	○					
3. Access to high quality competitions	●		○	○				
4. Quality coaches and officials	●		○		○			
5. Athlete support	●		○			○		
6. Access to good facilities	●	○					○	
7. Elite training programs	●		○	○				
8. Advanced technology and sport science support	○				○	●		
9. Sporting tradition and culture			●		○		○	
10. Competent management in sporting bodies	●		○		○			
Top 10 direct factors contributing to Taiwan's Olympic success	Og	Environmental influences						
		Po	Sc	Ec	Ed	Te	Ge	De
1. Sport leaders' perception		●	○	○				
2. Sustained training programs	●	○		○				
3. Selection and promotion of target Olympic sports	●		○		○			
4. Quality coaches	●		○		○			
5. Mechanism and effectiveness of NSOs	●		○		○			
6. Application of sport science	○				○	●		
7. Sport professionals' education	○		○		●			
8. The number of elite athletes	○		●		○			
9. Government support and effectiveness	●	○			○			
10. Elite athlete incentive scheme	●		○		○			

Key: Og = Organisational factor Po = Political factor Sc = Sociocultural factor
 Ec = Economic factor Ed = Educational factor Tc = Technical factor
 Go = Geographic factor De = Demographic factor

Legend: ● = Primary impact ○ = Secondary impact

Table 7.12**Matrix of indirect factors affecting national Olympic success: The Delphi results**

Top 10 indirect factors affecting Australia's Olympic performance	Og	Environmental influences						
		Po	Sc	Ec	Ed	Te	Ge	De
1. Physical education in schools			△		▲			
2. The progress of sport in other countries	▲					△		
3. Grass roots sport strategy	▲		△		△			
4. Athletic role models	△		△		▲			
5. Volunteer involvement in sport	△		▲					
6. Public interest			▲		△		△	
7. Political climate and politicians' support		▲	△					
8. Media and corporate bias			▲		△			
9. Drugs in sport					△	▲		
10. Conducive environment							▲	
Top 10 indirect factors affecting Taiwan's Olympic performance	Og	Environmental influences						
		Po	Sc	Ec	Ed	Tc	Go	De
1. Support from private sector	△		△	▲				
2. Values of sport in the society			▲		△			
3. Planning and effective implementation of sports policy	▲	△						
4. Physical education in schools	△		△		▲			
5. National political climate and economic development		▲		△				
6. International sporting exchanges	▲	△						
7. Progress of professionalism	△		▲					
8. Access to up-to-date information	△					▲		
9. Athlete's social status			▲		△			
10. Sporting culture			▲		△			

Key: Og = Organisational factor Po = Political factor Sc = Sociocultural factor
 Ec = Economic factor Ed = Educational factor Tc = Technical factor
 Go = Geographic factor De = Demographic factor

Legend: ▲ = Primary impact △ = Secondary impact

Table 7.11 reveals that among the top 10 direct factors identified by the stakeholder panels in both countries; the majority were associated with organisational factors in the national context. More detailed descriptions are presented as follows.

As shown in **Table 7.11**, in the Australian context, eight direct factors are categorized as organisational factors having primary impact on national Olympic success. These include *government funding and support, a structured sport system, access to high quality competitions, quality coaches and officials, athlete support, access to good facilities, elite training programs, advanced technology and sports science support, and*

competent management in sporting bodies. Similarly, six direct factors are regarded as organisational factors in the Taiwanese context, namely, *sustained trained programs, selection and promotion of target Olympic sport, quality coaches, mechanism and effectiveness of NSOs, government support and effectiveness, and elite athlete incentive scheme*.

Previously, a review of documentary evidence indicated that in Australia, despite struggling with the major political parties' different philosophy on sport during the 1970s, since the establishment of the ASC in 1985 the sustained promotion of high performance sport has become a bipartisan policy. This has led to more integrated and efficient approaches to elite sport development were resulted. Accordingly, it is not surprising that a large degree of the Australian stakeholders' consensus over the primary impact on national Olympic success was attributed to organisational factors, with the exception of a sociocultural factor that was related to Australia's strong sporting tradition and culture.

Similarly, organisational factors were largely considered by the Taiwanese stakeholder panel as having primary impact on Taiwan's Olympic performance (see **Table 7.11**). In contrast though, a political factor regarding sport leaders' perception was, in particular, identified by stakeholders as a fundamental factor influencing elite sport development. Earlier evidence showed that the sport leaders in the Taiwanese public sector more often than not were politically appointed. As a consequence, the Taiwanese panel indicated that political leaders' perceptions of Olympic values have strong impact on the way in which elite sport policies are directed.

In addition to sociocultural influences in Australia and political influence in Taiwan, as previously discussed, technological factors were considered to have direct effect contributing to or hampering elite sporting progress in Australia and Taiwan. In Australia, *advanced technology and sport science support* was indicated to be a key direct factor for Olympic success; likewise, *application of sport science* in Taiwan was considered to have primary impact on elite sport. The findings from the documentary analysis suggested that in the Australian context, the development of sports science and technology to enhance high performance sport dated back in 1940s and 1950s.

Furthermore, the creation of a special unit within the AIS was a milestone for the reinforcement of high performance. By contrast, the application of sports science in Taiwan is a relatively recent phenomenon and the progress has been hindered due to a shortage of sports science professionals working for national elite athletic programs.

In terms of the indirect factors affecting Olympic success, the analysis and comparison of primary impact on Olympic success in both countries, as shown in **Table 7.12**, suggested that, while primary impact resulting from the environmental influence varies, the sociocultural factors and educational factors (to a less extent) are dominant features. For example, in the Taiwanese context, sociocultural impact such as *values of sport in the society*, *progress of professionalism*, *athlete's social status*, and (a lack of) *sporting culture* have profound impact on Taiwan's high performance sport development. In contrast in the sociocultural context of Australia, *volunteer involvement in sport*, *public interest* (in elite sport), and *media and corporate bias* (see **Table 7.12**) in the sociocultural context of Australia respectively all played roles in foresting elite sport development.

With regards to the educational factors, intriguingly, both panels identified physical education in schools as an important factor for elite sport development. Earlier documentary evidence revealed that in Taiwan, despite the introduction of a range of school sports clubs at all levels and the incentive scheme to encourage potential athletes, the heavy emphasis of academic performance and lack of support from parents hindered elite sport development. In contrast, although in Australia physical education policies vary between states (or territories), community clubs and sport institutes at local and/or state levels offer a range of opportunities for student athletes to pursue their sporting interest.

In summary, the findings from the inductive analyses of the direct and indirect factors, as identified by the stakeholder panels in the respective countries, suggested that, the organisational factors have greater impact on national Olympic success, compared to various environmental influences in the national context. However, political and sociocultural factors appeared to be key determinants affecting the functions and operation of the NGESS in the Australian and Taiwanese contexts.

Chapter summary

This chapter discussed the results of the data analysis of the four-round Delphi surveys. As noted, the purpose of the Delphi study was to explore issues in relation to three research questions in this study, that is:

- The stakeholders' viewpoints of the definition of Olympic success
- The environmental influences on the development of elite sport
- The environmental influences affecting the mechanisms of the NGESS

The Australian panel identified nine criteria (see **Table 7.1**), 17 direct factors (see **Table 7.2**), and 18 indirect factors (see **Table 7.3**) with regard to the definition and contribution to the Australia's Olympic success. At the same time, the Taiwanese panel indicated 12 criteria (see **Table 7.4**), 18 direct factors (see **Table 7.5**), and 19 indirect factors (see **Table 7.6**) relating to the definition and contribution to the Taiwan's Olympic achievements.

On the basis of the results of the Delphi study, the rankings as to top 5 criteria for defining Olympic success (see **Table 7.7**) and top 10 direct/indirect factors contributing to Olympic success in Australia and Taiwan (see **Table 7.8** and **Table 7.9**) were juxtaposed and compared. Then, the top 5 criteria for Olympic success were further analysed in term of Olympic values (traditional values and additional values) (see **Table 7.10**), the top 10 direct/indirect factors were also discussed in terms of organisational and environmental influences (see **Table 7.11** and **Table 7.12**).

The next chapter discusses the answers to the research questions of this study, draws conclusions from the major findings of the documentary evidence and the Delphi study, and addresses the theoretical and practical implications of this study. Recommendations for future research are also addressed.

CHAPTER 8

Summary, Conclusions and Recommendations

Introduction

The problem driving this study was Taiwan's stagnation in the development of elite sport and the need to devise a better elite sport system. This study compared the existing national government elite sport systems (NGESS) in Taiwan and Australia to better understand the functions and mechanisms of the NGESS in both countries. A special goal was to identify environmental influences on the respective systems, so as to generate recommendations for the Taiwanese Government to advance elite sport development and to improve performances at future Olympic Games.

This chapter presents the findings for the research questions, draws conclusions and makes recommendations pertaining to the theoretical and practical implications of this study. The chapter begins with a review of the relevant concepts underpinning this study comparing the NGESS of the two countries, and outlines the reasons for adopting the research approaches. Next, it addresses the research questions using the major findings that emerged from the documentary evidence (Chapter 5 and 6) and the Delphi results (Chapter 7). It also summarizes the results for *a definition of Olympic success; the similarities and differences between the ASC and the NCPFS; environmental influences on elite sport systems in Australia and Taiwan; and components of a successful elite sport development system*. The final section presents a revised conceptual framework for understanding the influences of the environmental factors on the NGESS based on the major findings of this study. More importantly, it proposes recommendations for Taiwan to consider as effective approaches to reinforce its future elite sport development. This chapter concludes with recommendations for further research.

Review of concepts

Four primary concepts underpin this study. These are: Olympic success; government intervention; comparative study as a way of learning; and the theoretical and conceptual context. This section reviews these concepts and also the research approaches are also outlined.

Olympic success

Olympics has more to offer than medals.

(Los Angeles Times, cited in Lucas, 1992, p. 15)

Traditionally, people judge a nation's elite sport achievement by the number of medals won at the Olympic Games. Numerous studies conducted on national sporting success predominantly used the Olympic medal tally as the standard indicator. Other studies developed alternative methods for promoting a range of judgments, such as using the medal count by population or applying different weighted scores in the distribution of medals. Researchers in Olympic studies (e.g., , 1992; Seppänen, 1981; Toohey et al., 2000) argued that the original ideals of the modern Olympics (e.g., Olympism) should not be overlooked. They contended that the meaning of Olympic success is more than just winning medals.

There is little doubt that the Olympic Games provide the world's best stage for national elite athletes to display individual abilities. These Games also offer countries a great opportunity to demonstrate their political, economic and social ideologies. This study used the status of the Olympic Games and the popularity of the medal count for preliminary interpretation and comparison of the national performances between Australia and Taiwan. However, a new attempt was made to seek other perspectives from the respective countries with reference to stakeholders' viewpoints of the definition of Olympic success.

Government intervention

The concept of intervention implies that a need exists that must be addressed or satisfied – that is, a need exists to improve some neglected or deficient aspect in the society.

(Chelladurai, 2005, p. 331)

For at least 30 years, government has become increasingly involved in sport because the national benefits from promoting sport. The significance of the Olympics, together with the growing competitiveness in the international sport arena encouraged governments to invest more in elite sport. While research conducted on factors associated with national sporting success in the Olympic Games have well researched, very few studies have focused especially on the role that governments played in elite sport development.

Based on Olympic medals won at the Summer Olympic Games per unit population, Australia is a very successful sporting nation (ABS, 2005a; Houlihan, 1997; Stewart et al., 2004). The literature review indicated that, before establishing the AIS and the ASC in 1981 and in 1985 respectively, and Australian Federal Government involvement in elite sport was indirect and limited. The national team's debacle at the 1976 Montreal Olympic Games was the catalyst for the Federal Government's active participation in elite sport. Australian elite athletes' remarkable performances in the subsequent Summer Olympic Games could be attributed to its input of financial and other resources.

In contrast to Australia, a country of similar population size and economic conditions, Taiwan had not achieved a high level of excellence in the Olympic Games. Despite the government support for competitive sport through the Education Ministry that was discernible from the early 1970s, a lack of a special sport agency to direct elite sports policy was a major obstacle confronting Taiwan's elite sport development. The creation of the NCPFS in 1997 was considered to be an important milestone, as more government funding and human resources were injected into this agency to deal with national sport affairs. Despite this, the results of Taiwanese teams participating in the Asian Games and the Olympics have not shown noticeable improvement. The present study identified the need for the Central Government in Taiwan to be more effectively and directly involved in elite sport advancement.

To help devise an effective role for the Taiwanese Government in promoting elite sport, this study compared the NGESS of Australia and Taiwan. It focused

specifically on the current national government sport agencies, the ASC and the NCPFS, as well as environmental influences on them.

Comparative study as a way of learning

It was not comparison for comparison's sake, but for its practical utility.

(Krüger, 1987, p. 213)

Comparative research is widely valued in sport studies, however, little research was found that compared national government agencies for elite sport. This study makes a substantial contribution to the field of organisational studies and comparative sport research. It drew on useful comparative approaches to exploring the NGESS in Australia and Taiwan. Besides characterising comparative research strategies, it raised key issues on how the respective national governments are involved in national elite sport. It also identified similarities and differences between the nations and permitted deductive learning from Australia's elite sport system.

The theoretical and conceptual context

The best theories are those which you have found or invented to match your own experience of the organisation...

(Hatch, 1997, p. 16)

In addition to using comparative approaches to explore the functions of the government sport agencies in the respective countries, this study drew on organisation theory and open systems theory to facilitate a broader observation of the two systems in question. Its conceptual framework incorporated a micro approach to examine the internal environment of the ASC and the NCPFS, and a macro approach to explore the external environment. Specifically, it adopted a systems view to conceptualize these government sport agencies as open systems.

The systems model of organisations suggests that all organisations are made up of identifiable sub-units, which depend on the environment in which they operate for inputs. The sub-units constantly interact with their environment to create effective and efficient outputs. The application of organisational and open systems theories in sport management research has emerged in recent years. However, very few studies

probed the relationship of government sport agencies and their general settings. This study attempted to fill this gap by using these theories in the conceptual framework.

Research approaches

In order to achieve a deeper understanding of the national government elite sport systems in Australia and Taiwan, this study employed a qualitative design for comparative analyses. The documentary method and the Delphi technique were used to gather rich and detailed data from both countries. A four-step comparative framework (description, interpretation, juxtaposition, and comparison), along with content analysis, were combined to analyse data throughout the research process.

The documentary method was indispensable for sifting through a broad range of documents from governments and sport organisations for the preliminary exploration phases. The Delphi technique complemented that method by providing a systematic procedure for obtaining comparative information from diverse sport experts from around each country. Four rounds of Delphi surveys, using electronic questionnaires, were conducted to achieve reliable consensus and identify key areas of stakeholders' perceptions. These covered criteria for defining national Olympic success and direct and indirect factors contributing to that success. The primary data from surveys were treated as leading sources to corroborate and enhance the findings from documentary evidence. The use of documentary analysis, the Delphi study, the researcher's personal experience and observation in these countries, made it possible to triangulate data and ensure the validity of the research process. The next section discusses major findings for the research questions and summarizes the results.

Summary of results

This study explored and compared the NGESS of Australia and Taiwan to meet its major goal of generating recommendations to assist the Taiwanese Government to enhance elite sport development. It established specific objectives and addressed six research questions. This section discusses the major findings for the six research questions and summarizes the results under the following four sub-headings: *The*

definition of Olympic success (RQ 1); the similarities and differences between the ASC and the NCPFS (RQ 2-3); environmental influences on elite sport systems in Australia and Taiwan (RQ 4-5); and components of a successful elite sport development system (RQ 6).

The definition of Olympic success

RQ 1: How do stakeholders in Australia and Taiwan define Olympic success?

At the outset, this study used medal counts as a basic measure to examine and compared the elite sporting success at the Olympic Games between Australia and Taiwan. The Delphi study was conducted in order to identify the similarities and differences between stakeholders' viewpoints on the definition of Olympic success for their respective countries,

The results of the Delphi study indicated that traditional Olympic values, related to the quest for excellence on the Olympic stage and winning medals, were still seen as central issues by stakeholder panels in each country. Notwithstanding, the additional values associated with taking part in the Olympic Games, such as political values (e.g., enhancing national confidence and pride), sociocultural values (e.g., promoting athlete's social status), educational values (e.g., increasing public interest), economic values (e.g., attracting corporations' sponsorship), and organisational values (e.g., successful team-work) were also specifically noted by both sides of the stakeholder panels.

From these findings, it is possible to present a new conceptual framework to explain the definition of Olympic success on the basis of the Australian and Taiwanese stakeholders' viewpoints, as shown in **Figure 8.1**. This framework suggests that participating in the Olympic Games to pursue the traditional values of Olympic success and to maximise the additional values in the political, economic, educational, sociocultural, and organisational contexts was the universal perception of Olympic success held by stakeholders.

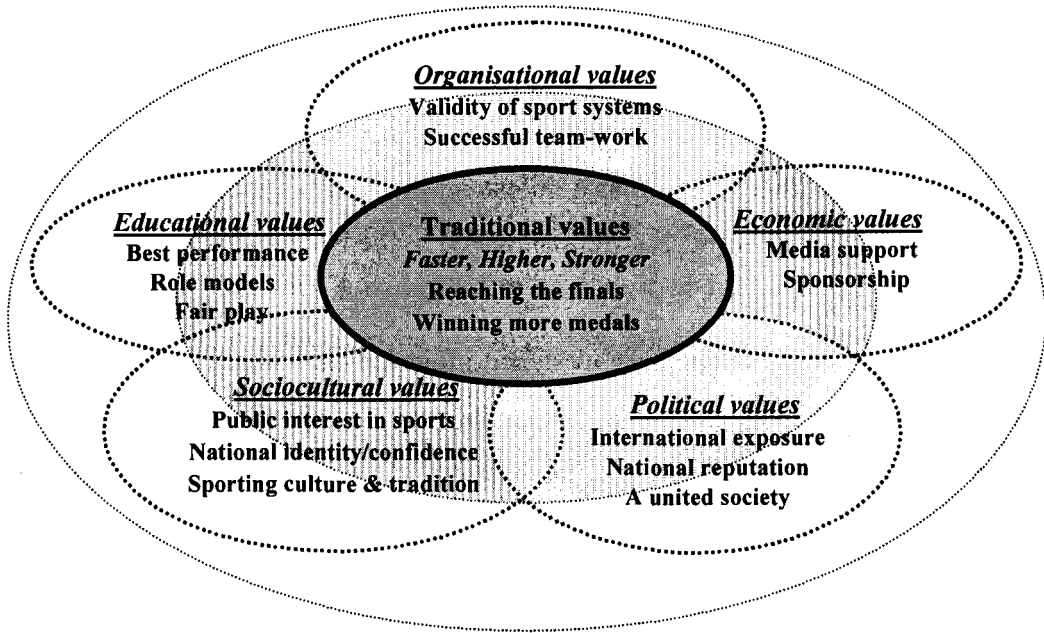


Figure 8.1 A new conceptual framework to explain the values of Olympic success

The similarities and differences between the ASC and the NCPFS

RQ 2: What are the profiles of the current national government elite sport agencies in Australia and Taiwan?

RQ 3: What are the similarities and differences in the mechanisms of the national government elite sport agency between Australia and Taiwan?

Previously in Chapter 5, the profiles of the existing national government agencies for sport, the ASC and the NCPFS for Australia and Taiwan respectively, were scrutinized in detail (see **Table 5.22**). The major findings from the documentary evidence in terms of the similarities and differences of the profiles between the two agencies are summarized as follows.

Both countries took deliberate steps to develop a system to support their elite sport. In Australia, the establishment of the AIS 1981 and the ASC in 1985 were deemed a watershed for Australian sport. Prior to these, the Federal Government involvement in sport was informal and indirect. The increasing government interest in elite sport since the 1980s resulted in the boost of Australia's elite performances at the Olympic

Games. In Taiwan, for a long time (1973-1997), the responsibility of promoting sport was part of the physical education portfolio. It was once argued that the deficiency of human resources and lack of funding support from the “education system” was a great hindrance for elite sport progress (M. C. Hsu, 1992). The creation of the NCPFS in 1997 was thus regarded as a milestone in Taiwan’s sport history (Slack et al., 2002) as more public resources were allocated to the NCPFS.

The findings from the documentary evidence indicated that while the ASC and the NCPFS in the respective countries played vital roles for sport, they were distinctly different in administrative structure, organisational size, strategic direction, and funding allocation, as well as the promotion of elite athlete development programs and national networks for elite sport.

The Australian Government defined sport as a particular sector (similar to arts and broadcasting) in the belief that “it should run itself according to its own criteria of excellence” (Lynch et al., 2006, p. 177). For this reason, the ASC was formed as a quasi-autonomous non-government organisation (i.e., quango) under a multi-function Federal government department. Rather than being directly involved in administration, the Federal Minister for Sport appointed a group of professionals in the ASC Board to govern the Commission. Moreover, the Board was empowered to publicly advertise and appoint a Chief Executive Officer (CEO) to head the daily management and at the same time engage an “adequate” number of workers under the leadership of the CEO for the performance of its functions.

In contrast with the autonomy of the ASC’s administration, the NCPFS appeared to be subject to the government bureaucracy. Similar to other public agencies under the Central Government of Taiwan, the NCPFS was mainly staffed by public servants in accordance with the civic service hiring laws. Moreover, because of being structured within the Executive Yuan (the Cabinet), the Sport Minister (the head of the NCPFS) was politically appointed by the Premier to take charge of the NCPFS. These dissimilarities led to the differences in organisational size and hierarchical structure of the two agencies and their reporting responsibilities and consequently, their autonomy and flexibility.

The findings suggested that the ASC had a much higher number of employees than the NCPFS; the staffing ratio between the ASC and the NCPFS was about 6:1 in 2005. The available personnel in the elite sport unit of the AIS was 16 times greater than counterpart (the DCA) of the NCPFS. As to the hierarchical structure, notwithstanding the similarity in the levels of hierarchy, the ASC had a larger number of sub-units (and working groups under the sub-units) than the NCPFS, at lower levels, to deal with a wider range of activities for elite sport development. Furthermore, at the top level of the hierarchy, the roles the respective Sport Ministers played in the ASC and the NCPFS were very different, because, the former had less involvement in organisational operation and management, whilst the latter was legitimately responsible for daily administration.

Other noticeable differences between the two government sport agencies were found in strategic direction and funding allocation. Under the ASC Act 1989, its strategic plan was operated in line with a four-year funding cycle. Under the same act, the ASC set twin goals of developing excellence in sport performance and improving public participation, with a high priority given to elite sport. The findings suggested that by reason of sub-national government commitments to sport, much of the provision of sport infrastructure was the responsibility of state and local government. The ASC was thus able to concentrate its policy on elite sport and allocate adequate funding to ensure continuity of elite athlete development.

Unlike the ASC, the mission of the NCPFS seemed to be diverse. Although the first national sports policy – the Four-wheel Drive Plan – claimed to focus on the two goals of promoting mass participation and elite success, in fact, the policy direction and implementation appeared to reflect the tasks of the five departments. The evidence showed that as a rule the annual budget for sport was distributed among these departments. In addition, the proportion of funding for facility development was much higher than other programs as a result of a deficiency of national/international standard sports facilities for the elite sport community.

Overall, the present study found that the differences in policy priorities and strategic directions had led to differential allocations of material and human resources for elite

sport between the ASC and the NCPFS. Consequently, this affected the Olympic achievements in the respective countries.

The most obvious difference in the organisational mechanisms and networks for elite sport between the two government elite sport systems was that, in Australia, the three-tiers of government share responsibility for elite sport development. As well as the ASC and the AIS at national level, the elite athlete development framework was combined with the departments of sport (DSR) and training centres (SIS/SAS) of each state government at the middle level, with a “flow down” to the local governments, the main providers of local community sports facilities. This institutional network allowed the ASC to cope with the geographic and administrative boundaries and helped develop integrated approaches to effectively deliver federal funding and services around the country. By contrast, an absence of responsible sport agencies at middle level (outside the education system) that could undertake elite athlete development programs in Taiwan was found to be a great drawback in Taiwan’s elite sport development.

Environmental influences on elite sport systems in Australia and Taiwan

RQ 4: What environmental influences are perceived to affect the development of elite sport in Australia and Taiwan?

RQ 5: What environmental influences affect the mechanisms of the NGESS in Australia and Taiwan?

The major findings in terms of the seven environmental influences were drawn from both the documentary evidence and the Delphi results (see **Table 8.1**). The present study found that among the environmental influences surrounding the NGESS in both countries, the *political* and *sociocultural influences* were the most important while the *geographical* and *demographical influences* appeared to be less influential. Notwithstanding, it is arguable that overlap exists among these environmental influences.

Table 8.1

Main environmental influences on elite sport and mechanisms of the NGESS

Country	Influences	Elite sport development	NGESS mechanisms
Australia	Political	Political parties' support since 1980s and the Federal Government's commitment to elite sport.	The sustained promotion of elite sport and the provision of adequate funding for continued elite success; the three-tiers of government to share responsibility for facility development.
	Sociocultural	Strong sporting tradition (e.g., well-established grass roots sport) and valuing of elite sport by the general public.	The allocation of a high proportion of ASC funding to pursue elite sport
	<i>Economic</i>	<i>The progress of professionalism and commercialism in sport and financial support from private sector and three-tiers of government.</i>	<i>The available funding from private sector and financial assistance from public sector.</i>
	<i>Educational</i>	<i>The development of coach education and accreditation system since 1978 and sport education outside the school system.</i>	<i>The development of junior sport programs (i.e., Aussie Sports) and the provision of administrative support for coach education/accreditation.</i>
	<i>Technological</i>	<i>The awareness of the importance of sports science and the advancement of technology and sports science.</i>	<i>The creation of a sports science unit within AIS in 1981 and a sports science centre under ASC since 1991 to provide scientific and technical support and programs.</i>
	Geographic	Rich natural resources and availability of sports facilities.	Convenient access to a range of sports facilities around the countries
	Demographic	Small population size and diverse ethnic composition.	The emphases on talent identification and function of sport in diverse ethnic groups.
Taiwan	Political	The political interference caused by the two Chinas issue and political parties' and leaders' indifference to elite sport.	The political control over sport and bureaucratic administration of government sport system.
	Sociocultural	The lack of intensive sporting culture and the general public's view on elite sport; athletes' and coaches' low status in society.	The enactment of regulations to fund sport organisations and elite sport activities; the execution of monetary incentives to award elite athletes and coaches.
	<i>Economic</i>	<i>A small sport industry and limited market base for the private sector.</i>	<i>Not obviously stated, aside from the possible relationship between Olympic success and sponsorship from private sector, identified by the Taiwanese panel</i>
	<i>Educational</i>	<i>The strong emphasis of education, the notion of running sport under the education system and the shortage of coaches.</i>	<i>The implementation of the full-time school-coach scheme and the athletic aptitude programs in the school system.</i>
	<i>Technological</i>	<i>The late development of sports science education and a limited number of scientists involved in elite sport training programs.</i>	<i>The enactment of an incentive scheme to encourage applied research in sports science.</i>
	Geographic	Limited open space and deficiency of suitable facilities for elite sport.	The use of school sports facilities to develop and implement elite sport programs.
	Demographic	Small number of elite athletes caused by the public's heavy emphasis on education and lack of interest in sport.	Not obviously stated, aside from an attempt to develop a sense of Taiwanese identity through sport identified from the documentary evidence.

Legend: **Bold** = most influential *Italics* = influential Normal = least influential

In terms of political influences, the findings indicated that in Australia, the bipartisan consensus and support on sports policy from the dominant political parties (i.e., Liberal and Labour Party) were most influential, as they led to a change of political parties' attitudes towards sport and affected the "evolution" of the elite sport delivery system during the 1980s. By virtue of these changes, the political commitment to elite sport became decisive in formulating strategic direction and funding allocation for national elite athlete development.

In Taiwan, political influences were also found to be greatly influential in developing elite sport. For more than five decades, due to the political interference resulting from the two Chinas issue, the Central Government was inevitably required to engage in the Olympic Movement at the international level. However, it is a paradox that the government's long-term involvement in international sport did not seem to effectively stimulate and escalate Taiwan's elite sport competitiveness on the world stage. Moreover, the political control over national sport governing bodies did not appear to stimulate political parties' interest in developing policy on elite sport.

The comparison of the political influences affecting elite sport development between the two countries suggested that in Australia, the political parties' consensus on elite sports policy and government's commitment since 1980s enabled adequate public funding to become available for the sustained promotion of elite athlete development programs. In Taiwan, despite political intervention in sport for decades, the Central Government's support for elite sport appeared to be subject to the perceptions of the role of elite sport in society held by those politically appointed leaders of the national sport governing bodies (and the education departments).

This study found that sport leaders' perceptions and national political climate were the main contributing factors affecting the mechanisms of Taiwan's elite sport system. These findings of political impact on elite sport development supported previous research by Colwell (1981), who argued that national sporting success was affected by political ideology because the distribution of necessary resources was dependent on the power structure within a political system.

As well as the significance of political influences on elite sport, the findings in this study indicated that sociocultural influences had profound influences on the mechanisms of the NGESS in the respective countries, either positively or negatively. It is said that in Australia, “sport is a universal value” (Commonwealth of Australia, 1975). Elite sporting success at international level was highly valued by the Australian public as a symbol of pride and national prosperity. Consequently, it was possible to justify the allocation of a great deal of funding from the Federal Government to ensure national elite success.

In contrast with these positive effects, the sociocultural impact in Taiwanese society appeared to be less constructive. The absence of an historic and intensive sporting culture in competitive sport, along with athletes’ and coaches’ low status resulting from the heavy emphasis of academic achievement in education, had profound effects on the promotion and popularity of competitive sport at all levels. In responding to these impediments, the Taiwanese Government enacted regulations to fund sports organisations, as well as rewarding elite athletes and coaches through monetary incentive schemes.

There has not been much research that relates sociocultural influences to national Olympic success. However, the findings of the differentiation of sociocultural influences on elite sport development between Australia and Taiwan were similar to the differences found by Seppänen (1989) between Western and Eastern societies in cultural value systems of elite sport. Seppänen stated that Western people tended to have more active attitudes towards competitive sport than their Eastern counterparts. Colwell (1981) had also recognised the strong influences of sociocultural factors on public attitudes to physical activity; furthermore, she postulated that the role of sport in society was in general affected by political ideology.

As well as the direct and strong political and sociocultural influences on the NGESS, the findings indicated that the impacts of economic, educational and technological impacts on elite sport were also influential. These influences, however, tended to be indirect and modest and interrelated with each other. For example, in terms of the interrelation of economic and educational influences on elite sport in Australia, the

present study found that it was the professionalisation (e.g., coach education and accreditation) and commercialisation of sport (e.g., financial support from the private sector) that facilitated the implementation of a range of sport education and elite sport programs. Likewise, the technological contributors of the NGESS in Australia were interrelated to the early advancement of sports science education in conjunction with government funding.

By contrast, the relevance of the economic, educational and technological influences in the context of Taiwan was greater than that in Australia. This study found that the late development of professional sport education, especially for coaches and scientist, affected the growth of the sport industry and the application of sports science to elite sport. These influences that emerged from the educational and economic environment in Taiwan were found to be closely interrelated to the absence of a strong sporting culture and political commitment to elite sport. These findings suggested that to some extent it was the “vicious circle” surrounding the sport system that constrained the effective mechanism of the NGESS and the overall development of elite sport in Taiwan.

Intriguingly, despite being similar in population size and significantly different in land area, this study found that the demographic and geographic influences seemed to be least influential. It could be argued that compared to other environmental impacts, these two influences appeared to be relatively stable and predictable.

Components of a successful elite sport development system

RQ 6: What aspects of the Australian elite sport delivery models could be adapted to advance Taiwan's NGESS?

To answer this question, the researcher has carefully considered the major findings from the other research questions, the primary impact from the political and sociocultural characteristics and the secondary impact of educational, economic and technological settings. The researcher is also mindful of the cautious view of Schembri (1998, cited in Green et al., 2001, p. 254) that “foreign models should be for comparison and to trigger thoughts, not for prescription or adoption.”

The present study found that in Australia elite sport was used as an essential tool in making significant contributions to national pride, community cohesion, health promotion, and economic growth. The multifaceted values of competitive sport were commonly recognised by the Australian stakeholders. As a result, Australian governments at all levels shared responsibilities and provided different resources to support elite athlete development in recent decades. By comparison, due to the political and sociocultural differences, although the values of Olympic success were identified by Taiwanese stakeholders to be of wide-reaching importance, the Central Government in Taiwan did not appear ready to make a practical commitment to advance competitive sport, notwithstanding the formation of the Department of Competitive Athletes under the NCPFS in 1997.

It can be argued that although Taiwan has made a great step in elite sport development since 1997 as a result of the creation of the NCPFS, the existing NGESS in 2007 is still in its embryonic stage of development and has not yet realized its full potential. Based on the examination and comparison of the NGESS in Australia and Taiwan, the following major problems were found to have hindered the development of elite sport in Taiwan as a result of different levels of environmental influences. These problems need to be resolved by the Central Government and by the NCPFS if Taiwan is to improve its international elite sport standing, especially at the Olympic Games:

- The passive commitment by the Central Government
- Insufficient provision of staff in the public sport agencies
- Inability to recruit staff from outside the public service
- Limited public funding support for high performance sport
- The need for adequate and good facilities for elite sport programs
- The lack of a well-structured elite athlete development system
- Insufficient elite sport promotion programs outside the education system
- Inadequate coaching education programs and qualified coaches
- The lack of sufficient sports science and sports medicine support

Accordingly, the challenge for Taiwan is to learn from the best features of the Australian elite sport delivery model and reconsider an effective system for elite sport advancement in the future. The key components of Australian model are:

- Government commitment to elite sport
- Administrative and personnel autonomy in the NGESS
- Four-year strategic plans backed up with four-year funding cycle
- Convenient access to sports facilities and elite training programs
- Prioritization of resources for targeted sports
- The promotion of sport education outside the school system
- Integrated pre-elite and elite athlete development approaches
- The enhancement of coach education and accreditation
- A structured three-tier organisational network

It is important to restate that the current NGESS in Australia was evolved from a simple centralized training centre in the early 1980s to a decentralized structure when the AIS was incorporated with the ASC in 1989. Moreover, since 1989 there is a greater government involvement in elite sport in terms of policy direction and funding support – one of the major areas of development has been four-year planning and finding based on Olympic cycles. In addition, to help prepare for the 2000 Sydney Olympic Games, the Australian Federal Government provided an unprecedented level of financial support from 1994 to 2000 that enabled the ASC to conduct a more integrated approach to further develop extensive elite sport programs.

From the review of the Australian experience and comparing the aforementioned problems facing the Taiwanese government, there is an urgent need to articulate national plans for elite sport development between the government at national and city/county levels. It is also critical to clarify the functions and separate the responsibilities between the NGESS and the education system to build up a wider framework for the implementation of elite athlete development programs within and between the two systems. The researcher suggests that if the Central Government in

Taiwan is to make a commitment to permit the talented athletes around the island to have a comparable and competitive environment to develop their potential, it is the right moment to accept these new challenges.

Conclusions

This study explored and compared the existing national government elite sport systems in Australia and Taiwan. The purpose of this study was to understand the dimensions of Olympic success, the similarities and differences of the two systems, and to generate recommendations for Taiwan to enhance its elite sport delivery and management system. The ultimate objective was to provide some direction by which Taiwan can take steps to reinforce elite athletic performance in future Olympic Games. To accomplish these purposes, this study established specific objectives that identified the stakeholders' viewpoints of the definition of Olympic success; compared the profiles of the national government elite sport systems (the ASC and the NCPFS); and explored the seven environmental influences surrounding the NGESS (see **Figure 3.1**).

The key finding from the Delphi study was that although Taiwan did not attain Australia's outstanding achievement in past Olympics, stakeholders in Australia and Taiwan shared strong similarities in their definition of Olympic success. Both panels of stakeholders in respective countries identified the traditional values of pursuing higher performance and the quest for medals as fundamental, however, the additional values in the Olympic Games were also deemed to be vital (see **Table 8.1**). Notwithstanding having comparable values and expectations of attaining better results in the Games, the functions and mechanisms of the NGESS for elite sport development in these two countries were very different.

The document analysis of the functions and mechanisms of the national government elite sport agencies in the respective countries found that both the ASC and the NCPFS played a key role in the promotion of elite sport. Nevertheless, they were markedly different as regards their administrative structures, organisational sizes, policy priorities and strategic directions, funding allocation, and the development of

national programs and networks for elite sport. The discrepancies between the systems in Australia and Taiwan were highly relevant to the primary impacts from the political and sociocultural contexts, and to a lesser degree, from the educational, economic and technological settings.

The results of this study found that the organisational factors relating to the degree of the Federal/Central Government involvement in high performance sport development was decisive. However, the political and sociocultural factors surrounding the NGESS were most influential in forming organisational structure and formulating policy/strategic direction. Additionally, they had *direct* effects on the allocation and distribution of material and human resources. The influences of the educational, economic and technological bearings on the operations of staffing, funding allocation, elite sport programs, and organisational networks tended to be *indirect*.

The findings suggested that despite the identification of technological factors to the advancement of high performance sport, the technological influence was not considered to be an independent factor. The development of sports science and technology, by and large, relied on the support from the organisational and educational contexts, such as government financial support and professional education. In addition, the geographic and demographic factors were found to be least influential, but to some extent, affected the structure of national networks and the ways in which elite sport programs were implemented.

Based on the major findings that emerged from this study, **Figure 8.2** presents a revised conceptual framework for understanding the influences of environmental factors on the NGESS at different levels.

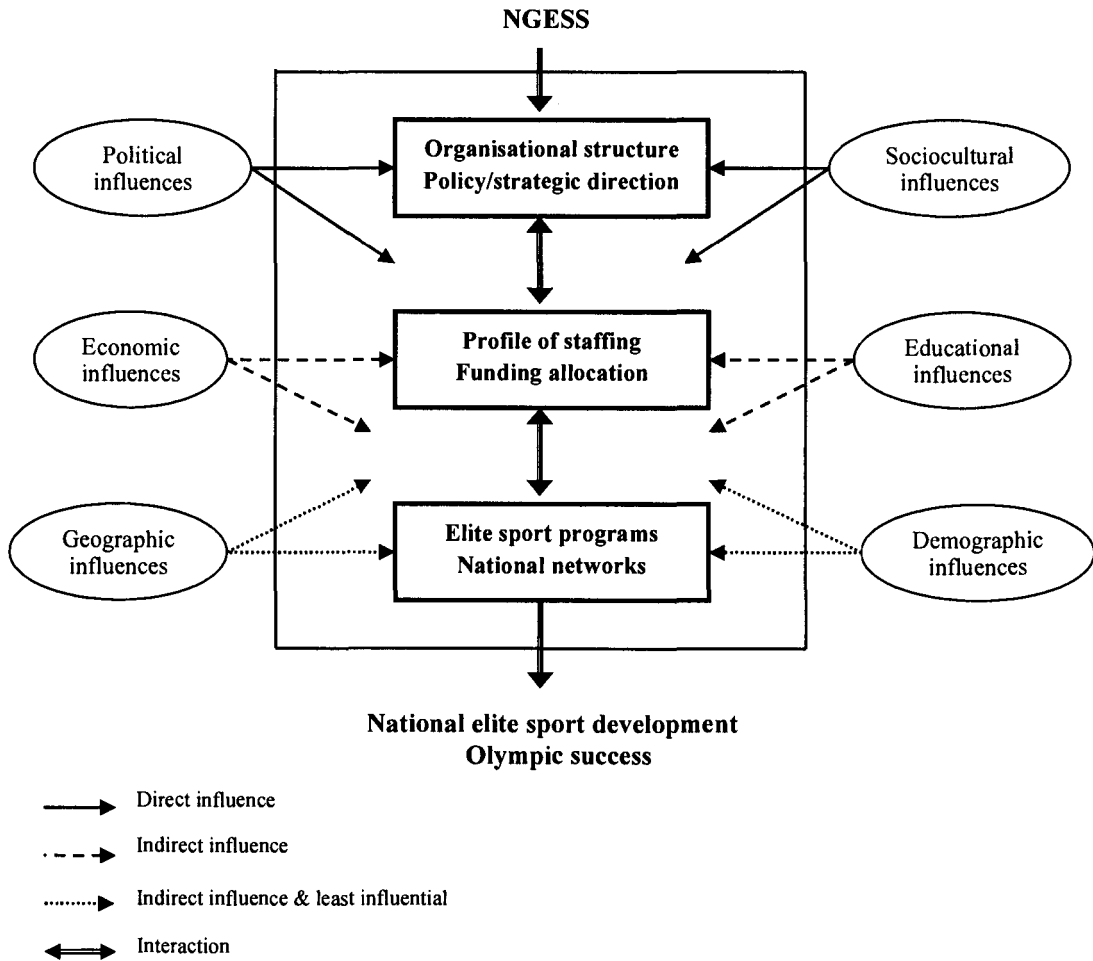


Figure 8.2 A revised conceptual framework of the influences of environmental factors on the NGESS

Implications

Given that little research was found that explored and compared the national government systems for elite sport and the impact of the various environmental factors on the systems, the present study was expected to make theoretical and practical contributions. This section addresses these implications from the findings of this study.

Theoretical implications

The present study was expected to have theoretical implications in at least three key areas. First, it contributed to an extension of sport organisation studies and sport management research in an area that has not been previously addressed. Second, this study provided the first in-depth investigation into the NGESS using the systems concept derived from the organisation theory to explore organisational factors and environmental influences on national Olympic success. Last, but not least, this study addressed an alternative method to identify the definition of Olympic success from stakeholders' perspectives. The following paragraphs outline the implications of this study to these theoretical concerns in more detail.

This study revealed a lack of research into the effective role of government sport agencies in elite sport, a dearth of literature exploring the major components of national government elite sport system (NGESS) and the relationship between government sport agencies and the general environment. These were specifically delineated at the outset of the present study (rationale and significance) and further restated in the beginning of this chapter (review of the concepts).

Previous studies highlighted the role of government in sport (e.g., Bedeck, 1979; C. J. Chang, 1997; Coakley, 2004). A few studies into factors associated with national elite success that emphasized the relevance of national government involvement in elite sport (e.g., Clumpner, 1994; De Bosscher et al., 2006; Green et al., 2001). Nevertheless, research examining and comparing the NGESS (internal and external environment) and Olympic success remained unexplored and unspecified, in particular, from stakeholders' perspectives. This study made a contribution to the body of knowledge and addressed this research gap.

A detailed review of comparative studies in sport and organisation theory revealed the lack of a suitable framework for the comparison of the NGESS and environmental influences surrounding the system. The conceptual framework developed for this study was the first such framework built on a comparative study that explored the internal and external environment of the NGESS. It made further

contributions to theory in sport organisation studies, comparative research in sport, and organisation theory in sport management. To a degree, it showed the importance of the roles and mechanisms of national government sport agencies and also the potential environmental impacts on national mechanisms for elite sport development.

Traditionally, national Olympic success was measured by the medal tally released by IOC or the media. The extant literature used the medal count as a basis to develop alternative methods to judge national sporting success. This study was the first to involve stakeholder groups of elite sport systems to identify the meaning of Olympic success for countries under investigation. This study also added new theoretical insight into research in Olympic studies.

Practical implications

In essence, this study is a reminder of the crucial role of national governments in elite sport development. Therefore, the findings of this study were anticipated to provide practical information to help practitioners, stakeholders and policy-makers in obtaining a better understanding of the functions and mechanisms of the existing NGESS in Australia and Taiwan. For practitioners, this study offered broader observations of the components of Olympic success within and between the internal and external environment of the NGESS.

The conceptual framework developed in this study gave insights into which contributing factors were collectively identified by stakeholders as determinants that influenced the national elite sport development and the mechanisms of the NGESS. During the research, these findings were shared with all stakeholders participating in the Delphi study. The results provided practical information for policy-makers to observe environmental surroundings and reconsider future policy and strategic directions for national elite sport. The next section, based on the findings, presents recommendations for Taiwan and for further research.

Recommendations

It used to be the case that despite all the training and preparation, hope and keeping your fingers crossed were a big part of the program. Those days are largely gone, and hope is now a very small part of the program – Hope is not a method.

(David, 2002, p. 11)

In the 2004 Athens Olympic Games, the Taiwanese team produced the “best ever” result, when two gold medals were won (in taekwondo) for the first time in Taiwan’s Olympic history. For people in Taiwan, this was viewed as a most exciting and memorable moment because the national Olympic success at the 2004 Olympics boosted morale in Taiwanese society (Gao, 2006). At the same time, many considered that Taiwan’s elite sport development was confronting a new challenge as to what is the best blueprint for assisting athletes and teams to pursue their “Faster, Higher, Stronger” performances at the next stage.

This study explored the NGESS in Australia as a role model for Taiwan when setting policy and strategic directions. This exploration was initially based on the similarities of population size and economic conditions, however, Australia’s downturn of performances in the 1970s and the constant progress in the subsequent Olympic Games provided the best example for Taiwan to trace the steps made by the Australian Government from the 1980s onward.

Recommendations for Taiwan’s elite sport development

Previously, in the answers to the final research question, a number of major problems facing the NGESS in Taiwan were outlined and contrasted with the best features of the Australian elite sport system. Based on the major findings of this study, the recommendations for the Taiwanese Government and the NCPFS are listed as follows.

It is recommended that the Taiwanese Central Government:

1. Seek consensus among political parties on sports policy including a long-term commitment to Taiwan's elite sport community – Over the past 20 years, the progress of Australia's high performance sport development would not have been possible without all major parties' common agreement and collective effort to support policy on high performance sport.
2. Develop mid-term and short-term policy directions and strategic plans, on a 12-year and 4-year basis respectively in line with each "Olympiad", and backed up with 4-year funding cycles – Since 1989 Australia has regularly conducted a national strategic plan operating specific projects at the Federal level in line with a four-year funding cycle (based on the Olympic cycles).
3. Amend the Organisational Statute of the NCPFS to enable the highest public sport agency to have personnel autonomy and administrative independence in hiring professionals to meet practical needs – The ASC model in this regard can be a worthwhile example to follow, for example, the enactment of the ASC Act 1989 facilitating the ASC to employ professionals from a wide range of fields to fit in with their practical requirements.
4. Encourage reform and innovation in the organisational structure and mechanisms of the NCPFS and NSOs to keep pace with the international competitive sport environment – During the middle 1970s, two research reports on Australian sport development by Professor John Bloomfield (1973) and Dr Alan Coles (1975) respectively lead to major changes in the Federal Government policy on sport in Australia. Subsequently, a regular evaluation and assessment of policy direction (e.g., the reports known as *The Way We P(l)ay* in 1983 and *Going for Gold* in 1989) and organisational effectiveness (e.g., *Shaping Up* in 1999) permitted the Australian sport system to maintain its momentum and international competitiveness.
5. Promote professional education (e.g., coaches, administrators, and scientists) to meet the needs of elite athlete development programs; there is a need to cooperate with tertiary education institutes, NSOs, and schools at all levels – Traditionally, the tertiary institutions in Australia have a vital role in the

cultivation and development of professional sports personnel in the areas of coaching, administration, marketing, and sports science.

6. Enhance coach education and accreditation systems by giving government sport agencies (e.g., NCPFS or education authorities) active roles in the elite sport system – The development of the national coaching accreditation scheme in Australia dates back to 1979. All Australian coaches now have to become officially accredited and re-accredited before being able to coach. The continued technical and financial support by the ASC has enabled NSOs to have quality control mechanisms in coaching.
7. Strengthen the role of the National Sport Training centre and establish regional elite athlete training centres with professional staff to enhance convenient access to sports facilities and elite training programs – In Australia, the AIS at the Federal level together with the SIS/SAS at the state level provided elite and pre-elite athlete a convenient access to high quality training and facilities.
8. Select target Olympic sports and prioritize resources to enable adequate funding for implementing elite sport programs and promoting potential athlete and teams – As a rule, the ASC's four-year strategic plan set out to promote target sports and provide greater amount of funding to support those priority.
9. Develop integrated approaches to building elite athlete support systems to attract and fast track potential athletes to join training programs (e.g., talent identification for target Olympic sports, elite athlete scholarships, and career education and support programs) – A perfect model can be found from a series of the Olympic athlete programs (OAP) conducted by the ASC to prepare Australian athletes and teams for the 2000 Sydney Olympics during 1994 and 2000.
10. Build up a more comprehensive organisational network with the city/county governments through the provision of funding to construct a range of training centres at local levels – In Australia, the role of the ASC in elite sport was pivotal, but the present study also recognized that it would have been

impossible for Australia's sustainable development of elite sport without administrative and financial support from the state and local governments. The interest of state government in high performance sport and the establishment of SAS/AIS and regional institutes were also key determinants in Australia's Olympic success.

Recommendations for future research

As the first cross-national research on the exploration of the NGESS of Australia and Taiwan in a broad environmental context, the present study provides the starting point for further research. There are many possibilities for future projects that can expand on the results of the present study because this area of research has been largely ignored.

Firstly, this comparative study predominantly focused on comparing the government sport agencies at the national level for Australia and Taiwan. It did not look extensively at the functions and mechanisms of the government sport agencies at the middle level (i.e., the state level in Australia and the city/county level in Taiwan), apart from the description and comparison of organisational networks at various levels. Future researchers may wish to explore the roles and functions of the Australian state governments and the ways in which they support high performance sport, in comparison with their counterparts in Taiwan.

Secondly, given the significance of environmental influences on elite sport progress, all or some environmental factors and issues identified in this study deserve further attention as research foci. For example, in terms of educational factors, both the Australian and Taiwanese panels noted the relationship between physical education and elite sport as indirect factors affecting national Olympic success in their respective countries. Thus, it would be interesting to further examine similarities and differences of the education systems in the provision of physical education, sport education and young athlete training programs in schools. Although a few attempts were made in this study at improving understanding of various environmental impacts on elite sporting success in both countries, the difficulties of getting useful

environmental data revealed a serious gap in this regard that needs to be filled.

Thirdly, further research could use a larger sample population or in-depth interviews to compare stakeholders' standpoints in relation to what environmental factors affected the national mechanisms and achievements at the Olympic Games. Informants could include sport experts from other areas such as sport scientists and government administrators from regional/local levels.

Fourthly, the systems perspective of organisation derived from organisation theory offered a theoretical basis to understand sport organisations. This study pointed out a dearth of research using related approaches to sport studies. Thus, it may also be useful to apply the revised conceptual framework developed from this study (see **Figure 8.2**) to investigate further. For example, the political and sociocultural influences on organisational structure and policy/strategic direction of the NGESS in given countries could be explored; or the comparison of economic and educational influences on staffing and funding allocation of the public sport agencies in different national contexts.

Lastly, the scope of this study was concentrated only on Australia and Taiwan and the Summer Olympic Games. Thus, future researchers may be interested in using the revised conceptual framework to further compare Taiwan (or Australia) with other Asian countries, as well as exploring the organisational factors and environmental influences affecting elite sporting achievements in the Winter Olympic Games or similar international events.

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APPENDICES

Appendix A: Delphi survey – Invitation

Dear Ms/Mr/Mrs

I am seeking the opinion of a number of sport experts to participate in an ongoing international research entitled: **A comparative study of national government elite sport systems in Australia and Taiwan: A model for Olympic success**. The research project is as part of the requirements of a PhD in the Faculty of Business and Public Management at Edith Cowan University.

This study uses the Delphi technique and computerized questionnaires for gathering opinions. Initially, I asked a group of sport professionals in Australia and in Taiwan to respond to three open-ended questions in relating to Olympic success. The second round of Delphi questionnaires has been developed based on the information obtained from the first round survey. **Your input at this stage would be valuable.**

The questionnaire process will be repeated three or four times over several months in each of these two countries until consensus is reached. Each round will include several multiple-choice and/or open-ended questions, which should take about 20 minutes to complete. Ultimately, the Australian results will be compared with Taiwanese results.

The findings of the research will assist relevant sport authorities to advance elite sport and to achieve future Olympic accomplishment. The outcomes of this study should also contribute to our better understanding of the interrelationship between national government elite sport systems and of the environmental influences on these systems.

This study depends on your participation and support for its success. More details are included in the **Explanation of Project statement** (see attachment). If you are interest in this project and willing to participate in the Delphi surveys. I will send the questionnaire to you as soon as possible.

Thank you for considering this invitation; your expert contribution will be greatly appreciated.

Yours sincerely,

Margaret Tang

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Any questions concerning this project can be directed to research supervisors:

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邀請函

Invitation Letter

.....

我以喜悅及惶恐的心情，誠摯邀請您參與一項定名為「台灣及澳洲政府國家級競技運動組織系統之比較研究：追求奧運績效的成功模式」(A comparative study of national government elite sport systems in Australia and Taiwan, ROC: A model for Olympic success)的跨國研究。此項研究係本人在澳洲艾迪斯科文大學攻讀博士學位之研究專題。在研究過程中，亟需尋求來自台灣及澳洲在不同領域從事推動體育運動相關工作，對於奧林匹克活動及國家競技運動發展，富有專業素養、個人關見、實際經歷及熱忱期待之專家學者，組成專題小組共同參與相關問題探討。

本項研究採用德菲法(Delphi Technique)，以透過電子郵件傳送問卷方式進行個別訪談。由台灣及澳洲兩地所組成的專題小組(Virtual Panel)，在首次訪談問卷中，將針對奧運議題論述個人觀點。其後，每階段訪談結果經分類綜合整理，將在下一階段問卷提供受訪者參考，以資修訂先前所提意見。各階段問卷以開放式申論、選項、排序或計分方式呈現，預計在 30 分鐘內可完成答問。訪談全程分為四階段進行，期以上述程序，經由問卷反覆討論方式達成共識。最終，來自台灣及澳洲訪談結果，將分別進行比較研究。

基於您多年以來在體育運動相關領域的豐富閱歷及專業見聞，我深切企盼獲得您的首肯參與本研究。隨函謹附上研究計畫說明，如果您同意參加本研究訪談，煩請您簽署一份參與同意書(詳見附件)及提供通訊資料，並利用所附回郵信封回覆。我在收到回函後，將會透過電子郵件儘速與您聯絡。感謝您的支持與協助 !!

.....

唐慧媛 敬啟

Appendix B: Delphi survey – Explanation of project

Re: A comparative study of national government elite sport systems in Australia and Taiwan: A model for Olympic success: A model for Olympic success

EXPLANATION OF PROJECT

In recent decades a growing number of countries have advanced elite sports by providing the necessary resources and environment for their athletes to compete successfully at the Olympic Games. However, little research has been reported on the interrelationship between national government elite sport systems and the influences of the environments in which they function, nor on the criteria for Olympic success.

Taiwan has not been successful at developing elite sports in terms of winning medals at the Olympic Games. With a similar size of population to Taiwan, Australia's accomplishment at the 2000 and 2004 Olympic Games made it the focus of attention. As a result, apart from the examination of environmental factors and criteria for Olympic success, another purpose of this study is to generate a new elite sport development model for Taiwan to achieve future Olympic success.

This study investigates the environmental influences on national government elite sport systems in Australia and Taiwan and criteria for Olympic success. Two panels of sport professionals, one in each country, will be organized to discuss relevant issues. All of the selected professionals who agree to participate in the study will receive about four rounds of questionnaires via email in the following few months and will be requested to reply to each round of the questionnaire in a given period.

You will have opportunities to express your views by responding to a short set of questions if you accept to be one of the panellists in this study. Your participation is entirely voluntary and you may withdraw at any time. This study is approved by the University Ethics Committee.

The results of this study will be shared with relevant sport authorities in Taiwan and Australia to assist in promoting elite sport development. No individual will be identifiable from the collective responses, and individual responses will not be identifiable.

If you have any questions or would like further information at a later date, I can be contacted on 0011-61-8-6304-5397 or email huiyuant@student.ecu.edu.au. My supervisors' details are attached. If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact Ms Kim Gifkins, Research Ethics Officer, Human Research Ethics Committee Edith Cowan University, 100 Joondalup Drive, Joondalup WA 6027, Australia. Phone: 61-8-6304 2170, email: research.ethics@ecu.edu.au.

研究計畫說明 Explanation of Project

研究計畫名稱：

台灣及澳洲政府國家級競技運動組織系統之比較研究：追求奧運績效的成功模式

A comparative study of national government elite sport systems in Australia and Taiwan: A model for Olympic success

近數十年來，越來越多國家以積極投入必要的資源及環境，促使其國家運動員能在奧運競技場上有更好的表現。然而，鮮有研究針對各國政府競技運動組織系統(national government elite sport system)與其外部環境 (external environment)，以及環境影響因素(environmental influences) 對組織系統運作，以致於影響奧運績效(criteria for Olympics success)之相互關係，加以探討。

就奧運奪牌紀錄而言，競技運動發展在台灣，截至目前為止，並未取得顯著成效。相較於與台灣擁有相仿人口數的澳洲而言，該國在 2000 年雪梨奧運(16 金、25 銀、17 銅)及 2004 年雅典奧運 (17 金、16 銀、16 銅)的輝煌成果，已引起許多國家的關注。

本研究以探討台灣及澳洲政府競技運動組織系統及外部環境影響為架構，透過不同角度比較分析，瞭解促進奧運績效相關因素。其研究結果，將提供台灣推展體育運動相關單位作為未來提昇競技運動水準及奧運具體成效之參考。

本研究針對前述議題，邀請台灣及澳洲兩地，來自不同工作領域專家學者(sport professionals)組成專題小組(Virtual Panels)，透過電腦問卷(computerized questionnaires)進行訪談。所有同意參與本研究受訪者，在未來數月間，將經由電子郵件傳輸方式，陸續接獲四組問卷，並被請求在特定期間(約 1~2 週)內回覆答問。

如果您同意接受邀請參與本研究，成為專題小組成員之一，您不但有機會透過回應一系列簡易問卷，表達您個人理念，並可經由不同階段問卷討論，分享不同背景專業人士的觀點。您的參與純屬志願，您可以在任何階段退出訪談。本研究已依規定程序取得校方(University Ethics Committee)正式許可實施。所有訪談討論意見均將以匿名方式處理。

※ 如果您對本研究內容有相關問題欲進一步查詢，可逕聯絡：

Dr. Kandy James

Head, School of Marketing, Tourism and Leisure

Email: k.james@ecu.edu.au

Phone: 61-8-6304-5428

Dr. Sue Colyer

School of Marketing, Tourism and Leisure

Email: s.colyer@ecu.edu.au

Phone: 61-8-6304-5429

※ 如果您對本研究議題有所質疑或不滿，欲向校方相關單位申訴，可逕聯絡：

Research Ethics Officer: *Ms. Kim Giffkins*

Email: research.ethics@ecu.edu.au Phone: 61-8-6304-2170

Address: Human Research Ethics Committee, Edith Cowan University, Joondalup Campus
100 Joondalup Drive, Joondalup, WA 6027 Australia

Appendix C: Delphi survey – Participants' consent form

PARTICIPANTS' FORM OF CONSENT

Project: A comparative study of national government elite sport systems in Australia and Taiwan,
ROC: A model for Olympic success

I (the participant) have read the information in the statement of disclosure and any questions I have asked have been answered to my satisfaction.

I agree* to participate in this research and the series of surveys, realizing that I may withdraw at any time.

I agree that the data obtained for this study may be published understanding that I will not be identified individually. My name and address, if provided, are for follow-up enquiries in relation to this study or any further study of relevant issues.

Name:

Participant's signature:

Date: / /

E-mail address:

Phone:

*** Please note: If you are unable to participate, please fill in your name only and return to me and I will cross you off my list. Thank you, Margaret.**

<u>Office use only</u>	
Investigator :	Date : / / ..

參與同意書

PARTICIPANTS' FORM OF CONSENT

研究計畫名稱: 台灣及澳洲政府國家級競技運動組織系統之比較研究: 追求奧運績效的成功模式

Project title: A comparative study of national government elite sports systems

本人已詳閱以上研究計畫說明，任何有關對本研究之質疑已透過該說明獲得滿意的答覆。

I (the participant) have read the information above in the statement of disclosure and any questions I have asked have been answered to my satisfaction.

本人同意參加此項研究訪談調查，並瞭解個人可在任何時間及任何階段退出。

I agree to participate in this research and surveys, realizing that I may withdraw at any time.

本人同意個人在本研究所提供之意見及資訊，將可進一步發表或出版，並瞭解所有資料均將以匿名方式進行。個人姓名地址僅供作本項研究相關聯繫之用。

I agree that the data obtained for this study may be published understanding that I will not be identified individually. My name and address, if provided, are for follow-up enquiries in relation to this study or any further study of relevant issues.

姓名 Participant (簽名):

..... 日 期

Date:/...../.....

電子郵件地址 Email address:

.....

聯絡電話 Telephone number:

.....

Appendix D: Delphi survey – Round 1 cover letter

Dear Dr / Ms / Mr / Mrs

Thank you again for agreeing to participate in my study.

I am sending you the first of a series of Delphi Questionnaires (see attachment) for my research entitled “A comparative study of national government elite sport systems in Australia and Taiwan, ROC: A model for Olympic success”.

I would like to remind you that through the computerized surveys you will have opportunities to express and share individual opinions and professional experiences with other participants anonymously.

Thanks to your participation and contribution, the collective opinions in relation to the research topic will be identified. It is also expected that the outcomes of this study will improve our understanding of the environmental influences on elite sport development.

This research depends on you and our panel of experts for its success, and I hope you will help by completing the questionnaire and returning it via this email address before Friday 5 November 2004 or at your earliest convenience.

Yours sincerely,

Margaret Tang

PhD student
School of Marketing, Tourism and Leisure
Edith Cowan University, Joondalup Campus
100 Joondalup Drive, Joondalup, AUSTRALIA
Telephone: 61 8 6304 5397

親愛的訪談小組委員：

茲寄上有關「台灣及澳洲政府國家級競技運動組織系統之比較研究」的第一輪問卷詳見檔案夾附件一)。煩請您儘可能於一週內完成答問，並利用電子郵件「夾帶檔案」方式回傳給我。

在此我願重申，透過回應一系列簡易德菲訪談問卷，您不但可表達個人專業理念，亦有機會分享來自不同工作背景專家學者之意見。

所有訪談問卷均將會以匿名方式處理。

如果您有任何問題欲進一步查詢，請利用這個網址與我聯絡。謹再次附上「研究計畫說明」乙份提供參考(詳見檔案夾-附件二)。

非常感謝您的協助及合作。

祝 平安喜樂

唐慧媛 敬啟 2004/10/26

Margaret Tang

PhD student
School of Marketing, Tourism and Leisure
Edith Cowan University, Joondalup Campus
100 Joondalup Drive, Joondalup, AUSTRALIA
Telephone: 61 8 6304 5397

Appendix E: Delphi survey – Round 1 questionnaires

Dear panellist:

This is the first of a series of Delphi Questionnaires. The aim of this Delphi exercise is to explore issues involved in national government elite sport system and the pursuit of Olympic success.

The Delphi exercise sets out to provide an organized method for correlating views and information pertaining to specific issues. With your help, the factors that affect elite sport development may be examined.

In this first Delphi Questionnaire you are asked to consider and respond to three questions as follows:

Q1: What does “Olympic success for Australia” mean to you (for example the number of medals won at the Olympic Games)? Please list as much detail as possible.

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Q2. What are the factors that contribute **directly** to “Olympic success for Australia” (e.g. government funding)? List as many as you can think of with a brief explanation.

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Q3: What issues do you think **indirectly** affect “Olympic success for Australia”? (e.g. international political scene)? List as many as you can think of and give a brief explanation.

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親愛的專題小組成員：

這是一系列德菲訪談的第一輪問卷。本研究試圖透過德菲法(Delphi Technique)有組織有系統的步驟，探索國家級政府競技運動組織系統與追求奧運卓越績效的相關議題。經由您的專業觀點及寶貴意見提供，影響台灣競技運動發展的相關因素將被逐一檢視。本問卷請您回答下列三個問題：

Q1. 請您對台灣的「奧運成功績效」(Olympic success for Taiwan)下定義 (例如：奧運所得獎牌數)，請您儘可能詳述對此定義的看法。

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Q2. 哪些「因素」直接促成或影響台灣的奧運績效 (例如：政府專款)？

請您列舉任何可能的因素，並逐一給予簡短說明。

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Q3. 您認為哪些「議題」間接促成或影響台灣的奧運績效 (例如：當前國際政治情勢)？

請您列舉任何可能的議題，並逐一給予簡短說明。

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Appendix F: Delphi survey – Round 2 cover letter

Re: A comparative study of national government elite sport systems in Australia and Taiwan,

ROC: A model for Olympic success

Dear Panelists:

Thank you for your participation in the first round of this study. Your reply provided valuable information for further exploration of the issues identified in national government elite sport system and the pursuit of Olympic success.

I am now sending you the second round questionnaire. It is based on the diverse range of comments obtained from the first round survey. You might find that some of your opinions are not obvious, but be assured in these syntheses that all your views were considered and will be retained for the follow-up work of my research. Hopefully, you find the results of this questionnaire interesting.

Your task in this round is to ensure that: 1) your views are represented; 2) all relevant issues pertaining to Olympic success have been captured. Then, 3) you register your agreement or disagreement with the content and relevance of each statement.

Please continue to participate and return the second round questionnaire by next week (before 15 February 2005). This study depends on you for its success. Your input is essential and appreciated.

Best regards,

Sincerely yours,

Margaret Tang

PhD student
School of Marketing, Tourism and Leisure
Edith Cowan University, Joondalup Campus
100 Joondalup Drive, Joondalup, AUSTRALIA
Telephone: 61 8 6304 5397

親愛的訪談小組委員：

首先感謝您的參與第 1 輪問卷”訪談”，您的寶貴意見提供了本研究對於探索國家競技運動系統及追求奧運績效相關議題許多重要的訊息。茲寄上有關「台灣及澳洲政府國家級競技運動組織系統之比較研究」的第 2 輪問卷（詳見檔案夾附件）。

第 2 輪問卷內容，係根據先前所有參加訪談專題小組成員提供的意見綜合彙整製作。或許您會發現個人先前所表達的觀點，並未完整呈現在各選項或綜合說明中。本次訪談目的，正是希望再次確認及取得您的進一步評論或修正意見。

煩請您儘可能在 2 週內完成問卷填答，並於 3 月 15 日前利用本網址「夾帶檔案」方式回傳給我回覆。非常感謝您的熱忱協助指導，您是本研究得以完成的幕後功臣。謹致上無限感恩謝忱！！

並祝您 身體健康 萬事如意

後學
唐慧媛 敬啟

Margaret Tang

PhD student
School of Marketing, Tourism and Leisure
Edith Cowan University, Joondalup Campus
100 Joondalup Drive, Joondalup, AUSTRALIA
Telephone: 61 8 6304 5397

Appendix G: Delphi survey – Round 2 questionnaires

Dear Panellist,

This is the second of a series of Delphi questionnaires. As explained in the first round survey, the aim of this Delphi survey is to explore issues involved in national government elite sport system and the pursuit of Olympic success. Your task in this round is to:

1. Read each statement carefully to ensure that:
 - Your views are represented;
 - All relevant issues pertaining to Olympic success have been captured.
2. Register your agreement or disagreement with the content and relevance of each statement.

Please note that your ANONYMITY will be maintained and your response will be kept CONFIDENTIAL.

Q1. OLYMPIC SUCCESS FOR AUSTRALIA MEANS...	Your Opinions		Your further comment, correction, clarification or additional information
Example: ... giving a few sports people a chance to get MORE SPONSORSHIP DEALS .		Disagree	The Olympic ideal is more than money.

..... **Start Question 1**

Q1. OLYMPIC SUCCESS FOR AUSTRALIA MEANS...	Your Opinions		Your further comment, correction, clarification or additional information
... not only maintaining medal position, but also improving RANKING ON THE MEDAL TALLY by having more athletes/teams qualified, participating in the Games, reaching the finals and winning more medals across a number of sports.	Agree	Disagree	
... INCREASING NATIONAL PRIDE AND CONFIDENCE by demonstrating sporting ability and competitive spirit.	Agree	Disagree	

... The athletes/teams reaching their PERSONAL BEST PERFORMANCE while being fair in competition, gracious in winning, and acting as an inspiration for all by providing role models.	Agree	Disagree	
... INCREASING PUBLIC INTEREST IN SPORTS by encouraging new participants to join sports and energizing people to perform in their individual pursuits.	Agree	Disagree	
... A NATURAL EXTENSION OF SPORTS TRADITION AND CULTURE , because Australians are very proud of their strong sporting history, with a keen spirit of competition and a high degree of autonomy in sport.	Agree	Disagree	
... SUCCESSFUL IMPLEMENTATION OF AN ELITE SPORT SYSTEM to ensure ongoing funding and infrastructure support for Olympic sports.	Agree	Disagree	
... THE NUMBER OF MEDALS WON AS A PERCENTAGE OF POPULATION , compared with other developed countries of similar population and infrastructure.	Agree	Disagree	
... THE PUBLIC PERCEPTION that the Australian team is successful.	Agree	Disagree	
... sporting success is A BROAD MEASURE OF NATIONAL HEALTH .	Agree	Disagree	
... WHAT THE GOVERNMENT AND MEDIA DECLARE to be a success.	Agree	Disagree	
... receiving LONG-TERM MEDIA SUPPORT outside the Olympic timeframe instead of only intensive coverage during the Olympic period.	Agree	Disagree	
... accepting THE "COST OF MEDALS" to the community and to the athlete.	Agree	Disagree	
OTHER: (Add any other definitions of "Olympic success for Australia" with explanation)			
.....			
.....			
.....			

..... **Start Question 2**

Q2. THE FACTORS THAT CONTRIBUTE DIRECTLY TO OLYMPIC SUCCESS FOR AUSTRALIA ARE...	Your Opinions		Your further comment, correction, clarification or additional information
<p><u>1. Government Funding and Support</u> Money is a major direct factor contributing to Olympic success. It costs so much to commit to support elite sport programs and performances, i.e. training, coaching, officiating, facilities, competitions.</p>	Agree	Disagree	
<p><u>2. Advanced Technology and Sports science Support</u> The continual development and application of cutting-edge technology in sports science/medicine to advance high performance are essential for Australia to remain in a leading position on the world stage.</p>	Agree	Disagree	
<p><u>3. Athlete Support and Service</u> Parents, friends and community provide personal and financial support, to enable elite athletes to make a total commitment to their sport.</p>	Agree	Disagree	
<p><u>4. A Structured and Stable Sport system</u> A structured and stable sport system at all levels is essential for the continual development of athletes, coaches, officials and sport administrators. Sport clubs/associations at grass roots level contribute to a broad base of participants at various ages, while the government and non-government sport organisations at state and national level support elite programs and encourage high performances.</p>	Agree	Disagree	
<p><u>5. Access to High Quality Competitions</u> Competitive athletes are developed through sustained quality competition programs such as interstate, national and international competition.</p>	Agree	Disagree	
<p><u>6. Competent Management in Sporting Bodies</u> Government and non-government sport organisations need vision, effective governance and sound management.</p>	Agree	Disagree	

<p><u>7. Access to Good Facilities</u> The provision of good quality facilities at all levels (including world class facilities) is supported by local, State and Federal Government.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>8. Quality Coaches and Officials</u> The appointment of professional coaches and officials from a coordinated and integrated accreditation system.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>9. Financial Support from Private Sector and Corporate</u> Private sector financial support and corporate sponsorship can increase opportunities for athletes to make a total commitment to training and to compete full-time like their foreign competitors.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>10. Sporting Tradition and Culture</u> Strong sporting tradition enables people to enjoy sports activities and provides elite athletes with opportunities to achieve success. Australians' long-term fanaticism for sports and a cultural/national identity through sport contribute to the country's sporting prosperity.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>11. Immigration and Multi-Cultural Society</u> Immigration of capable coaches and talented athletes allows foreign best knowledge to contribute to local sport development and to improve athletic performance.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>12. Talent Identification System</u> A high quality talent recognition system is essential. The current system requires more efficient and targeted approaches.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>13. Elite Training Programs</u> An organized professional high performance training system and programs are essential to give athletes the greatest opportunity to achieve at the highest level.</p>	<p>Agree</p>	<p>Disagree</p>	
<p><u>14. Junior Sport Programs</u> Successful Olympic performance is only possible because of elite development programs that start at junior levels.</p>	<p>Agree</p>	<p>Disagree</p>	

15. Economic Situation A good economic situation in Australia contributes to more discretionary funding available for sport.	Agree	Disagree	
16. Media Support High level of coverage of Olympic sport directly influences mass participation and attracts corporate sponsorship.	Agree	Disagree	
17. Political Interest Successful sport teams and events are used by politicians for political exposure.	Agree	Disagree	
OTHER: (Add any other factors with explanation)			

..... **Start Question 3**

Q3: THE ISSUES THAT INDIRECTLY AFFECT OLYMPIC SUCCESS FOR AUSTRALIA ARE...	Your Opinions		Your further comment, correction, clarification or additional information
1. Political Climate and Politicians' Support Stable political environments, political attitude, and politicians' belief in the perceived importance of sport in nation building encourage the continued advance of elite sport.	Agree	Disagree	
2. Athletic Role Models Wholesome examples encourage parents to lead their children into sports.	Agree	Disagree	
3. Geographic Location The distance from the locations of world sport events can affect Australian athletes and their performances.	Agree	Disagree	
4. Conducive Environment The benign weather and natural surroundings encourage Australians' outdoor life style.	Agree	Disagree	

<u>5. The Progress of Sport in Other Countries</u> Many countries are changing their attitudes and priorities to advance elite sports leading to a growing international competitiveness.	Agree	Disagree	
<u>6. International Political Scene</u> Political unrest and interference in some countries at times forces their teams to withdraw from the Olympics.	Agree	Disagree	
<u>7. Economic/Cultural/Religious Differences</u> The economics, culture and religion in some countries may deprive their elite athletes from participating in the Olympics.	Agree	Disagree	
<u>8. Physical Education in Schools</u> Sustaining a strong physical education programs within a crowded school curriculum is important for providing opportunities for students to enjoy sporting activities and access sport development pathways.	Agree	Disagree	
<u>9. A Small Talent Pool</u> Within a small population, non-Olympic professional sports (such AFL, rugby and netball) take talented athletes away from Olympic sports.	Agree	Disagree	
<u>10. Media and Corporate Bias</u> Media executives decide what events to televise, and corporations decide which teams/sports to sponsor, limiting choice of sport exposure.	Agree	Disagree	
<u>11. Volunteer Involvement in Sport</u> Gaining and retaining volunteers continues to be an important issue in providing community and elite sport.	Agree	Disagree	
<u>12. Health Concerns</u> Concern about health issues, such as overweight and lack of physical activity, indirectly contribute to Olympic success in Australia.	Agree	Disagree	

<p><u>13. Judges' Bias in Subjective Sports</u> Judging can appear biased toward some countries in subjective sports, e.g., gymnastics, reflecting international rivalry and power struggles within International Sport Federations.</p>	Agree	Disagree	
<p><u>14. Insurance and Liability Concerns in Sport</u> The effect of insurance and liability for sports facilities and opportunities may restrict participation in sport and physical activities.</p>	Agree	Disagree	
<p><u>15. Grass Roots Sport Strategy</u> Grass roots sport strategy government adopts a strategic approach to ensuring strong viable "grass roots" sport organisations as a basis for sport development.</p>	Agree	Disagree	
<p><u>16. Public Interest</u> Positive public interest in sport and satisfaction in seeing athletes succeed encourages sponsorship and funding for high performance programs.</p>	Agree	Disagree	
<p><u>17. Drugs in Sport</u> Drug use in sport, which distorts performance and harms athletes' health, is a moral and ethical issue for sports and government in maintaining the integrity of sport.</p>	Agree	Disagree	
<p><u>18. Changing Government Policies</u> A change in government and government policy may adversely affect funding levels for sport.</p>	Agree	Disagree	
<p>OTHER: (Add any other issues with explanation)</p> <p>.....</p> <p>.....</p> <p>.....</p>			

..... **The End of this Questionnaire**

親愛的專題小組成員：

這是一系列德菲訪談調查 (Delphi Surveys) 的第二輪問卷，其內容係根據第一輪問卷所獲得來自各領域專家學者意見綜合彙整製作。如同先前在第一輪問卷所作說明，本研究旨在應用德菲調查法 (Delphi Technique)，探索國家級競技運動組織系統與追求奧運績效相關議題。請您依照下列說明完成填答：

1. 詳讀每一選項說明，並確認：
 - 您的意見，已在下列選項及說明中呈現；
 - 所有影響台灣追求奧運績效直接因素及間接議題，均已涵蓋在各選項中。
2. 依據*範例提示方式，表達您「同意」或「不同意」各項陳述內容。

※ 在此重申及強調有關您的回覆資料，均會以匿名方式處理。再次感謝您的參與及合作 !!

1. Q1: 對台灣而言，所謂的「奧運成功績效」意指 ...	您的意見		您的進一步評論及修正說明
*範例一：... 奧運選手的優異成績，使運動員社會地位提昇。	同意		
*範例二：... 提供運動員機會獲得更多企業界的支持及贊助。		不同意	其因果關係有待進一步研究。

..... Start Question 1

Q1: 對台灣而言，所謂的「奧運成功績效」意指 ...	您的意見		您的進一步評論及修正說明
... 不僅有越來越多具潛力的運動種類團隊及選手，取得參賽資格，並有更多運動項目逐步達成參賽預期目標，亦即 <u>更多運動項目贏得獎牌[金牌]</u> ，以晉升參賽排名。	同意	不同意	
... <u>競技運動組織間的團隊績效</u> ，包括官方及民間運動組織密切合作，專業教練團隊的協分工，運動科學小組有效支援，最佳選手遴選培訓，及完善組團參賽工作準備。	同意	不同意	
... 藉由國家代表選手在國際運動舞台的奮戰表現及取得佳績， <u>促進國家認同及社會團結</u> 。	同意	不同意	
... 藉由參加奧運推展競技運動，相對提升全民參與運動程度。	同意	不同意	
... <u>參賽個人及團隊突破最佳成績</u> ，其表現普遍獲得大眾正面讚賞及肯定。	同意	不同意	
... 經由國際媒體更多對我國選手表現正面報導， <u>增進國際能見度及提昇國家聲譽</u> 。	同意	不同意	
... 透過競技運動績效的提升，吸引企業贊助競技運動，進而刺激國內運動產業發展。	同意	不同意	
... 以 <u>獎牌數與人口比例統計</u> ，評估我國是否在績效上，優於其他人口數相仿國家。	同意	不同意	

... 反映於傳播媒體的評論；一般而言，媒體報導影響大眾對奧運代表隊績效成就的評價。	同意	不同意	
... 投資於奧運選手的報酬；政府與民間投入人力及經費越多，績效及報償可能越高。	同意	不同意	
... 由於奧運選手的運動家精神/競賽表現及優異成績，使運動員社會地位提昇。	同意	不同意	
... 國內媒體報導增加及收視率提高，以吸引更多民眾關注及參與競技運動。	同意	不同意	
其他：(對於「奧運成功績效」的定義，如有其他補充意見，請在本欄填寫及簡略說明)			
.....			
.....			

..... Start Question 2

Q2. 促成台灣奧運成功績效的直接因素包括...	您的意見		您的進一步評論及修正說明
1. 政府專款補助 長期以來，台灣的運動團隊參加奧運比賽的各項選、訓、賽，均由政府編列預算支應；政府經費多寡與奧運績效，被視為有相對關係及相互影響。	同意	不同意	
2. 政府行政支援及效能 政府部門主動積極參與選、訓、賽事務，全力支持及配合相關計畫執行。我國在 2004 年雅典奧運的空前佳績，歸功於官方的長期有效投入相關準備工作。	同意	不同意	
3. 運動員獎勵措施 除以高額獎金激勵選手爭取佳績外，政府亦應針對奧運選手制定更完善的升學與就業輔導措施，使具潛力選手得以無後顧之憂全力投入訓練工作。	同意	不同意	
4. 運動教練素質 具備國際觀專業知能教練的熱忱參與及全心投入，是構成競技運動推展成功及奧運參賽績效的關鍵因素之一。	同意	不同意	
5. 民間運動組織機制與效率 各單項運動組織的組成結構及行政管理效能及是否能配合政策執行，對競技運動推展相對影響，更是促進奧運參賽績效的重要因素。	同意	不同意	

<p>6. 應用運動科學 籌組運動科學支援團隊長期支援培訓工作，提供詳實資料協助教練及選手突破訓練瓶頸。</p>	同意	不同意	
<p>7. 建立選才制度 我國對於運動員選才尚未能建立一套完整制度，以致無法有系統培養具有潛力選手及有效銜接培訓工作，現階段僅依賴少數明星選手爭取參賽績效。</p>	同意	不同意	
<p>8. 完整培訓計畫 唯有建立長期有系統的培訓計畫及有效執行培訓工作，才能為奧運奪牌實力打下基礎。</p>	同意	不同意	
<p>9. 企業支持與贊助 鼓勵民間企業的支持贊助，使優秀選手得以長期全心投入訓練爭取佳績。</p>	同意	不同意	
<p>10. 體育政策的規劃與執行 不僅針對現行體育政策的貫徹執行，亦考量其他有助於競技運動推展相關政策。例如：開放發行運動彩券，提高贊助體育活動免稅額，明定媒體體育活動報導比率。</p>	同意	不同意	
<p>11. 教練培育及鑑定制度 各單項運動組織對專業教練的培訓遴選及聘用應建立完整制度，使運動教練適才適所。國內目前僅有少數運動種類具有較完整的系統架構。</p>	同意	不同意	
<p>12. 全民參與運動風氣 全民對競技運動的關注，可刺激運動人口成長。目前國內僅有少數奧運項目受到大眾歡迎，其他項目運動人口的有限。</p>	同意	不同意	
<p>13. 改善運動設施設備 「工欲善其事，必先利其器」，為長期有效培養優質選手，良好的訓練環境及國際水準的設施設備不可或缺。</p>	同意	不同意	
<p>14. 聘任國外專業教練 借重國外教練專業經驗及訓練方法，被視為提昇訓練品質及參賽績效，快速有效方法。</p>	同意	不同意	
<p>15. 培育體育專業人才 重視對體育行政、國際體育事務及運動行銷管理相關專業人才的培養，以提昇國家體育政策推動及執行效率，進而帶動我國運動環境與國際接軌。</p>	同意	不同意	

<p>16. 慎選重點項目推展 基於人力及經費有限，慎選運動種類發展，有利於集中資源加強推動。政府長期重點發展跆拳道及射箭，即為成功實例。</p>	同意	不同意	
<p>17 移地訓練及國外比賽機會 有效規劃安排移地訓練及國外比賽，有助於選手適應比賽環境，克服因缺乏國際賽經驗，所造成臨場適應不良或心理層面不穩定等問題。</p>	同意	不同意	
<p>18 重視奧林匹克教育 對奧林匹克主義的認知有限，造成選手及大眾對運動求勝價值的扭曲；加強教練及行政人員對奧林匹克精神及憲章的瞭解，亦有助於正確引導及避免賽會期間不必要的抗爭。</p>	同意	不同意	
<p>其他：（對於「直接影響因素」如有其他補充意見，請在本欄填寫及簡略說明）</p> <p>.....</p> <p>.....</p> <p>.....</p>			

..... Start Question 3

Q3. 促成台灣奧運成功績效的直接因素包括...	您的意見		您的進一步評論及修正說明
<p>1. 國人運動價值觀 國人仍持有重文輕武觀念，對多數民眾而言，從事運動的目的在於健身；多數家長並不鼓勵子女長期參與競技運動。</p>	同意	不同意	
<p>2. 運動員社會地位 儘管有少數運動員已在國際運動舞台表現優異，運動員的社會地位在台灣，尚未能普遍受到大眾肯定認同。</p>	同意	不同意	
<p>3. 國內政治現況及經濟發展 政治穩定助長經濟發展，相對有利於體育政策的持續推動。政黨角力影響來自政府與民間企業預算及資金的編列籌措，資金不足，既定決策難以有效執行。</p>	同意	不同意	

<p>4. 學校體育教育 教育機構對體育教育的支持，不僅可喚起學校及家長對體育教育的重視，亦可提供學生更多參與體育活動及選擇喜愛運動項目發展的機會。</p>	同意	不同意	
<p>5. 主政(事)者理念 政府與民間運動組織領導人的重視及支持，是促成績效重要因素之一。主事者對推展競技運動的理念及行動力，影響施政方向及計畫執行。</p>	同意	不同意	
<p>6. 兩岸關係及國際政治情勢 兩岸關係長期牽動台灣競技運動發展。許多國家或國際組織受到中共政治介入影響，使台灣在國際體育活動重要場合，未能受到公平待遇或同等競爭機會，發展空間因而受限。</p>	同意	不同意	
<p>7. 國際體育交流 台灣在國際體壇的交流空間，因政治因素受到侷限，相對突顯我國與國際運動組織建立良好關係的重要性。</p>	同意	不同意	
<p>8. 優秀教練獎勵與進修 績優教練應給予獎金獎勵及安排國內外升學及進修機會及管道。</p>	同意	不同意	
<p>9. 精英選手的質與量 更多的優質選手參與培訓，訓練易顯成效，反之，事倍功半或難以突破。</p>	同意	不同意	
<p>10. 國內職業運動發展 職業運動的興盛，可帶動運動產業發展，刺激更多運動觀賞人口，有助於吸引優秀人才投入運動訓練。</p>	同意	不同意	
<p>11. 他國對奧運競賽重視程度 各國參與奧運的重視程度及其對競賽項目的成長幅度，衝擊國際競爭力，影響奪牌機率。</p>	同意	不同意	
<p>12. 最新國際運動資訊蒐集 對國際體壇動態相關資訊的蒐集不夠詳盡，選手培訓及參賽成效大打折扣。</p>	同意	不同意	
<p>13. 國際運動現況改變 奧運競賽種類的規劃(例如：棒球及跆拳道)，國際總會對競賽規則的修訂(例如：射箭)，主辦國對奧運競賽種類的選擇，及其他相關競賽制度的改變，對我國參賽績效相對影響。</p>	同意	不同意	

<p>14. 裁判人員素質 裁判的專項素養及執法技能，影響運動比賽品質。國內對各級裁判的養成制度，亟待建立更完善體制，以全面提升競賽環境，並與國際接軌。</p>	同意	不同意	
<p>15. 運動文化 唯有將運動融入生活及運動其本身價值被肯定，運動文化始得以傳承。國人對運動價值觀的偏差，運動未能融入日常生活，運動文化的難以深植。</p>	同意	不同意	
<p>16. 媒體從業人員素養 媒體從業人員的豐富運動專業知識及良好職業道德規範，可提供國人正確認識競技運動的機會，並吸引民眾閱讀運動報導及觀賞運動節目的興趣。</p>	同意	不同意	
<p>17. 水上活動相關限制 基於國防安全考量及水資源保護法令限制，沿岸及河流因而受限無法長期發展水上運動。</p>	同意	不同意	
<p>其他：（對於「間接影響議題」如有其他補充意見，請在本欄填寫及簡略說明）</p>			

..... The End of this Questionnaire

Appendix H: Delphi survey – Round 3 cover letter

Re: A comparative study of national government elite sport systems in Australia and Taiwan, ROC: A model for Olympic success

Dear Panellist,

Thank you again for agreeing to participate in this study and responding to the Delphi questionnaires (Round 1 and/or Round 2). Your comments were very useful in clarifying the issues and your responses have enabled me to move to the next round (Round 3) of the study.

Here is the **THIRD round** questionnaire. It is estimated that this round will take approximately 15 minutes to complete depending on the depth of your response.

In this third round you will find the same 3 sections:

- criteria for Olympic success
- direct contributing factor
- indirect contributing factor

1. **Criteria for Olympic success**

You will notice that the statements were refined following Round 2. The statements are now rearranged in order of the number of responses giving an interim ranking. Your task now is to **RATE** each of these statements according to how important you perceive these characteristics to be in defining Olympic success for Australia. If you believe an issue is **not important** then you will rate it at **1 or 2**, but if you believe an issue is **very important** then you will rate it at **4 or 5**.

2. **Direct contributing factors**

These statements are also rearranged in an interim ranking based on responses from the previous round. Again your task is to rate each statement according to how important you believe its contribution is to Australia's Olympic success (**1 or 2 for not important; 4 or 5 for very important.**)

3. **Indirect contributing factors**

You repeat the rating process for the factors identified as indirect contributors to Australia's Olympic success, using the same scale. You may add further comment or clarification to your response in the space provided.

I look forward to your continuing participation and the return of the third round questionnaire by 20 May 2005. This study depends on your continued support for its success.

Kind regards,

Yours sincerely,

Margaret Tang

PhD student
School of Marketing, Tourism and Leisure
Edith Cowan University, Joondalup Campus
100 Joondalup Drive, Joondalup, AUSTRALIA
Telephone: 61 8 6304 5397

親愛的訪談小組委員：

首先再次感謝您撥冗參與先前的問卷調查，您的寶貴意見，不僅提供本研究更多重要的訊息，亦使得研究工作得以持續推動。茲寄上第 3 輪問卷 (詳見檔案夾附件)。

本次問卷內容，仍延續先前三項議題的探討，唯部份議題的選項及說明內容，已參考第 2 輪訪談評論意見，予以修訂[以 * 表示]或增列[以 # 表示]；並按照第 2 輪調查統計結果調整排序。請您針對各議題，進一步表達個人觀點 (預計 15 至 20 分鐘可完成填答)，其作答方式簡述如下：

1. 奧運成功績效的定義

請詳讀「*修訂內容」部份，有關評定我國奧運參賽績效的各項綜合意見，依照「重要程度」(1, 2, 3, 4, 5) 評選與您較相符合的觀點 (「1」表示「不重要」，「5」表示「非常重要」)。

2. 奧運成功績效的直接因素

各選項已依照第 2 輪調查統計結果重新排序提供參考，請就各項「直接因素」對影響我國奧運績效的「重要程度」(1, 2, 3, 4, 5) 評選與您較相符合的觀點 (「1」表示「不重要」，「5」表示「非常重要」)。

3. 奧運成功績效的間接因素

如同上述程序，請您就各項「間接因素」對影響我國奧運績效的「重要程度」(1, 2, 3, 4, 5) 評選與您較相符合的觀點。如果您的各項議題選項有進一步評論或說明，請在空白處填寫。

本研究的成敗仰賴您的繼續熱忱協助指導，懇請您能在本週內或遲於 5 月 31 日前完成問卷填答，利用本網址以「夾帶檔案」方式回傳。感激您能協助後學如期完成本研究調查 !!

無限的感恩及祝福 !!

後學

唐慧媛 敬啟

Margaret Tang

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Appendix I: Delphi survey – Round 3 questionnaires

Dear Panellist,

This is the **THIRD** of a series of Delphi questionnaires. As explained in the previous round questionnaire, the purpose of this Delphi survey is to explore issue involved in national government elite sport system and the pursuit of Olympic success.

- Your task in this round is to **READ** the revised statements and **RATE** how important you judge them on a scale of 1 to 5. If you believe any issue is not at all important you will rate is 1 or 2, but if you believe the issue is very important you will rate it 4 or 5 on the scale.
- Please note that your **ANONYMITY** will be maintained throughout the surveys and your response will be kept **CONFIDENTIAL**.

Q1. Olympic success for Australia means...	Round 2 statistical result			Olympic success for Australia means...	Your opinions				
	<i>Agree</i>	<i>Disagree</i>	<i>Undecided</i>		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Example: ... giving a few sports people a chance to get MORE SPONSORSHIP DEALS .	12	11	1	More sponsorship deals.	not important very important				
					Your rating: <u>3</u> Further comment (if any):				

..... **Start Question 1**

Q1. Olympic success for Australia means...	Round 2 statistics			[Revised statement] Olympic success for Australia means...	Your opinions				
	<i>Agree</i>	<i>Disagree</i>	<i>Undecided</i>		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
... INCREASING NATIONAL PRIDE AND CONFIDENCE by demonstrating sporting ability and competitive spirit.	23	0	1	... enhanced national pride and confidence.	Your rating: _____ Further comment (if any):				
... The athletes/teams reaching their PERSONAL BEST PERFORMANCE while being fair in competition, gracious in winning, and acting as an inspiration for all by providing role models.	22	1	1	... best performance and fair play by athletes and teams.	Your rating: _____ Further comment (if any):				
... not only maintaining medal position, but also improving RANKING ON THE MEDAL TALLY by having more athletes/teams qualified, participating in the Games, reaching	22	1	1	... a high number of medals won and a high ranking on the medal tally.	Your rating: _____ Further comment (if any):				

the finals and winning more medals across a number of sports.				... the greater number of athletes/teams reaching the finals and winning medals across a greater number of sport.	Your rating: _____ Further comment (if any):
... INCREASING PUBLIC INTEREST IN SPORTS by encouraging new participants to join sports and energizing people to perform in their individual pursuits.	21	3	0	... increased public interest and participation in sports.	Your rating: _____ Further comment (if any):
... A NATURAL EXTENSION OF SPORTS TRADITION AND CULTURE, because Australians are very proud of their strong sporting history, with a keen spirit of competition and a high degree of autonomy in sport.	21	3	0	... a stronger sporting tradition and culture.	Your rating: _____ Further comment (if any):
... THE PUBLIC PERCEPTION that the Australian team is successful.	19	5	0	... the public perceives that Australian team was successful.	Your rating: _____ Further comment (if any):
... SUCCESSFUL IMPLEMENTATION OF AN ELITE SPORT SYSTEM to ensure ongoing funding and infrastructure support for Olympic sports.	18	4	2	... the elite sport system in Australia is validated.	Your rating: _____ Further comment (if any):
... THE NUMBER OF MEDALS WON AS A PERCENTAGE OF POPULATION, compared with other developed countries of similar population and infrastructure.	17	7	0	... a comparatively high number of medals won per head of population.	Your rating: _____ Further comment (if any):
... accepting THE "COST OF MEDALS" to the community and to the athlete.	13	11	0	[Removed from further analysis of definition of Olympic success]	
... receiving LONG-TERM MEDIA SUPPORT outside the Olympic timeframe instead of only intensive coverage during the Olympic period.	9	13	2	[Removed from further analysis of definition of Olympic success]	
... WHAT THE GOVERNMENT AND MEDIA DECLARE to be a success.	8	15	1	[Removed from further analysis of definition of Olympic success]	
... sporting success is A BROAD MEASURE OF NATIONAL HEALTH.	3	21	0	[Removed from further analysis of definition of Olympic success]	
Additional comments:					

..... Start Question 2

Q2. The factors that contribute directly to Olympic success for Australia are ...	Round 2 statistics			Your opinions				
	Agree	Disagree	Undecided	1	2	3	4	5
				not important very important				
<p><u>1. Government Funding and Support</u> Money is a major direct factor contributing to Olympic success. It costs so much to commit to support elite sport programs and performances, i.e. training, coaching, officiating, facilities, competitions.</p>	24	0	0	Your rating: _____ Further comment (if any):				
<p><u>2. Athlete Support</u> Parents, friends and community provide personal and financial support, to enable elite athletes to make a total commitment to their sport.</p>	24	0	0	Your rating: _____ Further comment (if any):				
<p><u>3. A Structured and Stable Sport system</u> A structured and stable sport system at all levels is essential for the continual development of athletes, coaches, officials and sport administrators. Sport clubs/associations at grass roots level contribute to a broad base of participants at various ages, while the government and non-government sport organisations at state and national level support elite programs and encourage high performances.</p>	24	0	0	Your rating: _____ Further comment (if any):				
<p><u>4. Access to Good Facilities</u> The provision of good quality facilities at all levels (including world class facilities) is supported by local, State and Federal Government.</p>	23	0	1	Your rating: _____ Further comment (if any):				
<p><u>5. Quality Coaches and Officials</u> The appointment of professional coaches and officials from a coordinated and integrated accreditation system.</p>	23	1	0	Your rating: _____ Further comment (if any):				
<p><u>6. Advanced Technology and Sports science Support</u> The continual development and application of cutting-edge technology in sports science/medicine to advance high performance are essential for Australia to remain in a leading position on the world stage.</p>	23	1	0	Your rating: _____ Further comment (if any):				
<p><u>7. Sporting Tradition and Culture</u> Strong sporting tradition enables people to enjoy sports activities and provides elite athletes with opportunities to achieve success. Australians' long-term fanaticism for sports and a cultural/national identity through sport contribute to the country's sporting prosperity.</p>	23	1	0	Your rating: _____ Further comment (if any):				

8. Competent Management in Sporting Bodies Government and non-government sport organisations need vision, effective governance and sound management.	22	2	0	Your rating: ____ Further comment (if any):
9. Elite Training Programs An organized professional high performance training system and programs are essential to give athletes the greatest opportunity to achieve at the highest level.	22	2	0	Your rating: ____ Further comment (if any):
10. Financial Support from Private Sector and Corporate Private sector financial support and corporate sponsorship can increase opportunities for athletes to make a total commitment to training and to compete full-time like their foreign competitors.	22	2	0	Your rating: ____ Further comment (if any):
11. Access to High Quality Competitions Competitive athletes are developed through sustained quality competition programs such as interstate, national and international competition.	22	2	0	Your rating: ____ Further comment (if any):
12. Political Interest Successful sport teams and events are used by politicians for political exposure.	20	3	1	Your rating: ____ Further comment (if any):
13. Immigration and Multi-Cultural Society Immigration of capable coaches and talented athletes allows foreign best knowledge to contribute to local sport development and to improve athletic performance.	20	3	1	Your rating: ____ Further comment (if any):
14. Economic Situation A good economic situation in Australia contributes to more discretionary funding available for sport.	17	6	1	Your rating: ____ Further comment (if any):
15. Talent Identification System A high quality talent recognition system is essential; one that is efficient and uses a targeted approach.	17	6	1	Your rating: ____ Further comment (if any):
16. Media Support High level of coverage of Olympic sport directly influences mass participation and attracts corporate sponsorship.	15	8	1	Your rating: ____ Further comment (if any):
17. Junior Sport Programs Successful Olympic performance is only possible because of elite development programs that start	14	7	3	Your rating: ____ Further comment (if any):

at junior levels.

Additional comments:

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..... **Start Question 3**

Q3: The issue that indirectly affect Olympic success for Australia are ...	Round 2 statistics			Your opinions				
	<i>Agree</i>	<i>Disagree</i>	<i>Undecided</i>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
				not important		very important		
<u>1. The Progress of Sport in Other Countries</u> Many countries are changing their attitudes and priorities to advance elite sports leading to a growing international competitiveness.	23	1	0	Your rating: _____ Further comment (if any):				
<u>2. Volunteer Involvement in Sport</u> Gaining and retaining volunteers continues to be an important issue in providing community and elite sport.	23	1	0	Your rating: _____ Further comment (if any):				
<u>3. Drugs in Sport</u> Drug use in sport, which distorts performance and harms athletes' health, is a moral and ethical issue for sports and government in maintaining the integrity of sport.	22	1	1	Your rating: _____ Further comment (if any):				
<u>4. Athletic Role Models</u> Wholesome examples encourage parents to lead their children into sports.	22	1	1	Your rating: _____ Further comment (if any):				
<u>5. Media and Corporate Bias</u> Media executives decide what events to televise, and corporations decide which teams/sports to sponsor, limiting choice of sport exposure.	21	1	2	Your rating: _____ Further comment (if any):				
<u>6. Political Climate and Politicians' Support</u> Stable political environments, political attitude, and politicians' belief in the perceived importance of sport in nation building encourage the continued advance of elite sport.	21	3	0	Your rating: _____ Further comment (if any):				
<u>7. Public Interest</u>	21	3	0	Your rating: _____				

Positive public interest in sport and satisfaction in seeing athletes succeed encourages sponsorship and funding for high performance programs.				Further comment (if any):
8. Conducive Environment The benign weather and natural surroundings encourage Australians' outdoor life style.	21	3	0	Your rating: _____ Further comment (if any):
9. Grass Roots Sport Strategy Government adopts a strategic approach to support strong viable community sport organisations as a basis for sport development.	20	3	1	Your rating: _____ Further comment (if any):
10. Economic/Cultural/Religious Differences The economics, culture and religion in some countries may deprive their elite athletes from participating in the Olympics.	20	4	0	Your rating: _____ Further comment (if any):
11. Physical Education in Schools Sustaining a strong physical education programs within a crowded school curriculum is important for providing opportunities for students to enjoy sporting activities and access sport development pathways.	20	4	0	Your rating: _____ Further comment (if any):
12. A Small Talent Pool Within a small population, non-Olympic professional sports (such AFL, rugby and netball) take talented athletes away from Olympic sports.	18	4	2	Your rating: _____ Further comment (if any):
13. International Political Scene Political unrest and interference in some countries at times forces their teams to withdraw from the Olympics.	18	5	1	Your rating: _____ Further comment (if any):
14. Geographic Location The distance from the locations of world sport events can affect Australian athletes and their performances.	18	5	1	Your rating: _____ Further comment (if any):
15. Insurance and Liability Concerns in Sport The effect of insurance and liability for sports facilities and opportunities may restrict participation in sport and physical activities.	18	5	1	Your rating: _____ Further comment (if any):
16. Judges' Bias in Subjective Sports Judging can appear biased toward some countries in subjective sports, e.g., gymnastics, reflecting international rivalry and power struggles within International Sport Federations.	17	6	1	Your rating: _____ Further comment (if any):

17. Changing Government Policies A change in government and government policy may adversely affect funding levels for sport.	17	6	1	Your rating: _____ Further comment (if any):
18. Health Concerns Concern about health issues, such as overweight and lack of physical activity, indirectly contribute to Olympic success in Australia.	9	14	1	Your rating: _____ Further comment (if any):
Additional comments:				

Thank you very much for your time and expert opinions!

..... **The end of this Questionnaire**

親愛的訪談小組委員：

這是一系列德菲訪談調查 (Delphi Surveys) 的第三輪問卷。如同先前問卷說明，本研究旨在應用德菲調查法 (Delphi Technique)，探索國家級競技運動組織系統與追求奧運績效相關議題。

本次問卷填答，請您參考第二輪訪談結果統計，並詳讀每一選項，依其「重要程度」表達您的個人觀點：

如果您認為該項議題「不重要」，請選填「1 或 2」；

如果您認為該項議題「非常重要」，請選填「4 或 5」；

請參照以下*範例提示方式填答。

在此重申及強調有關您的回覆資料，均會以匿名方式處理。

Q1: 對台灣而言，所謂的「奧運成功績效」意指 ...	第二輪訪談結果			對台灣而言，所謂的「奧運成功績效」意指 ...	您的觀點				
	同意	不同意	未決定		1	2	3	4	5
					不重要 非常重要				
*範例：... 提供運動員機會獲得更多企業界的支持及贊助。	12	11	1	... 更多企業支持贊助競技運動。	重要程度: <u>3</u> 進一步評論或說明: 無。				

..... Start Question 1

Q1: 對台灣而言，所謂的「奧運成功績效」意指 ...	第二輪訪談結果			[*修訂內容]	您的觀點				
	同意	不同意	未決定	對台灣而言，「奧運成功績效」意指 ...	1	2	3	4	5
					不重要 非常重要				
1. ... 經由國際媒體更多對我國選手表現正面報導， <u>增進國際能見度及提昇國家聲譽。</u>	31	0	1	1. ... 更多國際媒體對我國選手表現正面報導， <u>提昇國際能見度及國家聲譽。</u>	重要程度: _____ 進一步評論或說明:				
2. ... <u>競技運動組織間的團隊績效</u> ，包括官方及民間運動組織密切合作，專業教練團隊的協力分工，運動科學小組有效支援，最佳選手遴選培訓，以及完善組團參賽工作的準備與執行。	30	1	1	2. ... <u>政府與民間運動組織團隊經營成效。</u>	重要程度: _____ 進一步評論或說明:				

3. ... 不僅有越來越多具潛力的運動種類團隊及選手，取得參賽資格，並有更多運動項目逐步達成參賽預期目標，亦即 <u>更多運動項目贏得獎牌[金牌]</u> ，以晉升參賽排名。	29	3	0	3. ... <u>更多運動項目贏得獎牌[金牌]</u> ，以晉升我國奧運參賽排名。	重要程度：_____ 進一步評論或說明：
				4. ... <u>更多運動團隊及選手取得參賽資格</u> ，以期更多運動項目逐步達成參賽預期目標。	重要程度：_____ 進一步評論或說明：
4. ... 由於奧運選手的運動家精神/競賽表現及優異成績，使 <u>運動員社會地位提昇</u> 。	29	3	0	5. ... 藉由選手及團對參賽優異成績， <u>提昇運動員社會地位</u> ，進而改善國人對參與運動的價值觀。	重要程度：_____ 進一步評論或說明：
5. ... <u>參賽個人及團隊突破最佳成績</u> ，其表現普遍獲得大眾正面讚賞及肯定。	29	3	0	6. ... <u>參賽團隊及個人突破最佳成績</u> ，超越過去成績紀錄。	重要程度：_____ 進一步評論或說明：
6. ... 藉由參加奧運推展競技運動， <u>提昇全民參與運動程度</u> 。	28	3	1	7. ... 透過推展競技運動相輔相成， <u>提昇全民參與運動程度</u> 。	重要程度：_____ 進一步評論或說明：
7. ... 透過競技運動績效的提升，吸引企業贊助競技運動，進而 <u>刺激國內運動產業發展</u> 。	28	3	1	8. ... 吸引更多企業支持贊助 <u>競技運動</u> ，進而刺激國內運動產業發展。	重要程度：_____ 進一步評論或說明：
8. ... 藉由國家代表選手在國際運動舞台的奮戰表現及取得佳績， <u>促進國家認同及社會團結</u> 。	28	4	0	9. ... 由於國家代表團隊的競賽佳績， <u>促進國家認同及社會團結</u> 。	重要程度：_____ 進一步評論或說明：
9. ... 反映於傳播媒體的評論；一般而言，媒體報導影響大眾對奧運代表隊績效成就的評價。	28	4	0	10. ... 吸引國內媒體支持 <u>競技運動推展</u> ；傳播媒體報導影響大眾對運動的參與及評價。	重要程度：_____ 進一步評論或說明：
10. ... <u>國內媒體報導增加及收視率提高</u> ，以吸引更多民眾關注及參與競技運動。	27	5	0	[依據評論意見併入前項 [第 10 項] 議題說明。	
11. ... <u>投資於奧運選手的報酬</u> ；政府與民間投入人力及經費越多，績效及報償可能越高。	24	7	1	11. ... <u>政府與民間對奧運投入程度</u> ；投入人力及資源越多，參賽績效及報償會越高。	重要程度：_____ 進一步評論或說明：

12. ... 以 <u>獎牌數與人口比例統計</u> ，評估我國是否在績效上，優於其他人口數相仿國家。	19	11	2	12. ... 以 <u>獎牌數與人口比例統計</u> ，評估我國參賽表現是否優於其他人口數相仿國家。	重要程度: _____ 進一步評論或說明:
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其他補充意見：

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..... Start Question 2

Q2. 促成台灣奧運成功績效的直接因素包括...	第二輪訪談結果			您的觀點				
	同意	不同意	未決定	1	2	3	4	5
				不重要 非常重要				
#1. 主政者的理念 主政者對推展競技運動的重視及支持，是促成績效重要因素之一；運動組織領導人的理念及行動力，影響施政方向及執行效率。	32	0	0	重要程度: _____ 進一步評論或說明:				
2. 培育體育專業人才 體育行政、國際體育事務及運動行銷管理專業人才培養，有助提昇國家體育政策推動及執行效率，帶動我國運動環境與國際接軌。	32	0	0	重要程度: _____ 進一步評論或說明:				
3. 民間運動組織機制與效率 民間運動組織的組成結構及行政管理效能，影響競技運動推展及奧運參賽績效。	32	0	0	重要程度: _____ 進一步評論或說明:				
4. 完整培訓計畫 規劃長期有系統的培訓計畫，有效指導監督執行培訓工作，為奧運奪牌實力的基礎。	32	0	0	重要程度: _____ 進一步評論或說明:				
5. 應用運動科學 籌組運動科學團隊，長期支援選、訓、賽工作，協助教練及選手突破訓練瓶頸。	32	0	0	重要程度: _____ 進一步評論或說明:				

<p>6. 移地訓練及國外比賽機會 安排移地訓練及國外比賽，協助團隊及選手適應各種比賽環境，加強國際比賽經驗。</p>	32	0	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>7. 慎選重點項目推展 妥善運用有限人力及經費，集中資源推動重點運動項目推展。</p>	31	1	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>8. 精英選手的質與量 更多的優質選手參與培訓，訓練易顯成效，反之，事倍功半或難以突破。</p>	31	1	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>9. 運動教練素質 教練的素質與投入層度，是構成競技運動推展成功及奧運參賽績效的關鍵因素之一。</p>	31	1	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>10. 教練培育及鑑定制度 各單項民間運動組織對專業教練的培訓遴選及授證聘用，建立完整系統架構。</p>	31	1	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>11. 聘任國外專業教練 借重國外教練專業經驗及訓練方法，提昇訓練品質及參賽績效。</p>	30	1	1	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>12. 全民參與運動風氣 以推展全民運動，增進國人對運動的支持關注，刺激競技運動人口成長。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>13. 改善運動設施設備 為長期有效培養優秀選手，良好的訓練環境及國際水準的設施設備不可或缺。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>14. 運動員獎勵措施 制定奧運績優選手獎金獎勵制度及升學就業輔導措施，激勵優秀選手投入訓練工作。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>

15. 建立選才制度 針對特定運動項目，建立選才培訓制度，使各階段潛力選手有機會加入培訓行列。	29	2	1	重要程度: _____ 進一步評論或說明:
16. 優秀教練獎勵與進修 建立優秀教練獎勵制度，例如獎金獎勵及安排國內外進修，增進教練參與熱忱及投入訓練工作意願。	29	3	0	重要程度: _____ 進一步評論或說明:
17. 政府專款補助 國內運動團隊及個人參加國際重要賽會的選、訓、賽工作，均由政府編列經費支應；政府預算多寡與參賽績效息息相關。	28	3	1	重要程度: _____ 進一步評論或說明:
18. 政府行政支援及效能 政府部門是否長期有效投入人力資源，參與選、訓、賽事務，影響參賽績效。	25	6	1	重要程度: _____ 進一步評論或說明:
其他補充意見：				

..... Start Question 3

Q3. 促成台灣奧運成功績效的間接因素包括...	第二輪訪談結果			您的觀點				
	同意	不同意	未決定	1	2	3	4	5
				不important 非常重要				
1. 國人運動價值觀 加強體育與運動教育，改善國人重文輕武觀念，期有更多學生及社會人士願以運動為志業。	31	1	0	重要程度: _____ 進一步評論或說明:				
2. 學校體育教育 教育機構對體育教育的重視，以及學校對體育課程的支持，間接影響競技運動推展。	31	1	0	重要程度: _____ 進一步評論或說明:				

<p>3. 裁判人員素質 建立裁判養成及評鑑制度，提昇裁判素養及執法技能，使國內比賽水準與國際競賽環境接軌。</p>	31	1	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>4. 他國對奧運競賽重視程度 各國對參與奧運的重視程度及成長幅度，衝擊國際競爭力，影響我國奪牌機率。</p>	31	1	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>5. 國際體育交流 我國在國際體壇交流空間，受政治因素侷限，相對突顯與國際運動組織建立良好關係的重要性。</p>	30	1	1	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>6. 職業運動發展 職業運動興盛，帶動運動產業發展，刺激運動觀賞人口，有助於吸引優秀人才投入運動行業。</p>	30	1	1	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>7. 運動員社會地位 運動團隊及個人在國際舞台的優異表現，廣受國人的肯定認同，有助運動員社會地位的提昇。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>8. 國內政治現況及經濟發展 政治穩定助長經濟發展，相對有利於體育相關政策及培訓計畫的持續推動。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>9. 國際運動現況改變 奧運競賽種類的規劃，主辦國對奧運競賽種類的選擇，競賽制度的改變，影響我國奪牌機會。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>10. 媒體從業人員素養 媒體從業人員的運動專業及職業道德，影響國人觀賞運動興趣，及對競技運動的正確認知。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>
<p>11. 企業支持與贊助 民間企業的支持贊助，優秀選手得以長期全心投入訓練爭取佳績。</p>	30	2	0	<p>重要程度：_____</p> <p>進一步評論或說明：</p>

12. 國際運動資訊蒐集	有效蒐集國際體壇動態及運動科學資訊，加強選手培訓及參賽績效。	29	2	1	重要程度：____ 進一步評論或說明：
13. 運動文化	國人對運動價值觀的偏差，致使運動未能融入生活，影響運動文化的深植及傳承。	29	3	0	重要程度：____ 進一步評論或說明：
14. 體育政策的規劃與執行	體育政策的廣義推動及貫徹執行，影響競技運動推展成效。	28	3	1	重要程度：____ 進一步評論或說明：
15. 重視奧林匹克教育	加強國人的奧林匹克教育，有助於運動員對勝價值認知；亦可正確引導及避免賽會期間不必要的抗爭。	27	4	1	重要程度：____ 進一步評論或說明：
16. 兩岸關係及國際政治情勢	兩岸關係長期牽動國內競技運動發展，在國際重要體育活動場合，我國未能受到公平待遇或同等競爭機會，國際體壇發展空間因而受限。	22	10	0	重要程度：____ 進一步評論或說明：
17. 運動參與的方便性	增設及開放公共運動設施設備，提供便利的運動環境，吸引民眾參與，刺激運動人口成長。	[依據評論意見增列]			重要程度：____ 進一步評論或說明：
18. 運動禁藥的檢測	國內有關單位對運動禁藥的檢測嚴格，遵照國際標準辦理，教練及選手顧忌較多，參賽成績因而受到影響。				[依據評論意見增列]
水上活動相關限制	基於國防安全考量及水資源保護法令限制，沿岸及河流因而受限無法長期發展水上運動。	19	11	2	

其他補充意見：

..... 本問卷完成 !! 感謝您的支持與合作 !!

Appendix J: Delphi survey – Round 4 cover letter

Dear Panellist,

Thank you for accepting the challenge of taking part and staying involved in this Delphi study. As you can well understand, the quality of the results of such a study depends greatly on the input of the participants. **Your responses have enabled me to move to this FINAL round (Round 4) of the study.** For your interest, the table below briefly shows the respondent rates in the last three rounds between Australia and Taiwan.

The Respondent Rates per Round				
Delphi survey	Australian panel n = 24		Taiwanese panel n = 32	
	number	percent	number	percent
Round 1	19	79	32	100
Round 2	24	100	32	100
Round 3	21	88	32	100

This is the final round questionnaire (*see attachment overleaf) that is based on the results of the round 3. The main purposes of the final round Delphi survey are:

- To show you how the Australian panel, as a group, rated the various statements defining “criteria for Olympic success” and “contributing factors”.
- To offer you an opportunity to re-rate the statements, if you desire to do so.
- To ask you to rank your top 5 criteria (Q1) and top 10 contributing factors (Q2 and Q3) in order of their contribution to future Australian Olympic success.

More detailed information and instructions with respect to each question are shown in the questionnaire. It is estimated that **this final round will take approximately 15 minutes to complete.** Your continued participation will be sincerely appreciated. **Please return the completed questionnaire before 20 July 2005.** Thank you for your patience and cooperation.

Kind regards,

Yours sincerely,

Margaret Tang

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Attachment – Round 4 Delphi survey

Q1. OLYMPIC SUCCESS FOR AUSTRALIA MEANS:

1. ... **ENHANCE NATIONAL PRIDE AND CONFIDENCE** by demonstrating sporting ability and competitive spirit.
2. ... the athletes/teams reaching their **PERSONAL BEST PERFORMANCE** while being fair in competition, gracious in winning, and acting as an inspiration for all by providing role models.... not only maintaining medal position, but also improving **RANKING ON THE MEDAL TALLY** by having more athletes/teams qualified, participating in the Games, reaching the finals and winning more medals across a number of sports.
3. ... **A HIGH NUMBER OF MEDALS WON AND A HIGH RANKING ON THE MEDAL TALLY.**
4. ... **THE GREATER NUMBER OF ATHLETES/TEAMS REACHING THE FINALS** and winning medals across a greater number of sports.
5. ... **INCREASING PUBLIC INTEREST AND PARTICIPATION IN SPORTS** by encouraging new participants to join sports and energizing people to perform in their individual pursuits.
6. ... **A STRONGER SPORTING TRADITION AND CULTURE**, because Australians are very proud of their strong sporting history, with a keen spirit of competition and a high degree of autonomy in sport..
7. ... **THE PUBLIC PERCEIVES THAT THE AUSTRALIAN TEAM WAS SUCCESSFUL.**
8. ... **THE ELITE SPORT SYSTEM IN AUSTRALIA IS VALIDATED.**
9. ... **A COMPARATIVELY HIGH NUMBER OF MADALS WAN PER HEAD OF POPULATION.**

Q2. The factors that contribute directly to Olympic success for Australia are:

1. Government Funding and Support

Money is a major direct factor contributing to Olympic success. It costs so much to commit to support elite sport programs and performances, i.e. training, coaching, officiating, facilities, competitions.

2. Athlete Support

Parents, friends and community provide personal and financial support, to enable elite athletes to make a total commitment to their sport.

3. A Structured and Stable Sport system

A structured and stable sport system at all levels is essential for the continual development of athletes, coaches, officials and sport administrators. Sport clubs/associations at grass roots level contribute to a broad base of participants at various ages, while the government and non-government sport organisations at state and national level support elite programs and encourage high performances.

4. Access to Good Facilities

The provision of good quality facilities at all levels (including world class facilities) is supported by local, State and Federal Government.

5. Quality Coaches and Officials

The appointment of professional coaches and officials from a coordinated and integrated accreditation system is essential.

6. Advanced Technology and Sport Science Support

The continual development and application of cutting-edge technology in sport science/medicine to advance high performance are essential for Australia to remain in a leading position on the world stage.

7. Sporting Tradition and Culture

Strong sporting tradition enables people to enjoy sports activities and provides elite athletes with opportunities to achieve success. Australians' long-term fanaticism for sports and a cultural/national identity through sport contribute to the country's sporting prosperity.

8. Competent Management in Sporting Bodies

Government and non-government sport organisations need vision, effective governance and sound management.

9. Elite Training Programs

An organized professional high performance training system and programs are essential to give athletes the greatest opportunity to achieve at the highest level.

10. Financial Support from Private Sector and Corporate

Private sector financial support and corporate sponsorship can increase opportunities for athletes to make a total commitment to training and to compete full-time like their foreign competitors.

11. Access to High Quality Competitions

Competitive athletes are developed through sustained quality competition programs such as interstate, national and international competition.

12. Political Interest

Successful sport teams and events are used by politicians for political exposure.

13. Immigration and Multi-Cultural Society

Immigration of capable coaches and talented athletes allows foreign best knowledge to contribute to local sport development and to improve athletic performance.

14. Economic Situation

A good economic situation in Australia contributes to more discretionary funding available for sport.

15. Talent Identification System

A high quality talent recognition system is essential; one that is efficient and uses a targeted approach.

16. Media Support

High level of coverage of Olympic sport directly influences mass participation and attracts corporate sponsorship.

17. Junior Sport Programs

Successful Olympic performance is only possible because of elite development programs that start at junior levels.

Q3: The issues that indirectly affect Olympic success for Australia are:

1. The Progress of Sport in Other Countries

Many countries are changing their attitudes and priorities to advance elite sports leading to a growing international competitiveness.

2. Volunteer Involvement in Sport

Gaining and retaining volunteers continues to be an important issue in providing community and elite sport.

3. Drugs in Sport

Drug use in sport, which distorts performance and harms athletes' health, is a moral and ethical issue for sports and government in maintaining the integrity of sport.

4. Athletic Role Models

Wholesome examples encourage parents to lead their children into sports.

5. Media and Corporate Bias

Media executives decide what events to televise, and corporations decide which teams/sports to sponsor, limiting choice of sport exposure.

6. Political Climate and Politicians' Support

Stable political environments, political attitude, and politicians' belief in the perceived importance of sport in nation building encourage the continued advance of elite sport.

7. Public Interest

Positive public interest in sport and satisfaction in seeing athletes succeed encourages sponsorship and funding for high performance programs.

8. Conducive Environment

The benign weather and natural surroundings encourage Australians' outdoor life style.

9. Grass Roots Sport Strategy

Government adopts a strategic approach to support strong viable community sport organisations as a basis for sport development.

10. Economic/Cultural/Religious Differences

The economics, culture and religion in some countries may deprive their elite athletes from participating in the Olympics.

11. Physical Education in Schools

Sustaining a strong physical education programs within a crowded school curriculum is important for providing opportunities for students to enjoy sporting activities and access sport development pathways.

12. A Small Talent Pool

Within a small population, non-Olympic professional sports (such AFL, rugby and netball) take talented athletes away from Olympic sports.

13. International Political Scene

Political unrest and interference in some countries at times forces their teams to withdraw from the Olympics.

14. Geographic Location

The distance from the locations of world sporting events can affect Australian athletes and their performances.

15. Insurance and Liability Concerns in Sport

The effect of insurance and liability for sports facilities and opportunities may restrict participation in sport and physical activities.

16. Judges' Bias in Subjective Sports

Judging can appear biased toward some countries in subjective sports, e.g., gymnastics, reflecting international rivalry and power struggles within International Sport Federations.

17. Changing Government Policies

A change in government and government policy may adversely affect funding levels for sport.

18. Health Concerns

Concern about health issues, such as overweight and lack of physical activity, indirectly contribute to Olympic success in Australia.

親愛的訪談小組委員：

再次感謝您接受邀請及回應一系列訪談調查。誠如先前問卷說明，本研究採用德菲法(Delphi technique)蒐集相關重要訊息，其實施過程及研究成效仰賴受訪專家學者的協助。由於您的熱忱參與及持續支持，使得本研究訪談工作終於即將邁入最後一階段的問卷調查工作。以下統計表顯示過去三階段德菲訪談調查的問卷回收情形：

問卷調查回收統計一覽表					n =
參與總人數					
德菲訪談	澳洲訪談小組 n = 24		台灣訪談小組 n = 32		
	回覆人數	回收率	回覆人數	回收率	
第 1 輪	19	79	32	100	
第 2 輪	24	100	32	100	
第 3 輪	21	88	32	100	

茲寄上第四輪也是對後一輪的問卷(*詳如附件)，其內容係依據第三輪問卷調查結果製作。本次問卷訪談的主要目的在於：

- ❖ 彙整台灣訪談小組的“綜合意見”及第三輪問卷調查“統計資料”供參。
- ❖ 請您依據各選項個人先前評議意見(重要程度)及統計數據(平均數)及考量修訂先前觀點。
- ❖ 請您評選個人認為足以詮釋我國奧運參賽績效的最重要前 5 項定義指標(Q1)以及影響我國未來奧運參賽成效的最重要前 10 項直接因素(Q2)及間接因素(Q3)。

有關上述調查填答方式將在問卷中進一步詳細說明，本次問卷預計約 15 至 20 分鐘可完成填答，請您儘可能在 7 月 20 日前完成回覆。感謝您對本研究調查的全程支持與合作 !!

謹致 無限的感恩及祝福 !!

後學
唐慧媛 敬啟

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第四輪德菲訪談調查問卷(附件)

Q1. 對台灣而言，「奧運成功績效」意指：

1. ...更多國際媒體對我國選手表現正面報導，提昇國際能見度及國家聲譽。
2. ...政府與民間運動組織團隊經營成效。
3. ...更多運動項目贏得獎牌 [金牌]，以晉升我國奧運參賽排名。
4. ...更多運動團隊及選手取得參賽資格，以期更多運動項目逐步達成參賽預期目標。
5. ...藉由選手及團對參賽優異成績，提昇運動員社會地位，進而改善國人對參與運動的價值觀。
6. ...參賽團隊及個人突破最佳成績，超越過去成績紀錄。
7. ...透過推展競技運動相輔相成，提昇全民參與運動程度。
8. ...吸引更多企業支持贊助競技運動，進而刺激國內運動產業發展。
9. ...由於國家代表團隊的競賽佳績，促進國家認同及社會團結。
10. ...國內媒體支持競技運動推展；傳播媒體報導影響大眾對運動的參與及評價。
11. ...與民間對奧運投入程度；投入人力及資源越多，參賽績效及報價會越高。
12. ...牌數與人口比例統計，評估我國是否在績效上，優於其他人口數相仿國家。

Q2. 促成台灣奧運成功績效的直接因素包括：

1. 主政者的理念:

...主政者對推展競技運動的重視是重要因素之一；運動組織領導人的理念及行動力，影響施政方向及執行效率。

2. 培育體育專業人才

...體育行政、國際體育事務及行銷管理專業人才培養，有助體育政策推動及執行效率，帶動我國運動環境與國際接軌。

3. 民間運動組織機制與效率

...民間運動組織的組成結構及行政管理效能，影響競技運動推展及奧運參賽績效。

4. 完整培訓計畫

...規劃長期有系統的培訓計畫，有效指導監督執行培訓工作，為奧運奪牌實力的基礎。

5. 應用運動科學

...籌組運動科學團隊，長期支援選、訓、賽工作，協助教練及選手突破訓練瓶頸。

6 移地訓練及國外比賽機會

...安排移地訓練及國外比賽，協助團隊及選手適應各種比賽環境，加強國際比賽經驗。

7. 慎選重點項目推展

...妥善運用有限人力及經費，集中資源推動重點運動項目推展。

8. 精英選手的質與量

...更多的優質選手參與培訓，訓練易顯成效，反之，事倍功半或難以突破。

9. 運動教練素質

...教練的素質與投入層度，是構成競技運動推展成功及奧運參賽績效的關鍵因素之一。

10. 教練培育及鑑定制度

...各單項民間運動組織對專業教練的培訓遴選及授證聘用，建立完整系統架構。

11. 聘任國外專業教練

...借重國外教練專業經驗及訓練方法，提昇訓練品質及參賽績效。

12. 全民參與運動風氣

...以推展全民運動，增進國人對運動的支持關注，刺激競技運動人口成長。

13. 改善運動設施設備

...為長期有效培養優秀選手，良好的訓練環境及國際水準的設施設備不可或缺。

14. 運動員獎勵措施

...制定奧運績優選手獎金獎勵制度及升學就業輔導措施，激勵優秀選手投入訓練工作。

15. 建立選才制度

...針對特定運動項目，建立選才培訓制度，使各階段潛力選手有機會加入培訓行列。

16. 優秀教練獎勵與進修

...建立優秀教練獎勵制度，例如獎金獎勵及安排國內外進修，增進教練參與熱忱及投入訓練工作意願。

17. 政府專款補助

...國內運動團隊及個人參加國際賽會的選、訓、賽工作，均由政府編列經費支應；預算多寡與參賽績效息息相關。

18. 政府行政支援及效能

...政府部門長期有效投入人力資源，參與選、訓、賽事務，影響參賽績效。

Q3. 促成台灣奧運成功績效的間接因素包括：

1. 國人運動價值觀

...加強體育與運動教育，改善國人重文輕武觀念，以期有更多學生及社會人士願以運動為志業。

2. 學校體育教育

...教育機構對體育教育的重視，學校對體育課程的支持，間接影響競技運動推展。

3. 裁判人員素質

...建立裁判養成及評鑑制度，提昇裁判素養及執法技能，使國內比賽水準與國際競賽環境接軌。

4. 他國對奧運競賽重視程度

...各國對參與奧運的重視程度及成長幅度，衝擊國際競爭力，影響我國奪牌機率。

5. 國際體育交流

...我國在國際體壇交流空間，受政治因素侷限，相對突顯與國際運動組織建立良好關係的重要性。

6. 職業運動發展

...職業運動興盛，帶動運動產業發展，刺激運動觀賞人口，有助於吸引優秀人才投入運動行業。

7. 運動員社會地位

...運動團隊及個人在國際舞台的優異表現，廣受國人的肯定認同，有助運動員社會地位的提昇。

8. 國內政治現況及經濟發展

...政治穩定助長經濟發展，相對有利於體育相關政策及培訓計畫的持續推動。

9. 國際運動現況改變

...奧運競賽種類的規劃，主辦國對奧運競賽種類的選擇，競賽制度的改變，影響我國奪牌機會。

10. 媒體從業人員素養

...媒體從業人員的運動專業及職業道德，影響國人觀賞運動的興趣，以及對競技運動的正確認知。

11. 企業支持與贊助

...民間企業的支持贊助，優秀選手得以長期全心投入訓練爭取佳績。

12. 國際運動資訊蒐集

...有效蒐集國際體壇動態及運動科學資訊，加強選手培訓及參賽績效。

13. 運動文化

...國人對運動價值觀的偏差，致使運動未能融入生活，影響運動文化的深植及傳承。

14. 體育政策的規劃與執行

...體育政策的廣續推動及貫徹執行，影響競技運動推展成效。

15. 重視奧林匹克教育

...加強國人的奧林匹克教育，有助於運動員對求勝價值認知；亦可導正及避免賽會期間不必要的抗爭。

16. 兩岸關係及國際政治情勢

...兩岸關係牽動國內競技運動發展，在國際重要體育活動場合，我國未受到公平待遇或同等競爭機會，國際體壇發展空間受限。

17. 水上活動相關限制

...基於國防安全考量及水資源保護相關法令限制，沿岸及河流因而受限無法長期發展水上運動。

18. 運動參與的方便性:

...增設及開放公共運動設施設備，提供便利的運動環境，吸引民眾參與，刺激運動人口成長。

19. 運動禁藥的檢測:

...國內有關單位對運動禁藥的檢測嚴格，教練及選手顧忌較多，參賽成績因而受到影響。

Appendix K: Delphi survey – Round 4 questionnaires

Dear Panellist,

This is the fourth (final) round in the series of Delphi questionnaires that identified issues involved in the pursuit of Olympic success. This questionnaire shows the results for the same questions from round 3, including lists of criteria and factors, and a statistical average (group mean) of each statement. Your task in the last round is to:

- **CHECK** your score to ensure that it reflects the importance your place on each item, re-rate it, if you desire to do so.
- **RANK** the most important criteria (**FIVE** in question 1) and factors (**TEN** in questions 2 and question 3).

Please note that your ANONYMITY will be maintained throughout the surveys and your responses will be kept CONFIDENTIAL.

I. Criteria for Olympic success

The table below shows 9 criteria for Olympic success. Please check your score on each item [in Column 2] compared with group mean [in Column 1] and re-rate it [i.e., your new score in Column 3], if desired. Now rank five of the criteria (i.e., Top 5) that you believe are most important [in Column 4] by labelling “1” as the most important; “2” as the second most important, and so on until you have labelled up to “5” in the RANK column.

Q1. Olympic success for Australia means ...	Column 1	Column 2	Column 3	Column 4
	1 2 3 4 5 not important very important			RANK most important criteria (Top 5)
	group mean (Round 3)	your score (Round 3)	your new score	
Enhanced national pride and confidence. *	4.00	4		
Best performance and fair play by athletes and teams.	3.94	2		
A high number of medals won and a high ranking on medal tally.	3.78	4		
The greater number of athletes/teams reaching the finals.	4.00	4		
Increased public interest and participation in sports.	4.06	3		

A stronger sporting tradition and culture.	4.11	4		
The public perceives that Australian team was successful.	3.56	2		
The elite sport system in Australia is validated.	4.00	4		
A comparatively high number of medals won per head of population.	3.89	4		

* For a full list of criteria definitions see attached appendix.

II. “Direct Factor” contributing to Australia’s Olympic success

The table below shows 17 direct factors that contribute to Australia’s Olympic success in terms of one phrase categories. Please check **your score** on each item [in **Column 2**] compared with **group mean** [in **Column 1**] and re-rate it [i.e., **your new score** in **Column 3**], if desired. Now **rank TEN** of the direct factors (i.e., top 10) that you believe are most important [in **Column 4**] by labelling “1” as the most important; “2” as the second most important, and so on until you have labelled up to “10” in the RANK column.

Q2. The factors that contribute directly to Olympic success for Australia are ...	Column 1	Column 2	Column 3	Column 4
	1	2	3	4
	5 not important very important			RANK most important direct factors (Top 10)
group mean (Round 3)	your score (Round 3)	your new score		
Government Funding and Support *	4.61	5		
Athlete Support	4.44	4		
A Structured and Stable Sport system	4.78	5		
Access to Good Facilities	4.56	4		
Quality Coaches and Officials	4.50	4		
Advanced Technology and Sports science Support	4.28	5		
Sporting Tradition and Culture	3.94	4		

Competent Management in Sporting Bodies	4.44	5		
Elite Training Programs	4.61	5		
Financial Support from Private Sector and Corporate	4.28	4		
Access to High Quality Competitions	4.78	5		
Political Interest	3.78	4		
Immigration and Multi-Cultural Society	3.61	4		
Economic Situation	3.56	3		
Talent Identification System	3.89	5		
Media Support	3.89	4		
Junior Sport Programs	3.89	4		

* For a full list of factor definitions see attached appendix.

III. “Indirect Factor” contributing to Australia’s Olympic success

The table below shows 18 indirect factors contributing to Australia’s Olympic success in terms of one phrase categories. Please check **your score** on each item [in **Column 2**] compared with **group mean** [in **Column 1**] and re-rate it [i.e., **your new score** in **Column 3**], if desired. Now **rank TEN** of the indirect factors (i.e., Top 10) that you believe are most important [in **Column 4**] by labelling “1” as the most important; “2” as the second most important, and so on until you have labelled up to “10” in the RANK column.

Q3: The issue that indirectly affect Olympic success for Australia are ...	Column 1	Column 2	Column 3	Column 4
	1	2	3	4
		5 not important very important		RANK most important indirect factors (Top 10)
	group mean (Round 3)	your score (Round 3)	your new score	
The Progress of Sport in Other Countries	4.17	4		

Volunteer Involvement in Sport	4. 11	4		
Drugs in Sport	4. 11	4		
Athletic Role Models	4. 11	4		
Media and Corporate Bias	4. 00	3		
Political Climate and Politicians' Support	3. 94	4		
Public Interest	4. 00	4		
Conducive Environment	4. 00	4		
Grass Roots Sport Strategy	4. 00	5		
Economic/Cultural/Religious Differences	3. 39	4		
Physical Education in Schools	4. 33	5		
A Small Talent Pool	3. 83	4		
International Political Scene	3. 22	4		
Geographic Location	3. 83	2		
Insurance and Liability Concerns in Sport	3. 56	2		
Judges' Bias in Subjective Sports	3. 17	2		
Changing Government Policies	3. 50	2		
Health Concerns	2. 83	2		

** For a full list of factor definitions see attached appendix.*

..... **Thank you for your kind effort and contribution!!**

親愛的訪談小組委員：

這是一系列德菲訪談的第四輪(最後一輪)問卷，其內容呈現第三輪問卷調查結果，調查目的旨在確認追求奧運績效相關議題的綜合意見，包括奧運成功績效的定義及影響奧運成效的因素，請您依照問題填答說明完成下列事項：

- 比較各選項統計數據(平均數)與個人評定意見(重要程度)，考量是否修訂先前觀點。
- 評選奧運參賽績效定義最重要指標(Q1)及影響我國未來奧運參賽績效的最重要直接因素及間接因素(Q2及Q3)。

※在此重申您的回覆資料均會以匿名方式處理。

1. 奧運成功績效的定義

請核對第3輪問卷調查各選項「重要程度」您的評定意見(第2欄)，相較於統計平均數(第1欄)；如欲修訂先前意見，請在修訂意見欄(第3欄)填入新的數據，否則請您**填入先前評定意見。然後在 [Top 5](第4欄)填入您個人認為足以詮釋我國奧運參賽績效的「最重要前五項定義指標」：以數字「1」代表最重要的指標；數字「2」代表次之，以此類推，直至該前五項指標數字(1.2.3.4.5.)均已呈現在第4欄位中。

Q1: 對台灣而言，所謂的「奧運成功績效」意指 ...	第 1 欄	第 2 欄	第 3 欄	第 4 欄
	1	2	3	4
	5			最重要的前五項定義指標 [Top 5]
	平均數 (第 3 輪)	您的評定意見 (第 3 輪)	修訂意見	
提昇國際能見度及國家聲譽	4.68	5		
政府與民間運動組織團隊經營成效	4.65	5		
更多運動項目贏得獎牌[金牌]	4.45	4		
更多運動團隊及選手取得參賽資格	4.23	4		
提昇運動員社會地位	4.58	5		

參賽團隊及個人突破最佳成績	4.29	4		
提昇全民參與運動程度	4.35	2		
更多企業支持贊助競技運動	4.52	5		
促進國家認同及社會團結	4.26	4		
吸引國內媒體支持競技運動推展	4.26	4		
政府與民間對奧運投入程度	4.26	4		
獎牌數與人口比例統計	3.23	3		

2. 奧運成功績效的直接因素

請核對第3輪問卷調查各選項「重要程度」您的評定意見(第2欄),相較於統計平均數(第1欄);如欲修訂先前意見,請在修訂意見欄(第3欄)填入新的數據,否則請您**填入先前評定意見。然後在 [Top 10] (第4欄)填寫您個人認為足以詮釋我國奧運參賽績效的「最重要前十項直接因素」:以數字「1」代表最重要的直接因素;數字「2」代表次之,以此類推,直至該前十項指標數字(1.2.3.4.5.6.7.8.9.10.)均已呈現在第4欄位中。

Q2. 促成台灣奧運成功績效的直接因素包括...	第1欄	第2欄	第3欄	第4欄
	1	2	3	4
	5 不重要 非常重要			最重要前十項直接因素 [Top 10]
	平均數 (第3輪)	您的評定意見 (第3輪)	修訂意見	
主政者的理念	4.81	5		
培育體育專業人才	4.71	5		

民間運動組織機制與效率	4.55	4		
完整培訓計畫	4.81	5		
應用運動科學	4.48	4		
移地訓練及國外比賽機會	4.35	4		
慎選重點項目推展	4.65	4		
精英選手的質與量	4.45	4		
運動教練素質	4.71	5		
教練培育及鑑定制度	4.48	4		
聘任國外專業教練	4.23	4		
全民參與運動風氣	4.29	4		
改善運動設施設備	4.45	4		
運動員獎勵措施	4.42	4		
建立選才制度	4.52	4		
優秀教練獎勵與進修	4.48	4		
政府專款補助	4.06	4		

政府行政支援及效能	4.32	4		
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3. 奧運成功績效的間接因素

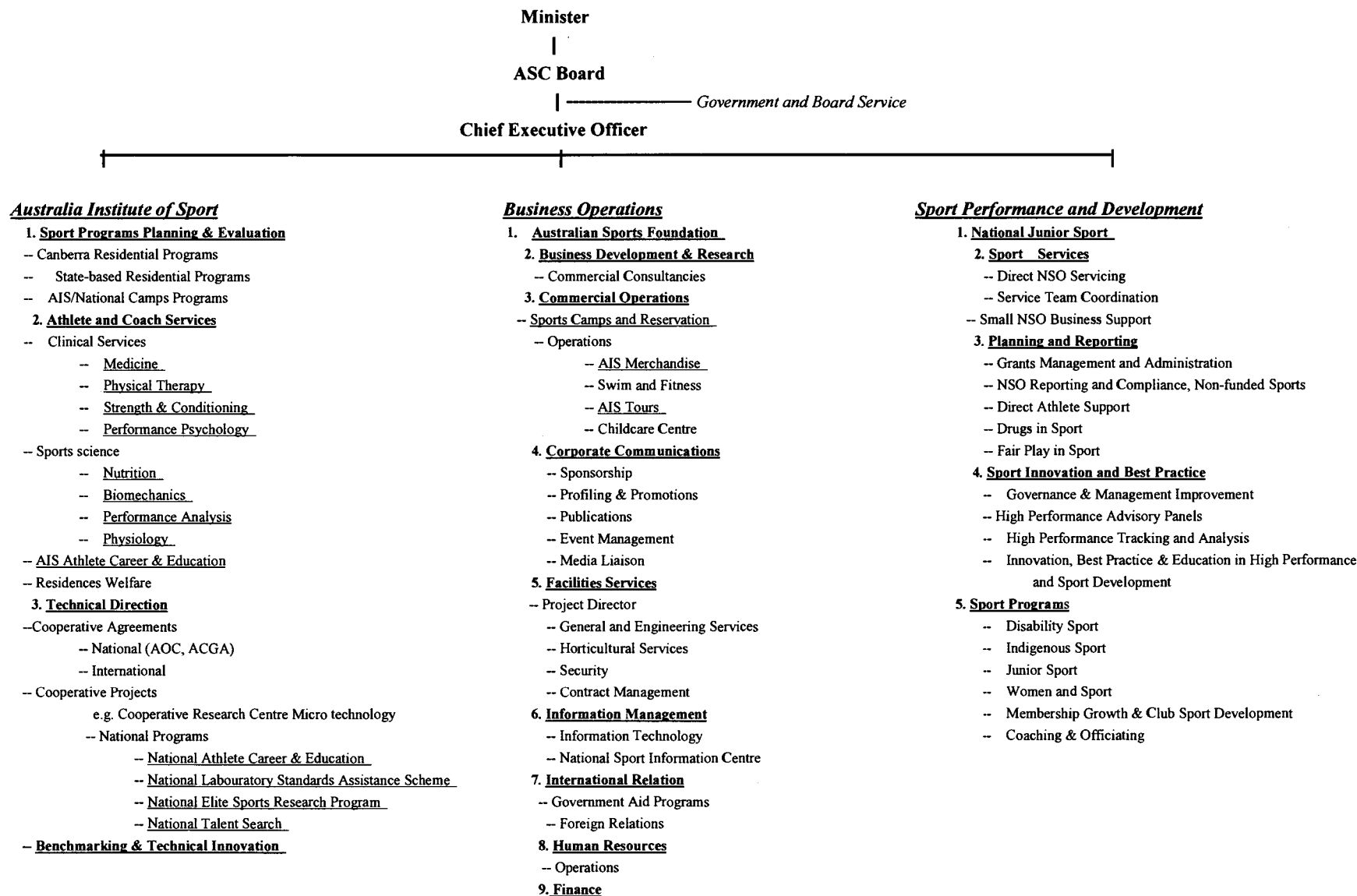
請核對第 3 輪問卷調查各選項「重要程度」您的評定意見 (第 2 欄)，相較於統計平均數 (第 1 欄)；如欲修訂先前意見，請在修訂意見欄 (第 3 欄)填入新的數據，否則請您**填入先前評定意見。然後在 [Top 10] (第 4 欄)填寫您個人認為足以詮釋我國奧運參賽績效的「最重要前十項間接因素」：以數字「1」代表最重要的間接因素；數字「2」代表次之，以此類推，直至該前十項指標數字 (1. 2. 3. 4. 5. 6. 7. 8. 9. 10.) 均已呈現在第 4 欄位中。

Q3. 促成台灣奧運成功績效的間接因素包括...	第 1 欄	第 2 欄	第 3 欄	第 4 欄	
	 1 2 3 4 5 不important 非常重要			修訂意見	最重要前十項間接因素 [Top 10]
	平均數 (第 3 輪)	您的評定意見 (第 3 輪)			
國人運動價值觀	4.48	5			
學校體育教育	4.42	4			
裁判人員素質	4.13	4			
他國對奧運競賽重視程度	4.00	3			
國際體育交流	4.39	4			
職業運動發展	4.52	3			
運動員社會地位	4.35	4			
國內政治現況及經濟發展	4.45	4			

國際運動現況改變	4.26	4	
媒體從業人員素養	4.16	4	
企業支持與贊助	4.61	4	
國際運動資訊蒐集	4.48	4	
運動文化	4.32	4	
體育政策的規劃與執行	4.45	4	
重視奧林匹克教育	4.06	4	
兩岸關係及國際政治情勢	3.65	3	
運動參與的方便性	4.29	4	
運動禁藥的檢測	3.45	3	

..... 感謝您對本問卷調查的支持與合作!!

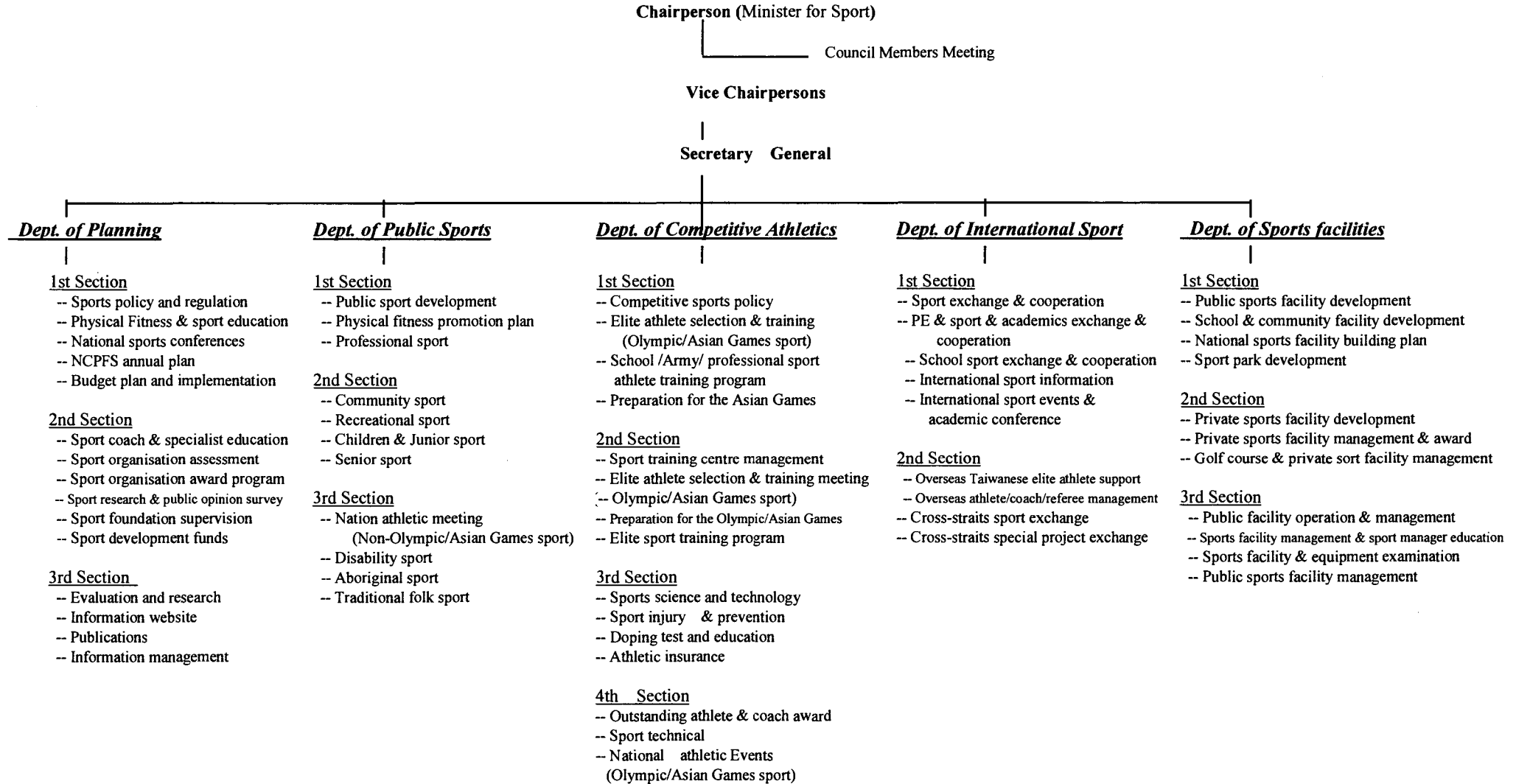
Appendix L: Australian Sports Commission organisational chart 2005



Appendix M: The ASC's four-year strategic plan between 1994-1997, 1998-2002, and 2002-2005

Year	1994-1997	1998-2001	2002-2005
Objective	<ul style="list-style-type: none"> ▪ Increased participation in sport and sports activities by Australians ▪ Excellence in sports performance by Australians 	<ul style="list-style-type: none"> ▪ The development and maintenance of an effective national sports ▪ Improved participation in quality sport activities by Australians ▪ Excellence in sports performance by Australians 	<ul style="list-style-type: none"> ▪ To secure an effective national sporting system that offers improved participation in quality sports activities by Australians ▪ To secure excellence in sports performance by Australians
Strategy	<ol style="list-style-type: none"> 1. Use the staging of the Sydney Olympics as a catalyst to encourage and take advantage of a wide range of sport and <u>sport-related opportunities for participation and enjoyment</u> 2. <u>Develop and implement policies, programs and practices aimed at improving access and equity in all aspects of sport</u> 3. Foster <u>and encourage education and training in all elements of sport development</u> 4. Encourage the provision of integrated, coordinated and quality support programs for athletes and sport organisations particularly in <u>the lead-up to the Sydney Olympics and Paralympics</u> 5. Promote ethics and <u>safety in sport</u> 6. <u>Maximize the availability of resources</u> for the development of Australian sport, particularly through opportunities generated by the Sydney Olympics 7. Use the focus provided by the Sydney Olympics to <u>raise the profile and increase awareness</u> of the benefits of sport and the ASC's programs 8. Undertake and participate in <u>international activities</u> for the benefit of Australian sport, particularly in the lead-up to the Sydney Olympics 9. Assist in staging the Sydney Olympics and Paralympics and ensure they <u>make a long-term and board contribution</u> to Australian sport 	<ol style="list-style-type: none"> 1. Provide national leadership and direction in <u>enhancing the management capabilities of sports delivery agencies</u> 2. Provide high-quality national <u>integrated support programs for athletes and sport organisations</u> 3. Promote ongoing improvement in <u>international sporting performances</u> 4. Encourage more people to play sport through the implementation of all the sports elements of <u>Active Australia</u> 5. Examine avenues to diversify <u>and increase the sport resource base</u>. 6. Further <u>develop our information and research management capabilities</u> to assist in meeting our responsibilities as national leaders in the development and support of sport. 7. Continue to <u>improve the internal effectiveness and efficiency of the Commission</u>, increasing its responsiveness to its stakeholders' requirements. 	<ol style="list-style-type: none"> 1. Greater <u>grassroots sports participation</u>, particularly by youth, women, Indigenous Australians and people with disabilities 2. Increased <u>sports participation</u>, particularly in rural and regional communities 3. Increased membership and reach of <u>local sporting clubs</u> 4. <u>Best-practice management and governance</u> of sport within and through national sport organisations 5. Increased adoption of the values of <u>fair play</u>, self-improvement and achievement 6. <u>Recruitment, retention and, where appropriate, accreditation</u> of people within the sports sector 7. Improved <u>economic efficiency</u> within, and commercial return to, the ASC and national sport organisations 8. <u>Sustained achievements in high performance sport</u> by Australian teams and individuals 9. <u>Recognition of the Australian Institute of Sport</u> as a world centre of excellence for the training and development of elite athletes and coaches 10. A <u>drug-free sporting environment</u>.

Appendix N: National Council on Physical Fitness and Sports organisational chart 2005



Appendix O: A list of documents

Australia:

- Australia Parliament, & House of Representatives Standing Committee on Finance and Public Administration. (1989). *Going for gold : the first report on an inquiry into sports funding and administration*. Canberra: Author.
- Australian Bureau of Statistics. (1993). *1993 Feature article - The economic importance of sport and recreation*. Canberra: Author.
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- Commonwealth of Australia. (2001). *Backing Australia's sporting ability: A more active Australia*. Canberra: Australian Government Publishing Service.
- Commonwealth of Australia. (2006). *About time! Women in sport and recreation in Australia* Canberra: Australian Government Publishing Service.
- Council for Economic Planning and Development. (2005). *Economic Development, Taiwan, R.O.C., 2005*. Taipei: Council for Economic Planning and Development, Executive Yuan, Taiwan, R.O.C.
- Department of Communications Information Technology and the Arts. (2005). Home. Retrieved April 21, 2005, from <http://www.dcita.gov.au>
- Department of Education, Science, & Training. (2005). Australia's education system. Retrieved November 11, 2005, from <http://www.immi.gov.au/settle/education/system.html>
- Department of Foreign Affairs and Trade. (2005a). Australia in Brief. *Australian Now* Retrieved September 11, 2005, from <http://www.dfat.gov.au/aib/index.html>

Department of Foreign Affairs and Trade. (2005b). Australia today. Retrieved September 15, 2005, from http://www.dfat.gov.au/facts/aust_today.html

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