SPORTS FACILITIES DEVELOPMENT AND SUSTAINABILITY

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ABSTRACT

There is current sports facilities construction boom universally. One major issue on sports facilities construction is the question of their funding and justification for their investment. It is due to requirement of huge money for construction and constant maintenance costs. Further, there are needs for ancillary construction that are often built at public expense with every provision of a new facility. Hosting sports events gain increasingly popularity among the cities. Cities vigorously compete to host sports events. However, it leads to further sports facilities development. There is a wide diversity in the range of impacts that sports can generate. In recent years sustainability has assumed increasingly importance. How and to what extend sports facilities construction achieve sustainability over time. The long-term benefits to cities and local communities need to achieve more initiative by decision-makers. This paper is aiming to clarify different impacts of sports facilities construction in cities. Further, by reviewing the current literature, addressing a substantial gap and identifying the opportunities to achieve efficiency and enhancement of long-term benefits for the future.

Keywords: Sports Facilities Development, Sustainability, Benefits.

1.INTRODUCTION

Sports facilities have undergone significant changes over time, especially over the past two centuries. Sports facilities developed through the years from functional stadium, adapted stadium, state-of-the art stadium to center of business and regenerating area facilities. Sports facilities developments have been considered in recent years universally. This is due to increase in the amount of money being spent on sports facilities, as well as an increase in the number of sports facilities that have been built in the past two decades. However, due to its large investments, sustainability seems to be an important element on sports facilities development for the future.

Recent sports facilities constructions are for hosting sports events. Sport is getting more and more influential and will continue to grow in importance as the world develops into a 'global village' sharing the English language, technology and sport. In 1986 the modern Olympic movement was born in Athens. Since then the cities vigorously compete to host sports events. In addition, they spend huge money for hosting sports events. For example, Malaysia spent more than two billion Malaysian Ringgit (RM), or US\$555 million, for stadiums, the organisation of the games and the training of local athletes for hosting 16th Commonwealth Games in 1998 (Westhuizen, 2004). More recently, China spent over \$23 billion in order to host Olympic in 2008.

A lot of research has been conducted on sports facilities impacts both positive and negative. However, this is crucial in ensuring the long-term sustainability of such a huge investment. On the other hand, physical land use planning has a major role in achieving sustainable development (Dasimah, 2002). The location of sports facilities within the metropolitan areas seems to have direct relationship to their abilities for long-term benefits.

This paper is based on reviewing the current literature. It is structured as follows. The next section provides a brief overview on sports facilities evolution particularly regarding to changes in the

rationale for their funding and location within metropolitan area. The second section concentrates on impacts of sports facilities construction. The third section aims to identify the long-term benefits of sports facilities which lead to sustainability over time. Finally, the conclusions address opportunities to achieve efficiency and enhancement of long-term benefits for the future.

2.SPORTS FACILITIES EVOLUTION

Traditionally the sports facility was a modest facility with a capacity of perhaps a few hundred, serving a small local community and forming part of the social fabric along with the religious building, and town hall. In the 1986 the modern Olympic movement was born in Athens. Since then the sports facility has evolved into one of the great public building forms of the twentieth century, regarded, as its best, as an essential and positive element of civic life (John et al., 2007). Sports facilities become part of the 'public infrastructure' that define the quality of life for a city to be successful in the 21st century. A city needs a big public sports facility because that is one of the things that distinguish a city (Rosentraub, 1996).

Definition of a sports facility is different, from open recreational areas such as golf courses to indoor arena, dome, and single-purpose or multi-use stadium. For purpose of this paper, it is defined as any big enclosed facility for competitive sports where sports are played, can host sports events, requires public money for construction, maintenance and big enough to need ancillary construction.

While, first generation of sports facilities aim to cram as many spectators as possible with very few amenities, in the second generation they considered to improve and for greater comfort for spectators. Security become as central issues at third generation. It might have started in the UK from the tragedy at Hillsborough, Sheffield in April 1989 when 96 football fans were crushed to death during a football match. The Lord Justice Taylor Report, which was extremely critical of the design and safety of the football stadium, recommended, inter alia, the phasing out of standing terraces and general improvements is ground safety (Bully, 2002). Digital television, satellite communication, and internet turned sports facilities into media-oriented. This global consideration on sports and sports facilities, on the other hand, given the increased pressure on cities to adopt an entrepreneurial stance to attract mobile global capital, have changed sports facilities at present. In recent years, they considered for their abilities to shape new cities or regenerate decaying areas of old cities. The new sports facilities developments serve consumer needs. They accompany with residential, commercial, retail and leisure complex with efficient transportation system. Therefore, sustainability gains more initiative in new generation of sports facilities development.

2.1 Sports Facilities Funding

Perhaps the one major issue on sports facilities construction is the question of their funding and justification for the investment. It is due to requirement of huge money for construction, almost certainly with substantial public investment, and which is too much money compare to the cost benefit analyses. There are also needs for ancillary construction that are often built at public expense with every provision of a new facility. It is more difficult especially for sports facilities that have been built for world class sporting events to produce sufficient revenue to sustain annual operating costs after the event and they might be underutilised in the post-event era. There is a high cost for maintenance and the truth is that it is now very difficult for a sports facility to be financially viable without some degree of subsidy (John et al., 2007). Although so many researches there is still an ongoing debate to build a new sports stadium with public funds (Sam and Scherer, 2008).

In the 1970s and 1980s, most countries expenditure on sport expanded considerably with the rationale that sport made a considerable contribution to local communities in welfare terms (Gratton and Taylor, 1991). On the other hand, since 1960s in North America in response to debilitating problems cities have subscribed to a brick and mortar strategy of urban revitalisation. This strategy equates economic development with new construction and generated activity in different districts of the city. Over the past two decades, however, the single most popular downtown redevelopment project to emerge in urban America has been the sports stadium (Chapin, 1999). This strategy has been following increased unemployment due to de-industrialism in industrial cities, not normally known as

major tourist destinations. It is also provided by shifting the location of sports facilities into the city area.

In the UK a second wave of sports investment began with following a similar rationale. Cities throughout Britain have invested in flagship projects to spur economic development efforts with a bricks and mortar approach by bringing visitors to downtown areas and by generating publicity for what are perceived to be dour, in-decline, formerly industrial cities (Jones, 2001; Chapin, 2002b). It originated in the late 1980s when several cities used property and enterprise-led development policies to build prestigious sports-led development to promote regional and economic development (Jones, 2001). In the Britain context, also most of the cities following this strategy were industrial cities. The difference between the rest of Europe, Australia and British, the American ones are already major tourist destinations in their own right prior to hosting the sports events and new stadia construction. They were not facing problems of industrial decline. The objective was to transform the image of these cities and turn them into major world cities (Gratton *et al.*, 2005). The situation elsewhere in the world is equally ambiguous (John *et al.*, 2007).

2.2 Sports Facilities Location

In the earlier trend sports facilities were located in urban dense neighbourhood (Chapin, 2000). As cities decentralisd, so did sports facilities. A major trend of the sports stadia construction in 1960s and 1970s was the building of large stadia on out-of-town locations where crowds, whether well or badly behaved, would create fewer disturbances to the everyday lives of people not attending events. Within the past twenty years it seems a massive return of sports stadia to the city central. In addition, today it is technically feasible to build a safe, comfortable and functionally efficient sports facility in any location provided that there is sufficient land and that the sports facility's use is compatible with the surrounding environment (John *et al.*, 2007).

Tim Chapin (2000) analysed the location invariably tied to three sets of decision-guiding factors: technical factors like site characteristics, economic factors like land costs, and political factors like economic development initiatives. He discussed early stadia were located in dense urban neighborhood, with an intentional high degree of accessibility to their working class and middle class fan base. As the classic location theory suggest sports facility location to be linked directly to the location of their core market over the time. However, it seems to fly in the face of this theory as a massive return of sports facilities to the central city within the past twenty years. On the other hand, the locational shifts to central city sites could be explained to a host of factors. These factors include the growing importance of the public sector in the site selection process, the linkage of sports facilities to economic development initiatives, and the changing economics of major league sports. The third factor is to identify a new fan base which is corporations. These factors provide a much better locational fit for this new market, providing easy access for these fans.

3. IMPACTS OF SPORTS FACILITIES

There are a wide range of positive and negative impacts that sports facilities construction have on their surrounding areas and wider cities. They may have political, economical, social, physical, legal, environmental, and safety impacts. Generate new construction in the district, reuse of vacant building, changes in land use, and spin-off development are examples of physical impacts. Further, there are abilities to provide substantial social benefits. They might create community, improve interaction, provide recreation, intangible benefits, and alleviate deprivation. In addition, improve transportations lead to benefits for local communities. On the other hand, congestion, litter, traffic, vandalism, noise, and wrong kind of clientele are some kinds of negative impacts that sports facilities generate on their surrounding areas.

Most of the literature on sports facilities come from the North American experiences as their professional sports facilities are very popular. However, the facility construction boom that hit the North America in the 1990s started to spread internationally (Fried, 2005) which lead to a lot of researches on sports facilities.

At a very basic level, the impacts are categorised as economic impacts and non-economic impacts (Chapin, 2002a). Rosentraub (2006) concentrate on benefits and divided them into, tangible and

intangible benefits. However, majority of researches on the impacts of sports facilities have also proceeded along two very different paths, one strictly economic and the other with an eye towards non-economic impacts. Further, there are some researches to examine the ability of sports facilities as urban generation in different case studies. These studies consider different indicators for urban development to determine whether or not this has occurred.

The economic impacts are including changes on income per capita, employment, land value, local economy, and new business creation. On the other hand, the literature on the economic impacts is further bifurcated, with consultants usually determining that teams and sports facilities have a sizable economic impact while scholarly studies almost unilaterally conclude that sports facilities are not wise investments (Baade, 1996; Chapin, 2002a; Coats and Humphries, 1999).

Chema (1996) in his article to respond Baade argued that context is the key and the value as catalyst for economic development depends on where they are located and how they are integrated into a metropolitan area's growth strategy. In 2005, Santo mentioned that Siegfried and Zimbalist declared the case closed, but this is a dangerous generalisation that ignores the importance of context which is very important. He concludes a facility's ability to impact its local economy is tied to its context. His finding reports new evidence, derived from recasting the landmark study of Baade and Dye with current data, which contradicts their conclusion. It indicated that context matters.

The large and growing peer-reviewed economics literature on the economic impacts of stadiums, arenas, sports franchises, and sport mega-events has consistently found no substantial evidence of increased jobs, incomes, or tax revenues for a community associated with any of these things (Coates and Humphreys, 2008). Although, in terms of land property value there are some evidence indicate that in contrast to prevailing assumptions, sports facilities can have a positive impact on residential values in the surrounding area (Davies, 2005; Tu, 2005).

Although there has been ongoing debate to build a new stadium with public funds (Sam and Scherer, 2008), the literature on non-economic impacts is somewhat more positive, concluding that non-economic impacts are present and often positive, but hard to quantify (Chapin, 2002a; Walton *et al.*, 2008). Meanwhile, impacts at the district level, or micro-area, have yet to be assessed because of the limitations of data in metropolitan areas (Chapin, 1999) and this debate might neglect this crucial aspect. Empirical studies usually use aggregated data on a city or metropolitan level, instead of focusing on areas for which impact might be expected, most probably due to difficulties in obtaining and handling data (Ahlfeld and Maennig, 2007). Most of the serious gaps in knowledge over the broader economic benefits of sport can be filled at the local level. In recent years, the majority of attention has received from scholars on noneconomic matter. In addition, globalisation, and increased popularity of hosting sporting mega-events among cities lead to enhance the role of non-economic effects of sports facilities development. More generally literature on non-economic impacts is much smaller and less developed.

The important issue on non-economic impacts is how to measure these effects. Because more traditional quantitative evaluation techniques are less easy applied to noneconomic impact analysis, findings come primarily from case studies of specific towns, projects, or sporting events. Contingent valuation (CV) method is the only method attempting to empirically measure intangible non-use values and potential consumption benefits associated with sports subsidies (Walker and Mondello, 2007). Nonetheless, given the economic impact studies typically produce negligible or even negative estimates of net benefits from hosting major sporting events or building sports facilities, constructing an argument in terms of willingness to pay represents a more credible approach to this policy choice problem (Atkinson et al., 2008).

Proponents of sports investment have made different contents to define sports facilities role in cities, urban development, generation, catalyst, redevelopment, growth, revitalisation, economic development, and community generation. However, they could provide better public subsidisation. Following those, there are many researches to investigate their claims. Rosentraub (1995), investigate urban redevelopment through three central objectives underlying the special activity generator strategy including generate spillover benefits for the surrounding district, generate new construction in the district, and rejuvenate a blighted area.

Chapin (1999), concentrate on the generation of spill-over spending benefits that accrue to the community, the generation of new construction in the surrounding district, and local-level revitalisation. However, in 2004 he has assessed the ability of sports facilities to catalyse

redevelopment, defined as the development of vacant land, the reuse of underutilised buildings, and the establishment of a new district image. Finally, he concluded that district redevelopment is by no means guaranteed by these investments.

Sternberg (2002) considered on cultural (sports and entertainment) facilities as catalytic facilities. Catalysts are facilities –usually buildings- that generate urban development in their immediate surroundings, thereby meriting community support, possibly in the form of public subsidies. Among catalytic facilities stadiums are the most notable recently. Museums and performing arts centres are not as well inventoried, and they usually cost less than stadiums but are probably more numerous. Cultural facilities are increasingly seen as centrepiece of local redevelopment (Weber, 1997).

To understand catalysts per se, it can be achieved in several ways (Sternberg, 2002). The first and most important way is by generating comings and goings. The second category of effects on other buildings is through the mediation of builders and architects. Third, a building may serve as an amenity, affecting passers-by and attracting them, even if they do not enter the building. Fourth, the building's presence may shape investors' perceptions, increasing confidence and promoting additional investment, especially if the building replaces a previous desultory landscape or a previous condition of uncertainty. Fifth, the building's signification may reinforce, or detract from, the surrounding area's thematic features. He concludes that development surrounding a large sports facility is nonetheless sometimes attributed to the sports facilities. On the other hand, Chapin (2002b) conclude that district-level planning has emerged as an important element in linking redevelopment to new sports facilities. The identification of downtown activity nodes and the formulation of a strategy to connect these nodes are central elements to this new approach.

4. SUSTAINABILITY OF IMPACTS

In recent years, sustainability has assumed increasingly importance. However, sustainable development refers to maintaining development over time (Elliott, 1999). It directly depends on the sports facilities usage over years. The sustainability of the impacts and longer-term effects are largely dependent upon future usage and the ability to affect the local community (Davies, 2005). Ken Perry (2001) assumes that the benefits accrue through attendance, and therefore measuring the change in attendance can in some way quantify these benefits. There are sports facilities that have been built for world class sporting events that struggle to produce sufficient revenue to sustain annual operating costs after the event. In addition, there are examples to provide contemporary facilities for events such as Atlanta's approach during 1996 Olympic Games. The sustainability of impacts is dependent upon future usage. This is also helps the event to avoid labeled 'the disposable Games'. This term was used by Rutheiser (1996) for Atlanta's approach during 1996 Olympic Games.

However, it is a new approach to the planning and design which is expected to guide the physical planning system focusing on the concept of sustainable development. Physical land use planning has a major role in achieving sustainable development (Dasimah, 2002). On the other hand, urban generation embraces a number of dimensions such as physical, economic, social, and environmental, and as it stated earlier sport is considered more or less relevant to all of them, though in many different ways and in a different geographical scales. Recent shifting the location of sports facilities into the city area, at the same time, changes in the nature of planning and urban development in a series of large-scale urban redevelopment projects, has provided sports facilities new role for spur development.

Three possible scenarios can be identified concerning the location of a new sports facility including: city centre, edge city, and deprived neighborhood with different implications. In the previous trend, as cities decentralised, so did sports facilities. However, a major trend of the sports facilities construction in 1960s and 1970s was the building of large stadiums on out-of-town locations. These facilities have less potential for significant spillover benefits for communities in which they were constructed. Studies completed by Robert Baade (1987, 1996) indicate the second generation of stadiums had very little effect on urban economic development. It is plausible that the new generation of sports facilities within city area provide more impacts.

From researches on sports facilities impacts, it obtains that context is an important factor; however shifting the location of sports facilities into the city areas provide the new potential for urban generation. Further, it depends how to connect to surrounding area. The visual and physical connections of sports facilities to their urban environments are keys because they begin to establish a

linkage between the prospects of the stadium or arena and the land around it. Research indicates that district-level planning with an expressed goal of catalysing district development is important to realising development outcome (Baade, 1996). Sports facilities can lead to urban generation if they consider in larger development strategy. In order to overcome the isolation the sports facility development needs to be integrated into a local regeneration strategy to enhance the contribution of the sports facility to local community (Thornley, 2002). However, new generation of sports facilities are along with development of city life. They complement a mix of residential, commercial, retail, dining, and entertainment spaces as real life center and a 365 days using. Further, by focusing on non-game elements that allow the flexible facility to work on different ways all the years and so to develop the revenues in the sports facility and around.

This trend can be used for hosting sports events. Legacy programme was an innovative attempt adopted in conjunction with the 2002 Commonwealth Games to ensure that the Games left a lasting legacy for Manchester and the North West of England (Smith and Fox, 2007). Gratton *et al.* (2005) claimed that it represents the first time in Britain an ambitious legacy programme was designed around a major sport event. It was for the period 1999-2004. The mixture of projects linked to the Games was a key strength of the legacy programme. It encouraged a greater range of benefits than would otherwise have been possible. This helped to avoid many of the problems associated with event strategies adopted by other host cities. Events seem to leave a more positive physical legacy when they are embedded within wider regeneration strategies.

As declared by Carriere and Demaziere (2002) Barcelona perhaps provides the best example, as it had talked for over 25 years about many of the changes now associated with the 1992 Olympic Games. Principally, this event provided an important incentive and deadline to complete long-held visions to develop road and transport infrastructure, housing, office and commercial developments; and hotel facilities. More was spent on each of these four types of development than on new event venues. The Olympic Games left a comprehensive physical legacy that provided the basis for Barcelona's subsequent economic regeneration. Urban development that includes an event encourages urban development rather than using an event (Carriere and Demaziere, 2002).

5. SUMMARY AND CONCLUDING REMARKS

Sports facilities have been considered recently due to increase in the amount of money being spent, as well as an increase in the number of sports facilities that have been built in the past two decades. Recent shifting the location of sports facilities into the city area, at the same time, entrepreneurialism or municipal capitalism approach led to obtain new role for sports facilities as catalytic buildings and for spur development. New generation of sports facilities have the potential to shape new development or regenerate decaying areas of old cities. There are a wide range of positive and negative impacts that sports facilities development can generate on their surrounding areas. For sustainability of benefits, it is necessary to concentrate on the long-term impacts which concern to legacy of facilities construction and infrastructure improvements. Through reviewing the literature it obtains that district generation is one possible positive sustainable outcome that can justify their funding. However, there are two factors affecting these abilities. First is usage, the sustainability of impacts dependent upon future usage. Second is related how to connect to their surrounding and consider in larger development strategy. District-level planning has emerged as an important element. Sports facilities merely are not enough for sustainable urban generation. In order to overcome the isolation, the sports facility development needs to be integrated into a local regeneration strategy to enhance the contribution of the sports facility to local community. The identification of activity nodes and the formulation of a strategy to connect these nodes are central elements to their ability for sustainable urban generation in that particular area. On the other hand, it may encourage further usage. There are growing demands for sports facilities development both for hosting and smaller scale facilities. Further development will take place in several considerations, with enhancing the sustainable long-term benefits of such a huge public investment for cities.

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