

Doctoral Foundation Paper: The Reliability of Economic Impact Studies of the Olympic Games: A Post-Games Study of Sydney 2000 and Considerations for London 2012

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This paper examines evidence derived from a case study of Sydney 2000 – which could be usefully considered in the planning of London 2012 – in estimating the economic impacts of the Olympic Games. Previous studies have utilised Input–Output models to estimate the impacts of the Games, although recent criticism of this approach has, however, led to the use of Computable General Equilibrium Models. Both models have been applied in estimating the impacts of Sydney 2000. Examining pre-Games impacts and contrasting them with post-Games results, this study reveals significant differences. This suggests the need for more rigorous and standardised industry methods to reduce discrepancies. Moreover, inadequate attention and an underestimation of importance is paid to what could be the most important period of all, the post-Games period and there is an overall lack of understanding of the behaviour patterns of Olympic tourists. The findings of this study highlight some important considerations for those involved in making London 2012 a tourism success.

Keywords: Hallmark Events; Economic Impact; Post-Games; Sport Tourism; Legacy

Introduction

The Olympic Games have fast become the most important event in the sport tourism calendar and a route to the catalytic growth of a tourism destination's product. The 6th July 2005 will be etched into the memories of much of the UK's population; the day London was awarded the right to host the summer Games of the XXXth

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Olympiad. Since this announcement, the Department for Culture Media and Sport (DCMS), along with the Greater London Authority and London Development Agency, have funded a report (carried out by Dr Adam Blake, 2005) investigating the potential economic impacts of hosting London 2012.

The 21st century has witnessed an explosion of interest in the economic impacts that occur from hosting the Games. The first documented city to achieve a successful income from hosting the Games was the 1984 Los Angeles Olympics, which made a surplus of £215 million (Blake, 2005) and it is widely recognised that this changed the way cities and governments regarded the hosting of major sports events (Gratton *et al.*, 2000). This has led to the commissioning of a range of, largely ex-ante, studies examining the potential economic benefits a community may receive from hosting the Games. However, economic impact studies are difficult to carry out (Baum & Mudambi, 1999; Tribe, 2005), relate to objectives of those who commission them (Kasimati, 2003; Crompton, 2006), can easily be misinterpreted (Tyrrell & Johnston, 2006), may utilise mischievous practices (Crompton, 1995, 2006) and can result in fallacious conclusions pertaining to the amount of economic impact brought to a community (Delpy & Li, 1997). As Hudson (2001) notes, the degree of variation between studies that are investigating similar phenomenon is quite remarkable. He further notes that the accuracy of these studies depends ultimately on their underlying assumptions and methodologies. Furthermore, he argues that if variations are, in fact, due to differing methodologies and assumptions then the reliability of these studies must be called into question. In commenting on such issues, Cashman (2006) notes that Olympic budgets are often political documents that need to be 'sold' to the host community, and are more likely to be acceptable if a surplus is predicted.

Furthermore, although a great deal of money and time is invested into predicting the impacts of the Games, the Games suffer from a lack of ex-post analysis; seemingly once the Games move on so does much of the motivation to evaluate economic impact. However, given the costs involved it is perhaps somewhat surprising that stakeholders rarely question whether the Games have delivered the anticipated success. Indeed Sydney 2000 was reported to be the first Games to actively seek a positive tourism legacy from hosting the Games (Morse, 2001; Chalip, 2002), yet it is interesting to find a distinct lack of literature assessing what has happened in the six years that have elapsed since the end of the Games. In addition, there is an absence of literature relating to the wider situation. Is it just the host cities that benefit or can the benefits diffuse to the rest of the country? Kurtzman (2005) notes that the economic impact effect goes beyond the host city to other regions of the same country, yet there is little evidence to support this claim. Given that tourism is highlighted as one of the key enduring legacies (Tyrrell & Johnston, 2006) there appears to be a poor amount of planning concerned with maximising the tourism opportunities.

This paper considers the reliability of economic impact studies of the summer Olympic Games, drawing largely on studies surrounding the Games held in Sydney 2000. Much of the emphasis of this paper lies in identifying problems associated with general economic impact studies. The intention here is not to conduct a meta-analysis of economic impact assessments; rather to highlight important

considerations for creating and undertaking Olympic Games analyses that produce benchmarks for comparability. This paper briefly contrasts pre-Games estimations of the tourism impacts of Sydney 2000 with post-Games results, and concludes with lessons for London 2012 in delivering more reliable economic impact analyses and thus reducing the controversy surrounding such studies. Although previous research has analysed the reliability of economic impact studies of sports facilities or small scale events, there is a dearth of studies that critique the analyses surrounding hallmark sporting events. Something that is remarkable about event assessment internationally is that, except for some isolated sceptics, claims of large, and sometimes enormous, positive economic impacts from events have been so uncritically accepted (Dwyer *et al.*, 2005).

Theoretical Background

As the tourism industry matures there is increasingly a shift from mass market to niche tourism. Tourists are now seeking more depth to their tourism (Boniface, 2001). In response to the changing nature of the tourist, new sectors within the tourism industry are emerging, with one of the most contemporary being sport tourism. However, until relatively recently, sport and tourism had generally been researched as two separate areas (Gibson, 1998). Although sport tourism is now a highly researched area, a large amount of study still lies in the complexities of contextualising the subject.

A significant advantage of sport tourism (to a destination) is that it is considered to be in the introduction phase of the tourism product lifecycle, such a position allows the host to maintain a unique competitive advantage through tailoring the product to the attributes of the contemporary tourist. Positioned within the introduction phase of the product lifecycle, sport tourism offers an additional benefit of being amenable to high and rising growth, providing that sufficient strategies for this are in place. However, sport tourism can also be utilised by destinations in the stagnation stage of the destination lifecycle as a versatile recovery strategy, thus moving the cycle into a rejuvenation stage and potentially a new product cycle. Figure 1 identifies the stage of sport tourism in the tourism product lifecycle.

Within sport tourism, events, or more specifically hallmark events, have become particularly important to a destination as they play a significant role in generating economic impacts. The primary hallmark event in the sport tourism calendar is the Olympic Games, with the first modern Games being celebrated in Athens in 1896. In world sport, the Olympic Games are unparalleled in their scale and the potential impact they can have on the economies of host cities, regions and countries (O'Brien, 2006). They are short-term occurrences with long-term consequences for the cities that host them (Roche, 1994). Furthermore, the International Olympic Committee (IOC) state one of their core missions as being the promotion of a positive legacy from the Games to the host city and host country. In hosting a large-scale sporting event there are numerous benefits to be received, including increasing visitation to a region (Light, 1996; Bohlin, 2000), additional employment (Ritchie, 1984; Roche, 1994) improvements to a destination's image or brand (Ritchie & Smith, 1991;

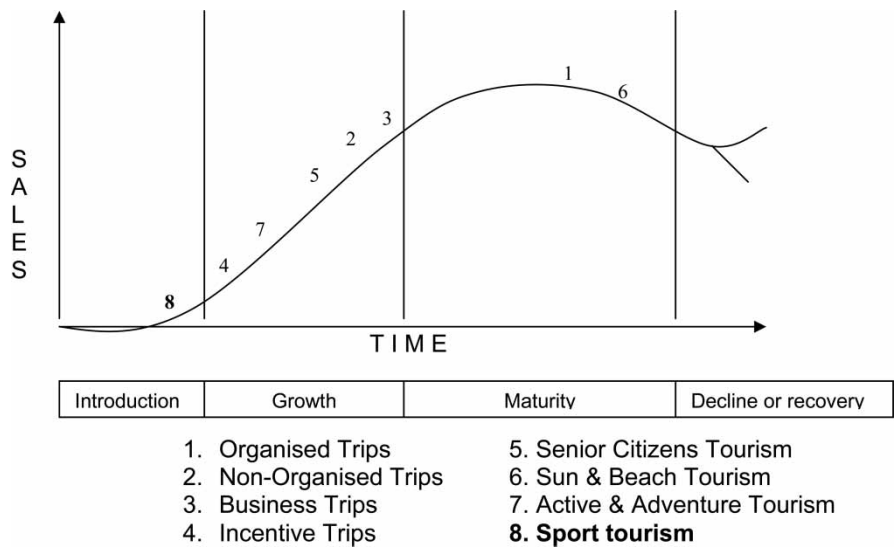


Figure 1 Lifecycle of various tourism products. (Source: Sport and Tourism World Conference, 2001, p. 38).

Brown *et al.*, 2002) further development (Spilling, 1996; Bramwell, 1997) and reduced seasonal visit fluctuations in visitations (Ritchie & Beliveau, 1974; Getz, 1997) in Chalip (2004).

Nevertheless economic impacts are not just confined to the period of the duration of the Games. Impacts commence as soon as the bid to host is made (11 years in advance) and carry on, increasing considerably, until after the games (Preuss, 2002). Figure 2 details the phases of economic impact throughout the Olympic period.

Interestingly, Preuss's model lacks a feedback mechanism but, although he suggests that impacts can occur into the future, the model is linear. A feedback mechanism would perhaps demonstrate more explicitly that economic impacts are cyclical and do not disappear once the Games move on. Figure 3 illustrates a feedback loop within the Preuss model, and, as such, demonstrates the cyclical nature of economic impacts. Impact area 5 represents the post-Games impact period where impacts may include using new facilities generated by the Games as a platform for future activities, which, as Mules & Faulkner (1996) suggest, generate additional tourist expenditure. Cashman (2006) further discusses these impacts with examples of how the 2003 Rugby World Cup capitalised on the sporting and transport infrastructure set up for Sydney 2000, whilst also benefiting from Olympic tourism promotion and post-Olympic activities of the New South Wales Department for State and Regional Development. Chalip (2003) goes on to note that the Australian experience demonstrates that there are significant gains in the market position of the host city and country through increased awareness and interest as a consequence of hosting the Games, which generate additional tourism impacts. Consequentially, if managed accordingly, the impacts of the Games can recur in multifaceted forms.

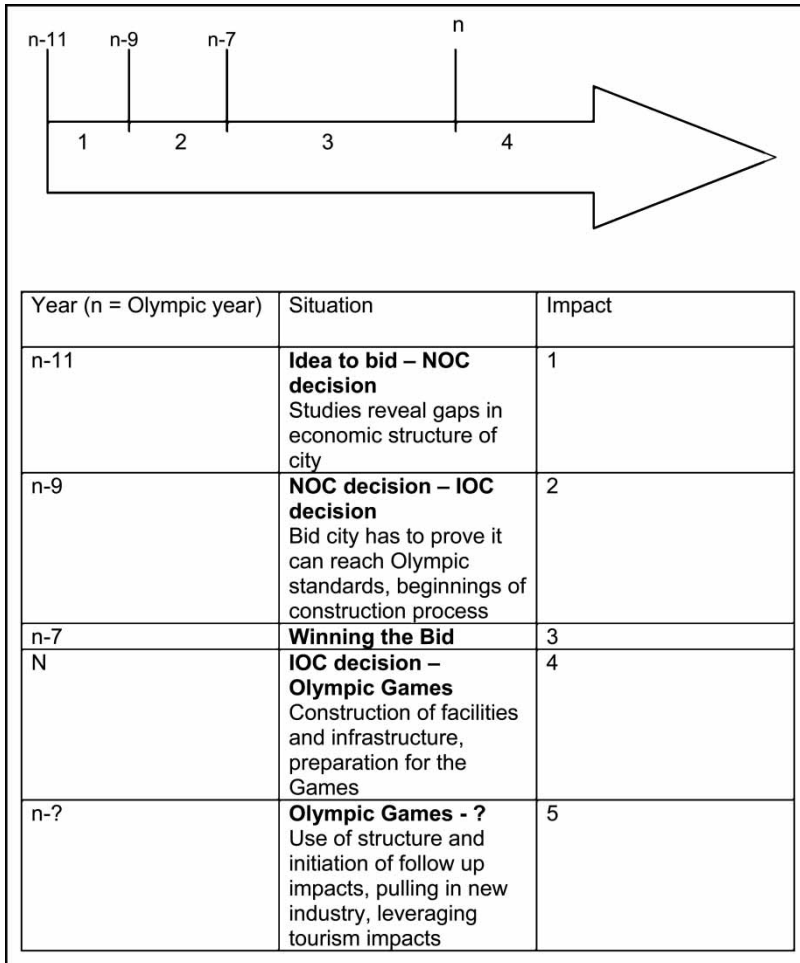


Figure 2 Phases and timetable of the economic impacts of the Olympic Games. Source: (Preuss, 2002).

According to Standeven & DeKnop (1999), another reason countries wish to host the Olympic Games is to announce the arrival of a little recognised state or culture to the world. Yet given the exponential growth surrounding the Games and the velocity of infrastructure and funding required to host them, it is somewhat naïve to consider that a small state would be economically adept at hosting the Olympic Games. In highlighting the economic dimension of the Games, Preuss (2002) comments that it depends on the developmental level and size of the host city, as the host must ultimately adopt their supporting infrastructure to the needs of the Games. In a similar discussion Cashman (2002) notes that from 1980 to 2000 there was an unprecedented expansion in the size of the Games with the inclusion of new sports and events, which has resulted in only wealthier cities being able to afford to stage the Games. Similarly, Preuss (2004) notes that due to the gigantic scale of the Games,

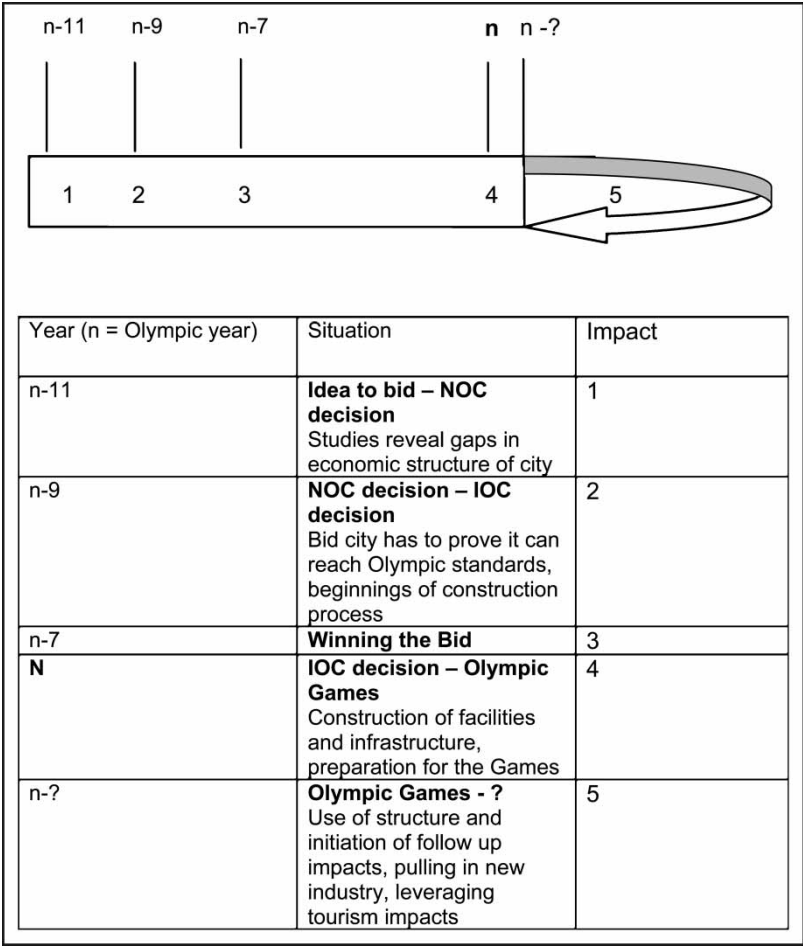


Figure 3 Phases and timetable of the economic impacts of the Olympic Games. Source: (adapted from Preuss, 2002).

it is reasonable to assume that only the largest cities in the world are equipped to act as hosts.

With almost 3 billion people tuning in to watch the opening and closing ceremonies of the Games (Abad, 2001), it is suggested that the Games generate significant domestic and foreign tourist demand and can influence long-term patterns and flows of tourism to and in the host destination (Getz, 1991). It is important to consider where these tourist flows are experienced. Is it the host city? The host country? Or both?

From the literature available, there are a number of existing models for calculating economic impacts. Wagner (1997) suggests that one applicable method is the Input–Output model originally developed by Leontief in the 1940s. However, the Input–Output model has severe limitations in that it fails to take account of supply constraints and price effects (Madden, 2002). Input–Output models can measure

all the positive impacts of an event but they are incapable of modelling most of the negative impacts (Blake, 2005). Another important method is the Computable General Equilibrium (CGE) model (Burgan & Mules, 1992). The CGE framework automatically handles many of the displacement effects that have been referred to by critics of overly-optimistic estimates of the spin-offs from the Games (Madden, 2002). The first CGE analysis of an Olympic Games was not until 1997 when CREA/NSW Treasury carried out an analysis for Sydney 2000, thereby questioning the legitimacy of analyses of previous Olympic Games. Somewhat encouragingly, the only commissioned study for London 2012 to date (Blake, 2005) has been calculated using the CGE framework, which may be more likely to give realistic economic impact estimates.

The controversies associated with economic impact studies of the Olympic Games suggests that it might be useful to consider other applicable models which may prove useful in evaluating the potential impacts of London 2012. One such model, more specific to analysing projected economic impacts of sport tourism events on a community, is the Sport Tourism Economic Assessment Model (STEAM), originally developed by the Canadian Sport Tourism Alliance. Although this model offers some benefits for calculating more accurate economic impacts of sport tourism events, such as not including spending from visitors who reside within 80 km of the event, it is, ultimately, based on input–output techniques and thus suffers from problems associated with this technique. Furthermore, a report by King (2003) documented STEAM as a useful tool in economic analysis but emphasised that more access to its theoretical basis is required to legitimise its usage further.

To combat some of the problems associated with measuring the economic impacts of tourism in London, a new model specifically for London Boroughs has been introduced by the London Development Agency (LDA). The Local Area Tourism Impact (LATI) Model aims to measure tourism impacts more accurately, especially at the local level (King, 2006), with the intention that it will help to improve policy making in the future. The model produces estimates that are reported to be both consistent and comparable across London Boroughs (King, 2006). The model relies on national data from UK-wide tourism surveys and, although it has not been applied to specific sport tourism events as yet, it may prove beneficial for London 2012 if the model is adopted across all regions and Regional Development Agencies (RDAs) in the UK. This would allow for countrywide-comparisons of the anticipated tourism impacts of the Games.

Many authors (e.g. Mathieson & Wall, 1992; Fletcher, 1999; Baum & Mudambi, 1999; Tribe, 2005) have claimed that there are a number of problems associated with the calculation of economic impacts within the tourism industry, many of which are related to the complexity associated with defining the borders of the industry. A much cited paper by Crompton (1995) details a multitude of other common problems associated with economic impact studies in general. These consist of the misapplication and misunderstanding of multipliers, failure to identify the region being studied, inclusion of expenditure by local spectators, inclusion of time-switchers and casuals, a misapplication of total instead of marginal economic benefits, including

opportunity costs and the exclusion of costs. He further notes that, more often than not, studies knowingly engage in the mischievous practices detailed above in order to prove the legitimacy of the sponsor's economic case (Crompton, 2006). This is made easier by the inclusion of qualifiers by those carrying out the studies, which provide a loophole for these practices, for example:

We have not audited or verified any information provided to us and as such will take no responsibility for the accuracy of the information which was provided by third parties . . . Some assumptions will inevitably not materialise. . . actual results may vary from those described in the report. (Pricewaterhouse Coopers and CSL International (2000) in Crompton (2006))

Interestingly, the problems Crompton described in 1995 are still proving to be a common occurrence, as noted in his 2006 paper. It seems to remain the case that economic impact analysis can still be subject to considerable risk of misuse and misinterpretation (Tyrrell & Johnston, 2006). As Crompton (2006) notes, some studies change the terminology surrounding their studies as an additional loophole for engaging in mischievous practices. Such terms as economic activity, gross economic impact, economic surge, economic significance and gross economic output are all used as a substitute for economic impact to cloud the actual meanings and interpretations of the studies. Furthermore both Kasimati (2003) and Crompton (2006) note that the intent of those commissioning the studies is to favour the hosting of the Games. In addition, the methodologies of many of these studies are flawed, causing further confusion among those interested in knowing the true economic impact (Delpy & Li, 1997). In Crompton's (2006) paper, an experienced economic impact researcher notes that if the methods and data sources used are explicit then it is easier to assess the credence of the study. This highlights important lessons for London 2012 to consider when economic impact analyses are undertaken, which will unquestionably be subject to public scrutiny.

Although models, such as STEAM and LATI, have been adopted to overcome some of these problems, these have not (to date) been applied to hallmark events such as the Olympic Games. Interestingly, as Crompton (2006) highlights from a conceptual perspective, tourism has no need to engage in such economic impact analysis 'shenanigans', as a sound economic case could be made without the mischievous hyperbole.

It has been noted that the Olympics have the potential to displace or discourage potential tourists due to the scale of the event and disruption it can cause (Blake, 2005). Furthermore, previous research has failed to reach a clear definition of the sport tourist. Some academics (Gammon & Robinson, 2003; Standeven & DeKnop, 1999) suggest that tourists will have either a sport tourism focus (having sport as their primary motivation) or a tourism sport focus (with tourism as their primary motivation); in addition, Nogawa *et al.* (1996) believe that a sport tourist's primary purpose is to engage in his/her favourite sporting activities. There is speculation that most international sport-related travellers will be 'sports junkies' who are unlikely to demonstrate an interest in sampling the wider product (Faulkner *et al.*, 1998 in Higham, 1999). Tourists participating in a sports event should not be treated as

typical tourists by local business people (Nogawa *et al.*, 1996); however what is a typical tourist? Does this statement include local spectators? What about a tourist visiting the city for reasons other than the Games but whose trip coincides with the Games? Should they be treated any differently? Hudson (2001) comments that those visitors who were already in town despite the event taking place should not be included in economic impact studies. By profiling sport tourism segments in this way, a more accurate picture of tourism leveraging opportunities can be built (Ritchie *et al.*, 2002).

A recent report by the London 2012 organising committee (2005) suggests that the Games will be a celebration for the whole country to relish and one that will boost the entire economy. Taking the complex nature of sport tourist behaviour patterns into consideration it is surprising to note that the DCMS (2006) makes an unsubstantiated claim that visitors to the Games will naturally want to see what else the UK has on offer.

Many authors (Hall, 1992; Hiller, 1998; Chalip, 2002 and Tribe, 2005) have suggested that the Games provide a huge opportunity for the rejuvenation of the urban environment. Tribe (2005) claims that London 2012 will perform one of the most extensive transformations of one of the largest underdeveloped areas in the country (i.e. Stratford in East London). Although this can have further knock-on effects for tourism by increasing the attractiveness of the area, providing ancillary services and providing future tourist attractions, it is naive to think of this as only a positive impact. Reports by NSW treasury (1997) suggested that the NSW economy would have to draw resources in from other states in the pre-Games and Games periods, thus having a negative impact on these other states. If this is the case then it is erroneous to classify these as universally positive impacts – they are positive for NSW, but negative for other states. In addition, Delpy & Li (1997) suggest that construction expenditures should only be included if financed through non-governmental funds, otherwise they should be classified as expenditure switching and excluded from economic impact. A recent example of deferring resources from other areas can be observed through the controversy surrounding the National Lottery funding for London 2012. Olympic specific scratch cards, interactive and draw-based games were introduced for the purpose of adding funds for London 2012; however, a report by the National Audit Office (NAO), (2007) emphasises that Olympic Lottery games are expected to reduce the money available to other good causes by diverting sales from mainstream lottery games. Perhaps, as Ritchie (1984) highlights, it is all too commonly assumed that impacts are primarily positive in nature.

Hallmark events can generate significant economic costs that often get forgotten in the euphoria surrounding an event (Roberts & McLeod, 1989 cited in Toohey & Veal, 2000). Furthermore the costs of the Olympic Games are difficult to measure due to complexities associated with defining the borders of the tourism industry, coupled with whether costs may have been incurred irrespective of the event being staged. Many studies fail to deal adequately with the expenses incurred in organising and marketing the event (Gibson, 1998).

In economic terms, however, hosting an Olympics remains highly speculative. Whilst each Olympics held in the past three decades has returned a profit . . . costs are calculated in a budget that separates operational costs (accommodation, catering, publications and media) from infrastructure costs. (Waitt, 1999, p. 8)

As noted earlier, Cashman (2002) has suggested that Olympic budgets are political, contentious and notoriously unreliable and host cities often hide certain items or move them to other budgets. Evidently, there continues to be a great deal of debate about the validity of economic impact studies on sports events. It is suggested that event-sponsored studies exaggerate the economic impact of large-scale sports events on local communities (Lee, 2001).

In order to overcome some of the issues relating to the validity of economic impact studies there is a need for an analysis of post-Games conditions contrasted with pre-Games estimations. There has been inadequate attention paid to planning for the post-Games period and the legacy of an Olympic Games (Cashman, 2002). This is reflected in the broader literature, with Jones (2001) noting that there appears to be no rigorous hypothesis as to how the hosting of a hallmark event translates to long term development. The IOC has attempted to address this since 2000 through a greater focus on the transfer of Olympic knowledge (Cashman, 2006). To facilitate this, the IOC commissioned the International Sports Science and Technology Academy (ISSTA) to develop an analysis tool for the economic, environmental and social impact of the Games over an 11 year period. The subsequent study became known as the Olympic Games Global Impact Project (OGGI). The principal objectives of the OGGI are: to measure the overall impact of the Games, to assist bidding cities and future Olympic Games Organisers, through the transfer of strategic direction obtained from past and present Olympic Games, to identify potential legacies and thereby maximise the benefits of their Olympic Games, and to create a comparable benchmark across all future Olympic Games (IOC, 2006). At present, the first OGGI study (although not quite covering the full 11 year period) will be for Beijing 2008, whilst Vancouver 2010 and London 2012 will be the first complete winter and summer Olympic Games studies respectively. Although the literature would suggest that this is a step in the right direction for the management and transfer of Olympic knowledge, the OGGI is still in its infancy. Indeed, as Cashman (2006) states, all OGGI studies are concluded two years after the Games, whereas dimensions, such as tourism, need to be measured over a longer period. Consequently, it remains to be seen how useful the OGGI dynamic management tool will really be. In respect of this paper, the main focus is on the economic impact analyses surrounding Sydney 2000, and as such it is beyond its scope to analyse the OGGI tool. However, it is useful to note that it may prove a useful measure for London 2012 and beyond.

Tyrrell & Johnston (2006) note that expenditure from induced international tourism becomes the sole type of Olympics-related direct expenditure once the Games are over, and that approximately one year after the event all other forms of Olympics-associated expenditure will have virtually ceased. Indeed, the DCMS (2006) estimates that between 50% and 75% of the net economic benefits of the London 2012 Games will accrue to tourism over a 7–10 year period. These findings demonstrate that tourism is a central economic component of hosting the Games and one that unquestionably deserves some careful deliberation. In this respect, Chalip (2002) believes that, particularly in the post-Olympic period, the central challenge should be to capitalise on what has been gained as a result of hosting the Games.

Roche (1994) believes that there can often be too much emphasis on the economic effects of events, yet considering the complexity involved there is a definitive need to focus on, emphasise and define the economics involved. Importantly, Roche (1992) reported that studies undertaken or sponsored by local authorities or organisers are usually carried out before the event and, because policy focus often shifts after the event, it is rare to find thorough ex-post studies. As noted by other authors (e.g., Kasimati, 2003; Crompton, 1995), pre-event projections often form an inadequate basis for the study of mega-events (Roche, 1992). Given that this has been noted by a range of authors for over ten years, it is startling still to find a lack of amalgamation between pre- and post-Games studies. Potential host cities, however, may well derive utility from economic post mortems (Baade & Matheson, n.d.). Indeed as Tooman (1997) emphasises, if ever there was an industry that required non-static and holistic analysis, it is surely the tourist industry.

Methods

This paper aims to examine Pre-Games economic impact reports of the Sydney 2000 Olympic Games and contrast them with post-Games analysis. Six years have passed since the end of the Games, thus providing a clear path to contrast the predicted with the actual economic impacts of the Games. More importantly it has been claimed (Chalip, 2002) that Sydney 2000 was the first Olympic Games to leverage the economic impacts.

Statistics were collected for New South Wales (NSW) and for the neighbouring states of Victoria and Queensland. As Delpy & Li (1997) note, for those events whose scope is too great, such as the Olympic Games, the use of a non-survey (relying exclusively on secondary data) method is more applicable.

Much of the information relating to economic impact studies of the Olympic Games is commissioned by government bodies and, as discussed earlier in the paper, may be biased. As such, the underlying motivations of the authors of these studies must be queried (Gottschalk *et al.*, 1945 in Dann, *et al.*, 1998). In this paper, any potential bias is sought to be overcome through the use of a range of data sources. Cresswell (1994) cited in Ritchie *et al.* (2005) notes that by triangulating a range of sources it is postulated that inherent bias could be neutralised and a convergence of results achieved.

As Yin (2003) suggests, a case study is the preferred method when studying the specific characteristics of a rare situation that is unique in nature. The Olympic Games would appear to meet Yin's criteria in this respect. The flexibility of the case study approach and the emphasis on understanding the context of the subject being studied allow for a richness of understanding (Cooper & Schindler, 2006). A study by Xiao & Smith (2006) concluded that case study analysis is not only a frequently used but also a highly useful and much needed approach in tourism research.

To analyse the case study of Sydney 2000, 'explanation building pattern matching' is used to examine and detail the relationship between economic impact theory and

observation of the occurrences at Sydney 2000. Trochim (1989) suggests pattern matching is one of the most desirable strategies for analysis in a case study situation. In a further description of pattern matching de Vaus (2001) highlights that the form and complexity of pattern matching may vary considerably. For this study, an explanation building form of pattern matching will be used, which always involves an attempt to link two patterns, where one is a theoretical one and the other an observed one (Trochim, 1989). In a discussion on explanation building pattern matching, Tellis (1997) advocates that the analysis of the case study is carried out through building an explanation of the case. Pattern matching requires the use of predictions, which in this case stem from the theoretical background and outcomes of the pre-Games analyses. These then lead to the development of expectations of the outcomes of Sydney 2000. Once these are established, the case study is then conducted to see if the case does, in fact, match the predicted pattern (de Vaus, 2001). Figure 4 details the process of pattern matching. The upper part of the figure shows the realm of theory, which is translated from theories, ideas and hunches into a specifiable theoretical pattern, which in this instance makes up the theoretical background. The lower part of the figure depicts the realm of observation, which is organised and collected into an observed pattern, which in this instance makes up the case study of Sydney 2000. The inferential task then involves the attempt to match the two patterns that form the analysis section of this paper.

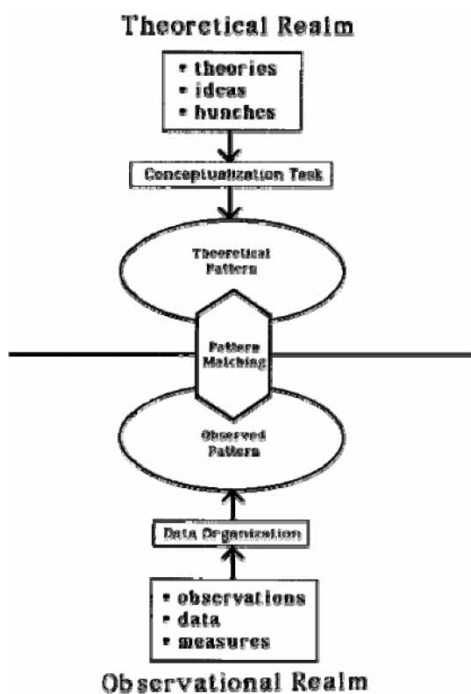


Figure 4 The basic pattern matching model (Source: Trochim, 1989).

Limitations of the Study

There are a number of limitations, some of which have already been mentioned, that restrict the scope of this paper, and it is useful to recognise them here.

- The type of information available is largely limited to economic impact studies commissioned by governments, who may have an underlying political motive.
- Olympic impacts may also be affected by external, and often uncontrollable, circumstances, which make it difficult to make assumptions and comparisons for each Olympic host.
- A more in-depth conclusion could be reached by analysing more than one Olympic Games; however, this is a far greater undertaking than is possible in a foundational paper such as this one.

Findings – Economic Estimates and Outcomes for Sydney 2000

Forecasts

Pre-event research indicated that Sydney was to reap net benefits from hosting the Olympics. It was predicted that Sydney would achieve a \$7.3 billion economic injection from hosting the Games (Waitt, 1999). Furthermore, New South Wales GSP was estimated to be 0.5% higher in an average year over the six-year construction period (New South Wales Treasury, 1997). Table 1 summarises the main economic impacts reported by three studies carried out preceding the Games (Andersen, 1999; NSW Treasury, 1997; KPMG, 1993 cited in Kasimati, 2003), whilst Table 2 details the NSW treasury report (Pre-Games) in more depth and shows the estimated impacts of the Sydney Olympics on New South Wales (NSW) and Australia in three scenarios: Pre-Games, Games and Post-Games.

Actual Results

According to the NSW treasurer, Michael Egan, the total cost of staging the Olympic Games was \$6.5 billion (Haynes, 2001). However, a Pricewaterhouse Coopers (PWC,

Table 1 Sydney Pre-Games Impact Summaries

Projected figures	Andersen	NSW Treasury	KPMG
Sponsor of analysis	Sydney OOC	NSW Treasury	Sydney Bid Committee
Addition to Australian GDP	A\$6.5 bn	A\$6.4 bn	A\$7.3 bn
Addition to NSW's GDP	A\$5.1 bn	A\$6.3 bn	A\$4.6 bn
International arrivals in Australia	1.5 million	2.3 million	1.3 million
Additional tourist spending	A\$2.7 bn	A\$4.3 bn	A\$3.0 bn
New Jobs (Australia)	90 000	98 700	156 198
Period	1994–2006	1994–2006	1991–2004

Source: (Kasimati, 2003).

Table 2 Estimated Impact of the Sydney Olympics – Annual Average by Period

		Gross domestic product (\$95/96 million)	Real household consumption (\$95/96 million)	Employment ('000 annual jobs)
Pre-Games, 94/95-99/00	NSW	750	350	10.1
	AUS	775	275	11.1
Games year, 2000/01	NSW	1700	350	24.0
	AUS	1550	525	29.4
Post-Games, 01/02-05/06	NSW	400	375	3.0
	AUS	425	650	0.4

Source: (New South Wales Treasury, 1997).

2002) report commissioned by the NSW Department of State and Regional Development summarises the main economic impacts of the Games, against which the \$6.5 billion should be offset, as being:

- Injection of over \$6 billion in infrastructure developments in NSW;
- Over \$6 billion in inbound tourism spending during 2001;
- Greatly enhanced business profile for Sydney, NSW and Australia through the equivalent of up to \$6.1 billion worth of international exposure;
- An additional 1.6 million visitors during 2001;
- The attraction of more than 110,000 Games-time specific international visitors.

Preuss (2001) cited in PricewaterhouseCoopers (2002) gives a detailed analysis of visitor arrivals throughout 2000 compared with the same period in 1999 (Figure 5). This shows a peak in international tourist arrivals for the Games month (September) compared with the same period in 1999. Figure 6 indicates the changes in tourism GDP over the period 1998/99 – 2003/04. Empirical evidence suggests that tourism GDP increased from \$27.3 billion to \$30.9 billion in the period

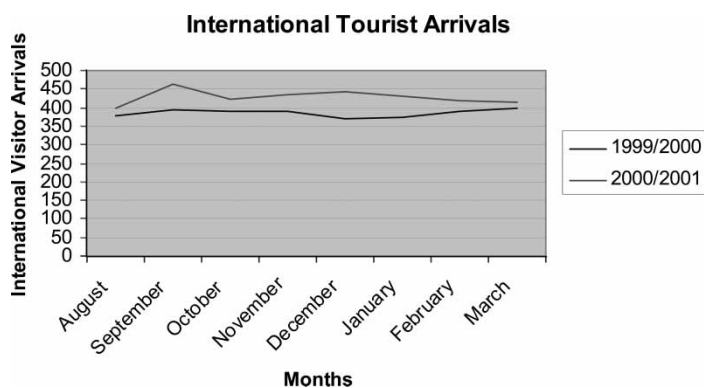


Figure 5 International tourist arrivals ('000) comparison. Source: (Preuss, 2001 in PricewaterhouseCoopers, 2002).

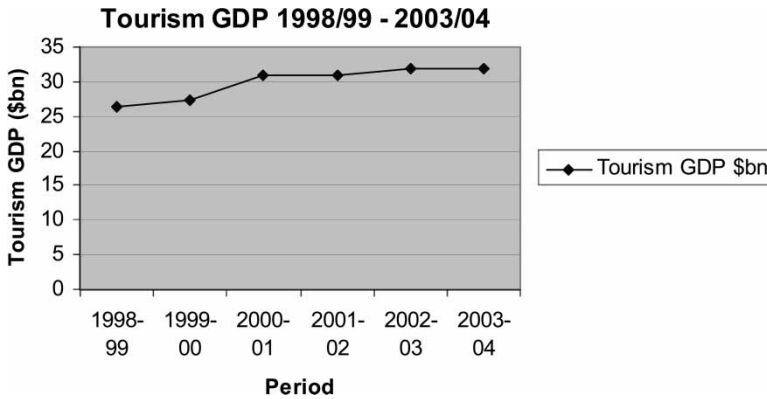


Figure 6 Tourism GDP 1998/99 – 2003/04. Source: (Mintel, 2006).

2000–2001 when the Games took place. Similarly, and substantiating earlier suggestions from Morse (2001), research by Mintel (2006) suggests that over the period 1990–2004 international tourist arrivals increased from over 2 million to over 5 million, with an increase of 472,000 visitors between 1999 and 2000.

The Wider Situation (Victoria & Queensland)

Table 3 (Victoria) and Figure 7 (Queensland) illustrate tourism performance and arrivals in the pre- and post-Games periods. Furthermore, a report by the Australian Bureau of Statistics highlights that tourist accommodation takings and occupancy soared in Sydney during the Olympics but the rest of Australia showed little change (Australian Bureau of Statistics, 2001b).

One of the most talked about benefits of the Games is the maturing of the host countries brand image as a result of media coverage. A report compiled by Pricewaterhouse Coopers (2002) indicates that there would be an acceleration of 'Brand Australia' with the development of its profile over a 10 year period. Furthermore, the worldwide Olympic Games TV audience was estimated at 3.7 billion (Tourism Australia, 2001). In addition, Pricewaterhouse Coopers (2002) noted that the French company Datops, under contract to the IOC, tracked all games-related stories filed on the web and

Table 3 Tourism Performance Indicators Victoria 1994–2001

Performance measures	Unit of measure	1994	1998	2001
Visitor Nights Domestic	Million	•	55.7	54.5
Visitor Nights International	Million	11.5	18.2	21.2
Market Share International	%	14	17	17
No of Visitors (International)	Million	0.8	1.0	1.1

• = no data available.

Source : (Tourism Victoria, 2002).

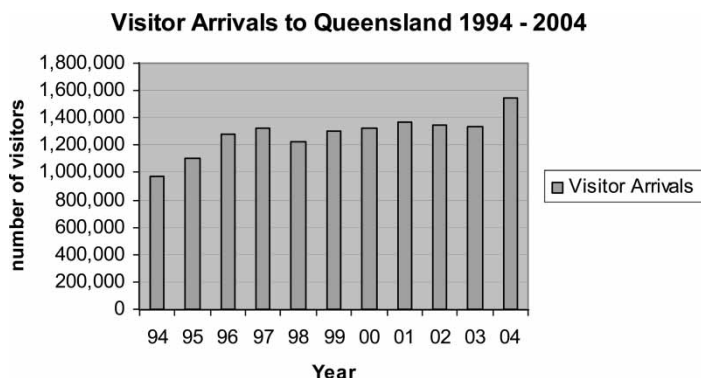


Figure 7 Visitor Arrivals to Queensland 1994–2004. Source: (Australian Bureau of Statistics, 2001a).

recorded a dramatic peak in international coverage of Australia in the Games year. Datops highlights that in September 2000, 1,100 articles were published daily on Australia compared to a daily average of 100 for most other months.

Interestingly, Morse (2001) noted that the end of the Games did not signify the end of the tourism strategy, rather it signified the halfway mark for the tourism industry. Yet the Australian Tourism Minister, Fran Bailey, comments that the NSW state government has blown its Olympic Legacy (Burke, 2006). Since 2000, the NSW government has repeatedly slashed its tourism budget and has lost tourists to Victoria and Queensland.

Analysis

The reports included in the findings are often concerned with terms such as ‘economic activity’ or ‘economic injections’, yet without a precise definition of these terms it is difficult to interpret their particular meanings. Furthermore, it is rare for further research to challenge these impact analyses once the Games have passed. This may be because the costs (even significant and considerable costs) of hallmark events are often forgotten in the euphoria surrounding the event (Toohey & Veal, 2000).

Although NSW experienced increases in GDP, Blake (2005) notes that estimates indicated that the rest of Australia would actually incur a loss in GDP for the Games year (Table 2). Furthermore, from the three studies carried out pre-Games, there are discrepancies that exist (Table 1). As Kasimati (2003) notes, all three used different modelling approaches and were sponsored by different bodies, a not uncommon problem that makes comparisons difficult (Delpy & Li, 1997; Hudson, 2001). Hudson’s (2001) study on economic impact analyses of professional sports shows how the existence of studies with differing methodologies and assumptions calls into question both the reliability of individual studies and the economic impact enterprise as a whole. In order to gain a comparative insight between each Olympics there is a need for the use of one conservative methodological approach for all pre-Games

studies. There are some preliminary indications of a move in this direction, with two pre-Games studies (NSW Treasury's 1997 study for Sydney 2000 and Blake's 2005 study for London 2012) both using the CGE model. Although this model is not without criticism, if analyses continue to use one preferred methodology, then standardised comparisons can be made. Indeed, the introduction of the OGGI is a positive step by the IOC in their commitment to lasting legacies; however, it is, as yet, too early to comment upon the value of this management tool and further studies are needed to legitimise its use.

Theory suggests a difficulty in calculating, as well as a lack of comprehensible data regarding, Olympic-associated costs. As Preuss's (2002) model indicates, costs and impacts may begin as early as 11 years prior to the event and can carry on for an undetermined period after the event. Clearly this creates huge difficulties in the calculation of actual costs. In the Sydney studies, there is no breakdown of costs and no explanation as to how costs are calculated. It therefore appears that reports regularly over-emphasise the gains of Olympic Games whilst neglecting to mention any costs or negative impacts.

Certainly, the results point towards a significant boost for tourism-related GDP with an increase of \$3.6 billion being noted over the period 1998/99 to 2003/04. This reinforces Tyrrell & Johnston's (2006) view that once the Games are over, international tourism becomes the sole type of Olympics-related direct expenditure.

The findings indicate that arrivals to Australia increased pre- and post-Games in comparison to the same period in 1999. From Preuss's (2002) study (Figure 5) it is obvious that for the six months after the Games there was an increase in international visitors to Australia compared with the same period in 1999. However, when considering tourist arrivals to the neighbouring states, results signify that although visitor arrivals increased in the period after the Games, the increases were smaller than in previous years.

The market share of international tourists essentially remained unchanged for Victoria in the period after the Games. Queensland received increased numbers of visitors, whilst Victoria's increases were proportionally smaller than in previous years. Figure 6 indicates that, for the region of Victoria, the number of domestic tourists staying overnight actually decreased over the period 1998–2001, international tourists staying overnight did increase but not as much as the period 1994–1998. The market share of international tourists increased over the period 1994–1998, but remained unchanged over the period to 2001. Table 2 indicates that, for the period of the Olympic Games, visitor arrivals increased by 2.4% from 1999 to 2000 whereas from 1998 to 1999 there had been an increase of 7.3% in tourism arrivals. These patterns perhaps reinforce the views held by Faulkner *et al.* (1998, in Higham, 1999) that many tourists may be discouraged to visit the country due to the scale of the event and that, possibly, Olympic tourists are 'sports junkies' who have little interest in the wider tourism product. As such, many Olympic visitors may hold sport as their primary motive for travel. Although the aim of London 2012 is to include the rest of the UK, by positioning sport events across the country, it may be necessary that more detailed strategies be put in place to ensure the spread of impacts.

Lessons for 2012

A key issue arising from economic impact analyses surrounding the Olympic Games is that they will always attract criticism due to the amount of public funds involved. What this paper shows is that both positive and negative impacts exist. However, in order to maximise the positive and reduce the negative impacts, economic analyses need to provide clarity and credibility that allow for comparability. Not every Games will be an economic success, nevertheless this allows for the opportunity to learn and work towards generating a benchmark from which future hosts may work. Future research in comparing pre-Games estimations with post-Games results will undoubtedly help in this area. In this respect, problems with identifying spatial and temporal boundaries of studies need to be addressed as well as more explicit definitions of the terminology used.

The importance of tourism as an economic impact resulting from the Games is obvious; however, the opportunities to maximise these impacts are not being exploited. Although economic impact analyses are fraught with criticism, what is clear for London 2012, and other future hosts, is the need to utilise an economic impact analysis tool that allows for benchmark comparability. The IOC's recent commitment to this is reflected through their introduction of the OGGI, although, as Cashman (2006) suggests, this may not be the optimum tool for measuring tourism impacts.

Other models more applicable to the context of tourism are available; within the UK the LATI model could be constructive for comparing the tourism impacts of London 2012 throughout differing regions in the UK. This may well provide a benchmark for future hosts to utilise in analysing the spread of tourism impacts as a result of their Games. As Crompton (2006) highlights, the case for tourism is economically sound enough and therefore does not warrant the use of unacceptable practice.

Concluding Comments

This paper has focused on the most important and sought-after event in sport tourism, the Olympic Games. The paper has established that economic impact studies are extremely complex and, due to differing methodologies, can cause confusion and contain conflicting results and/or estimates. Coupled with this is the fact that Olympic budgets are notoriously unreliable. Moreover, claims of increased 'economic activity' or of 'economic injection' sound promising but can lead to misinterpretation as the terms are not comparable. Economic impact studies of Olympic Games should consider and take heed of the assessments of the economic impact analyses of Crompton (1995, 2006) and Hudson (2001). What this paper suggests is that there are key problems with the economic assessment of Olympic Games that, while privately acknowledged (and perhaps even condoned or encouraged) by policy-makers, are rarely publicly and explicitly recognised or debated. The requirement, therefore, is for a benchmark analysis with greater transparency and standardisation

that can be used by each Olympic host, and from which comparisons can be made and lessons learned.

It is important to recognise that the Games themselves do not represent the full extent of the economic impact. Once over, the Games leave the host with many tangible benefits but, more importantly, they offer the host a huge intangible benefit – the potential of a long lasting legacy. The main economic impacts of the Games are primarily tourism related and remain the sole legacy once the Games are over. In summary, tourism is a key legacy of the Games. However, it is a *potential* legacy and it will not emerge by itself, it needs to be transformed into an achievable strategy by a strategic approach to planning and management. In this respect, London 2012 must ensure that adequate steps are taken to plan for that post-Games legacy now. Sydney 2000 and Athens 2004 have now faded to distant memories, Beijing 2008 is next and London 2012 sits on the horizon, but despite the long preparation time, Olympic opportunities are short-lived and the Olympic spotlight will swiftly move on.

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