

Sporting mega-events and their influence on the social and physical capital of communities in the host city: The Gold Coast 2018 Commonwealth Games experience

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Thesis submitted in fulfilment of the requirements for the degree of

Master of Sustainable Futures (Research)

under the supervision of Jason Prior & Brent Jacobs

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Certificate of Original Authorship

I, Michael Jay Falla, declare that this thesis is submitted in fulfilment of the requirements for the award of Master of Sustainable Futures (Research) Part-Time, in the Institute for Sustainable Futures at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

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Thesis Format

This is a Master's Thesis-by-Compilation. There is no prescription about the specific structure of sections or the number of papers to be included in a thesis-by-compilation. The word length is agreed with supervisors and my Responsible Academic Officer at the University of Technology Sydney (UTS). This thesis-by-compilation is broken into the following sections:

Section 1: Introduction.

Section 2: A literature review.

Section 3: Research design and methodology.

Section 4: Draft journal paper (in press).

Section 5: Expanded discussion and industry contribution.

Section 6: Conclusion.

Section 7: Appendices.

Section 8: Bibliography.

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Abstract

Over the past decade, there has been increasing research on how sporting mega-events such as the Olympic and Commonwealth Games are developing strategies, norms, and rules (institutions) to govern how these events impact the host nation, city, and communities; and on how mega-events impact the host's economic, social, physical, human, and cultural capital. This thesis addresses a gap within these interconnected fields by examining the associations between how a set of institutions are used to govern a mega-event, and how it impacted the physical capital (PC) and social capital (SC) of communities in the host city during and following a mega-event. These associations are revealed through a novel methodology which used the Institutional Grammar Tool (IGT) and the Community Capitals Framework (CCF) to analyse policy documentation and 11 in-depth interviews on the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) as a venue for the 2018 Commonwealth Games (the Games) in Gold Coast City, Australia. The thesis concludes with a discussion of the diverse impacts the Games had on the PC and SC of the BLBC, the institutions the various Games authorities used to govern these impacts and finishes with a contribution to the industry recommending guidance for improvement within the field of research.

Keywords: Mega-event, social and physical capitals, governance, community impact, and Commonwealth Games.

1.0 Introduction

Sporting mega-events, such as the Olympic and Commonwealth Games, are defined by their scale, the size of their audience, the type of infrastructure they require, and how often they occur, i.e., once every four years (Hiller, 1999; Kruger & Heath, 2013; Horne, 2015; What Culture, n.d.). Horne (2015), concerning the size of a mega-event, states, “The size of an event is primarily related to the overall television audience; this is an estimated figure for much of the world. The difference between TV audience numbers claimed and those actually verifiable can be enormous. Hence whilst media audience size is a key driver of the definition, related promotional opportunities for hosts and corporate sponsors and the potential for the transformation of a location’s infrastructure, also play a part in defining particular sports events as mega” (p. 467).

Shipway (2007) suggests that a (sporting) mega-event also must leave a lasting legacy of infrastructure built for the event, increasing place branding for the host city. Physical changes from the host city’s pre-event environment, including the event facilities and services, were key attributes used in the literature to define a mega-event. Kassens-Noor et al. (2015) suggest that mega-events come with high costs and substantially impact the built environment and population. Along with infrastructure built for mega-events, time and scale were cited to be factors that define a mega-event (Hiller, 1999; Horne, 2015). Kruger & Heath (2013) argue that a “one-time” event may be considered “mega” if it occurs in a city, if it attracts people from all over the world, and subsequently has an impact that increases tourism at the time of the mega-event.

Similarly, Ritchie (1984) defines “mega” in terms of hallmark events that are, “Major, one-time or recurring, of limited duration, developed primarily to enhance awareness, appeal and profitability of a tourism destination” (p. 2). Muller and Moesch (2010) described mega-events as being universal and large-scale that operate on an international scale and are staged and regarded as independent of their social systems. Jago & Shaw (1998) argue that a mega-event is a “Large-scale special event that is high in status or prestige and attracts a large crowd and wide media attention” (p. 29). The timeframe of a mega-event is also discussed within the literature. Hiller (1999) describes them as being short and significant, stating they are, “A short-term, one-time, high-profile event, the mass media carries the event to the world” (p. 182). More recently, Nadkarni & Teare (2019) offered a more comprehensive definition of what characterises a mega-event,

stating, “A “mega-event” is characterised as a large-scale commercial, sporting or cultural event with mass appeal, transcending national borders and typically organised by governmental and international non-governmental organisations” (p. 346).

Nunkoo et al. (2018) add, “It is widely accepted that mega-events are large-scale sporting events, which include aspects of culture and commerce, appeal to a large audience and have international significance” (p. 155).

The study presented within this thesis builds on two related research areas on sporting mega-events. The first area explores the different strategies, norms, and rules – institutions – which have been developed in the past decade to govern how mega-events impact host countries, cities, and communities, and the wider environment. The recent development of mega-event sustainability frameworks and post-mega-event games’ legacy strategies are examples of this (Silvestre, 2012; Azzali, 2019; Kromidha, 2019). These institutions have emerged, in part, as a response to increasing awareness of the positive and negative impacts of mega-events over the past four decades. For example, Hoff et al. (2020) cite eight instances where Atlanta 1996 (the 1996 Summer Olympic Games) resulted in sporting and urban infrastructure legacies for the city and surrounding communities of Atlanta. Conversely, Tziralis et al. (2008) highlight the negative economic impacts Athens 2004 had on the Greek economy, and Chalkley & Essex (1999) discuss the impact of the economic loss of Montreal 1976 on the city of Montreal, which took over 30 years to repay. The second area of research presented within this study explores how mega-events impact the physical (PC) and social capital (SC) within the host city’s local community. Research has begun to examine the impact of mega-events on the economic, social, physical, human, and cultural capital of the host nation, city, and community. For example, Leopkey & Parent (2012a, 2012b) discuss how mega-events contribute to capital development in the host nation, city, and community. Within this literature there is significant emphasis on physical and economic capital. Azzali (2017) identified infrastructure developed for London 2012 through governance, such as public transport systems, trains, light railways, bus stations and high-speed trains, leaving a positive legacy. Adding to this, Jones (2001) states that urban sporting infrastructure developments create benefits that ultimately feed down to the local economy (property developers, stadium operators, etc.) (see also Smith & Judd, 1982). Jones (2001) also argues that winning a bid for a mega-event brings jobs to the local economy due to the accelerated spending to create the required infrastructure to support the mega-event.

However, few studies have provided evidence of SC impacts at the community scale within a host city (Prior & Blessi, 2012; Horne, 2015; Santos et al., 2017). One example is provided by Lamberti et al. (2011), who found that community participation developed around the Shanghai World Expo. Such capital impacts are dimensions of the economic, social, environmental, political, and infrastructure legacies that stem from mega-events (Shipway, 2007).

Mega-events are a powerful instrument of change. The transformative nature of mega-events means they rely on mega-event organisers (local organising committees, event committees, and government groups) to work together in such a way that utilises the financial capital provided to achieve aspirations. In 2000, the then United Nations Deputy Secretary-General Louise Fréchette acknowledged sport's transformative nature stating, "The power of sports is far more than symbolic. You are the engines of economic growth. You are a force for gender equality. You can bring youth and others in from the margins, strengthening the social fabric. You can promote communication and help heal the divisions between peoples, communities and entire nations. You can set an example of fair play" (L'Etang, 2006, p. 386).

The study presented within this thesis addresses a gap within these interconnected fields of research by examining the association between how a set of institutions are used to govern how mega-events impact the communities in the host city and how mega-events impact the PC and SC of the communities in the host city, both during and following the mega-event. The study examines these associations by addressing two research questions:

RQ1 What strategies, norms, and rules guide how mega-events impact on the physical and social capital of the communities in the host city both during and following the mega-event?

RQ2 How do mega-events impact the physical and social capital of these communities, and how are the strategies, norms, and rules associated with these impacts?

These associations are revealed through a novel case study approach which used the Institutional Grammar Tool (IGT) and the Community Capitals Framework (CCF) to analyse policy documentation and 11 in-depth interviews related to the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) as a venue for the 2018 Commonwealth Games (the Games) in Gold Coast City, Australia. The focus of the study on PC and SC stems from the claims of Games proponents about the influence of investment on local

venues (CGFa n.d.), in this case, the BLBC (i.e., PC), which acts as a local hub for a range of social activities (i.e., SC). While the IGT provides a means for identifying and coding the institutions that informed the Games, the CCF provides a means to understand the impact on the PC and SC within the host community. Both documentary analysis and interviews were used so that the research could capture written and unwritten institutions that influenced how the Games affected the PC and SC of the local community through the BLBC in better outcomes for those surrounding communities.

1.1 Structure of the thesis

This is a Master's Thesis-by-Compilation. A thesis-by-compilation is structured as a single manuscript comprising sections and published/publishable/in peer-review works (i.e., papers). There is no prescription about the specific structure of sections or number of papers to be included in a thesis-by-compilation, and word length is agreed with supervisors and my Responsible Academic Officer at the University of Technology Sydney (UTS).

I chose a thesis-by-compilation as I wanted to ensure that the findings from my thesis were in a published form that was accessible to a broader audience. I have submitted a paper to the open-access blind peer-reviewed Commonwealth Journal of Local Governance (CLGF n.d.). This is a master's-by-research thesis, not a doctorate, so I have only written one journal paper.

This thesis-by-compilation is broken into the following sections:

Section 1: This is an introduction to the study and justifies how it adds to knowledge in the field.

Section 2: This section reviews the current academic literature on mega-events governance and planning, mega-events and capital, and mega-events and legacy/sustainability. It concludes with a discussion of the key gaps in the literature which inform the study's aim and questions.

Section 3: This section describes, and justifies, the study's research design, including the conceptual framework and methodology

Section 4: This section includes a draft journal paper that presents the study's findings. I encourage the reader to review only the findings section within the draft paper. A more

comprehensive version of the study's introduction, literature review, conceptual framework, methods, discussion, and conclusion is provided in the other sections of this thesis. At the time of writing, the draft journal paper was in the second stage of peer review and was accepted into the *Commonwealth Journal of Local Governance*. The paper is slated for inclusion in the June 2022 edition of the journal. The draft paper is included verbatim within this section.

Section 5: This section discusses the study's findings in the context of the broader literature on mega-events and provides a guidance framework on how these findings can be utilised within the context of future mega-events to improve the PC and SC impact on host cities and their local communities. This section discusses how the guidance framework could be applied to a future mega-event. For example, a key mega-event in Australia – the Brisbane 2032 Summer Olympic Games – was recently awarded. The guidance framework also offers a foundation for future research within the academic community.

Section 6: This section brings the thesis-by-compilation to a close, recapping the key findings from the study, the novel methodology used, and how the guidance framework could be applied to future mega-events.

2.0 Literature Review

The research gaps guiding this thesis were identified by reviewing the growing academic literature on mega-events and their governance, planning, and legacy. This section begins by outlining the methodology used to carry out the review. The section then summarises the key findings from this literature; these are presented under three key themes: Mega-events Governance and Planning, Mega-events and Capital, and Mega-events and Legacy/Sustainability. Lastly, this section concludes by discussing some key research gaps within the existing literature. These gaps are used to inform the research questions and design outlined in the following section of this thesis-by-compilation.

Review method

This literature review was conducted between March 2017 and December 2021. The key selection criteria used to identify the sample of academic articles for inclusion in the literature review were:

- Focus on sporting mega-events, e.g., Summer/Winter Olympic Games, FIFA World Cup, and the Commonwealth Games.
- Focus on the sustainability of mega-events.
- The majority (95% or more) were published after 1980.
- Written in English; and
- Some (minimal) grey literature was considered in the literature review.

The literature review used the search engine of the University of Technology Sydney (UTS) library to source academic journal articles and theses for inclusion. Databases used from the UTS library include, but were not limited to, Taylor and Francis, Wiley Online, EBSCOhost Environment Complete, Elsevier ScienceDirect Journals, and ProQuest Central. The search engine pulled journal articles from different sectors such as tourism, journalism, and urban sciences. This approach was supplemented with Google Scholar searches to source academic articles found in reference lists of academic articles that could not be obtained through the UTS library or its interlibrary system. A preliminary pilot of search terms was carried out using the major themes of sustainability framework, mega-events, and country development. This pilot search was narrowed down to include search terms related to mega-event sustainability (sustainable development), mega-event framework, and mega-events in developed and developing countries. A secondary search was conducted once the initial round of journal articles was reviewed. Refined search terms for the initial themes of the paper included: sustainability and the Olympics (including both Summer/Winter Olympic Games, the FIFA World Cup, and the Commonwealth Games), framework for mega-events, and sport mega-events in developed (and developing) countries. Search strings used for emergent themes were: sustainable legacy and mega-events, defining mega-events and sustainability, mega-events, and sport and culture. Literature that emerged from these search efforts was then pooled together and reviewed.

Of the 294 articles found, 229 were identified for inclusion in the literature review. The sample collected for the literature review included academic journal articles, theses, and book reviews. However, the bulk of the sample were journal articles. Analysis of the literature sample revealed the majority of sources came from seven disciplines covering a broad range of fields:

1. Social sciences (number of articles 12).
2. Tourism, leisure and events (41).

3. Planning studies (9).
4. Urban studies (13).
5. Sport (history, management, etc.) (19).
6. Sustainability (13); and
7. Capital studies (with a focus on South Africa) (6).

Much of the literature gives a background introduction to mega-events and sustainability, citing key references around the research topics. On the topic of mega-events, typically the Olympic Games (Summer or Winter Games) or the FIFA World Cup, which are the most frequently used case studies, are cited as examples of key triumphs or pitfalls from any previous events.

Thematic coding was then used to analyse the contents of the remaining 229 articles. Thematic coding is a form of qualitative analysis involving recording or identifying passages of text or images linked by a common theme (Vaughn & Turner, 2016). The coding and analysis of the literature sample identified the following three themes:

1. Mega-events governance and planning.
2. Mega-events and capital; and
3. Mega-events and legacy/sustainability.

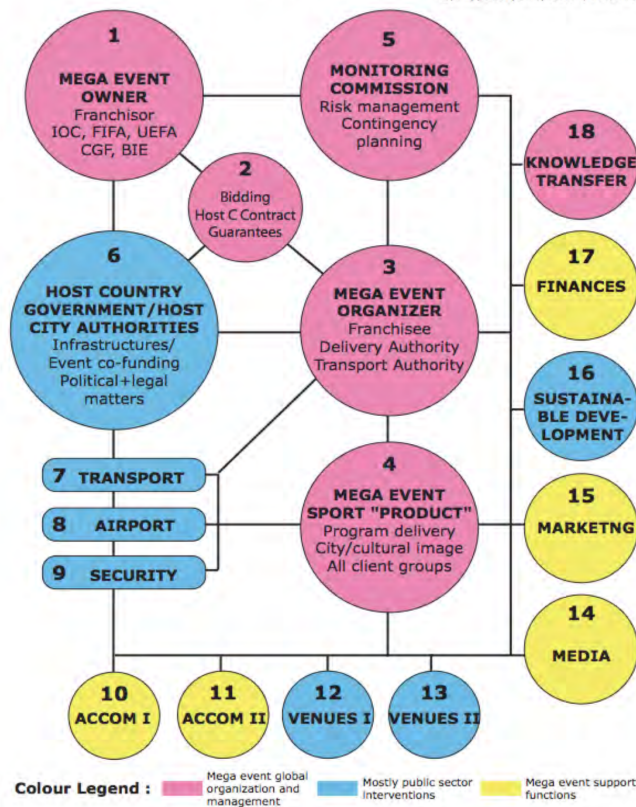
Finally, as the initial review was undertaken in 2017, additional reviews were made later throughout the study. For example, until 2017, 80 articles were identified, and a further 107 articles between 2017 and 2021, which shows how popular the topic is becoming in today's culture.

2.1 Mega-events Governance and Planning

The Multi-layered system of governance and planning for mega-events

Several articles highlighted the long duration of the governance and planning links established and needed between mega-events, their host city authorities, and national authorities. For example, Preuss (2015) indicates that London, in 2005, was awarded the right to host London 2012 shortly after Athens 2004 had finished, seven years before the event date. Research from Bovy (2008, 2010) suggests that a multi-layer system of governance is established for mega-events to carry out their planning and implementation.

Figure 1: Mega-event structural scheme. Source: Bovy, 2010.



Such governance systems have been labelled as complex; Kromidha et al. (2019) stated after a review of the London 2012 governance structure, that linking different strands of the Olympic movement to the government was a complex governance structure. An example of this in the literature is the Commonwealth Games Federation (CGF), which is the organisation responsible for the direction and control of the Commonwealth Games (Bovy, 2008, 2010; CGFb, n.d.).

The CGF, owners of the mega-event brand, select an event organiser to stage the mega-event. The event organiser is selected through a bidding process where event nation “hopefuls” form organising committees as part of their bid proposal (Bovy, 2008, 2010). This is done years in advance, similar to the process of an Olympic Games, so that governance and planning can be established for a successful and well-integrated event. Figure 1 (above) conceptualises the different roles that influence a mega-event and how those forces act upon each other as the event goes from ownership to being awarded, hosted, then transferred to the next host.

The mega-event organiser, usually referred to as a local organising committee, is entrusted by the mega-event owner to deliver the event. Bovy (2010) states that the mega-

event organising committee, “Is the key player for mega-event planning, infrastructure developments with public sector, sport facilities construction or rehabilitation, financing, marketing and on-time mega-event delivery” (p. 15). Within all of the different sectors, there are also different phases a mega-event may go through. Holmes et al. (2015) cite the importance of a transition between the event itself and implementing the event legacy. The mega-event organiser is monitored by a commission formed by the mega-event owner, whose role is to supervise and assist the mega-event organiser (Bovy, 2008, 2010). The mega-event organiser then relies on the international, national, state, and local public sectors to support the event, such as providing infrastructure, transport, security, venues, etc. (Bovy, 2008, 2010). These forces acting on the event also combine with a range of stakeholders such as sponsors, media, financial institutions, and marketing companies to provide varying levels of services for the event, event organisers, owner, participants, and spectators (Bovy, 2008, 2010).

In a detailed analysis, Kromidha et al. (2019) reference a governance structure from London 2012, having high-level actors such as the IOC (event owner), who undertake the mega-event's overall decision-making. Among the mid-level actors, who support both upwards and with mega-event delivery, is the London 2012 Sustainability Group, who deal with the different levels of government groups to achieve the committee's vision. Low-level actors are focused on delivery and make up the local organising committee. Similarly, Azzali (2019) cites how the master plan for the City of Rio de Janeiro was managed by a new body, which was formed in 2008, by the name Special Committee of Urban Legacy (CELU). The role of CELU was to take the candidature bid filed for the Rio 2016 bid and align it with the city's existing master plan, which meant looking into topics such as transportation, sustainability, and urban planning (Silvestre, 2012; Azzali, 2019).

Communicative Planning

Several articles highlighted the increasing role that communicative planning is playing in the planning and implementation of mega-events, stating that communicative planning has become a requirement for broader stakeholder engagement in mega-event planning (e.g., local councils, residents, community groups, NGOs, etc.) (Bailey et al., 2004; Garcia, 2004; Van Wynsberghe et al., 2011). This approach to mega-event planning gathers stakeholders and engages them in a process to make decisions together in a manner that respects the positions of all involved. In support of this, Ritchie (2000)

explains the importance of involving all stakeholders who will be affected by, and benefit from, the outcomes of the mega-event when planning for positive and sustainable legacies. Ritchie (2000) also cites stakeholder engagement as one of the most critical elements needed for effective mega-event legacy planning.

Innes (2016) states that communicative planning effectively engages such stakeholders, which is also sometimes called collaborative planning among planning practitioners. Innes (2016) continues to explain that collaboration is a growing practice amongst agencies, government staff, and citizens used in environmental problem-solving. Innes (2016) states, “Agencies in a region collaborate to protect the water supply, and megaproject developers work with stakeholders to help them create politically feasible plans” (p. 1). What happens when there is a lack of communicative planning, collaboration, and stakeholder engagement in the planning stages of mega-events? “White Elephants” (Sun, The, 2017) can result. For example, of the structures built for Athens 2004, only the main stadium is currently used, primarily by the local football team (Guardian, The, 2014). These extravagant, large structures exemplify one of the disconnections that presently exist between mega-events, sport, culture, and governance in 21st-century society (Tziralis et al., 2008).

Several articles suggest that proper investigation and local stakeholder involvement can establish the needs of local communities and lessen the chance for negative impacts. Van Wynsberghe et al. (2011) suggested that stakeholder engagement with community-based groups during planning could help identify and mitigate negative impacts in the context of sizeable mega-events with specific funding requirements. Chalkley & Essex (1999) argue that the planning for mega-events needs to stop trying to satisfy the international market only, the brand needs to stop being the priority view, and the focus needs to be shifted towards local needs and engagement to allow for positive impacts by that goal orientation saying, “Planning for major events, such as the Olympics, therefore sits outside the existing categories of planning and represents a form of policy where the overriding aim must be to end ways of hosting the event which satisfy the international or external dimension while also meeting local needs” (p. 391).

The role of sports and culture in mega-event planning and governance

Several articles highlighted the role that sport and culture play in tandem in planning a mega-event. Santos et al. (2017) stated that cultural mega-events play an important role

in developing a city and region, concluding that one way to enhance a city's impact is to host a mega-event. Ndlovu (2010) suggested that South Africa's hosting of the 2010 FIFA World Cup showed that sport provides a vehicle for cultural diplomacy in mega-events. Ndlovu (2010) claimed that the South African government used the 2010 World Cup as a "tool of cultural diplomacy", adding that the mega-event was used as political liberation, marking the beginning of freedom.

A fundamental principle of Olympism is "blending sport with culture" (Candidate File, n.d.). Garcia further elucidates this (2008) by stating, "Although the Olympic Movement aims to be a humanistic project encompassing sport, culture and education, the commercial imperatives of the Olympic Games staging process have led to the absolute predominance of the competitive elite sport programme over cultural and educational activity" (p. 374).

Bocock (1992) explains that the definition of "culture" has evolved from the cultivation of the land to social development, to the meanings, values, and ways of life and most recently, to the practices which produce meanings. On the other hand,, sport is viewed as an event that we can experience and take part in (What Culture, n.d.). Several articles highlighted the increasing role a location's culture plays in mega-events, including how culture and mega-events can be used together. Garcia (2004) argues that the promotion of not just individual elements of a host destination but all elements of a host destination, individual attractions, buildings, and the public infrastructure that surrounds them, are being "wrapped up" in creating a unified destination brand and a sense of place for mega-events. The use of planning and governance to create a unified brand destination can be described as culture-led regeneration. On this topic, Miles & Paddison (2005), stated, "The idea that culture can be employed as a driver for urban economic growth has become part of the new orthodoxy by which cities seek to enhance their competitive position" (p. 833). Similarly, Latuf de Oliveira Sanchez & Essex (2018) discuss the significance of new buildings developed for an Olympic Games, citing they must serve to strengthen the city's global status for visitors and residents, and also enhance the city's image and "hard-branding". Evans (2005) argues that this regeneration process is not only about physical infrastructure, and that there is an element of social and economic wellbeing, stating, "Regeneration is not simply about bricks and mortar. It's about the physical, social and economic wellbeing of an area; it's about the quality of life in our

neighbourhoods. In relation to the physical, this is as much about the quality of public realm as it is about the buildings themselves” (p. 966).

There is an increasing understanding of how the physical world impacts the cultural and social, and culture-led regeneration to increase a city residents’ wellbeing. This is becoming a focal point for projects. Evans (2005) perfectly captures this in his statement, “Culture-led regeneration, or rather regeneration using cultural events and flagship projects, has also widened the rationale for cultural investment to include social impacts, in particular, arts-based projects which address social exclusion, the “wellbeing” of city residents and greater participation in community life” (p. 966).

Framework for Mega-events

Much of the current literature on mega-event frameworks does not address the social impact, planning, and development aspect; instead, it provides frameworks to review legacies of mega-events. The articles that discuss frameworks for mega-events present broad concepts about factors and challenges that surround mega-events, which does give a platform to build on.

Preuss (2019) suggests a framework that improves understanding of the long-term benefits when staging an Olympic Games, concluding there are four framing conditions needed when considering such topics: 1) The period for legacy measurement; 2) The stakeholders and space for legacy; 3) The structural changes that should be considered; and 4) The consequences of a structural change for the stakeholder. Items 3 and 4 specifically relate to this thesis due to their relevance on how PC can impact its surroundings. Also cited, are six key indicators that make legacy measurable. The three relevant to this study are; 1) Urban development; 2) Policies, governance; and 3) Social development.

The International Organisation for Standardisation recently developed a framework for events – the ISO 20121 – Sustainable Events. The system focuses on helping events manage and control social, economic, and environmental impacts (ISO, n.d.). Other literature on this topic discusses outcomes, as noted post a mega-event. Bresler (2011) describes ten challenges that South Africa faced when hosting the 2010 FIFA World Cup as:

1. Poor access to tourism information.

2. Insufficient accommodation.
3. Insufficient compelling attractions and activities.
4. Inadequate service levels and skills shortage.
5. Inadequate public transport.
6. Insufficient focus on tourist safety and security.
7. Limited institutional capacity.
8. Managing expectations.
9. Demand management; and
10. Displacement of general tourists around the event.

This offers insight into the challenges faced when the right frameworks for a mega-event are put in place.

Chien et al. (2018) claim within their study four objectives a non-host city can utilise to leverage opportunities when a mega-event is held in their country. Two of these relate to this study: 1) Fostering social capital; and 2) Strengthening corporate networks (Bridging SC see also p. 26). Other literature on frameworks for mega-events describes the importance of planning and cohesion for such events. For example, Malhado & Rothfuss (2013) argue that a lack of planning before and during a mega-event will have a negative impact on social, economic, and environmental aspects for a host city due to taxpayer dollars being misused or going to waste. Barget & Gouget (2007) also suggest that initiatives such as social integration, improving social climate, and strengthening local identity, can enhance social cohesion in the region of the sporting event.

Realising aspirations through governance and planning

This section has covered all relevant literature around mega-events governance and planning. Some literature from Bovy (2008, 2010) mentions the different layers of governance that exist within mega-events. From the outset – when a government and host-city are awarded the right to host a mega-event, politicians, government officials, and mega-event organisers are claiming the legacy and sustainability contribution the mega-event will have for the host city. Such claims are often made without any strategy as to how they will be achieved. A great example of such aspirational claims was made by FIFA Secretary-General (FIFA), Jerome Valcke, during the 2014 FIFA World Cup when he stated, “As the organiser of the mega-event we believe it is our responsibility to limit the associated negative impacts of the FIFA World Cup, while at the same time maximising the huge positive impact it can have. We are convinced that the initiatives

we executed in Brazil were a big step in the right direction and deem them to be a remarkable success” (n.d.).

There is a gap in the research that discusses how the different layers within governments interact to plan for a mega-event, and specifically to plan infrastructure for the mega-event through governance and structure. These relationships are known as linking SC, and this study intends to build on the work from the likes of Bovy and other researchers to create new understandings by exploring how the different government entities work together to deliver infrastructure for an event.

Evaluating planning and frameworks

Another gap in this field of research is the missing framework to discuss how mega-event aspirations are evaluated to understand if initial aspirations were realised. Often proponents of mega-events make claims about sustainability aspirations and their ongoing benefits. For example, Cashman (2003) suggests six key legacies from mega-events, with built, physical, and environmental all cited. Equally, infrastructure, urban development, and environmental benefits are all often cited as sustainability legacies coming from mega-events (Shipway, 2007; Leopkey & Parent, 2012a; Grix et al., 2017). However, there is little evidence to assess such claims in their “legacy-period” to understand the durability of the benefits to a city, and more so at the community level. The present thesis seeks to explore the research gap by highlighting claims made by games proponents and evaluating them to understand if the aspirations were turned into real legacy benefits and to build new knowledge that develops a framework to understand how aspirations expressed by governments materialise. The intent is for this work to form a foundation for future research to build upon.

2.2 Mega-events and Capital

Currently, there is limited literature on capitals and mega-events. Misener & Mason (2006) argue mega-events have the possibility of using funding to create SC in the host city, exploring in their article the possibility of hosting a sporting event to build community networks. On SC, Van Wynsberghe et al. (2012) discuss the concept of social leveraging and how cities use mega-events to gain government funding, corporate attention, and international investment. Part of this concept was to introduce a “Greenest City” initiative where it could leverage social ties through sustainability at the mega-event; social leveraging in this sense can be a way of utilising available SC as a result of

the mega-event. Lamberti et al. (2011) reference “community participation” and how it had developed around the organisation of the Shanghai World Expo, which came as a result of an enlarged stakeholder group for the mega-event who were involved in decision making. Similarly, Thomson et al. (2010) cite host communities being impacted by mega-events when urban development’s force evictions to occur, showing that urban development, through enhancement of PC, can have a negative impact on communities. Similarly, Thomson et al. (2010) state that event-related developments are not necessarily beneficial for all stakeholders involved, discussing that advantages from events accrue to higher socio-economic classes with the lower socio-economic classes further disadvantaged.

Supporting literature on social improvement through infrastructure (PC & SC), Horne (2015) argues mega-events provide resources for enhancing the social life of the host city, adding that they bring opportunities to commercial and property developers in urban areas. Chalip (2006) and Thomson et al. (2010) also cite SC benefits of events, derived from psychological experiences and social connections with events. These findings assert that such events enhance the life of communities – when a community is part of something bigger than itself, social connections build, and the social fabric of a host community is strengthened. Van Wynsberghe et al. (2011) argue that mega-events impact the SC of the host city. They examined the community after Vancouver 2010 Winter Olympic Games, finding that although enhancing community capacity is not a requirement of a mega-event like implementing sustainability, there is the possibility of building community capacity if the mega-event organisers work alongside the local community.

Discussing PC at a local scale, Tallon (2010) cites the importance of urban regeneration, stating, “An increasingly important component of recent urban regeneration has been the involvement of communities in driving forward the regeneration of their area” (p. 321). Supporting this, Prior & Blessi (2012) discuss the regeneration process of Sydney Olympic Park, concluding that more consideration needs to be given to the association between SC, local communities, and the regeneration process associated with mega-events such as Sydney 2000. Using a community survey, Prior & Blessi (2012) developed an understanding of how local communities had been linked to the regeneration process and how this link resulted in SC transformations within the local communities. Finally, Albet & Garcia-Ramon (2000) cite Barcelona as a city deemed a

model for urban regeneration for its transformation post Barcelona 1992, receiving the Royal Golden Medal from Her Majesty the Queen (of England) to recognise outstanding distinction in architecture.

Using social capital to enhance venues

Current literature explores the importance of building SC and part of a legacy from a mega-event. Chien et al. (2017) cite fostering SC and strengthening corporate networks as ways non-host cities can utilise a mega-event to build SC. There is a need for research that explores changes to a venue, where the changes can have a variety of influences, affecting access and use by the community, and how this may influence aspects of SC – bridging, bonding and linking.

Within the context of this study SC as a concept is defined as, “Connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam 2001, p. 19). Bourdieu (1986) described such relationships and connections between groups as only existing in the practical state, in material and/or symbolic changes. Bourdieu (1986) continues to describe SC within this context stating, “...the volume of SC possessed by a given agent thus depends on the size of the network of connections he can effectively mobilize and on the volume of capital possessed in his own right by each of those to whom he is connected” (p. 21). Coleman (1988) also states, “Social capital inheres in the structure of relations between actors and among actors” (p. 98).

Bridging SC refers to the social connections that cut across narrow groups and interests, connecting people in a community, and span diverse social groups (Putnam, 2000). Bonding SC refers to social connections that create perpetual in-group cohesion, sometimes at the expense of cross-cutting social interactions and reinforces exclusive identities and homogeneous groups (Putnam 2000). Woolcock (2001) argues that it is important to recognise a third key dimension of SC: linking SC. The concept of linking SC is applied to the relations within the hierarchical structures of society, which connect us with people in positions of influence (Woolcock, 2001). It (linking SC) may be provisionally viewed as a special form of bridging capital that specifically concerns power – it is a vertical bridge across asymmetrical powers and resources.

Funding from mega-events may help enhance SC in the host city and strengthen features such as community networks (Misener & Mason, 2006). Specifically, there is a lack of

literature that explores how the refurbishment of a venue that acted as a hub for sport-related social activity may bring about changes in the levels of social activity (access, use, and enjoyment) once the event is completed. This study will use a sport-related community venue, a lawn bowls club, to explore how the SC was impacted following the club's refurbishment and the mega-event.

2.3 Mega-events and Legacy/Sustainability

A final theme identified in many of the articles was the relationship between mega-events and the legacy they leave behind. Cashman (2016) states that a "Legacy provides a way in which the costs of mega-events can be offset by the promise of long-term benefits to a city or a country, thereby limiting any burdens" (p. 166). Preuss (2007) describes sporting legacy stating, "Irrespective of the time of production and space, legacy is all planned and unplanned, positive and negative, tangible and intangible structures created for and by a sport event that remain longer than the event itself" (p. 211).

Richie (1984) developed a framework for mega-event impacts. He noted legacies from hosting mega-events, including enhanced international awareness by countries and knowledge of the (host location) region, increased economic activity, enhanced physical facilities and infrastructure, and increased social and cultural opportunities. In contrast, Tziralis et al. (2008) cite the negative impacts of enhanced infrastructure that is subsequently abandoned because it holds little value to its community post-mega-event. In more recent years, research from Preuss (2015) begins to look at how to identify a legacy, pinpointing four questions that might be considered when identifying the legacy of a mega-event:

- What should be considered as a legacy?
- Who (i.e., stakeholders) are affected by the changes?
- How will the legacy affect the quality of life in a host city or country? and
- When does a legacy start to create "value"?

In 2012 the International Olympic Committee (IOC) (2012) discussed the legacies of its mega-events, stating, "Positive legacy does not simply happen by itself. It needs to be planned and embedded in the host city's vision from the earliest possible stage" (p. 58). Shipway (2007) identifies eight legacies of mega-events, of which three are relevant to this study; (1) Urban and environmental legacies; (2) Political legacies; (3) Cultural, social, and communication legacies. Similarly, Leopkey and Parent (2012a) found in an

analysis of Olympic Games, 14 themes of legacy, six having relevance to this study: (1) Cultural; (2) Environmental; (3) Physical; (4) Social; (5) Sustainability; and (6) Urban-related legacies.

Taylor & Edmondson (2007) explained the concept of legacy as broad, covering economic, social, cultural, environmental, sporting, and political impacts. Leopkey & Parent (2012a) claim the term legacy has only really been present since the 1950s with then Lord Mayor, James S. Disney proclaimed, “Establish, as a legacy of the XVI Olympiad, an Athletic Centre perpetuating in Australia the high ideals in Amateur Sport and for which that movement stands” (p. 928). In recent years the topic of legacy has gained momentum as TV broadcasting has become popular. Leopkey & Parent (2012a) write, “As the Games increased in scale over time, especially from the 1950s–1960s onwards (due mainly to TV coverage), legacy became a more important aspect to the hosting of the Games” (p. 926).

Emerging from the literature on mega-event legacy is the concept that different types of legacies which exist do not necessarily relate to financial, physical, or social legacies. Gratton & Preuss (2008) suggest the idea of legacy can be conceptualised in three dimensions: tangible and intangible, planned and unplanned, and positive and negative. Research from Chappelet (2012) shares similarities, claiming that legacies can be viewed in many different ways; for example, was the legacy short or long-term, tangible or intangible, positive or negative?

Finally, on the different types of legacies among mega-events, Cashman (2003), one of the first to suggest the different types, named six categories, two holding relevance to this study; 1) Built, physical, and environmental; and 2) Public life, politics, and culture. In more recent literature, Grix et al. (2017) suggested five types of legacy when referring to mega-events with urban regeneration the only one relevant to this study.

The following section will discuss the literature on different types of legacy related to this study.

Infrastructure (physical) legacy

The most documented form of legacy from the research was infrastructure, with a significant focus being the ongoing use or abandonment of stadiums and infrastructure following mega-events. For example, from Athens 2004 only the main stadium remains

in use by local sporting teams (Guardian, The, 2014) many of the others have since been abandoned (Tziralis et al., 2008). Poor use of the infrastructure of a mega-event is often featured in the media because taxpayer dollars pay for the infrastructure, which otherwise could have been used to build hospitals, roads, and schools.

Looking positively, Hoff et al. (2020) argue eight instances where Atlanta 1996 resulted in sporting and urban infrastructure legacies for the city and surrounding communities of Atlanta, including the renovation of Golden Park baseball stadium. Chon & Weber (2002) also claimed that infrastructure built for tourism to support Seoul 1988 had successfully promoted Seoul's tourism industry and contributed to billions in tourism dollars nearly 20 years later. Jones (2001) argued that infrastructure development resulting from mega-events provides long-term benefits to the host city through urban place marketing.

The Los Angeles Olympic Organizing Committee (LAOOC) created a surplus of funds by using existing infrastructure, and refurbishing, where necessary, to host Los Angeles 1984 (Wilson, 2015). Another mega-event that has claimed positive infrastructure legacies is London 2012, where the organising committee regenerated Stratford-on-Avon, London, and surrounding areas. From her study, Azzali (2017) argues that London 2012 could use the funding to regenerate the East End of London to create social convergence between the east and west. Other notable successes from London 2012 are public transport systems, trains, light railway, bus stations, and high-speed trains developed for London 2012, and remain as legacy. Drummond & Cronje (2019) claim infrastructure for the 2010 FIFA World Cup in South Africa left legacies of road upgrades, improved public transport system, and airport upgrades. Positive or negative, these legacies provide good insight into how venues can be used post mega-event.

Erten & Özfiliz (2006) cite two concepts to consider within the field of infrastructure for mega-events: 1) Sustainable urban development, which refers to efficient use of urban land and infrastructure resources (water, public transport, etc.), and 2) Sustainable architecture, which refers to infrastructure creation and management, and the green building environment. Thomson et al. (2010), after reviewing the management of environmental impacts of Summer & Winter Olympic Games, highlight key achievements concerning mega-event infrastructure. An example was the construction

of new water treatment plants built for Turin 2006 and London 2012 (Chappelet, 2008; Thomson et al., 2010; Samuel & Stubbs, 2013).

Social legacy

Several articles discuss the social legacy of mega-events. Quest (2010) explained as South Africa won the bid for the 2010 FIFA World Cup, the Department of Environmental Affairs and Tourism (DEAT) promised that hosting the World Cup would ensure, “A lasting social legacy through the event and leverage the event to spread economic and social benefits beyond the borders of South Africa” (p. 10). Urban regeneration is an important part of a mega-event legacy, sometimes considered the most important component, a statement in a Candidate File (n.d.) said, “The most enduring legacy of the Olympics will be the regeneration of an entire community for the direct benefit of everyone that lives there” (p. 9). Cho & Bairner (2012), quoting journalist Park Gun-Man, argue the positive social impact Seoul 1988 had on Koreans, “The Seoul Games contributed to cleaning up Korean society. Through the Seoul Games, Korean people worked confidently, and they respected the rules; it gave an opportunity to get rid of corrupt and immoral behaviour. In particular, through hosting the Olympics, Koreans obtained a mindset of “we can do it” which helped the progress of westernisation in Korean society” (p. 282).

Lamberti et al. (2011) discuss the social aspect of sustainability in relation to community participation, whereby participants became involved in the organisation of the Shanghai World Expo. Van Wynsberghe et al. (2011) also argue similar social concepts regarding community capacity of Vancouver 2010, explaining there is the possibility to build community capacity if the event organisers work alongside the local community. Post London 2012, the Mayor of London established “A Sporting Future for London” and implemented a Ten Point Plan, which aimed to take the Games legacy forward for the long-term. This plan included initiatives such as community sport, disability sport, school games, world-class facilities, a charity, and a strategy for youth and community sport (HM Government, n.d.; Cleland et al., 2020).

Some social legacies from the literature are negative, whereby people being displaced to make way for urban infrastructure are cited. For example, for the Seoul 1988 Olympics, it was estimated that over 700,000 people were evicted, and in Beijing, over 1 million people (COHRE, n.d.; Davis & Thornley, 2010). Supporting this, Olds (1998) argues the

negative social impacts of mega-events being used to restructure a city, and in the process, forcing large numbers of evictions. The rights of the city's people are negated when forced to move from their homes, and also when people lose their right of access to the city. This is often due to pressure to eliminate slums close to the mega-event to sharpen the city's international image. Literature supports this notion of forced evictions, citing examples from the 1986 Expo in Vancouver where between 1000 and 2000 housing lodges were closed down (Olds, 1998).

Environmental legacy

In the past two decades, environmental legacy has received much consideration in mega-event literature discussing environmentalism and sustainable development for the area where the mega-event was held. In March of 2003, FIFA established a "Green Goal" initiative, whereby the environmental impacts of the World Cup event should be minimised as much as possible. That led to initiatives such as responsible use of water and a climate-neutral World Cup (Oeko, n.d.; Quest, 2010). Strengthening the concept of building a "Green Games" during this period, China in 2007 announced that Beijing had spent US\$240 million in research and development towards building a Green Games (Borresen, 2008). Liu & Kong (2020) add that in support of this movement, the city of Beijing enacted policies that brought plant closures, emission standards and subway extensions, all to improve the city's air quality. Chappelet (2008) wrote that since Sydney 2000, when Greenpeace drafted the concept of the "Green Olympics" for the bid, environmental concerns of organising committees have been adopted.

Carbon offsetting is a common topic within mega-events. Bumpus & Liverman (2008) explain that carbon offsetting is a way to ensure economic growth whilst moving away from a fossil fuel economy and into a renewable energy one. Crabb (2018) identifies carbon offsetting initiatives from the 2014 Brazil FIFA World Cup, writing that climate action claims can be exaggerated to fit the project's aims. Impacts of a mega-event are assessed in terms of planning and organising, and environmental protection. For example, water, waste, energy, and mitigating the impact of transport during the mega-event are also assessed for their impact (Oeko, n.d.). Oeko (n.d.) admitted that before the 2006 World Cup, unlike the IOC, Germany had not included environmental protection as an integral part of its application to stage a World Cup. Furthering this commitment for environmental sustainability, the IOC (Inside) in their 2017 Sustainability Strategy document promote carbon offsetting goals by 2030, stating, "Carbon neutrality by

reducing direct and indirect GHG emissions, and by compensating emissions as a last resort” (n.d.). Following the IOC, other event owner organisations such as the IAAF and Commonwealth Games have also introduced sustainability legacy commitments (CGFa, n.d.; World Athletics, n.d.).

In 2006, the FIFA World Cup in Germany was the first FIFA event to successfully propose and implement a long-term sustainable agenda named “Green Goals”, focusing on efficient transport, climate change neutrality, waste, water, and energy management (Dolles & Soderman, 2010; Meza Talavera et al., 2019). Barrett (2011) cites victories for Beijing 2008 stating, “To improve air quality for the Olympic Games, factories in and around Beijing were moved or closed, vehicular traffic was restricted, and truck traffic was reduced” (p. 259).

In contrast, mega-events like PyeongChang 2018 Winter Olympics have involved contentious issues around environmental sustainability: a 500-year-old forest was chopped down to create Olympic-regulation ski slopes (Guardian, The, 2015.; Lee, 2019; Yoon & Wilson, 2019). The Korean Government intervened on this issue and made a deal with the Olympic Committee to restore the forest post-event. However, over two years later, restoration had not commenced (Lee, 2019).

In many ways, Sydney 2000 changed the mega-event playing field – the Summer Games successfully transformed Sydney’s largest brownfield site into an area known as Homebush Bay. The site regeneration had already been underway before Sydney’s nomination to host Sydney 2000. The successful nomination prompted faster action that saw a new rail line to Homebush Bay West and a combination of community facilities such as an athletics centre, recreational facilities, housing and a regional park (Prior & Blessi, 2012). Prior & Blessi (2012) reinforce the importance of culture in the development of urban areas and the role cultural facilities play in the regeneration process of urban areas. In support of this, Evans & Shaw (2004) note that regeneration can be defined as, “The transformation of a place (residential, commercial or open space) that has displayed the symptoms of environmental (physical), social and/or economic decline” (p. 4). Burgan & Mules (1992) suggest the positive side to a sporting event is that it raises the community’s interest in sport and participation, leading to community health benefits.

Political (governmental) legacy

Political legacies were found throughout the literature on mega-events. Articles referred to the statutory planning and governance required to host mega-events. For example, Cornelissen et al. (2011) refer to political legacies as improved governance, which includes the promotion of democracy and rights. Perhaps the largest political movement a Summer Olympic Games has ever seen, Waller et al. (2016) discuss the impact that the human rights movement by black athletes, who staged demonstrations at medal ceremonies during Mexico City 1968, had on future generations. This development of collaborative relations between the different government tiers during the planning phase of a mega-event leaves new political structures post-event, which require improved governance.

Girginov (2011) cites a three-stage process for governance legacy, which was framed by the IOC for London 2012. It states, “A framework developed by the IOC (Stage 1), a vision produced by the candidate city (Stage 2), and implementation secured by the Organising Committee of the Games (i.e., LOCOG) (Stage 3)” (p. 552). Lee (2019) claims that two years after PyeongChang hosted the Winter Olympics, Koreans still viewed the mega-event as a catalyst for reconciliation within Korea. Similarly, Mangan (2008) cites Beijing 2008 as leaving a positive legacy in the form of something intangible on the world stage, an elevation of Chinese confidence and pride.

Other literature on politics discusses the desire of cities to use their political power, competing with each other, for the growth of an “entrepreneurial city” (Harvey, 1989; Whitson & Horne, 2006). Whitson & Horne (2006) wrote that Australian scholars had questioned the true benefit of Sydney 2000, quoting in their paper, “The irony is that government, which is meant to be serving the public interest, is instead concentrating on entrepreneurial and corporate rather than broader social goals” (p. 76). A mega-event can also portray only the side of a city that a government wants to show. Horne & Whannell (2016) discuss how the Olympic Games emphasise the city's wealthier areas, while other areas may be marginalised. Mega-events may also provide a conduit by which governments can connect society. Taking the Olympics in Rio as an example, the opening ceremony prompted a new global sector named “Sport and Development for Peace” (Dell’Aquila, 2020).

Cultural legacy

Literature on cultural legacies in mega-events has strong connections with social legacies. Cho & Bairner (2012) cite the former Korean Minister of Cultural Tourism and Sport, Kim Myung Gon, as he argues the sociocultural link between developments and mega-events, “My concern is culture, so I would say that the “Hallyu” was affected by mega-sport events. Through the hosting of various mega-events such as the Olympics and the FIFA World Cup in Korea, foreign people’s perceptions of Korea changed from negative to positive, and now foreign people have started to have a more favourable impression of Korean people” (p. 275).

Stevenson (2012) discusses the “Cultural Olympiad” legacies that came as a result of London 2012, where there were three main projects designed to celebrate the cultural diversity of the UK, and in particular, London. Cornelissen et al. (2011) demonstrate that a non-FIFA related project, which enhanced youth development, community development and integration, and community pride, would not have been developed to such an extent without the help of the FIFA World Cup, ultimately leaving behind this sociocultural legacy. Kim et al. (2006) argued that residents from the 2002 FIFA World Cup in South Korea had experienced more cultural than economic benefits. Kim et al. (2006) also argue that the benefits of cultural exchange and development resulting from the mega-event were considered almost satisfactory, whereas the economic benefits were not.

Community impact and legacy

There is a gap in this research field that can be summarised as the impact a mega-event has at the community level. The present thesis explores this gap in the research by understanding legacy impacts from a mega-event that occur at the community (local) level. In past years, mega-events have often been criticised for their adverse effects on local communities, even though it has been found they can deliver benefits at a broader scale – state and nationally. For example, Drummond & Cronje (2019) declared major infrastructure benefits from the 2010 South Africa FIFA World Cup, such as road and airport upgrades, and Azzali (2017) cited the regeneration of Stratford, London, and surrounding areas through infrastructure upgrades as a result of London 2012 planning.

Does repurposing and refurbishing existing venues have an actual benefit?

Currently, a great deal of literature supports the notion of using mega-events to “regenerate” buildings and infrastructure within existing communities. Claims of repurposing existing infrastructure instead of building new venues have become connected with the theme of sustainability in efforts to enhance the status of events in striving towards having a sustainable impact. For example, Prior & Blessi (2012) discuss the regeneration of Sydney Olympic Park developed for Sydney 2000. Azzali (2017) also wrote that London 2012 claimed it could successfully regenerate parts of London with funding provided for the event.

Despite these findings, we still know very little about the impact of regeneration on local communities from venues after being upgraded and used for an event. This study seeks to explore physical and social benefits that arise within local communities that have had venues repurposed as part of a mega-event.

2.4 Gaps Arising from the Literature Review

The literature review provided a broad summary of the current state of research on mega-events and the legacies and sustainability of these events. This Master’s thesis will seek to build on research gaps within the current literature by addressing the questions:

RQ1: What strategies, norms, and rules guide how mega-events impact on the physical and social capital of the communities in the host city both during and following the mega-event?

RQ2: How do mega-events impact the physical and social capital of these communities, and how are the strategies, norms, and rules associated with these impacts?

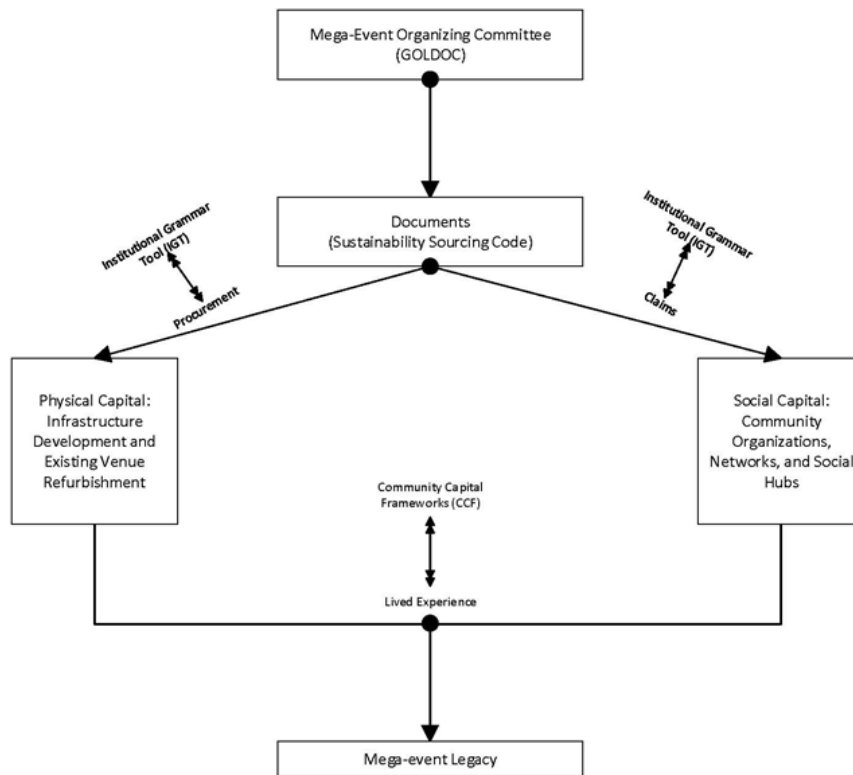
3.0 Research Design and Methodology

3.1 Design

A conceptual framework was used to guide this study. The framework has two key dimensions, the first dimension involves the institutions – strategies, norms, and rules – that guide the implementation of mega-events. The second dimension includes how implementing these institutions affects the community's capital within the host city. Societal institutions, some specifically related to mega-events and others operating more broadly within society, guide how mega-event funding is used and how mega-event processes, policies, and procedures are implemented. The use of funding and the implementation of processes ultimately affect the community capital of the host city both

during and following the mega-event (see Figure 2). Literature from those such as Prior (2016), Crawford & Ostrom (1995, 2005), (Washington State University, n.d.), and Prior & Blessi (2012) have contributed to the direction and formation of the research design and methodology.

Figure 2: Conceptual framework used to guide the study of mega-event legacy



A case study approach was used to address the study’s aim outlined above. The case study focused on the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) used for the Gold Coast 2018 Commonwealth Games (the Games). Building on the conceptual framework (Figure 2), the Institutional Grammar Tool (IGT) and Community Capitals Framework (CCF) were used to examine the association between the institutions used during the Games to guide the refurbishment of the BLBC, and what impact this had on the bonding, bridging, linking SC, and PC of the BLBC, and its communities in the host city both during and following the mega-event. The CCF (Washington State University n.d.), “Offers us a new viewpoint to analyse holistic community changes. The framework encourages us to think systematically about strategies and projects, thus offering insights into additional indicators of success as well as potential areas of support” (n.d.).

It (the CCF) comprises seven classes of community capital: natural, cultural, human, social, political, financial, and physical (built) capitals (Washington State University, n.d.), which are discussed in detail later in this section. The capitals used in this study are both physical (built) and social capital. Table 3 provides an overview of the study's methodology; the research having been conducted between 2017 and 2021.

Structuring the governance systems of mega-events is a complex array of institutions; whilst some are formally documented (in, e.g., guidelines, policies, and implementation planning), others are not written down but shared as a common understanding. For example, during the Games, sustainability was implemented using a Sustainable Sourcing Code (GC2018a, n.d.), which was one of the institutions that governed sustainability aspects of the mega-event. The study within this paper will use the IGT developed by Crawford & Ostrom (1995, 2005) to systematically identify institutions that governed the 2018 Commonwealth Games process, and, in particular, the refurbishment of the BLBC as part of the Games processes (GC2018a, n.d.; Dunlop et al., 2019). The IGT was developed to provide a common language that could be used to identify institutions operating across complex governance systems such as those that are used to implement mega-events (e.g., Sustainable Sourcing Code used in the Games), and to also help reveal the structure of the systems, e.g., policies (Basurto et al., 2011; McGinnis, 2011). Since its development, the IGT has been understood to have a significant degree of competency to utilise, and in application, a specific coding method is needed to derive meaningful data (Basurto et al., 2011; Frantz & Siddiki, 2020; Lien, 2020).

For this study, key components of these institutions are broken down by the IGT into different, or all, elements of a grammatical syntax, ADICO: performer (also known as attribute) (A), deontic (D), aim (I), condition (C), or else (O) (Crawford & Ostrom, 1995; Cooper, 2016). Frantz and Siddiki (2020) have recently argued a revised version of the IGT, the IG 2.0, which may be more comprehensive and flexible, allowing for different levels of coding and different levels of expression. This study adopted a similar process for coding analysis to that of Prior (2016). Table 1 below explains each component of the syntax using the rule, [The student] [must] [write paper] [by date], [or receive a lower final grade] (Basurto et al., 2011). Different combinations arising out of this syntax form strategies, norms, and rules. Strategies consist of a performer, an aim and a condition (AIC). A norm consists of those three components and the deontic (ADIC), while a rule

needs to include the entire syntax, ADICO (Crawford & Ostrom, 1995). The IGT was chosen because it, and the syntax it uses, is considered one of the most comprehensive frameworks for the type of analysis employed in this thesis. Supporting this, in their review of policy research, Dunlop et al. (2019) describe the IGT as, “...one of the most adaptable and policy-relevant aspects of IAD inspired work” (p. 165).

An alternative method to the IGT could have been the Narrative Policy Framework, where an approach is taken from the perspective of stories that characterise policy and in general, public policy (Jones et al., 2014; Shanahan et al., 2017). Unlike the IGT however, the use of narrative-based methods has been subject to criticism, Jones & McBeth (2010) mention narrative approaches in their study as, “Lying outside the realm of empirical study” (p. 1).

The implementation of these institutions is dependent on their context. Whilst strategies can be created and implemented by one participant, rules and norms exist only within mega-event decision-making if they have some collective authority among participants (Crawford & Ostrom, 1995; GC2018a, n.d.). Furthermore, they may not be exclusive to such processes and may be shared across society (e.g., laws and ordinances) (Ostrom, 2005; Lien, 2020). Several studies have shown that the institutional grammar described here can be used to parse written legislation, regulations, and policies (Basurto et al., 2011; Carter et al., 2015; Lien, 2020). Building on the work of Prior (2016), this study also sought to use the grammar to identify institutions through the analysis of interviews with respondents involved in the Games process, and the refurbishment of the BLBC as part of the Games processes. Institutions can be spoken or tacitly understood, they do not need to be written (Chomsky, 1957; Burke, 1969; Crawford & Ostrom, 1995). The use of this approach was designed to allow the collection of formally documented institutions (in, e.g., guidelines, policies, and implementation planning) and others that may not be written down but shared as a common understanding.

Table 1: ADICO grammatical syntax example

Component	Definition	Definition Example	Coding Example
Performer	The “performer” is a holder for any value of a participant-level variable that distinguishes to whom the institutional statement applies.	Performer of the action.	[The <i>student</i>] [must] [write paper] [by date], [or receive a lower final grade]
Deontic	The “deontic” is a holder for the three modal verbs using deontic logic.	May (permitted), must (obliged, shall), and must not (forbidden).	[The student] [<i>must</i>] [write paper] [by date], [or receive a lower final grade]

Aim	The “aim” is a holder that describes particular actions or outcomes to which the deontic is assigned.	This refers to the action itself.	[The student] [must] [<u>write paper</u>] [by date], [or receive a lower final grade]
Conditions	The “condition” is a holder for those variables which define when, where, how, and to what extent an “aim” is permitted, obligatory, or forbidden.	This specifies the spatial, temporal, and/or procedural boundaries in which the action in question is to be performed.	[The student] [must] [write paper] [<u>by date</u>], [or receive a lower final grade]
Or Else/ Sanction	The “Or Else” is a holder for those variables which define sanctions to be imposed for not following a rule.	These are the punitive sanctions associated with not performing an action as prescribed.	[The student] [must] [write paper] [by date], [<u>or receive a lower final grade</u>]

Source: Basurto et al., 2011.

An examination of all the capitals in the CCF (Table 2) is beyond the scope of this research. Therefore, this thesis examined the interconnections between improvements in PC (investment in the refurbishment of a venue) and SC (direct and indirect effects on community connections and the connections between organisations at different levels). The built environment is a large part of a mega-event, and often this serves as a good opportunity for the local government to showcase how upgrading infrastructure can be viewed as “community building”. For this study, PC is the infrastructure supporting the activities of the other capitals (Emery & Flora, 2006) and SC, “Reflects the connections among people and organizations or the social “glue” to make things, positive or negative, happen” (p. 25).

Table 2: Classes of Community Capitals

Capital type	Definition
Natural	The land and what it gives us, for example, assets in a particular location, including geography, natural resources, amenities, and natural beauty.
Cultural	How people think and act within communities, for example, how people view the world, the languages spoken, and traditions.
Human	What people can do, their skills, attributes, abilities, and how are they developed and enhanced.
Financial	How we develop now and for the future, for example, the financial resources to invest in capacity building, social entrepreneurship, and community development.
Physical (built)	This refers to the infrastructure in which cities, communities and towns are built, including technological and construction infrastructure.
Social	The connections amongst people whether it is in the workplace, community or elsewhere; it is that sense of togetherness within a place.
Political	This refers to the “Access to power, organisations, connection to resources and power brokers. The ability of people to find their own voice and to engage in actions that contribute to the well-being of their community.”

Source: Washington State University, n.d.

As defined by Woolcock (2001), this study focuses on the three forms of SC: bonding, bridging, and linking. For the purposes of this study, definitions of SC are in relation to the club and its surroundings. Bonding SC refers to relationships within the BLBC, i.e., the membership of the club and its member base. Bridging SC refers to the extended use

of the club by other groups as a community resource. For example, how widely used by other social groups were BLBC facilities? Did this type of use expand due to refurbishment, extending the social impact into the wider community? Linking SC refers to how the different organisations interacted to deliver the refurbishment for the community and the Games. The CCF was used in this study because it offered a way to analyse community development efforts and how areas of the local community were affected by the mega-event. Furthermore, it combined with the use of the IGT to capture the intent of the policies and frameworks developed for the Games, allowing them to be evaluated against initial aspirations. It (the CCF) was selected to form part of the methodology for this study as it allows for a detailed analysis of a particular type of capital and one that is contextualised within a community. In support of this, Pigg et al. (2013) stated about the CCF that it, “Provides a way of organizing information and ideas about how community development takes place as a rest of community leadership development (CLD) efforts” (p. 492). Social network analysis provides an alternative quantitative approach to assessing network dimensions of SC but is viewed as complimentary to rather than a substitute for a qualitative capital-based assessment (Cunningham et al., 2021).

The research design for this study used a three-part methodology, shown in Table (3). The methodology consisted of: Case Study Selection (Step 1), Data Collection (Step 2), and Data Analysis (Step 3).

Table 3: Overview of three-part methodology

Steps	Methodology	Explanation
Step 1	Case Study Selection	Criteria for case study selection were based on the following factors: <ul style="list-style-type: none"> • Pragmatic reasoning (accessibility to data) • Definitional criteria for mega-events (outlined in the conceptual framework) • Location and proximity to researcher
Step 2	Data Collection	Types of data collected were: <ul style="list-style-type: none"> • Written data: Policies, procedures, reports, journal articles and books • Interview data: Transcribed data taken from interviews with participants related to the study
Step 3	Data Analysis	Data analysis tools used to interpret the data: <ul style="list-style-type: none"> • Institutional Grammar Tool (IGT): Used to analyse all data for strategies, norms and rules, to address RQ1 • Community Capital Frameworks (CCF; Social and Physical Capital): Used to analyse all data against the nominated capitals for the study, to address RQ2

3.2 Step 1: Case Study Selection – Mega-event: The Gold Coast 2018

Commonwealth Games and the Broadbeach Lawn Bowls Club Refurbishment

The case study, BLBC refurbishment for the Games, was selected based on pragmatic reasoning (data accessibility) and the definitional criteria for mega-events. The Gold Coast event was chosen as the location for this project, firstly because it was a mega-event in the researcher's home country facilitating information access, and secondly because the researcher was employed within the Games organising committee structure and had access to documentation on procurement and infrastructure planning and development processes for the Games.

The Commonwealth Games has been run by the Commonwealth Games Federation (CGFb, n.d.) since the first games were held in Hamilton, Canada, in 1930. The Commonwealth Games (CGFb) aim is, "To be an athlete-centred, sport-focused Commonwealth sports movement, with integrity, global impact and embraced by communities" (n.d.). The CGF's role is the direction and control of the Commonwealth Games, where it oversees the implementation of the Commonwealth Games every four years in a different hosting country and city. The Gold Coast Games was the 21st Commonwealth Games held. The CGF establishes and oversees the bidding process, in which potential host countries and cities need to meet a set of selection criteria. Once a mega-event is awarded, that host nation and city then form an organisation tasked with the design, planning, and delivery of the Commonwealth Games as set out in their bid document (CGFa, n.d.).

The Gold Coast 2018 Commonwealth Games Corporation (GOLDOC) was established in January 2012 and disbanded in 2018 after the Games closing ceremonies. The role of GOLDOC was to work with the local and state Government and the Games delivery partners to plan, organise, and deliver the Games in 2018 (GC2018b, n.d.). The 21st Commonwealth Games host city was the Gold Coast, while also using Brisbane, Cairns, and Townsville as event cities to assist in hosting the event. A total of 6,600 athletes across 70 nations travelled to Queensland, Australia, to take part in the event, which took place at over 18 venues. Over the 11 days of competition, there were 1.2 million tickets sold to events, which attracted more than 500,000 spectators (Business Queensland, n.d.). One of those venues was the Broadbeach Lawn Bowls Club (BLBC). Located in the heart of the Gold Coast at Broadbeach, the BLBC has hosted some of the most significant lawn

bowls events in the world previous to the Games and maintains its accessibility to the general public. The BLBC is the main focus of this study.

BLBC's heritage dates from 1937, and it is an iconic piece of local Gold Coast history (Broadbeach Bowls Club, n.d.). The clubhouse and venue were initially constructed in 1954, and until its refurbishment in 2016 for the Games, the building had remained relatively unchanged – the two photos below show the change of the BLBC since its original construction. Part of the bid for the Games involved a commitment to refurbish the existing BLBC venue. This promise was fulfilled in May of 2016 by constructing four international standard greens, a new clubhouse, and refurbishing the venue's surroundings in time for the Games.

Figure 3: BLBC before (1954, left) and after (2018, right) the Games.



Photo by Broadbeach Bowls Club (n.d.)



Photo by Australian Leisure Management (n.d.)

3.3 Step 2: Data Collection

All data collection involved the collation of documents and conducting semi-structured interviews by a single researcher. Documents collated included those relating to the governance of the Games and the BLBC refurbishment – such as policies, procedures, and strategies. Examples included the Club's bid Candidate File (CGFa, n.d.), which was part of the bid documentation for the Games and, Embracing Legacy and Ahead of the Games reports, which were sourced from the Gold Coast 2018 Commonwealth Games website (Publications Queensland, n.d.). A total of 246, including 17 policy documents, were collected. These documents are listed in Appendixes A–C, and in the Journal Article (17 policy documents).

For semi-structured interviews, participants were interviewed on the Gold Coast during December of 2019. To protect the confidentiality of the participants, only generic information is provided within the study. Four participant groups were interviewed: two former employees of GOLDOC (GOLDOC1-2), two Gold Coast City Council

employees (GCCC1-2), a Mega-Events Games Consultant (MEGC1), one BLBC executive (BLBC-E1); and five BLBC patrons (BLBC-P1-5), giving a total of 11 interview participants. Interviews lasted from 25 to 45 minutes.

Each prospective participant was contacted via email or telephone to gauge interest in being involved in the study. Interested participants were sent an information pack about the study and a consent form to sign and return (see Appendix B). A secure transcription service transcribed audio recording. In addition, the researcher gave the interviewee a verbal overview of the study, its aims and other background information on the Games and the local community.

The focus of the interviews was to understand how the various participants viewed the Games, the diverse impacts that it had on the local community of Broadbeach in the years leading up to the event, during the Games and since the Games finished. Participants were also asked about the institutions that surrounded the refurbishment of the BLBC. See Appendix A for the interview questionnaire.

3.4 Step 3: Data Analysis

SC impacts were further broken down into three sub-categories: bonding, bridging, and linking SC (according to the typology of Woolcock, 2001). Secondly, the documents and interviews were coded to identify institutions related to the Games' impact on the PC and SC of the BLBC and the local communities.

To address research questions RQ1 and RQ2, the data were systematically coded using the IGT and CCF as an analytic lens. A single researcher coded the data within the documents and interviews to maintain continuity. The coding process and outcomes were reviewed by two researchers who had previously used the IGT and CCF to analyse documentary and interview data (Prior, 2016). The focus of the IGT coding was the identification of institutions related to PC and SC associated with the refurbishment of BLBC during the Games (as outlined in the conceptual framework). The focus of the CCF coding was identifying the PC and SC of the BLBC and its communities in the host city during and following the mega-event. All documents and transcribed interviews were prepared for coding.

The steps used to code both the documents and transcribed interviews were:

1. Based on the definitions outlined in the conceptual section of this paper, evidence of bonding, bridging, and linking SC, and PC were coded. This was carried out over three cycles:
 - i) Data were initially coded into ‘general themes. For example, framework, sustainability, construction, etc.
 - ii) The data were then coded into different types of SC; bridging, bonding and linking.
 - ii) Finally, the data were coded for PC.

Note: All elements were coded manually and deductively (Saldaña, 2016).
2. To maintain confidentiality, before the combined IGT and CCF coding, the names of the participants were replaced with the performer types to the following: [1] Gold Coast 2018 Commonwealth Games (GOLDOC), [2] Queensland State Government (QSG), [3] Gold Coast City Council Employees (GCCC), [4] Mega-Events Games Consultant (MEGC), [5] Suppliers and Contractors (S&C), [6] Broadbeach Lawn Bowls Club Executives (BLBC-E), and [7] Broadbeach Lawn Bowls Club Patrons (BLBC-P).
3. The IGT Grammatical Syntax was then used to code strategies, norms, and rules related to the capitals coded in the above step. This included:
 - i) Aims performed were coded.
 - ii) The deontic associated with each aim was then coded: must, must not, or may, either explicit or implicit (e.g., the verb “required” or “shall” suggests a “must”).
 - iii) Formal sanctions were coded for each aim, as were Conditions.
 - iv) The IGT syntax, based on the presence of associated components (e.g., deontic or sanction), was then coded as a strategy, norm or rule; 87 strategies, norms, and rules were coded.
 - v) The 87 identified strategies, norms, and rules from audio transcripts and documents were examined in further analyses, where duplicate and similar strategies, norms, and rules were removed or grouped respectively. Fifteen strategies, two rules, and one norm remained when duplicate and similar institutions were removed and grouped (see Results Tables 2 and 3). Rules and norms were recorded only if two or more performer holder groups identified them.

- vi) Strategies, norms, and rules that emerged from the coding were then nested into four categories related to bonding, bridging, and linking SC and PC.

Resource Considerations

There were no major resource considerations for this thesis, which was primarily due to interviews being carried out in person and recorded on a secure transcription service. Costs associated with the study were related to flight and accommodation expenses. Additional costs included: having experts transcribe the data from audio files to a written word document and the cost of a proof-editor to review an article before final journal submission (Section 4), and again before final thesis submission.

Ethics

The research was approved by UTS Human Research Ethics Committee, approval number UTS HREC ETH18-3078.

The ethics process helped me to think about, in more detail, exactly how the methodology was going to be undertaken. To establish the correct ethics process, it was important to understand who the group being targeted were, what kind of information was being sought, and how it was being extracted.

4.0 Draft Journal Paper

This section includes a draft journal paper that presents the study's findings. We encourage the reader to review only the results section within the draft paper, as a more comprehensive version of the study's introduction, literature review, conceptual framework, methods, discussion, and conclusion are provided in the other sections of this thesis. The draft journal paper is currently in the second stage of peer review and has been accepted by the *Commonwealth Journal of Local Governance* – the paper has been slated for publication in the June 2022 edition. The draft paper is included verbatim within this section.

Sporting mega-events, and their influence on the social and physical capital of communities in the host city: The Gold Coast 2018 Commonwealth Games experience

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Abstract: Over the past decade there has been increasing research on how sporting mega-events, such as the Olympics and Commonwealth Games, firstly, contribute to the sustainability of the host nation, city and communities, and, secondly, impact the host's economic, social, physical, human, and cultural capital. The study presented within this paper addresses a gap within these interconnected fields of research by examining the association between how a set of strategies, norms and rules is used to govern mega-events, and how mega-events impact the social and physical capitals of the communities in the host city both during and following the mega-event. These associations are revealed through a novel methodology which used the Institutional Grammar Tool (IGT) and the Community Capitals Framework (CCF) to analyse data, as well as policy documentation, and 11 in-depth interviews on the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) as a venue for the 2018 Commonwealth Games (the Games) in Gold Coast City, Australia. The paper concludes with a discussion of the diverse impacts the Games had on the physical and social capital of the BLBC and its membership, and the strategies, norms and rules that the Games authorities, local council and club used to govern these impacts.

Keywords: Mega-event, social and physical capitals, governance, community impact, Commonwealth Games.

Introduction

Sporting mega-events, such as the Olympic Games and the Commonwealth Games, are defined by their scale, the size of their audience, the type of infrastructure that they require, and how often these events occur, i.e. once every four years (Kruger & Heath 2013; Hiller 1999; Horne 2015; What Culture 2017). Tourism, broadcasting and place marketing are all conduits by which billions of people from across the world are exposed to mega-events, the host nation, the cities and communities that host the event.

The study presented within this paper builds on two interconnected areas of research on sporting mega-events. Firstly, research which explores how mega-events contribute to the sustainability of the host nation, city and communities (Leopkey & Parent 2012a, 2012b). For example, Tziralis et al. (2008) highlight the adverse economic impacts the 2004 Olympic Games had on the Greek economy, and similarly Chalkley and Essex (1999) discuss the impact of the economic loss of the 1976 Olympic Games on Montreal, which took over 30 years to repay. Malhado and Rothfuss's (2013) study of the sustainability frameworks used to guide mega-events highlight how a lack of planning before and during these events can have a negative

impact on the host nation and cities' economic sustainability as taxpayer dollars may be misused or wasted. Secondly, research has begun to explore the impact of sporting mega-events on the economic, social, physical, human, and cultural capital of the host nation, city and community. A growing number of studies have provided evidence of capital impacts at the national and city scales. However, fewer studies have provided evidence of capital impacts at the community-scale within a host city (Horne 2015; Prior & Blessi 2012; Santos et al. 2017). One example is provided by Lamberti et al. (2011) who found that community participation developed around the Shanghai World Expo. Such capital impacts are dimensions of the economic, social, environmental, political and infrastructure legacies that stem from mega-events (Shipway 2007).

The study presented within this paper addresses a gap within these interconnected fields of research, by examining the association between how a set of strategies, norms and rules is used to govern mega-events, and how mega-events impact the social and physical capitals (SC and PC) of the communities in the host city, both during and following the mega-event. These associations are revealed through a novel case study approach which used the Institutional Grammar Tool (IGT) and the Community Capitals Framework (CCF) to analyse policy documentation. As well, 11 in-depth interviews were conducted on the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) as a venue for the 2018 Commonwealth Games (the Games) in Gold Coast City, Australia. Whilst the IGT provides a means for identifying and coding the strategies, norms and rules that informed the Games, CCF provides a means for understanding the impact on the PC and SC within the host community. Both documentary analysis and interviews were used so that the research could capture written and unwritten strategies, norms and rules that influenced how the Games affected the PC and SC of the local community through the BLBC.

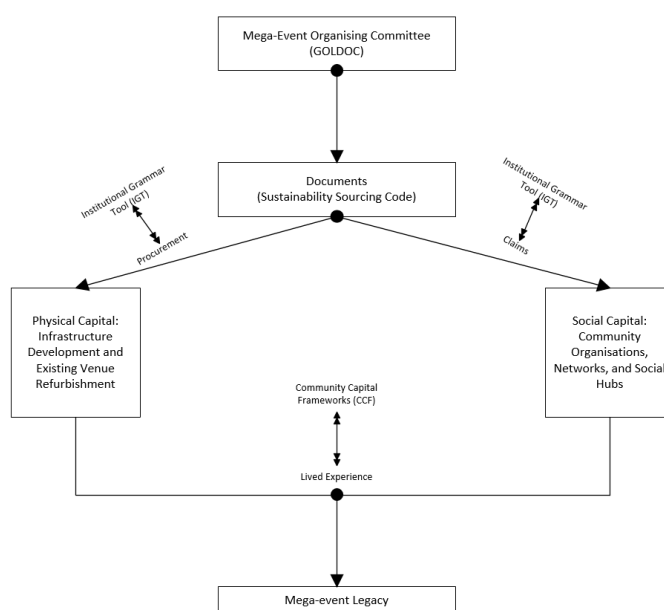
Given the diverse ways in which community capitals and institutions can be defined and understood, the study adopted a common conceptual language to guide the research. This is set out in the next section of the paper. The paper then presents an overview of the study's methodology and findings. To conclude, the paper will discuss the possible implications of the study's findings for the future governance of mega-events and local communities, and an outline of the study's limitations and recommendations.

Conceptualising institutions and community capital in the context of sporting mega-events

The conceptual framework for capitals and institutions discussed within this section was used to guide the study. The framework has two key dimensions: the first involves the institutions – rules, norms and strategies – that guide the implementation of sporting mega-events, and the

second dimension includes how the implementation of these institutions affects the capital of the community within the host city. Societal rules, norms and strategies, some specifically related to sporting mega-events and others operating more broadly within society, guide the way in which sporting mega-event funding is used, and the way in which sporting mega-event processes, policies and procedures are implemented. The use of funding and the implementation of processes ultimately affect the community capital of the host city, both during and following the mega-event (see Figure 1).

Figure 1: Conceptualising institutions and community capital in the context of sporting mega-events



Dimension 1: Institutions

Sporting mega-events, such as the 2018 Commonwealth Games, take many years to plan and implement. As Preuss (2015) highlights, London was awarded the right to host the 2012 Olympic Games shortly after Athens 2004 Olympic Games had finished, and it took London seven years to prepare for the event. These processes have been found to be guided by complex governance systems that involve government at all levels through to volunteers from the local communities in the host city (Bovy 2008; Bovy 2010). Several studies have emphasised the increasing role that sustainability plays within the governance of sporting mega-events (Bailey et al. 2004; Garcia 2004; Innes 2016; Kellison et al. 2015; Preuss 2015; Van Wynsberghe et al. 2011). Structuring the governance systems of sporting mega-events is a complex array of institutions – strategies, norms and rules. While some are formally documented (in e.g. guidelines, policies, and implementation planning), others are not written down but shared as a common understanding. For example, during the 2018 Commonwealth Games, sustainability was implemented through the use of a Sustainable Sourcing Code (GC2018 2018a).

The study within this paper will use the IGT to systematically identify institutions that governed the 2018 Commonwealth Games process, and in particular the refurbishment of the BLBC as part of the Games processes (Dunlop et al. 2019; GC2018 2018a). The IGT was developed by Crawford and Ostrom (1995) to provide a common language that could be used to identify institutions operating across complex governance systems such as those that are used to implement sporting mega-events (McGinnis 2011). The key components of these institutions are broken down by the IGT into different, or all, elements of a grammatical syntax, ADICO: *performer/attribute* (A), *deontic* (D), *aim* (I), *condition* (C), and *or else* (O) (Cooper 2016; Crawford & Ostrom 1995). Different combinations arising out of this syntax form strategies, norms and rules. Strategies consist of an attribute, an aim and a condition (AIC). A norm consists of those three components and the deontic (ADIC), while a rule needs to include the entire syntax, ADICO (Crawford & Ostrom 1995).

Dimension 2: Community capital

There is an increasing focus on the impact that planning and implementation of sporting mega-events have on the economic, social, physical, human, and cultural capital depletion and accumulation in the host nation, city and communities. For example, Misener and Mason (2006) argue that sporting mega-events can create SC in the host city and communities. Leopkey and Parent (2012) discuss the way in which sporting mega-events, such as the Olympics, contribute to the host city's PC through the investment in infrastructure (Leopkey & Parent 2012; Thomson et al. 2010). Similarly, as stated earlier, Prior and Blessi (2012) found that there is a growing acceptance towards the role that culture can play in the development of urban areas. It is the interaction of investment in built capital and its impact on local SC that is a primary component of the mega-event legacy and encompasses the indirect impacts of the mega-event. Within the existing literature on sporting mega-events, diverse terminology is often used for capitals (Misener & Mason 2006), and in some instances capitals are discussed without a clear understanding of what these terms mean (Emery & Flora 2006; Lamberti et al. 2011). The study within this paper adopts a common conceptual language for capitals. The study uses the Community Capitals Framework (CCF) to understand community resources of capitals, in this study – physical and social capital.

The CCF (Washington State University 2011, p. 1):

Offers us a new viewpoint to analyze holistic community changes. The framework encourages us to think systematically about strategies and projects, thus offering insights into additional indicators of success as well as potential areas of support.

Assessing changes in community capitals can be a useful approach in both planning and assessment of a wide array of initiatives. Furthermore, an examination of the impact of

investment in one type of capital on other types can reveal potentially unintended benefits and consequences (Emery & Flora 2006). The CCF comprises seven classes of community capital as: natural, cultural, human, social, political, financial, and physical (built) capitals (Washington State University 2011). Of particular interest to this study are the capitals, social and physical, the impact of investment on these two types of capital, and the interaction between them at local scale.

Within the context of this study SC as a concept is defined as: “*Connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them*” (Putnam 2001, p. 19), reflecting the views of his predecessors. Within the study, we distinguish between various types of SC: importantly bridging SC and bonding SC. Bridging SC refers to the social connections that cut across narrow groups and interests, connecting people in a community, and span diverse social groups (Putnam, 2000). Bonding SC refers to social connections that create perpetual in-group cohesion, sometimes at the expense of cross-cutting social interactions, and reinforces exclusive identities and homogeneous groups (Putnam 2000). Woolcock (2001) argues that it is important to recognise a third key dimension of SC: linking SC. The concept of linking SC is applied to the relations within the hierarchical structures of society, which connect us with people in positions of influence (Woolcock 2001). Linking SC may be provisionally viewed as a special form of bridging capital that specifically concerns power – it is a vertical bridge across asymmetrical powers and resources. We use the concepts of bonding, bridging and linking SC as components of a common syntax for SC in this study.

PC is the process by which a city makes investment to develop physical infrastructure (Perry 1995). For the purpose of this study, the reference to infrastructure investment refers to the process a government undertakes as it attempts to build a city (Perry 1995). The term infrastructure refers to urban physical facilities that are a systematic network as part of public investment to enhance a city (OECD 1991; Perry 1995). PC in this sense can be referred to as the development of road networks, bridges, new buildings, parks and refurbishing existing buildings, whereby the city’s government takes public financial capital and undertakes urban development.

Utilising the conceptual framework outlined above, the study presented within the paper aims to provide insight into two related research questions:

RQ1 What norms, rules and strategies guide how mega-events impact on the PC and SC of the communities in the host city both during and following the mega-event?

RQ2 How do mega-events impact the SC and PC of these communities, and how are the norms, rules and strategies associated with these impacts?

Methodology

A case study approach was used to address the two research questions outlined above. The case study focused on the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) during the 2018 Commonwealth Games. Building on the conceptual framework outlined above, the IGT and CCF were used to examine the association between the strategies, norms and rules used during the 2018 Commonwealth Games to guide the refurbishment of the BLBC. What impact did these have on the bonding SC, bridging SC, linking SC, and PC of the BLBC and its communities in the host city during and following the mega-event? Table 1 provides an overview of the study's methodology. The University of Technology Sydney Human Research Ethics Committee approved the study, and it was conducted between 2017 and 2020.

Table 1: Overview of Methodology

Steps	Methodology	Explanation
Step 1	Case Study Selection	Criteria for case study selection were based on the following factors: <ul style="list-style-type: none"> • Pragmatic reasoning (accessibility to data) • Definitional criteria for mega-events (outlined in the conceptual framework) • Location and proximity to researcher
Step 2	Data Collection	Types of data collected were: <ul style="list-style-type: none"> • Written data: Policies, procedures, reports, journal articles and books • Interview data: Transcribed data taken from interviews with participants related to the study
Step 3	Data Analysis	Data analysis tools used to interpret the data: <ul style="list-style-type: none"> • Institutional Grammar Tool (IGT): Used to analyse all data for strategies, norms and rules, to address RQ1. • Community Capital Frameworks (CCF; Social & Physical Capital): Used to analyse all data against the nominated capitals for the study, to address RQ2.

Selection and overview of case study

The case study, BLBC refurbishment during the 2018 Commonwealth Games, was selected based on both pragmatic reasoning (accessibility to data) and the definitional criteria for mega-events. The Gold Coast event was chosen as the location for this project, firstly because it was a mega-event in the researcher's home country facilitating information access, and secondly because the lead researcher was employed within the Games organising committee structure and had access to documentation on procurement and infrastructure planning and development processes for the Games.

The Commonwealth Games has been run by the Commonwealth Games Federation since the first games were held in Hamilton, Canada in 1930. The aim of the Commonwealth Games is: *“To be an athlete-centred, sport-focused Commonwealth sports movement, with integrity,*

global impact and embraced by communities” (CGF 2020). The CGF’s role is the direction and control of the Commonwealth Games, where it oversees the implementation of the Games every four years in a different hosting country and city. The Gold Coast 2018 Commonwealth Games (the Games) was the 21st Commonwealth Games. The CGF establishes and oversees the bidding process, in which potential host countries and cities need to meet a set of selection criteria. Once a mega-event is awarded, the host nation and city then form an organisation, which is tasked with the design, planning and delivery of the Games as set out in their bid document (CGF 2020). The Gold Coast 2018 Commonwealth Games Corporation (GOLDOC) was established in January of 2012 for this purpose, and disbanded after the Games in 2018.

Whilst the Gold Coast was the host city, events were also held in other cities within the State of Queensland including Brisbane, Cairns and Townsville. A total of 6,600 athletes from 70 nations travelled to Queensland, Australia to participate in the Games, which took place at 18 venues over 11 days of competition across 23 sports (GC2018 2018b). One of those venues was the BLBC. Located in the heart of the Gold Coast at Broadbeach, the BLBC has hosted some of the biggest lawn bowls events in the world, but also maintains its accessibility to the general public. The BLBC is the main focus of this study.

BLBC’s heritage dates from 1937, and it is an iconic piece of local Gold Coast history (Broadbeach 2020). The club house and venue were initially constructed in 1954, and until its refurbishment in 2016 for the Games, the building had remained little changed. Part of the bid for the Games involved a commitment to refurbish the existing BLBC venue. This promise was completed in May of 2016 through the construction of four international standard greens, a new clubhouse and refurbishment of the venue’s surrounds in time for the Games.

Figure 2: BLBC before (1954, left) and after (2018, right) the Games.



Photo by BBC, 1954.



Photo by HHH Architects, 2018.

Data collection

Data collection involved the collation of documents and conducting semi-structured interviews by a single researcher.

Documents collated included those relating to governance of the Games and the BLBC refurbishment – such as policies, procedures and strategies. Examples included the Candidate File bid documentation for the Games (The CGF 2021), *Embracing Legacy* and *Ahead of the Games* reports, which were sourced from the Gold Coast 2018 Commonwealth Games website. A total of 162 documents was collected.

For semi-structured interviews, participants were interviewed on the Gold Coast during December of 2019. To protect the confidentiality of the participants, only generic information is provided within the study. Four participant groups were interviewed: two former employees of the Games Organising Committee (GOLDOC); two Gold Coast City employees (GCC); a Mega-Events Games Consultant (MEGC); and six BLBC executives (BLBC), giving a total of 11 interview participants. Interviews ranged in duration from 25 to 45 minutes.

Prior to commencing each interview, participants were provided with written background information on the study, and were asked to provide their written or verbal consent for the interview. Audio recordings were transcribed by a secure transcription service. In addition, the researcher gave to the interviewee a verbal overview of the study, its aims and other background information on the Games and the local community.

The focus of the interviews was to understand how the various participants viewed the Games, the diverse impacts that it had on the local community of Broadbeach in the years leading up to the event, during the Games and since the Games finished. Participants were also asked about the strategies, norms and rules that surrounded the refurbishment of the BLBC.

Data analysis

A single researcher coded the data within the documents and interviews to maintain continuity. Firstly, to address RQ1 both data sources were coded to identify examples of PC and SC impacts associated with the Games on the BLBC. SC impacts were further broken down into three sub-categories: bonding, bridging and linking SC. Secondly, to address RQ2, the documents and interviews were coded to identify strategies, norms and rules that related to the impact of the Games on the PC and SC of the BLBC and the local communities.

The following key steps were utilised to identify the strategies, norms and rules within the document and interview data and associate them with the data coded for PC and SC.

To maintain the confidentiality of the participants, coding commenced by replacing names with the four participant group types. Attributes were coded first, revealing seven total Attribute Holder Groups: [1] Gold Coast 2018 Commonwealth Games (GOLDOC), [2] Queensland State Government (QSG), [3] Gold Coast City Council Employees (GCCC), [4] Mega-Events Games Consultant (MEGC), [5] Suppliers and Contractors (S&C), [6] Broadbeach Lawn Bowls Club Executives (BLBC), and [7] Local Community Members / Patrons (LMC). Within attribute categories, data were then coded for aims, attributes, deontic, conditions, and or else components of the ADICO syntax. This revealed an initial pool of 87 potential strategies, norms and rules. Rules and norms were recorded only if they were identified by two or more attribute holder groups.

Strategies, rules and norms were then coded for their association with PC and/or SC. A nested analysis was used to map the association between the 87 potential strategies, norms and rules with either PC impacts, or bonding, bridging and linking SC impacts. The 87 potential strategies, norms and rules were reduced to 15 strategies, two rules and one norm through the nesting process, as duplicate institutions were removed (see Tables 2 and 3).

Once the strategies, rules and norms had been identified, they were associated with the data on the types of PC and SC impacts that had been previously coded within the documents and interviews.

Findings

Addressing the overall aims of this study, the findings are presented in two parts. The first part addresses RQ1 by presenting findings on the norms, rules and strategies guiding how the Games impact the PC and SC of the BLBC and local community, and identifies the organisations that governed those norms, rules and strategies. The second part addresses RQ2 by presenting findings on how the Games impacted the PC and SC of the BLBC and local community, and discusses the association between the norms, rules and strategies and the experience of the BLBC and local community.

Institutions guiding how the Games impact on the PC and SC of the BLBC and local community

This part of the findings addresses RQ1. Table 2 shows the number of norms, rules and strategies for each of the Games organisations associated with type of capital. Of the 18 institutions, six governed PC. Of the remaining 12 institutions, six governed linking, four governed bridging and two governed bonding SC. Among the types of institutions, strategies were most common across PC and SC. The analysis also revealed that responsibility for institutions was relatively evenly spread across all organisations examined in the analysis, with

the exception of MEGC. GOLDOC and BLBC were responsible for governing marginally more of the strategies, norms and rules. Perhaps unsurprisingly, MEGC and LMC were not responsible for institutions related to PC, reflecting their limited roles in the governance of infrastructure. Among the types of SC, BLBC executive and LMC governed the two institutions associated with bonding SC, and three of the four institutions that governed bridging SC. Responsibility for the institutions associated with linking SC resided mainly with GOLDOC, QSG and GCCC; that is, the formal organisations at the upper levels of the Games hierarchy.

Table 2. Categorisation of norms, rules (sanctions), and strategies by organisation and type of capital

	Frequency of units				Total
	Physical Capital	Bonding Social Capital	Bridging Social Capital	Linking Social Capital	
Institutions identified:					
Strategies	4	2	4	5	15
Norms	1	-	-	-	1
Rules	1	-	-	1	2
Total	6	2	4	6	18
Performers of Institutions:					
Gold Coast 2018 Commonwealth Games (GOLDOC)	1	-	1	2	4
Queensland State Government (QSG)	2	-	-	1	3
Gold Coast City Council Employees (GCCC)	1	-	-	1	2
Mega-Events Games Consultant (MEGC)	-	-	-	-	-
Suppliers and Contractors (S&C)	1	-	-	1	2
Broadbeach Lawn Bowls Club Executives (BLBC)	1	1	2	-	4
Local Community Members / Patrons (LMC)	-	1	1	1	3
Total	6	2	4	6	18

Table 3 provides the details of the ADICO grammar for each of the institutions categorised by types of capital. Four organisations had strategies relating to PC – GOLDOC, QSG, GCCC and BLBC (Table 3, Strategies 1–4). Three of these strategies (Strategies 1, 2 and 4) refer to the creation of legacy through infrastructure development. Strategy 3 refers to prioritisation of forward planning by GCCC to support the Games.

A norm (Table 3, Norm 1) was used by QSG for PC in the form of a commitment by the government to build infrastructure to stage a mega-event that would also benefit local communities after the Games.

A formal rule (Table 3, Rule 1) was used for SC by GOLDOC, which imposed timeframes and quality controls on those who were to carry out the development of community facilities, specifically pertaining to materials.

Two organisations had strategies for the development of bonding SC related to venue refurbishment. GOLDOC's Strategy 5 and LMC's Strategy 6 (Table 3) aimed at establishing

an environment where “people” were “thriving” and “having a good time” in the venue (in this case the BLBC). As the people most likely to benefit under this strategy would be club members, it is categorised as contributing primarily to bonding SC, although it is likely that non-member club-users would also benefit.

Four strategies (Table 3, Strategies 7–10) related to bridging SC. Three organisations were responsible for these strategies: GOLDOC, BLBC and LMC. Strategy 7 relates to GOLDOC’s overarching aim to increase international visitation to the Gold Coast for the Games. Strategies 8–10 (BLBC and LMC) refer to an improved facility as a result of refurbishment that can better serve regional visitation during the Games and the local community through creation of new services.

Five strategies and one rule (Table 3, Strategies 11–15, Rule 2) relating to linking SC were established through five organisations (GOLDOC, QSG, GCCC, LMC and S&C). These strategies, are categorised as linking SC as they describe the aspirations for social and economic benefits that were to accrue to the local community (GCCC, LMC and S&C) through relationships with the Games governing hierarchy (i.e. GOLDOC and QSG) and venue refurbishment. Strategies 11 and 13 refer to building a more robust local economy that creates jobs for the community. Strategies 12 and 15 refer to legacy benefits from the Games, and Strategy 14 refers to establishing local administrations to ensure successful infrastructure delivery of the Games and community benefits. Rule 2 seeks to ensure compliance when suppliers and contractors engage directly with GOLDOC.

Table 3 – Strategies, Norms and Rules Guiding Physical and Social Capital for Mega-Events

Part 1: Institutions for Physical Capital (Strategies 1-4; Norm 1; Rule 1)	Organisation
Strategy 1: {A} [GOLDOC] {I} [Aims to upgrade facilities] [for the Gold Coast 2018 Commonwealth Games] {C} [leaving behind social, built and cultural legacies]	GOLDOC
Strategy 2: {A} [QSG] {I} [Aims to provide long-lasting benefits to the community] {C} [Which are legacies that come from the infrastructure investment for the Gold Coast 2018 Commonwealth Games].	QSG
Strategy 3: {A} [GCCC] {I} [Aims to plan for infrastructure works] {C} [Which are required for the Gold Coast 2018 Commonwealth Games].	GCCC
Strategy 4: {A} [BLBC] {I} [Aims to make the venue nicer after the refurbishment] {C} [Which are required for the Gold Coast 2018 Commonwealth Games].	BLBC
Norm 1: {A} [QSG] {D} [Will] {I} [Supply new infrastructure in the form of venues, accommodation, residential, and commercial buildings] {C} [To stage and support the Gold Coast 2018 Commonwealth Games].	QSG
Rule 1: {A} [S&C] {D} [Must] {I} [Provide information as requested by GOLDOC] {C} [In order to meet minimum requirements for the code that is set out] {O} [Or else the Attribute Holder will agree an action plan with appropriate timeframes for compliance by the Attribute Holder].	S&C
Part 2: Institutions for Bonding Social Capital (Strategies 5–6)	
Strategy 5: {A} [BLBC] {I} [Aims for the venue and profile of the Gold Coast 2018 Commonwealth Games] {C} [To show that people are thriving within the venue].	GOLDOC
Strategy 6: {A} [LMC] {I} [Aims for the venue to be a place where people can have a good time] {C} [Because of the venue location and upgrade].	LMC
Part 3: Institutions for Bridging Social Capital (Strategies 7–10)	

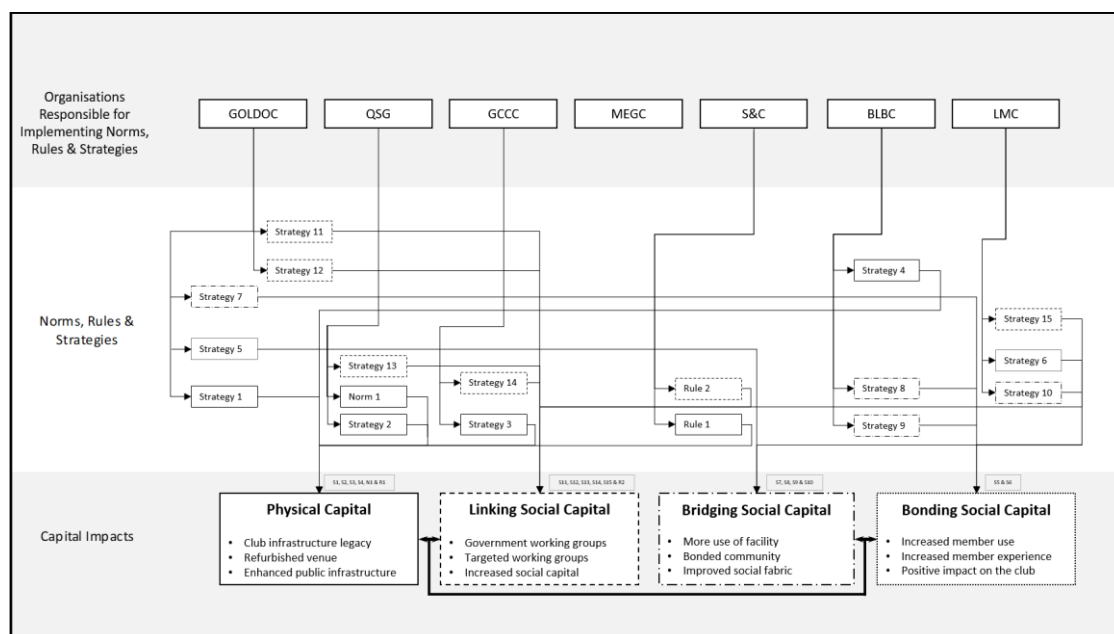
Strategy 7: {A} [GOLDOC] {I} [Was able to bring a lot of international visitors to the region] {C} [Because of the Gold Coast 2018 Commonwealth Games].	GOLDOC
Strategy 8: {A} [BLBC] {I} [Is able to create a venue that fits within the local community] {C} [Because of the Gold Coast 2018 Commonwealth Games and refurbishment to the venue].	BLBC
Strategy 9: {A} [BLBC] {I} [Is able to create new services for the community that benefit the community] {C} [Because of the new facilities and having hosted the Gold Coast 2018 Commonwealth Games].	BLBC
Strategy 10: {A} [LMC] {I} [Is benefiting from the venue and the mega-event] {C} [Because they do everything at the club].	LMC
Part 4: Institutions for Linking Social Capital (Strategies 11-15; Rule 2)	
Strategy 11: {A} [GOLDOC] {I} [Aims to creating jobs] {C} [To prepare to the Gold Coast 2018 Commonwealth Games].	GOLDOC
Strategy 12: {A} [GOLDOC] {I} [Aims to leave a long-term social and cultural legacy] {C} [From the Gold Coast 2018 Commonwealth Games].	GOLDOC
Strategy 13: {A} [QSG] {I} [Aims to build a more powerful economy and local communities] {C} [From the Gold Coast 2018 Commonwealth Games].	QSG
Strategy 14: {A} [GCCC] {I} [Aims to establish a business unit] {C} [that delivers infrastructure for the Gold Coast 2018 Commonwealth Games].	GCCC
Strategy 15: {A} [LMC] {I} [Aims to use the Gold Coast 2018 Commonwealth Games to benefit communities] {C} [before, during and post the mega-event].	LMC
Rule 2: {A} [S&C] {D} [Must] {I} [Provide information as requested by GOLDOC] {C} [In order to meet minimum requirements for the code that is set out] {O} [Or else the Attribute Holder will agree an action plan with appropriate timeframes for compliance by the Attribute Holder].	S&C
Organisations: Gold Coast 2018 Commonwealth Games (GOLDOC), Queensland State Government (QSG), Gold Coast City Council Employees (GCCC), Mega-Events Games Consultant (MEGC), Suppliers and Contractors (S&C), Broadbeach Lawn Bowls Club Executives (BLBC) and Local Community Members / Patrons (LMC).	

Games' impact on the PC and SC of the BLBC and local community, and their association with the institutions

This part of the findings addresses RQ2. All participants reported impacts on PC and the three forms of SC of the BLBC and local community as a result of the Games. The participants also attributed these impacts, at least in part, to the institutions detailed in Table 3 above. Figure 3 presents an overview of these associations between the norms, rules and strategies discussed and the different types of PC and SC of the BLBC and local community that were impacted by the Games.

Figure 3 also highlights the organisations that were responsible for governing each institution. As shown in Figure 3, GOLDOC, QSG and GCCC account for 10 of the 18 institutions that participants indicated had tangible impacts on the PC and SC of the BLBC and local community. In contrast, the MEGC did not govern any institutions, which implies that the organisation had no direct impact on the SC and PC of the BLBC and local community. This is an expected finding, given the role of MEGC is to offer expert advice to other organisations such as the LMC, GOLDOC and the GCCC, but not to make decisions associated with the Games or their ability to impact on capitals.

Figure 3: Associations between the organisations governing institutions, their impact on the PC and SC of the BLBC and local community, and the interactions among institutions and capitals.



What follows is a detailed description of the Games' impact on the PC and SCs of the BLBC and local community as reported by the participants, and the association between these impacts and the institutions.

Physical capital

The participants identified a number of strategies, rules and norms, including Strategies 1–4, Norm 1 and Rule 1, that were associated with the Games' impact on the PC of the BLBC and local community. For instance, there was a deliberate plan to create a legacy through the development of social and cultural facilities within the region. Interview data collected from the Games organisers (GOLDOC), local government (GCCC) and the executives of the club (BLBC) lend support to the intentions of the plan and provide indications of its success. For example, a GOLDOC representative stated: *"The focus was on creating a club type environment that suited legacy"* (GOLDOC1, personal communication, December 12, 2019). This view was supported by a GCCC representative who stated that the role of GCCC in BLBC refurbishment was to ensure: *"The Council were getting buildings that could be maintained [and] that operationally suited their needs"* (GCCC1, personal communication, December 13, 2019).

Members of the BLBC indicated that the plan for legacy creation was successful. One patron claimed the availability to the public of upgraded facilities was: *"Fantastic"* (BLBC2, personal communication, December 11, 2019). Another patron praised the work of the council, stating:

It's [the BLBC] just nicer in there, if you compare it to another bowls club on the

coast ... without a refurb. People would prefer to go to this one (BLBC3, personal communication, December 11, 2019).

A council representative suggested that, given the success of the Games in general, public support was high for hosting further mega-events:

If they [state government] are successful with the [future] Olympic Games bid, it's a massive deal. I think upgraded sporting facilities keep playing sport, more people being active so, to have healthier communities and now it's trying to help the community anyway" (GCCC1, personal communication, December 13, 2019).

The refurbished venue was not only viewed as positive for BLBC members but also for the surrounding community. Interviewees explained that the effects of the BLBC refurbishment were evident soon after the mega-event, noting that the venue was now more than a lawn bowls club: *"Well, there's a much better facility, and it's more than just a bowls club, it's a community facility"* (BLBC4, personal communication, December 11, 2019).

Another member of the BLBC said: *"It [BLBC] didn't have the nice facilities that it does now, and that's why it became more of a social place"* (BLBC3, personal communication, December 11, 2019).

Less than two years after the Games, local residents appeared to already be noticing benefits from the changes to PC, not only in the club, but also in the surrounding area. One interviewee stated: *"Lots of beautification went on, they [GCCC] have put in a lot of effort into the Gold Coast, as far as the beautification"* (BLBC4, personal communication, December 11, 2019).

Linking social capital

The participants identified a number of strategies, rules and norms, including Strategies 11–15 and Rule 2, that were associated with two types of linking SC impacts. The first was the desire to create social and cultural legacies for the community, and the second was the desire to create more jobs and have a more powerful economy. In relation to social and cultural legacy, GCCC made considerable effort to work with other stakeholders to ensure that the infrastructure being handed over to the council was affordable with respect to future maintenance. GOLDOC interacted with GCCC during the early design stages of the refurbishment to ensure that: *"Their [council's] requirements that had to be incorporated into the design"* (GOLDOC1, personal communication, December 12, 2019). A GCCC representative explained that a specific unit was established within council to engage with other institutions on infrastructure works to ensure successful delivery, and that public funding was used appropriately, stating: *"Those consultation sessions [with GOLDOC] happened, and I think for the most part it was pretty well received, we were acting in the interest of, in terms of the short-term infrastructure build*

on the venue, as advocates for the community, to the community” (GCCC2, personal communication, December 13, 2019).

A collaborative effort by different organisations towards these aspirations during design phases of the refurbishment of the BLBC allowed to develop a club-type environment that would bring a positive legacy and for the council to “inherit” buildings that were fit for purpose following the Games. Demonstrating how the different organisations were able to work together, a GCCC representative stated in support of GOLDOC’s view:

It was more the council was quite pragmatic, and, proactive in saying, we know there is going to be a need for infrastructure improvement in this area. That will give us a Games’ outcome, but also as a legacy post Games, provide a benefit to the community (GCCC2, personal communication, December 13, 2019).

Post-event, one interviewee suggested that the club had a better social atmosphere, and the venue was a more desirable destination:

I think that’s one of the reasons that maybe I didn’t go prior to the refurbishment. It wasn’t a destination at that time, it didn’t have the nice facilities that it does now, and prior to the event, and that’s why it became more of a social place (GOLDOC1, personal communication, December 12, 2019).

Another interviewee supported this view, commenting:

Broadbeach Bowls Club was newly built, so from a facility perspective all the stuff was really old [before the Games]. All sort of past their use-by date, but now top class, the locals use regularly (BLBC7, personal communication, December 11, 2019).

In relation to using linking SC to create a more powerful economy, the evidence is more found in bridging SC where the efforts to collaborate to refurbish a venue and create a mega-event, ultimately impacted the economy of the local community. One interviewee stated:

It [the Games and refurbishment] definitely had a positive impact on the area. As I said before they get obviously more clients, you know, more clients you get, the more revenue you get, and more tournaments you can get. So, it definitely has had a positive impact (BLBC6, personal communication, December 11, 2019).

Bridging social capital

The participants identified four strategies (7, 8, 9 and 10) associated with impacts on bridging SC that articulated an aspiration for the BLBC to better serve the surrounding community, and for the Games to be used as an opportunity to attract international visitors and to improve the social fabric of the region.

That these aspirations for bridging SC were realised post-event is supported by a Mega-event Games Consultant who stated that: “*There’s much better facility, and it’s more than just a bowls*

club. It's a community facility. They [the community] would go there for entertainment, and for food and for drinks" (MEGC1, personal communication, December 12, 2019). BLBC executives unanimously supported the view that the refurbishment had improved social fabric: *"For the community because it's got somewhere nice to go and have a glass of ale and then have a meal"* (BLBC4, personal communication, December 11, 2019). Another stated:

They love that it's [the venue] low key, they love that it's accessible to anybody, its community events are private but still it's community. People come and have a game, come have beer, have a good time (BLBC5, personal communication, December 11, 2019).

An interviewee spoke very positively about the club's role post-event and how its ties to the community have strengthened since the refurbishment, saying the venue was no longer just for bowlers: *"No, not now. It's a whole community"* (BLBC1, personal communication, December 11, 2019). Furthermore, a BLBC representative stated that since the Games, international visitors to the region had also increased, saying: *"It [the venue] brings a lot to the area. It brings a lot of international people here believe it or not"* (BLBC2, personal communication, December 11, 2019).

This increased attention on the local and international marketplace boosted job creation and economic development. The data provides some evidence of the impact of a collaborative effort by organisations resulting in a strengthened local economy, ultimately increasing bridging SC. A BLBC executive spoke of a unified small business community following the Games, which was something unseen before, claiming: *"I've never seen so many small businesses brought together since the Games to produce a new market that was never there before the Games"* (BLBC1, personal communication, December 11, 2019). A BLBC executive suggested that the refurbishment combined with the club's unique location had resulted in business growth for the venue, commenting:

That is incredible. What started the year before and it [more customers] just got bigger and better... We immediately started having changes in business, like the club never used to look after the tourists, it had contracted everything, between the food and the beverage. If you look at the business structure today, we have nothing contracted, so, we employ now, back to the people (BLBC1, personal communication, December 11, 2019).

The overall positive impact of the Games was best articulated by a BLBC member who said:

I think that [the Games] was really good. It brought a lot of international visitors here and we're seeing visitors coming from more destinations now than we used to before whereas before it's a lot of Asian, New Zealand ... [now] we're getting visitors from Canada (BLBC2, personal communication, December 11, 2019).

Another interviewee supported this view commenting: *"It's [BLBC] just been a benefit in terms of the facilities – you can encourage more tournaments, obviously high-class tournaments with*

those facilities and in terms of the social aspects as well” (BLBC6, personal communication, December 11, 2019).

Bonding social capital

Bonding SC impacts identified in this study include strengthening of ties among BLBC membership, which participants associated with Strategies 6 and 7. With the extent of change that took place in the physical environment and through linking and bridging SC there was a possibility that the existing club membership could become disenfranchised. The view from the local community of changes brought to the local area: *“It [BLBC] definitely had a positive impact on the area”* (BLBC6, personal communication, December 11, 2019), through the Games seem also to have stimulated BLBC members to re-engage with the refurbished venue and its facilities. A club member stated:

For the community because it’s got somewhere nice to go and have a glass of ale and then have a meal. I mean we, in the early days, we went off the meals over there, so we sort of stopped going but now because of the Commonwealth Games having more professionalism I guess in the club. Yeah, I guess the meals are very good now (BLBC4, personal communication, December 11, 2019).

Another member indicated that the BLBC was busier now than prior to refurbishment: *“Whereas now the restaurant’s thriving till like eight thirty, nine o’clock at night. There’re always people there, it [the club] really keeps going”* (BLBC2, personal communication, December 11, 2019).

Discussion

This study addressed the research question, “What are the norms and rules guiding the sustainable procurement and infrastructure of mega-events, and how do they influence the SC and PC of local communities in the host city?” This was approached by means of a case study of the refurbishment of the Broadbeach Lawn Bowls Club (BLBC) as a venue for the 2018 Commonwealth Games. The study involved analysis of interviews and documents using a novel application of both the IGT and CCF to a mega-event process. This study reinforces Chalip’s (2006) assertion that when a community is part of something bigger than itself, social connections can be built and the social fabric of host communities can be strengthened (assessed through changes in bridging and bonding SC) (also see Thomson et al., 2010). Importantly, as is discussed below, the larger context of the Games provided linking SC with mega-event governance bodies and the opportunity to improve PC of a local social hub – the BLBC – that promoted the development of bridging and bonding SC in a local community. These findings support work on the intersection of infrastructure development and SC by McIntosh et al. (2018) who concluded that improving infrastructure can deliver real social benefits, and Horne (2015) who argue that sport mega-events provide resources for enhancing the social life of the

host city. The present discussion addresses each type of capital mentioned above in turn, commencing with linking SC, then PC, and, finally, bonding and bridging SC. The discussion of each type of capital is contextualised within mega-event literature and broader literature on capitals. We conclude this section with a discussion of the key recommendations arising from this study for mega-event research, policy and practice, and highlight the study's limitations.

The IGT and CCF provided a unique opportunity to identify social institutions – strategies, norms and rules – operating within the Games' administration and governance processes. These were supported by linking SC and led to the transformation of the BLBC. See Table 3. For example: the aspiration of GOLDOC was to upgrade facilities to enhance the local community (Strategy 1). This, combined with GCCC establishing departments to look after infrastructure required for the Games (Strategy 14), generated ties that linked these organisations together with others representing local communities (BLBC Executives) and enabled renovation of the BLBC. The linking SC was also found to facilitate the improvement of local PC – the renovated BLBC. This in turn provided the physical infrastructure needed to enhance bridging SC (Strategy 8), and bonding SC (Strategies 5 and 6) within the community. The present study's findings on linking SC align with those of Kromihda (2019) for the London 2012 Olympics. Kromihda's report highlighted how the aspirations for local benefits from the London Games by high-level actors such as the IOC, and mid-level actors such as the London 2012 Sustainability Group, helped generate (linking SC) ties with local communities and deliver impact at the local level. As Evans (2005) has argued, actions by government bodies which are aligned with communities are a powerful tool in the development of mega-events.

Studies have long highlighted the important role that mega-events play in developing and enhancing local community infrastructure. For example, Prior and Blessi (2012) show how Sydney's successful bid to host the 2000 Olympic Games saw additional community infrastructure built, such as an athletics centre, recreational facilities, housing, and a regional park. Drummond and Cronje (2019) describe how the infrastructure for the 2010 FIFA World Cup led to infrastructure legacies in the local and regional community such as road upgrades, improved public transport and airport upgrades. The present study found that the development of PC for the BLBC, enabled through Strategies 3 and 14 and Norm 1, contributed to the amplification of bonding SC (Strategies 5 and 6) and bridging SC (Strategies 9 and 10) within the local community. Such development was facilitated by the support of the BLBC executive as well as local community members and patrons (LMC). These findings support Prior and Blessi's (2012) study which emphasised the important role the new (and accessible) facilities at Sydney Olympic Park played in developing bridging and bonding SC within local communities. In addition, the present study reinforces the findings of Van Wynsberghe et al. (2011) that facilities developed for the 2010 Vancouver Winter Olympic Games enhanced local

community capacity. Unlike some broader research, this case study of the BLBC found no negative impacts of the Games on bridging and bonding SC within local communities (see Prior & Blessi 2012). Furthermore, the study findings support Fedders (2018) who argues that SC is often grown through PC. Fedders (2018) cites infrastructure such as parks, churches, and museums that are used to build networks and connect people. Finally, and more broadly, the present findings align with work on the development of infrastructure and SC by McIntosh et al. (2018) and Baum (2002). They identify sporting grounds, service clubs and pubs as important sites for facilitating social exchanges and interactions within a community.

In line with Misener and Mason (2006), who suggested that sporting mega-events can create SC in the host city and communities, this study found the linking SC generated by the Games in combination with improved PC associated with the refurbishment of the BLBC provided the foundation for enhanced bridging and bonding SC within the local community. These changes would not have occurred without Games investment. The lived experiences of BLBC executives and the LMC demonstrated improved SC as an outcome of the venue refurbishment and Games. Their experiences suggested that local social fabric was enhanced. Massey (2005, p. 111) describes the concept of social fabric in his research:

Social capital is not a property that can be amassed, stored or owned, it inheres in social relations and is thus an effect of practice or how people engage in their social relations. The resulting fabric of social relations is thus an 'arrangement in relation to each other that is the result of there being a multiplicity of trajectories'.

In the current study, the combination of bridging and bonding SC amplified the social fabric within the community. This was expressed as a sense of pride in the venue, region and Games. Feeling a part of, and being able to deliver on such aspirations gave the local community a sense of gratification. Further evidence that the social fabric improved is present in reports of enhancements to local financial capital. As was explained by the BLBC venue manager, many local businesses banded together to pursue new opportunities as a result of the refurbishment and Games. Such findings support claims by Ceschin (2014) who argues that local economies flourish when people within the local community invent new ways of living by using existing assets. In addition, Jones (2001) states that improved urban sporting infrastructure creates benefits which ultimately flow on to the local economy (property developers, stadium operators, etc.) in the form of employment growth (Smith & Judd 1982).

Although the results of the present study provide unique insights into the dynamics of local communities, the study was subject to a number of limitations. Firstly, the sample size used in the qualitative analysis was small (11 people), which as DePaulo (2000) has noted may lead to the risk of missing important details. A second limitation was that the case study covered a

single venue, which makes it difficult to generalise the findings from this study and apply them to other venues and the Games as a whole. Thirdly, the study was limited by its overall timeframe, in that it only captured PC and SC legacy arising during the Games and for a period of four years after the Games. Further research is needed to identify the longer-term PC and SC impacts of the Games on the BLBC and local community. Finally, the type of community venue selected for this study may have affected the study's outcomes – there are many and different types of community venues; another type, size or community could have resulted in a different impact on a surrounding community. A broader range of communities needs to be examined to develop a more holistic understanding of how SC and PC within communities are affected by mega-events.

Despite the limitations of the study, some key recommendations can be made for research, policy and practice including:

- The IGT and CCF, which were combined and applied to mega-events in this study, provided valuable methodological tools for understanding how mega-events affect the SC and PC within host communities, and identify norms, rules and strategies operating within these events that relate to these capitals. These unique tools can be used and refined in further studies, which are needed to better understand how processes within mega-events impact local communities, and the types of impacts they have.
- The study has highlighted the merit in evaluating outcomes in relation to aspirations for SC and PC in a mega-event and provided a framework to understand the capital impacts. Such aspirations are influenced by politics, and in this case the hype created to garner public support for a mega-event. To achieve this support, extravagant claims are often made during event bidding and planning, but evaluation of such benefits post-mega-event are generally focused on the wide-scale benefits to national or state economies. The effects at community scale are often intangible and difficult to quantify, and therefore remain unreported. A mega-event, like the Commonwealth Games, is composed of multiple smaller events at a range of venues that are often geographically dispersed across a large city. As this study looked at only one venue in the Games, there is an opportunity to explore the applicability of these findings for local communities at each of the other venues, and how local experiences combined to determine the benefits of the Games to South-East Queensland overall. Comprehensive frameworks are needed to capture actual impacts arising from staging a mega-event: tangible and intangible.
- This study has stressed the important role of linking SC in transferring into reality

the ambitious aspirations of government at the initial stages of a mega-event. The finding is supported by literature from Evans (2005) who explains the concept of complementarity and the importance of day-to-day interaction between public and private actors in promoting SC formation. Interview participants emphasised that PC impacts emerging from the institutions impacted, or contributed to impacting, the local community through the three types of SC. There is an opportunity to explore more deeply the dynamics of relationships between the key governing bodies of the Games to understand why the GOLDOC model was successful. This may assist in guiding the development of mega-events in other locations.

Conclusion

The 2018 Gold Coast Commonwealth Games were deemed to be a success. This study has gathered some evidence to suggest that the Games, through the refurbishment of the BLBC, enhanced PC and SC within the local community of Broadbeach. These high-level aspirations of the Games planners were achieved. The achievement of aspirations for the Games in Broadbeach undoubtedly contributed to the Games' success. The findings in this paper suggest the combined use of the IGT and CCF offer a useful framework to assess the actual impact of a mega-event on local communities. The IGT is a robust way to assess the institutions established to guide mega-event governance while the CCF offers a method to understand how community assets (i.e. capitals) may be influenced within a mega-event setting.

This study has demonstrated that the incorporation of stakeholders' needs during early design and planning stages of a mega-event, coupled with close collaboration among governing organisations, can enhance selected dimensions of community capital with legacy outcomes for local communities through place-making in the host city. Local communities that make the most of such opportunities can benefit from improved physical infrastructure and enhanced social fabric.

Acknowledgment

We acknowledge all participants who took part in this study.

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Documents

Literature Review Table

Participant Consent Form

Participant Questionnaire

Participant Information Sheet

Literature

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5.0 Expanded Discussion and Industry Contribution

This study addressed the research questions, RQ1, “What strategies, norms, and rules guide how mega-events impact on the PC and SC of the communities in the host city both during and following the mega-event?”, and RQ2, “How do mega-events impact the PC and SC of these communities, and how are the strategies, norms, and rules associated with these impacts?” These questions were addressed through a case study of the BLBC refurbishment as a venue for the Games. The study involved analysing interviews and documents using a novel IGT and CCF application to a mega-event process. This section of the thesis-by-Compilation begins by discussing the study’s findings within the context of mega-event literature and the broader literature on capitals. This section then discusses the study’s limitations and concludes by identifying key recommendations and potential guidance arising from the study for mega-event research, policy, and practice. This discussion section is an expanded version of the discussion in the journal article in Section 4.

Findings in the context of broader literature

This study reinforces Chalip’s (2006) assertion that when a community is part of something bigger than itself, social connections can be built, and the social fabric of host communities can be strengthened (assessed through changes in bridging and bonding SC) (also see Thomson et al., 2010). Leopkey & Parent (2012a, 2012b) discuss how mega-events contribute to capital development in the host nation, city, and community. Importantly, as is discussed below, the larger context of the Games provided linking SC between mega-event governance bodies and the opportunity to improve PC of a local social hub – the BLBC – that promoted the development of bridging and bonding SC in a local community. These findings support work on the intersection of infrastructure development and SC by McIntosh et al. (2018), who concluded that improving infrastructure can deliver tangible social benefits, and Horne (2015), who argued that mega-events provide resources for enhancing the social life of the host city. Similarly, Prior & Blessi (2012) argue the design of physical infrastructure associated with developments, i.e., accessibility, is just as important as the design of event infrastructure when looking to develop SC.

The IGT and CCF provided a unique opportunity to identify social institutions operating within the Games’ administration and governance processes. These were supported by

linking SC and led to the transformation of the BLBC. See Findings section (in the Journal Article) Table 5. For example: GOLDOC aspired to upgrade facilities to enhance the local community (Strategy 1). This, combined with GCCC establishing departments to look after infrastructure required for the Games (Strategy 14), generated ties that linked these organisations together with others representing local communities (BLBC Executives) and enabled the renovation of the BLBC. Linking SC was also found to facilitate the improvement of local PC – the renovated BLBC. This, in turn, provided the physical infrastructure needed to enhance bridging SC (Strategy 8) and bonding SC (Strategies 5 and 6) within the community. The present study’s findings on linking SC align with those of Kromidha (2019) for London 2012. Kromidha’s (2019) report highlighted how the aspirations for local benefits from London 2012 by high-level actors such as the IOC, and mid-level actors such as the London 2012 Sustainability Group, helped generate (linking SC) ties with local communities and deliver impact at the local level. Prior & Blessi (2012) echo the importance governance plays in the planning process for mega-event urban development, stating, “Closer consideration needs to be given to the way in which governance mechanisms are developed for culture-led regeneration projects so that such mechanisms are not only designed to achieve often strict development deadlines associated with such regeneration projects but are also designed to ensure that local communities are given the opportunity to engage in decision making that affects their local environment” (p. 92).

Resulting from this are governments aligning with organising committees to improve planning efforts. For example, Azzali (2019) cites the Special Committee of Urban Legacy (CELU), whose role was to take the candidature file for the Rio de Janeiro 2016 Olympic Games bid and align it with the city’s existing master plan, looked into transportation, sustainability, and urban planning. Evans (2005) argues actions by government bodies aligned with communities are a powerful tool in developing mega-events. Dell’Aquila (2020) has argued that mega-events may prove a conduit by which governments can connect society.

Studies have long highlighted the important role mega-events play in developing and enhancing local community infrastructure. For example, Prior & Blessi (2012) show how Sydney’s successful bid to host the 2000 Olympic Games saw additional community infrastructure built, such as an athletics centre, recreational facilities, housing, and a regional park. Drummond & Cronje (2019) describe how the 2010 South Africa FIFA

World Cup infrastructure led to legacies in the local and regional community, such as road upgrades, improved public transport, and airport upgrades. Supporting the notion of infrastructure benefits from mega-events development, Jones (2001) argues infrastructure development resulting from mega-events provides long-term benefits to the host city. Additionally, Liang et al. (2016) state that, “Mega-events are considered a primary factor in tourism development, urban revitalisation, and urban reimagining” (p. 153).

The present study found that PC development for the BLBC, enabled through Strategies 3 and 14, and Norm 1, contributed to amplifying bridging SC (Strategies 9 and 10) and bonding SC (Strategies 5 and 6) within the local community. Such development was facilitated by the support of the BLBC executive and local community members and patrons. These findings support Prior & Blessi’s (2012) study, which emphasised the critical role of the new (and accessible) facilities at Sydney Olympic Park in developing bridging and bonding SC within local communities. In addition, the present study reinforces the findings of Van Wynsberghe et al. (2011) that facilities developed for Vancouver 2010 enhanced local community capacity. Unlike some broader research, this case study of the BLBC found no negative impacts of the Games on bridging and bonding SC within local communities (see also Prior & Blessi, 2012). Furthermore, the study’s findings support Fedders’ (2018) research, which argues that SC is often grown through a city’s PC, such as parks, churches, and museums, to build networks and connect people. Finally, and more broadly, the present findings align with work on the development of infrastructure and SC by McIntosh et al. (2018) and Baum (2002), who identify sporting grounds, service clubs, and pubs as important sites for facilitating social exchanges and interactions within a community.

In line with Misener & Mason (2006), who suggested that mega-events can create SC in the host city and communities, this study found the linking SC generated by the Games in combination with improved PC associated with the refurbishment of the BLBC provided the foundation for enhanced bridging and bonding SC within the local community. Jones (2001) states that improved urban sporting infrastructure creates benefits that ultimately flow on to the local economy (property developers, stadium operators, etc.) in the form of employment growth (Smith & Judd, 1982). In this study the changes to the BLBC would not have occurred without investment, and for the Games a AUD1.2-billion-dollar investment was provided to help run the mega-event which

included infrastructure upgrades (Sportcal, n.d.). Similarly, Wilson (2015) argues benefits from the 1984 Summer Games provided evidence that the financial success of staging the Games hinges on using the existing supporting infrastructure. The lived experiences of BLBC executives and patrons demonstrated improved SC as an outcome of the venue refurbishment and Games. Their experiences suggested that the local social fabric was enhanced. Massey (2005) describes the concept of the social fabric in his research, “Social capital is not a property that can be amassed, stored or owned; it inheres in social relations and is thus an effect of practice or how people engage in their social relations. The resulting fabric of social relations is thus an arrangement in relation to each other that is the result of there being a multiplicity of trajectories” (p. 111).

In the current study, the combination of bridging and bonding SC enhanced the social fabric within the community. This was, in part, expressed as a sense of pride in the venue, region, and Games by locals within the community. Feeling a part of and delivering on such aspirations gave the local community a sense of gratification. Further evidence that the social fabric improved is present in reports of enhancements to local financial capital. Preuss (2004) argues the benefits mega-events bring to financial capital, claiming that hosting a mega-event can improve the host city's employment opportunities, public infrastructure, and health systems. As the BLBC venue manager explained, many local businesses banded together to pursue new opportunities because of the refurbishment and the Games. Such findings support Ceschin (2014), who argues that local economies flourish when people within the local community invent new ways of living by using existing assets. Evans (2005) also claims that regeneration used for events and flagship projects has widened the rationale to include social impacts that address city residents’ “wellbeing” and greater participation in community life. While much of the literature supports claims around the physical, social, and financial benefits mega-events can bring to a local economy, Panagiotopoulou (2013) argues the contrary concerning the overspending on Athens 2004, stating, “Expenditure on the Olympics exceeded the original budget of €4.602 billion by approximately 25%” (p. 179). Furthermore, it was estimated that Athens 2004 added an extra 2–3% to the government debt (Panagiotopoulou, 2013).

This study has also found a connection between SC and place, where Graham et al. (2009) argue place dependency and SC could be linked as people meet through shared

interests and activities. This study demonstrates the importance placemaking has on a local community, which has resulted from the transformation of the BLBC and the Games. Supporting this, Chen (2016) argues Beijing 2022 will not only bring opportunities for new development in China but will also open up Zhangjiakou to the outside world and promote tourism to the location. This thesis study highlighted the organising bodies' desire to create new opportunities for its communities with their initial aspirations to upgrade facilities like the BLBC, leaving behind legacies, long-lasting benefits to the local community – enhanced PC (Strategies 1 and 2), and increasing the connection between SC and place. Such aspirations engendered ties within government organisations to work together to upgrade and build infrastructure for the Games – the BLBC – and benefit the community before, during, and post-Games – linking SC (Strategies 14 and 15). The enhancement of PC and linking SC to upgrade the BLBC increased the number of international visitors to the region and the BLBC, enhancing bridging SC (Strategy 7) and bonding SC (Strategies 5 and 6). The commitment to strengthening local communities further supports existing literature on placemaking from Baum (2002), who identified that to help facilitate exchanges and interactions within a community, service clubs, and sporting grounds are facilities that can help. Latuf de Oliveira Sanchez & Essex (2018, p. 280) argue that mega-events must strengthen the city's status by developing services facilities. Similarly, Lim & Patterson (2008) showed the importance of international exposure to an economy, where the Korean economy was improved by over \$US68 million from hosting the Korean Golf Championship.

This thesis study has shown how SC within the local host community could be amplified through mega-events, reinforcing earlier research by Van Wynsberghe et al. (2011), which showed that mega-events positively impacted the SC of the host city at Vancouver 2010. In particular, this thesis case study provided a unique insight into how linking SC between government bodies, entities, and authorities supported aspirations by the government to create a positive legacy in the local community through the refurbishment of the BLBC. This thesis case study shows that effective linking SC ensured three things:

- The institutions developed for the Games incorporated community needs,
- The high-level aspirations for SC outcomes were supported in practice, without the need for formal rules (although there were many strategic visions), and
- The aspirations for SC were delivered/achieved based on the lived experience of BLBC members.

Limitations

Although the present study's results provide unique insights into the dynamics of local communities, the study was subject to several limitations. Firstly, the sample size used in the qualitative analysis was small (11 people), which as DePaulo (2000) has noted, may lead to the risk of missing important details. Data from ABS (n.d.) suggests that in 2016 over 5,000 people were residing within the community local to the BLBC, Broadbeach, showing just how small the community is. As such, there may be opportunities to further explore the social dimensions local to the BLBC. A second limitation was that the case study covered a single venue, making it difficult to generalise the findings from this study and apply them to other venues and the Games as a whole. Thirdly, the study was limited by its overall timeframe, in that it captured PC and SC legacies arising only during the Games and for approximately four years after the Games. Further research is needed to identify the Games' longer-term PC and SC impacts on the BLBC and the local community. It is important to recognise that the measures of bonding and bridging SC used in this study are proxies necessarily defined within the context of a sporting facility and the success measures developed for other purposes by Games organisers and are therefore imperfect. However, in defining bonding SC as 'showing that people are thriving' (see Strategies 5 & 6, Table 3 within the Journal article) we draw on Hooghe & Stolle (2003) who conclude that institutions (in our study, the sporting venue) play an essential role as sources of SC and thriving civic communities. They illustrate connections between places where, "Generalized trust is thriving, social interactions are relatively rich, community problems can be solved, relationships between citizens and politicians seem relatively healthy, and the economy is blossoming" (p. 232). For bridging SC, defined here as the collection of ties that form an individual's wide social network and weak trust (Burt, 2001), bridging ties can span gaps in social networks caused by differences in socio-economic characteristics such as class, ethnicity, or age (Portes, 1998). As Lancee (2010) argues, in empirical studies gaps in networks are difficult to observe directly and need to be measured with a proxy. Enhanced international visitation to the BLBC during and following the Games (see Strategy 7, Table 3 in the journal article) provided a proxy measure of "Opportunities to broker the flow of information between people and create an advantage for the individual whose relationships span network gaps" (Lancee, 2010, p. 207), that is, bridging SC.

A further limitation is the considerable amount of documentation gathered to produce its findings: 246 documents, including 17 policy documents, and 11 interviews. An analysis of multiple and larger cases could require a vast amount of documentary evidence. The type of community venue selected for this study may have affected the study's outcomes – there are many different types of community venues; types, sizes, and community capitals could have had a different impact on a surrounding community. This study has provided a research methodology for future studies to build on and explore different venue types, multiple venues, venues in different community groups, and geographical locations.

Similarly, by combining the IGT with the Community Capitals Framework this study has piloted a unique research methodology that can be used to explore how institutions – strategies, norms and rules – associated with mega-events guide physical and social capital impacts. Future studies could use this methodology to gain a wider understanding of the relationship between institutions and capital impacts of other mega-event contexts, and also has the potential to be applied to other governance activities beyond mega-events. The methodology might be enhanced by using a consensus process (e.g., Delphi process) with study participants following identification of the institutions to develop an understanding of the relative importance and values of the roles played by the various 'performers', and the varying appropriateness and effectiveness of the different institutions (strategies, norms and rules) that they put in place. Furthermore, whilst this study only retrospectively explored how the institutions associated with the Games impacted community capital, it is possible that later studies could adapt the methodology so that it could inform understanding of how institutions might be developed or altered to create more positive and sustainable changes in affected communities e.g., once institutions are identified, their impact could be subject to ongoing evaluation and adjustment. Finally, it is important to note the near absence of negative impacts on PC and SC within this study may in part be due to bias in the data sources, both official documents and interviews, which may have an interest in presenting a positive image of the Games and its impact on the community. As such, the data collected in this study may not be representative of the thoughts and views of the surrounding community in Broadbeach and South East Queensland.

Recommendations and guidance implementation

Despite the study's previously noted limitations, some key recommendations can be made for research, policy, and practice. This section outlines these recommendations and suggests pathways for the effective implementation of these recommendations.

Recommendation 1: The IGT and CCF, which were combined and applied to mega-events in this study, provided valuable methodological tools for understanding how mega-events affect the PC and SC within host communities and identifying institutions operating within these events that relate to these capitals. These unique tools can be used and refined in further studies, which are needed to better understand how mega-events processes impact local communities and the types of impacts.

Implementing **recommendation 1** requires comparative studies across different venue sizes and types at various mega-events to develop a more comprehensive understanding of both impacts on host communities and institutions that guide these impacts. Whilst at the outset, this research could be more exploratory, over time, there will be the need for more translational research which explores how the findings on institutions and capitals can be transferred into mega-event planning and development practices to improve and monitor the legacies of these mega-events within host communities. Whilst this study relied on qualitative research, both the IGT and CCF can be used to facilitate quantitative research (Crawford & Ostrom, 1995; Woolcock, 2001). The effective translation of this research into practice will depend on information about mega-event plans, budgets, progress, and results being made accessible to agencies, research organisations, and interested stakeholders. The types of organisations that are well placed to fund this research include universities, private consultancies, local and state authorities, given the diverse benefits that they are likely to obtain, including: effective governance structures, policies, guidelines, and strategic documentation.

Recommendation 2: This study has highlighted the merit in evaluating outcomes in relation to aspirations for PC and SC in a mega-event and provided a framework to understand the capital impacts. Such aspirations are influenced by politics, and in this case, the hype created to garner public support for a mega-event. To achieve this support, extravagant claims are often made during event bidding and planning, but evaluation of such benefits post-mega-event generally focuses on the wide-scale benefits to national or state economies. The effects at the community scale are often intangible and difficult

to quantify and therefore remain unreported. A mega-event, like the Gold Coast Games, is composed of multiple smaller events at a range of venues that are often geographically dispersed across a large city. As this study looked at only one venue in the Games, there is an opportunity to explore the applicability of these findings for local communities at each of the other venues, and how local experiences combined to determine the benefits of the Games to South-East Queensland overall. Comprehensive frameworks are needed to capture actual impacts arising from staging a mega-event: tangible and intangible.

The implementation of **recommendation 2**, that is a comprehensive framework, would be an outcome of the translational research mentioned above. The comprehensive framework has the potential to extend across the scope of community capitals and map the diverse institutions operating within mega-events. Researchers, industry, and government stakeholders could use the various institutions identified in this study as a nascent starting point for this framework, although as outlined above these findings are limited in their generalisability. As a starting point, see Table 5 (Appendix E) that identifies which institutions mentioned within this study may be used by the various stakeholders within a mega-event. A key benefit of developing a more comprehensive framework includes the ability to measure the impacts. Key factors that are needed when developing this comprehensive framework include:

- Ensuring and assigning ownership of the overall framework, for example, to organisations such as local mega-event organising committees, and state and local authorities that have the greatest potential to lead its implementation.
- Establishing appropriate means of governance among parties implementing and evaluating the framework.
- Assigning responsibility for executing elements of the framework – for example, to state and local authorities, local organising committees, and mega-event owners.
- Ensuring that stakeholders are involved in and have substantive input into formulating and reviewing the framework as developed.
- Coordinating periodic review and revisions to the framework.
- Ensuring that sufficient resources are devoted to implementing the overall framework or prioritising certain parts of the framework.

The framework should effectively consider and integrate the needs of and appropriate roles for the full array of stakeholders involved in its implementation. These stakeholders include state and local authorities, local organising committees, the mega-event organiser, and the broader community, including academic researchers and non-governmental organisations.

Recommendation 3: This study has stressed the important role of linking SC in transferring the ambitious aspirations of government into reality at the initial stages of a mega-event. The finding is supported by literature from Evans (2005), who explains the concept of complementarity and the importance of day-to-day interaction between public and private actors in promoting SC formation. Interview participants emphasised that PC impacts emerging from the institutions affected, or contributed to affecting, the local community through the three types of SC. There is an opportunity to explore more deeply the dynamics of relationships between the key governing bodies of the Games to understand why the GOLDOC model was successful. This may assist in guiding the development of mega-events in other locations.

The implementation of **recommendation 3** could be achieved in many ways. Some examples include:

- Researchers, industry, and government organisations, professionals undertaking focus group studies, which bring together key stakeholders from the GOLDOC model could discuss, in more detail, the key implementation strategies and processes that were used for the Games.
- Mega-event committees could focus on creating in-depth knowledge around the strategies and processes undertaken by the organising committees and government authorities, which form part of the knowledge transfer to the succeeding mega-events.
- Mega-event committees and hosting governments could update their reporting structure to incorporate governance, reports on the governance structure, and how that evolves throughout the life cycle of the mega-event. Part of this would highlight future initiatives and emphasise developing governance within the mega-event.

- International standards developed to guide mega-events could emphasise processes that foster linking SC among event’s organisers and stakeholders as a foundational element of mega-event legacy. Guidance on establishing and operating such processes and on ways to monitor, evaluate, report, and learn from them would need to distil evidence of success (and failure) from past events and engage the research community to advise on best practices from the contemporary social research literature.

As with Recommendation 2, these actions would require the dedication of financial and human resources adequate for the task.

Recommendation 4: This study has developed a more granular understanding of the impact of mega-events on the PC and SC of a host city. Findings from this study have revealed key relationships and government entities needed to co-design and develop the necessary infrastructure required to stage the mega-event and benefit local communities. Although limited in scope, the findings present opportunities for local councils and other organisations to build on this research to maximise the benefits of mega-events.

The implementation of **recommendation 4** could be achieved in several ways. Some examples include:

- Local councils and organisations could start a mega-event legacy communication network where learnings, ideas, and information can be shared amongst councils. This would allow councils hosting new mega-events to reach out for help and guidance.
- Within a network or not, local councils and organisations could develop a comprehensive framework that focuses on how events interact with communities at a range of scales. Part of this framework could include the requirement for specific reporting to be provided, including recommendations on how infrastructure is upgraded within a community. The development of a suite of appropriate and scalable social and economic indicators could provide an objective assessment of these interactions at the community–infrastructure interface.
- Local councils and organisations could align with universities to encourage more

studies on how mega-events impact local communities, understand more about the challenges and benefits, and create a framework for future mega-events as outlined in **recommendation 2** above.

6.0 Conclusion

This study of the Games has provided both empirical and methodological insights that are of value to our awareness of how mega-events and their governance impact host communities, and methodologies that can be used to study this. The present study's empirical insights suggest that the Games, by way of the refurbishment of the BLBC, enhanced PC and SC within the community of Broadbeach. Such findings are supported by comments from key public figures like Mayor Tom Tate (Inside the Games), who declared the Games a success, stating, "The Games has proven itself to be the catalyst for the city to successfully begin its long-term sport and events strategy, validating the Council's approach to delivering infrastructure for the event" (n.d.).

The findings in this paper suggest that the combined use of the IGT and CCF offers a valuable framework to assess the actual impact of a mega-event on local communities. In particular, the study suggests that incorporating stakeholders' needs during the early design and planning stages of a mega-event, coupled with close collaboration among governing organisations, can enhance selected dimensions of community capital with legacy outcomes for local communities through place-making in the host city. The study has shown that local communities who make the most of such opportunities can benefit from improved physical infrastructure and enhanced social fabric.

From a methodological perspective, the use of the IGT provided a systematic way to assess the institutions established to guide mega-event governance. At the same time, the CCF offers a method to understand how community assets (i.e., capitals) may be influenced within a mega-event setting. Whilst this study has limited capacity to be generalised to other mega-events, it provides conceptual frameworks and methodological tools that could be developed and applied to other mega-event case studies. This action would allow the development of a more comprehensive understanding of how mega-events and the significant investments put into mega-events are governed and implemented in a way that helps promote positive social, physical, environmental, and economic benefits to the host countries, cities, and communities.

Subsequently, this paper has provided guidance recommendations to help mega-event organisers implement practices that can help achieve event aspirations, which would ultimately bring positive impact to the PC and SC of the host city. The guidance presented in this study contributes to existing work carried out in academia and can form a foundation to understand how high-level aspirations are achieved within mega-events. In seeking to answer the research questions posed at the beginning of this study, the paper has presented a standardised way to measure how this is achieved and through what instruments (IGT & CCF). The significance of the findings and outputs contribute to the industry, both academically and practically, where forthcoming mega-events at the early stages of the mega-event cycle can be better informed about achieving initial aspirations. Expanding on the presented guidance framework to gain a deeper understanding of how to enable similar outcomes across different venue sizes, in different geographical locations, and exploring the impact of other CCFs within the mega-event environment, could provide benefits to key mega-event planning stakeholders throughout the development process, giving them greater chances to deliver aspirations.

In closing, this study gains importance as a consequence of recent decisions on the award of future mega events. An example of this is shown by recent comments from Paralympics Australia boss Lynne Anderson signifying the value the social aspect can bring to Brisbane 2032, stating, “The real key for us as custodians of the Paralympic movement in Australia is about the social impact that the 2032 Paralympic Games will bring” (Brisbane Times, 2021). As Paralympics Australia President, Jock O’Callaghan further explains, “Long-term benefits will be realised across Australia, including in employment, skills, education, health and wellbeing outcomes, higher sporting participation rates, and in culture and community connection” (Brisbane Times, 2021).

Appendices

Appendix A

Draft Semi-Structured Interview Protocol

Sporting mega-events and their influence on the social and physical capital of communities in the host city: The Gold Coast 2018 Commonwealth Games experience

1. In the beginning the interviewer will provide the interviewee with the project information sheet. This sheet provides an overview of research project, the intended uses for the interview data, and the measures taken to protect confidentiality and anonymity. The interviewee will also be provided with a consent form. The 1–1.5 hour interview will only commence once the interviewee has read the project information sheet, the interviewer has addressed any questions raised by the interviewee and provided consent.
2. Initial questions involve background questions, such as the interviewee's job title and responsibilities, and time with the organisation. These questions are designed to provide an understanding of the interviewee's role, develop rapport and establish a relaxed, comfortable atmosphere.
3. The interviewee will then be asked a list of open-ended questions/points that seek to illicit information that can be used to address the research questions. These questions will be open-ended. These questions will be fully developed following the documentary analysis stage. The following are examples only:
 - A. What were the particular outcomes, goals and actions that [insert role of interviewee. e.g., the Games general manager] must, may or must not perform as part of the sustainable procurement and infrastructure processes for the Gold Coast 2018 Commonwealth Games?
 - B. What were the particular outcomes, goals and actions that [name of other roles besides that of the interviewee e.g., a procurement officer] must, may or must not perform as part of the sustainable procurement and infrastructure processes for the Gold Coast 2018 Commonwealth Games?
 - C. What sanctions could be/were utilised to ensure these outcomes, goals and actions were achieved or completed? Who was responsible for instigating these sanctions?
 - D. Did the proxy for bonding social capital, e.g., membership of the Broadbeach Lawn Bowls Venue change as a result of the Gold Coast 2018 Commonwealth Games?
 - E. Did the proxy for bridging social capital, e.g., use of the Broadbeach Lawn Bowls Venue by non-members change as a result of the Gold Coast 2018 Commonwealth Games?
 - F. Did the proxy for built capital, e.g., level of satisfaction of the space in the Broadbeach Lawn Bowls Venue, or facilities in the Broadbeach Lawn Bowls Venue change as a result of the Gold Coast 2018 Commonwealth Games?

4. Where appropriate the interviewer will follow up on an interviewee's comments. For example, "What did you mean when you said...", "Can you give me an example of that?"
5. Before concluding the interview, the interviewee will be given the opportunity to elaborate on anything that they haven't yet talked about. For example, "Is there anything else you'd like to tell me?"
6. To finish, thank the interviewee and check to make sure that the entire interview was captured.

Appendix B

Draft Interview Consent Form

Sporting mega-events and their influence on the social and physical capital of communities in the host city: The Gold Coast 2018 Commonwealth Games experience

I _____ [*participant's name*] agree to participate in the research project, Norms and rules guiding sustainable infrastructure and procurement for sporting mega-events, and their influence on the social and physical capital of the host city, [UTS HREC Approval Number], being conducted by Michael Falla, michael.j.falla@students.uts.edu.au, _____ . I understand that funding for this research has been provided by University of Technology Sydney.

I have read the Participant Information Sheet, or someone has read it to me in a language that I understand.

I understand the purposes, procedures and risks of the research as described in the Participant Information Sheet.

I have had an opportunity to ask questions and I am satisfied with the answers I have received.

I freely agree to participate in this research project as described and understand that I am free to withdraw at any time without affecting my relationship with the researchers or the University of Technology Sydney.

I understand that I will be given a signed copy of this document to keep.

I agree to be:

- Audio recorded
- Video recorded
- Photographed

I agree that the research data gathered from this project may be published in a form that:

- Identifies me
- Does not identify me in any way
- May be used for future research purposes

I am aware that I can contact Michael Falla if I have any concerns about the research.

Name and Signature [participant]

____/____/____
Date

____/____/____

Name and Signature [researcher or delegate]

Date

Name and Signature [witness]

____/____/____
Date

Draft Participation Information Sheet

Sporting mega-events and their influence on the social and physical capital of communities in the host city: The Gold Coast 2018 Commonwealth Games experience

WHO IS DOING THE RESEARCH?

My name is Michael Falla, and I am an academic/student at UTS.

WHAT IS THIS RESEARCH ABOUT?

The aim of this research project is to explore the norms/rules guiding sustainable procurement and infrastructure of mega-events through a case study of the Gold Coast Commonwealth Games. Furthermore, it will explore how these norms and rules influence the social and physical capital of the host city, in particular the social and physical capital of local communities.

WHY HAVE I BEEN ASKED?

You have been invited to participate in this study because you have been involved in the Gold Coast 2018 Commonwealth Games.

IF I SAY YES, WHAT WILL IT INVOLVE?

If you decide to participate, I will:

- ask you to answer a questionnaire that will take approximately 15–30 minutes to complete
- participate in a 1-hour semi-structured interview that will be audio/ video recorded and transcribed

ARE THERE ANY RISKS/INCONVENIENCE?

Yes, one risk/inconvenience is you might be asked some sensitive questions with relation to the Gold Coast 2018 Commonwealth Games.

DO I HAVE TO SAY YES?

Participation in this study is voluntary. It is completely up to you whether or not you decide to take part.

WHAT WILL HAPPEN IF I SAY NO?

If you wish to withdraw from the study once it has started, you can do so at any time without having to give a reason, by contacting Michael Falla.

If you withdraw from the study, any data collected will be erased and not used in the study, including any audio/video recorded data.

CONFIDENTIALITY

By signing the consent form you consent to the research team collecting and using personal information about you for the research project. All this information will be treated confidentially, where I will keep and store the data in a password-protected document on my computer. Your information will only be used for the purpose of this

research project, and it will only be disclosed with your permission, except as required by law.

We would like to store your information for future use in research projects that are an extension of this research project. In all instances your information will be treated confidentially.

We plan to discuss/publish the results in my research Master's project at UTS. In any publication, information will be provided in such a way that you cannot be identified.

WHAT IF I HAVE CONCERNS OR A COMPLAINT?

If you have concerns about the research that you think I or my supervisor can help you with, please feel free to contact me on [REDACTED] or [REDACTED]@gmail.com

You will be given a copy of this form to keep.

NOTE:

This study has been approved by the University of Technology Sydney Human Research Ethics Committee [UTS HREC]. If you have any concerns or complaints about any aspect of the conduct of this research, please contact the Ethics Secretariat on ph.: +61 2 9514 2478 or email: Research.Ethics@uts.edu.au and quote the UTS HREC reference number.

Appendix D

Table 4: Journal Literature Review

No.	Title	Author	Year	Themes
1	A framework for identifying the legacies of a mega sport event	Preuss	2015	Legacy, mega-event
2	Sustainability and the Olympics: The Case of Athens 2004	Tziralis; Tolis; Tatsiopoulou; Aravossis	2004	Olympic Games, Global Impact, Sustainable development
3	Sustainability; key to the future of our soccer stadia	Quest	2010	Sustainability, soccer stadia
4	Athens: The transformation of a Mediterranean metropolis: problems and perspectives after Olympics 2004	Elias	2006	Legacy, infrastructure,
5	Sport infrastructure, legacy and the paradox of the 1984 Olympic games	Wilson	2014	Legacy, Olympic games, economic impact, infrastructure
6	Sustainability Policy of the FIFA World Cup Russia 2018	Rocha; Wyse	2017	FIFA, World Cup, sustainability, policy
7	UEFA Social Responsibility & Sustainability	UEFA	2015	Social, economic and environmental sustainability
8	Sustainability Report 2016 FIFA World Cup Brazil	FIFA	2014	Social, economic and environmental sustainability
9	Meeting sustainability challenges of mega-event flagships	Deng; Poon	2013	Mega-event flagships, sustainable development
10	Development of the sustainability strategy	FIFA	2013	Framework; strategy, sustainability, World Cup
11	Strengthening in the social and sustainable development: developing a conceptual framework for social sustainability in a rapid urban growth region in Australia.	Cuthill	2008	Social sustainability, sustainable urban growth, engaged governance
12	Social capital, local communities and culture-led urban regeneration processes: The Sydney Olympic Park Experience	Prior; Blessi	2010	Social capital, urban regeneration,
13	Environmental considerations for athletic performance at the 2008 Beijing Olympic Games	Borresen	2008	Pollution, environment, Olympic Games
14	City of Gold Coast community leaseholder sustainability framework	Muenchow	2014	Sustainability, Framework, Community
15	Toward a mega-event legacy framework	Kassens-Noor; Wilson; Muller; Maharaj; Huntoon	2015	Framework, legacy, events
16	Book Review – Olympic housing a critical review of London 2012's legacy	Engineer	2017	Legacy, housing, Olympics
17	Using sports infrastructure to deliver economic and social change: Lessons for London beyond 2012	Davies	2011	Legacy, Olympics, infrastructure
18	The (neo) institutionalisation of legacy and its sustainable governance within the Olympic movement	Leopkey; Parent	2012	Legacy, sustainability, Olympic Games
19	Considering the social impact of sustainable stadium design	Kellison; Trendafilova; McCullough	2015	Stadium design, social sustainability
20	Sustainable design of sports stadiums	Schmedes	2015	Sustainability, design stadiums
21	A level playing field? Sports stadium infrastructure and urban development in the United Kingdom	Jones	2001	Sustainability, stadiums, infrastructure
22	Commission 1 – The impact of major events on the development of large cities	Metropolis	2002	Infrastructure, mega-events, infrastructure
23	Critical success factors of the BOOT procurement system: reflections from the Stadium Australia case study	Jefferies; Gamesome; Rowlinson;	2002	Infrastructure, stadium, procurement
24	Assessing the impact of mega-events: A linkage model	Hiller	1998	Mega-event, event impact, framework
25	Measure for measure: evaluating the evidence of culture's contribution to regeneration	Evans	2005	Social, cultural, regeneration
26	Urban development through hosting international events: a history of the Olympic Games	Chalkley; Essex	2010	Olympic Games, urban regeneration, history

27	Culture-led urban regeneration and community mobilisation: The case of the Taipei Bao-a temple area, Taiwan	Lin; Hsing	2008	Culture, regeneration, development
28	Culture-led local development: When does it “work”, and why? I: In search of a reference framework	Sacco; Ferilli; Blessi	2012	Culture, development, review
29	Beyond Bilbao: Rethinking flagship cultural development and planning in three California cities	Grodach	2009	Culture, redevelopment, flagship
30	Cultural policy and urban regeneration in Western European cities: Lessons from experience, prospects for the future	Garcia	2004	Culture, urban regeneration, redevelopment
31	One hundred years of cultural programming within the Olympic Games (1912–2012): origins, evolution and projects	Garcia	2008	Culture, Olympic Games, social impact
32	Sport and economic regeneration in cities	Gratton; Shibil; Colemna	2005	Culture, economics, regeneration
33	Urban regeneration, arts programming and major events	Garcia	2004	Regeneration, arts, major events
34	Uncertain legacy: Sydney’s Olympic stadiums	Searle	2002	Stadiums, PPP, Olympics
35	Sport, culture and the modern state emerging themes in stimulating urban regeneration in the UK	Coaffee	2008	Sport, culture, urban regeneration
36	The impact of mega-sport events on tourist arrivals	Fourie; Santana-Gallego	2011	Mega-events, tourism, displacement
37	Sustainable legacies for the 2012 Olympic Games	Shipway	2007	Culture, education, legacy
38	Sexual diversity and the Sochi 2014 Olympics: no more rainbows	Johnson	2016	Olympics, sexual diversity, human rights
39	Major sporting events – planning for legacy	Taylor; Edmondson	2007	Planning, legacy, urban
40	Olympic games legacy: From general benefits to sustainable long-term legacy	Leopkey; Parent	2012	Legacy, Olympics, sport events
41	National mega sporting events and continued community sustainability	Wear; Clopton; Bass		Sustainability, sporting events, community
42	Community capacity and the 2010 Winter Olympic Games	VanWynsberghe; Kwan; Van Luijk	2011	Community, Olympic Games, sports
43	Along came a mega-event: prospects of competitiveness for a 2010 FIFA World Cup™ host city	Kruger; Heath	2012	Mega-event, destination competitiveness, event strategy
44	Applying the facility location problem model for selection of more climate-benign mega sporting event hosts: A case of the FIFA World Cups	Pereria; Camara; Ribeiro; Filimonau	2017	Carbon footprint, mega-event, World Cup
45	Assessing the infrastructure impact of mega-events in emerging economies	Matheson	2012	Mega-events, developing countries
46	Leveraging mega-events beyond the host nation: a case study of the 2010 FIFA World Cup African Legacy Programme in Cameroon and Nigeria	Tichaawa; Bob	2015	Mega-events, leveraging, World Cup
47	Mega-events and the developing world: A look at the legacy of the 2010 Soccer World Cup	Harris	2011	World Cup, mega-event, developing countries.
48	Mega-Event Sporting Opportunities: The Case of Developed vs. Developing Countries	Griffin	2015	Mega-events, developing countries, developed countries
49	South Africa under FIFA's reign: The World Cup's contribution to urban development	Haferburg	2011	Mega-event, World Cup, governance
50	The contribution of a mega-event to the sustainable development of South African tourism	Lill; Thomas	2012	Mega-event, tourism, developing countries
51	Olympic cities: city agendas, planning and the world's games, 1896-2016	Burton	2012	Olympics, mega-events, planning
52	Mega-events and urban policy	Roche	1993	Mega-events, urban policy, planning
53	Rural livelihood diversity in developing countries: Evidence and policy implications	Ellis	1999	Policy, developing countries, rural
54	An adaptive capacity guide book: Assessing, building and evaluating the capacity of communities to adapt in a changing climate	Jacobs; Nelson; Kuruppu; Leith	2015	Adaptive capacity, climate change, policy
55	Mega-events, their sustainability and potential impact on spatial development: The European Capital of Culture	Nemeth	2010	Mega-events, sustainability, culture
56	“Greening” the 2010 FIFA World Cup: Environmental Sustainability and the mega-event in South Africa	Death	2011	World Cup, sustainability, mega-event
57	“Festivalisation” of Urban Governance in South African Cities: Framing the Urban Social Sustainability of Mega-Event Driven Development from Below	Fleicher; Fuhrmann; Haferburg; Kruger	2013	Mega-event, World Cup, urban governance
58	Measuring the Socio-Economic Legacies of Mega-events: Concepts, Propositions and Indicators	McCabe; Li	2012	Mega-events, legacy, social
59	Concept Mega sporting event legacies: A Multifaceted concept	Chappelet	2012	Mega-event, Olympic Games, legacy

60	Qatar 2022: Facing the FIFA World Cup climatic and legacy challenges	Sofotasiou; Hughes; Calautit	2014	Mega-event, legacy, World Cup
61	An Olympic legacy for all? The non-infrastructure outcomes of the Olympic Games for socially excluded groups (Atlanta 1996; Beijing 2008)	Minnaret	2012	Mega-events, Olympic Games, legacy
62	"Bring It under the Legacy Umbrella": Olympic Host Cities and the Changing Fortunes of the Sustainability Agenda	Gold; Gold	2013	Mega-event, legacy, Olympic Games
63	Olympic Games Legacy: From General Benefits to Sustainable Long-Term Legacy	Leopkey; Parent	2011	Mega-event, legacy, Olympic Games
64	Mega-event sporting opportunities: The case of developed vs. developing countries	Griffin, C	2015	Mega-events, developing and developed
65	Along came a mega-event: prospects of competitiveness for a 2010 FIFA World Cup host city	Kruger; Heath	2015	Mega-events, developed, developing
66	The impact of hosting a major sport event on the South African economy	Heerden; Bohmann	2005	Mega-event, World Cup, developing economy
67	Mega-events and the developing world: A look at the legacy of the 2010 soccer World Cup	Harris	2011	Mega-events, World Cup, legacy, developing
68	The Conceptualisation and Measurement of Mega Sport Event Legacies	Preuss	2010	Mega-event, measurement, legacies
69	Transporting 2014 FIFA World Cup to sustainability: exploring residents' and tourists' attitudes and behaviors	Mednes; Rothfuss	2013	Mega-events, World Cup, sustainability, attitudes
70	Tourist considerations in hosting a mega sport event: 2010 FIFA World Cup in South Africa	Bresler	2011	Mega-event, World Cup, tourism
71	The total economic value of sporting events – theory and practice	Barget; Gouget	2007	Sporting events, economics, theory
72	Mega-events as drivers of community participation in developing countries: Case of Shanghai World Expo	Lamberti; Noci; Guo; Zhu	2010	Mega-events, developing countries, community participation
73	Mega-events as a source of risks for developing countries: comparative study from the BRICS countries and Ukraine	Skrypnyk; Bukin	2016	Mega-events, developing countries, study
74	Towards redefining the concept of legacy in relation to sport mega-events: Insights from the 2010 FIFA World Cup	Cornelissen; Bob; Swart	2011	Mega-events, legacy, World Cups
75	The Olympic Games Impact (OGI) study for the 2010 Winter Olympic Games: strategies for evaluating sport mega-events' contribution to sustainability	Van Wynsberghe	2014	Mega-events, Olympic Games, definitions
76	Sport mega-event impacts, leveraging, and legacies	Think tank 2	2011	Mega-events, Olympic Games, legacies
77	Hosting mega-events: A guide to the evaluation of development effects in integrated metropolitan regions	Mills; Rosentraub	2013	Mega-events, sports, definitions
78	The four "knowns" of sports mega-events	Horne	2007	Mega-events, sport, legacies
79	Sport mega-events and their legacies: The 2010 FIFA World Cup	Cornelissen; Bub; Swart	2011	Mega-events, FIFA World Cup, legacy
80	Business legacy planning for mega-events: The case of the 2022 World Cup in Qatar	Kaplanidou; Al Emadi; Sagas; Diop; Fritz	2016	Legacy, FIFA World Cup, mega-events
81	Mega-event securitisation in a third world setting: Global processes and ramifications during the 2010 FIFA World Cup	Cornelissen	2011	Developing, mega-event, FIFA World Cup
82	Reproducing the city of the spectacle: mega-events, local debts, and infrastructure-led urbanisation in China	Wu; Li X; Lin G	2016	Developing, Mega-events, urbanisation
83	The global game of football: The 2002 World Cup and regional development in Japan	Horne	2004	Football, developing, World Cup.
84	Social leveraging of the 2010 Winter Olympic Games: "sustainability" in a City of Vancouver initiative	Van Wynsberghe; Derom	2012	Olympic Games, social leveraging, sustainability
85	Assessing the sociology of sport: On sports mega-events and capitalist modernity	Horne	2015	Sociology, mega-events, modernity
86	Mediating mega-events and manufacturing multiculturalism: The cultural politics of the world game in Australia	Baker; Rowe	2014	Mega-events, multiculturalism, culture
87	Cultural mega-events and the enhancement of a city's image: differences between engaged participants and attendees	Santos; Vaveriro; Remoaldo; Riberiro	2016	Culture, event, urban development
88	Mega-event and urban sustainable development	Liang; Want; Tsaur; Yen; Tu	2016	Mega-events, urban development, sustainable development
89	Planning culture and time in a mega-event: Thessaloniki as the European city of culture in 1997	Deffner; Labrianidis	2007	Culture, mega-event, planning

90	Bidding for international sport events: how government supports and undermines national governing bodies of sports	Walters	2011	Mega-events, bidding, politics
91	Between discourse and reality: The un-sustainability of mega-event planning	Gaffney	2013	Mega-events, sustainable development, urban planning
92	Applying the facility location problem model for selection of more climate-benign mega sporting event hosts: A case of the FIFA World Cup	Pererira; Camara	2017	Mega-events, FIFA WC, location
93	Infrastructure investments and mega-sports events: comparing the experience of developing and industrialised countries	Baumann; Matheson	2013	Mega-events, developing countries
94	Mega-sporting events in developing nations: Playing the way to prosperity	Matheson; Baade	2004-12	Mega-events, developing nations, economics
95	Event-led development: Sporting mega-events as urban policy	Lauremann	2014	Mega-events, policy development
96	What makes an event a mega-event? Definitions and sizes	Muller	2015	Mega-events, definitions, Olympics
97	Positioning mega-event flagships – from performing Arts Centre of Expo 2010 to Mercedes Benz Arena	Deng; Poon	2012	Mega-events, programming, urban renewal
98	Assessing the sociology of sport: On sports mega-events and capitalist modernity	Horne	2015	Mega-events, sociology, capitalism
99	The legacies of the Athens 2004 Olympic Games: A bitter-sweet burden	Ranagiopoulou	2013	Olympic Games, mega-events, legacies
100	Predicting the economic impact of the 2010 FIFA World Cup of South Africa	Bohlmann; Heerden	2008	Mega-events, World Cup, economics
101	Part 1 Sports mega-events, modernity and capitalist economies	Roche	2006	Mega-event, Olympics, globalisation
102	Sustainable sport stadiums: Integrating development into the city	Siegfried; Truong	2009	Sustainability, sports stadiums, development
103	Sustainable stadiums and arenas	Think Green	-	Sustainable stadiums, sustainability, arenas
104	Sustainable mega-events: Beyond the myth of balanced approaches to mega-event sustainability	Hall	2012	Mega-events, sustainability, sustainable development
105	Green sports facilities: Why adopting new green-building policies will improve the environment and the community	Porteshawver	2009	Green building, policy, environment
106	Identifying risk factors of boot procurement, A case study of Stadium Australia	Jefferies; Chen	2012	Infrastructure, Olympic Games, risk
107	The 2012 London Olympics: commercial partners, environmental sustainability, corporate social responsibility and outlining the implications	Kim	2013	Olympic Games, CSR, environmental sustainability
108	A longitudinal perspective on sustainability and innovation governmentality: The case of the Olympic Games as a Mega-event	Kromidha; Spence; Anastasiadis; Dore	2017	Mega-event, sustainability, government
109	Green Olympics, green legacies, An exploration of the environmental legacies of the Olympic Games	Samuel; Stubbs	2012	Green Olympics, mega-event, legacies
110	Sochi – 2014: Environmental report	IOC	2014	Corruption, Olympic Games, government
111	Addressing ecology and sustainability in mega-sporting events: The 2006 football World Cup in Germany	Dolle; Soderman	2010	Sustainability, ecology, World Cup
112	Sustainability as a global attractor: The greening of the 2008 Beijing Olympics	Mol	2010	Leveraging, World Cup, mega-events
113	Delivering London 2012: sustainability strategy	Epstein; Jackson	2011	Olympic Games, sustainability, strategy
114	The legacies of the Athens 2004 Olympic Games: A bitter-sweet burden	Panagiotopoulou	2013	Olympic Games, legacy, infrastructure
115	Sustainability and the Olympics: the case of Athens 2004	Tolis; Aravossis; Tatsiopoulos	2008	Olympics, sustainability, mega-events
116	Image leveraging and sports mega-events: Germany and the 2006 FIFA World Cup	Grix	2013	Leveraging, World Cup, mega-events
117	Measuring the environmental sustainability of a major sporting event: A case study of the FA Cup Final	Collin; Flynn	2008	Major event, sustainability, environment
118	Sustainable Olympic Games	Metropolis	2002	Sustainability, Olympic Games, mega-events
119	Opportunity costs and efficiency of investments in mega sports events	Preuss	2009	Mega-events, sports, opportunity costs
120	Between discourse and reality: the un-sustainability of mega-event planning	Gaffney	2013	Sustainability, mega-event planning, urban development

121	London 2012 legacy: creating a more sustainable future for London and beyond	Daothong; Stubbs	2014	Olympic Games, sustainability, mega-events
122	Reflections on the theme issue outcomes: Expo 2020: What will be the impact on Dubai?	Sanjay Nadkarni	2019	Legacy
123	Economic impacts of GC 2018	Pham	2018	Governance
124	Beyond the reach of FIFA: football and community "development" in rural South Africa, towards a politics of inclusion and sustainability	Giampiccoli; Nauright	2019	Development
125	Cultural mega-events as an international, cultural and political tool	Nikolaeva; Bogoliubova; Fokin; Baryshnikov; Klevtsov; Eltc	2017	Development
126	Debating the success of carbon-offsetting projects at sports mega-events. A case from the 2014 FIFA World Cup	Crabb	2018	Development
127	Examining the impacts of mega-events on urban development using coupling analysis: A case study of the Boao Forum for Asia	He; Zhu; Cai; Li; Zhu	2020	Development
128	Futurescapes of urban regeneration: ten years of design for the unfolding urban legacy of London's Olympic Games, 2008–2018	Davis	2018	Development
129	A Longitudinal Perspective on Sustainability and Innovation Governmentality: The Case of the Olympic Games as a Mega-Event	Kromidha; Spence; Anastasiadis; Dore	2019	Development
130	Sprawl and mega-events Economic growth and recent urban expansion in a city losing its competitive edge	Salvati; Zitti	2017	Development
131	Sustainability in Mega-Events: Beyond Qatar 2022	Talavera; Ghamdi; Koç	2019	Development
132	Event legacy framework and measurement	Preuss	2019	Framework
133	Identifying objectives for mega-event leveraging: a non-host city case	Chien; Kelly; Gill	2017	Framework
134	How the built environment shapes spatial bridging ties and social capital	Cabrera; Najarian	2017	Capital
135	Infrastructure repercussions of mega sports events: the relevance of demarcation procedures for impact calculations, evaluated using the case of UEFA Euro 2008	Muller; Moesch	2005	Capital
136	The social and environmental consequences of hosting sport mega-events	Thomson; Schlenker; Schlenker; Schulenkorf; Brooking	2016	Capital
137	Mega sport event and social capital: a host community perspective comparison in Korea and the US through social conflict theory	Park; Cottingham; Seo	2018	Capital
138	Neighbourhood built environments affecting social capital and social sustainability in Seoul, Korea	Yoo; Lee	2016	Capital
139	News effects on bonding and bridging social capital: an empirical study relevant to ethnicity in the United States	Beaudoin	2011	Capital
140	Olympic Infrastructure—Global problems of local communities on the example of Rio 2016, PyeongChang 2018, and Krakow 2023	Dendura	2019	Capital
141	The built environment and social capital: a systematic review	Mazumdar; Learnihan; Cochrane; Davey	2018	Capital
142	The contribution of built, human, social and natural capital to quality of life in intentional and unintentional communities	Muldera; Costanza; Erickson	2006	Capital
143	The tale of two communities: residents' perceptions of the built environment and neighbourhood social capital	Oidjarv	2018	Capital
144	A winter sport mega-event and its aftermath: A critical review of post-Olympic PyeongChang	Woo Lee	2019	Legacy
145	Queen Elizabeth Olympic Park: an assessment of the 2012 London Games legacies	Azzali	2017	Legacy
146	Building a white elephant? The case of the Cape Town Stadium	Drummond; Cronje	2019	Legacy
147	For sustainable benefits and legacies of mega-events: a case study of the 2018 PyeongChang Winter Olympics from the perspective of the volunteer co-creators	Kim; Choe; Kim; Kim	2019	Legacy
148	Impact of mega-events of community residents	Ming	2018	Legacy

149	Improving residents' quality of life through sustainable experiential mega-events: high versus low-context cultures	Vila-Lopez; Boluda	2020	Legacy
150	Legacy and sustainability aim and outcomes at the Olympic Games and the Football World Cup	Cashman	2016	Legacy
151	Mega-events, legacies and impacts: notes on 2016 Rio de Janeiro Olympics	Leal de Oliveira; Vainera; Mascarenhas; Bienenstein; Braathend	2019	Legacy
152	Mega sporting events and their structural legacies: A focused look at the attendance of Premier Soccer League games at four 2010 FIFA World Cup flagship stadia in South Africa	Ezekiel; Mofokeng	2018	Legacy
153	Mega sporting events as tools of urban redevelopment: lessons learned from Rio de Janeiro	Azzall	2019	Legacy
154	New findings from Seoul National University in sustainability research provide new insights (for sustainable benefits and legacies of mega-events: a case study of the 2018 PyeongChang Winter Olympics from the perspective of the Volunteer Corps	Ecology, Environment & Conservation	2019	Legacy
155	Creating a positive legacy	Azzali	2020	Legacy
156	Spill over effects of mega-events: the influences of residence, transportation mode, and staying period on attraction networks during Olympic Games	Kim; Youngeun Kang	2020	Legacy
157	State strategies for leveraging sports mega-events: unpacking the concept of 'legacy'	Grixa; Brannagan; Wood; Wynne	2017	Legacy
158	Sustainable and liveable open spaces in the city of Doha: An investigation into the legacies of mega-sports events	Azzali	2017	Legacy
159	The challenge of urban design in securing post-event legacies of Olympic Parks	Latuf de Oliveira Sancheza; Essexb	2018	Legacy
160	The hotel industry in the metropolitan region of Rio de Janeiro: an analysis of the legacy of accessibility in civil construction projects post mega-events	Soares; Longo; Alcoforado; Ramos; Camello	2018	Legacy
161	The role of corporates in creating sustainable Olympic legacies	Lockstone-Binney; Holmes; Smith; Shipway	2018	Legacy
162	Pre-Olympic and post-Olympic Barcelona, a "model" for urban regeneration today?	Garcia-Ramon	2000	Environment and Planning
163	Queen Elizabeth Olympic Park: an assessment of the 2012 London Games legacies	Azzali	2017	Urban redevelopment
164	Culture-led urban regeneration and the revitalization of rooted identities in Newcastle, Gateshead and the Northeast of England	Bailey; Miles; Stark	2004	Urban regeneration
165	Olympic win: lower estimated cancer risk with air pollution controls during the 2008 Beijing Games	Barrett	2011	Olympic Win: Lower Estimated Cancer Risk with Air Pollution Controls during the 2008 Beijing Games
166	Dissecting policy designs: an application of the institutional grammar tool	Basurto; Siddiki; Weible; Calanni	2011	Policy
167	"Opportunity structures": urban landscape, social capital and health promotion in Australia	Baum	2002	Social Cultural
168	The cultural transformations of modern society	Bocock	1992	Culture
169	Environmental considerations for athletic performance at the 2008 Beijing Olympic Games	Borresen	2008	Environmental
170	Tourist considerations in hosting a mega sport event: 2010 FIFA World Cup in South Africa	Bresler	2011	Mega-events
171	Accumulation by decarbonization and the governance of carbon offsets	Bumpus; Liverman	2008	Sustainability
172	Economic impact of sporting events	Burgan; Mules	1992	Economics
173	Assessing policy divergence: how to investigate the differences between a law and a corresponding regulation	Carter; Weible; Siddiki; Brett; Chonaiew	2015	Policy
174	What is "Olympic Legacy". In <i>The Legacy of the Olympic Games, 1984-2002</i>	Cashman	2003	Legacy
175	Towards social leverage of sport events	Chalip	2006	Social Capital
176	Influence of 2022 Winter Olympics on tourism development of Zhangjiakou City and the countermeasures	Chen	2016	Tourism Development
177	The sociocultural legacy of the 1988 Seoul Olympic Games	Cho; Bairner	2012	Legacy

178	Was Glasgow 2014 inspirational? Exploring the legacy impacts of a mega-sport event via the theorised demonstration and festival effects	Cleland; Ellaway; Clark; Kearns	2020	Legacy
179	Decoding Coding via <i>The Coding Manual for Qualitative Researchers</i> by Johnny Saldaña	Cooper	2016	Coding
180	A grammar of institutions	Crawford; Ostrom	1995	Coding
181	A grammar of institutions	Crawford; Ostrom	2005	Coding
182	Urban regeneration for the London 2012 Olympics: Issues of land acquisition and legacy	Davis; Thornley	2010	Urban regeneration
183	Olympic Games as mega-sport events: Some social-historical reflections on recent summer Olympic Games	Dell'Aquila	2020	Olympic Games
184	Sample size for qualitative research: The risk of missing something important	DePaulo	2000	Research
185	Addressing ecology and sustainability in mega-sporting events: The 2006 football World Cup in Germany	Dolles; Söderman	2010	Sustainability
186	A sleeping giant awakes. The rise of the Institutional Grammar Tool (IGT) in policy research	Dunlop; Kamkhaji; Radaelli	2019	IGT
187	Spiralling-up: mapping community transformation with community capitals framework	Emery; Flora	2006	Community Capitals Framework
188	A review of evidence on the role of culture in regeneration	Evans; Shaw	2004	Culture
189	Quantifying the Importance of social infrastructure in community resilience using social capital	Fedders	2018	Social Capital
190	Institutional Grammar 2.0 Codebook.	Frantz; Siddiki	2020	Institutional Grammar
191	Governance of the London 2012 Olympic Games legacy	Girginov	2012	Governance
192	Toward an urban sociology of mega-events.	Hiller	1999	Urban sociology
193	Organising committees for the Olympic Games and satellite host local organising committees: examining their relationships and impact on legacy creation	Hoff; Leopkey; Byun	2020	Olympic Games
194	Collaborative rationality for planning practice	Innes	2016	Planning
195	Special events: a conceptual and definitional framework	Jago; Shaw	1998	Framework
196	A level playing field? Sports stadium infrastructure and urban development in the United Kingdom	Jones	2001	Urban development
197	Towards a mega-event legacy framework	Kassens-Noor; Wilson; Müller; Maharaj; Huntoon	2015	Legacy
198	A longitudinal perspective on sustainability and innovation governmentality: The case of the Olympic Games as a mega-event	Kromidha	2019	Sustainability
199	The institutional grammar tool in policy analysis and applications to resilience and robustness research.	Lien	2020	IGT
200	New evidence of the effect of Beijing's driving restriction and other Olympic-year policies on air pollution	Liu; Kong	2020	Policy
201	Sport tourism on the islands: the impact of an international mega golf event	Lim; Patterson	2008	Sport
202	Transporting 2014 FIFA World Cup to sustainability: exploring residents' and tourists' attitudes and behaviours	Malhado; Rothfuss	2013	Sustainability
203	Prologue: guarantees of global goodwill: post-Olympic legacies – too many limping white elephants?	Mangan	2008	Olympics
204	An Introduction to IAD and the language of the Ostrom workshop: a simple guide to a complex framework	McGinnis	2011	Framework
205	The neighbourhood impacts of local infrastructure investment: evidence from urban Mexico	McIntosh; Alegría; Ordóñez; Zenteno	2018	Infrastructure
206	Introduction: The rise and rise of culture-led urban regeneration	Miles; Paddison	2005	Urban Regeneration
207	Creating community networks: Can sporting events offer meaningful sources of social capital?	Misener; Mason	2006	Social capital
208	Reflections on the theme issue outcomes: Expo 2020: What will be the impact on Dubai?	Nadkarni; Teare	2019	Legacy
209	Sports as cultural diplomacy: the 2010 FIFA World Cup in South Africa's foreign policy	Ndlovu	2010	Sport
210	Public trust in mega-event planning institutions: The role of knowledge, transparency and corruption	Nunkoo; Ribeiro; Sunnassee; Gursoy	2018	Mega-event planning

211	The impact of the 2002 World Cup on South Korea: comparisons of pre-and post-games	Kim; Gursory; Lee;	2006	World Cup
212	Urban mega-events, evictions and housing rights: the Canadian case.	Olds	1998	Mega-Events
213	The economics of staging the Olympics. A comparison of the Games 1972–2008.	Preuss	2004	Economics
214	The conceptualisation and measurement of mega sport event legacies.	Preuss	2007	Legacy
215	A framework for identifying the legacies of a mega sport event.	Preuss	2015	Legacy
216	Social capital, local communities and culture-led urban regeneration processes: The Sydney olympic park experience	Prior; Blessi	2012	Social capital
217	The norms, rules and motivational values driving sustainable remediation of contaminated environments: A study of implementation.	Prior	2016	Coding
218	Turning 16 days into 16 years through Olympic legacies	Ritchie	2000	Legacy
219	Assessing the impact of hallmark events: conceptual and research issues	Ritchie	1984	Legacy
220	An Olympic city in the making: Rio de Janeiro mega-event strategy 1993–2016	Silvestre	2012	Strategy
221	Structuralism, elite theory and urban policy	Smith; Judd	1982	Policy
222	Culture and the 2012 Games: creating a tourism legacy?	Stevenson	2012	Culture
223	Major sporting events—planning for legacy	Taylor; Edmondson	2007	Legacy
224	Sustainability and the Olympics: the case of Athens 2004	Tziralis; Tolis; Tatsiopoulos; Aravossis	2008	Sustainability
225	Journalism, environmental issues, and sport mega-events: a study of South Korean media coverage of the Mount Gariwang Development for the 2018 PyeongChang	Yoon; Wilson	2019	Environmental Issues
226	Black American female Olympic athletes have not reaped the same social standing and economic benefits as their counterparts have since the 1968 Olympics in Mexico City.	Waller; Norwood; Spearman; Polite	2016	Politics
227	Underestimated costs and overestimated benefits? Comparing the outcomes of sports mega-events in Canada and Japan.	Whitson; Horne	2006	Sports Mega-Events
228	The place of social capital in understanding social and economic outcomes.	Woolcock	2001	Social Capital
229	Decoding via coding: analysing qualitative text data through thematic coding and survey methodologies	Vaughn; Turner	2016	Thematic Coding

Appendix E

Table 5 presents additional guidance framework. The first column references the ID of the finding. The second identifies whom the item of guidance might be applicable to. The next column explains what finding or evidence from the research could be helpful to the person listed in the first column; for example, there may be certain institutions that are helpful to mega-events committee members. The fourth column explains what they need to know to implement the guidance into their practices; for example, specific tools or processes may be introduced. The final column outlines the impact of a particular suggestion being put into practice. The section explains the different aspects of the guidance with the aim for it to be used in practice by those professionals engaged in mega-events, e.g., organising committees and local government offices.

Table 5: Guidance Framework

ID	Who	Relevant Finding	Implementing into Practice	Potential Impact
GF01	State and local governments; event organising committees; & venue/asset operators.	Strategy 1 – Organising committee aiming to upgrade facilities for the event to leave behind legacies.	Have a mega-event strategy (between stakeholders) that prioritises refurbishing existing structures for the event and community.	Legacy; enhanced PC and SC as a result.
GF02	State and local governments; & event organising committees.	Strategy 2 – State government providing benefits to the local community through infrastructure investment for the event.	Have a mega-event strategy (between stakeholders) that prioritises its aims to provide long-lasting benefits to the community when developing infrastructure for the event.	Community benefits; enhanced PC, bonding and bridging SC as a result.
GF03	Local governments; event organising committees; & venue/asset operators.	Strategy 4 – Making an asset/venue more appealing for the community during and after the event.	Have a mega-event strategy (between stakeholders) that prioritises how a venue will be needed and used after the event, with a plan to improve the infrastructure from its current condition.	Community benefits; enhanced PC, bonding and bridging SC as a result.
GF04	Local governments; event organising committees; & venue/asset operators.	Strategy 5 & 6 – Aspirations from the venue operator that the venue becomes a place with a profile where people can have a good time.	Have a mega-event strategy (between stakeholders) that prioritises the selection of venues to use for the event, working with venue operators and the community to ensure their actual needs are met.	Community benefits; enhanced PC, bonding, bridging and linking SC as a result.
GF05	State and local governments; event organising committees; & venue/asset operators.	Strategy 8 & 9 – Specific aims that focus on meeting community needs and creating services to meet these needs.	Have a mega-event strategy (between stakeholders) that prioritises the selection of venues to use for the event, focusing on what the community needs and putting that into action.	Community benefits; enhanced PC, bonding, bridging and linking SC as a result.
GF06	National, state and local governments; & event organising committees.	Strategy 11 & 13 – Initial large aspirations to build a stronger and more powerful local economy for the host city.	Have a mega-event strategy (between stakeholders) that focuses on all government areas aligned on their largest aspirations. If increased social and community benefits are noted, building a more robust local economy should be a focus.	Enhanced linking SC and host communities; benefits to PC, bonding and bridging SC.
GF07	State and local governments; event organising committees; & venue/asset operators.	Strategy 12 & 15 – Aspirations to leave behind social and cultural legacies, and to use the event to benefit the community.	Have a mega-event strategy (between stakeholders) that prioritises government bodies working together, specifically the organising committee and venue operator, to leave behind legacies to the local community.	Enhanced linking SC and host communities; benefits to PC, bonding and bridging SC.
GF08	State and local governments; & event organising committees.	Strategy 14 – Having business units established in local communities to ensure the right outcomes are achieved.	Have a mega-event strategy (between stakeholders) that prioritises the event organising committee working with local communities early on to establish a department within the local government when infrastructure is being developed to ensure the right outcomes for the community are formed.	Enhanced linking SC and host communities; benefits to PC, bonding and bridging SC.
GF09	Event organising committees.	Rule 1 & 2 – Establishing rules within the procurement framework that requires	Ensuring there are framework documents in place, such as procurement codes and sustainable practice documents,	Mega-event that follows aspirations of the host nation

		suppliers and contractors to provide what is set out or else sanctions are enforced.	which outline how business is to be followed and enforces sanctions if they are not.	and its city; enhanced PC and SC.
GF10	State and local governments; & event organising committees.	Norm 1 – Establishing norms within the event framework that outlines the requirement to provide infrastructure for the event.	Ensuring there are framework documents in place that enforce the use of certain types of infrastructure for the event.	Mega-event that follows aspirations of the host nation and its city; enhanced PC and SC.
GF11	State and local governments; & event organising committees.	Combined Strategy 1 & 14 – The aspiration of GOLDOC was to upgrade facilities to enhance the local community, this combined with GCCC establishing departments to look after infrastructure required for the Games.	Have a mega-event strategy (between stakeholders) that links aspirations to upgrade facilities with the practical side of establishing local government departments that ensure the right infrastructure is being delivered for the event and community.	Enhanced linking SC and host communities; benefits to PC, bonding and bridging SC.
GF12	State and local governments; & event organising committees.	Combined Strategy 3 & 14; Norm 1 – Combined multiple strategies and Norm which all aim to develop PC for one venue.	Having aspirations to upgrade existing furniture, then putting into place the framework to ensure the right infrastructure is upgraded.	Enhanced linking SC and host communities; benefits to PC, bonding and bridging SC.
GF13	State and local governments; & event organising committees.	Combined Strategy 1, 2, 14 & 15 – Combined strategies that aim to develop PC for the Games and benefit the local community.	Having combined aspirations that aim at upgrading infrastructure, but also for the use and benefit of the community afterwards.	Community benefits; enhanced PC, bonding and bridging SC as a result.
GF14	Event organising committees.	Policies and procedures framework for sustainable sourcing.	Mega-event should have framework, policies and procedure documents that aspire to create sustainable outcomes.	Enhanced PC, bonding and bridging SC.
GF15	State and local governments; & event organising committees.	Active engagement between all stakeholders from the very beginning of a project.	All stakeholders involved in the selection and decision making of venue upgrades and new infrastructure should be consulted and involved early on within the process.	Enhanced PC, bonding and bridging SC.
GF16	State and local governments; & event organising committees.	ISO 20121.	The use of ISO 20121 guidelines should be adopted as part of event practices.	Improved business practices including framework and reporting.

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