Twenty-First Century Coliseums

The business of stadium development in a growing global sports market

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Introduction

The ancient Greeks and Romans built the first structures designed for the housing of sports and spectators. The ancient Greek stadiums often consisted of little more than an area for the activity and earthen banks from which spectators could watch. The Romans built hippodromes (large flat areas for racing horses) and coliseums from marble and wood, and they included the most basic of what constitutes a modern stadium – gates, seats, and colonnades (Raitz 1995, 9). These stadiums distinguished themselves from the sports facilities that already existed for millennium in the same way stadiums and sports facilities differ today. Whereas, sports facilities are designed, built, and operated to serve the participants, the stadium is for the spectators.

Today, the stadium can be as much of an attraction as the sport or team. An attractive or unique layout, a stimulating scoreboard, convenient and comfortable seating, distinguishing characteristics, and novelty will affect interest and attendance (Smith 2003, 67).

The birth of modern stadiums can be traced back to the turn of the twentieth century. Stadiums became necessary as games evolved from recreational activities to spectator sports. This evolution began when the Ivy League colleges organized sports clubs, established written sets of rules, hired officials to ensure the rules were followed, and created an intercollegiate regulatory association. Harvard and Yale led the way by building new football stadiums with capacities larger than the size of their student bodies (Raitz, 14).

Similar changes were occurring in the professional leagues. In 1862, William Cammeyer invented the enclosed ball park at Union Grounds in

Brooklyn. The new design kept non-paying spectators from watching, attracted investors and fans, and impressed prospective players (Baim 1994, 1).

The modern stadium serves many of the same purposes – on a much grander scale. In less than 200 years, spectator sports have grown from an innovation of prestigious colleges and the gentry to a multi-billion dollar global enterprise. Today, the vast majority of viewers and revenue for sports come from fans not even inside the stadium. Still, the stadium represents a substantial enough percentage of revenue, fan base, team and city identification that the business of stadiums is essential to the growth of sports in general.

The elements of the stadium design are imperative parts in the global growth of sports. All aspects regarding the business of stadiums including size, design, usage, economic impact, usage, management, pricing, attendance, and sports tourism impact the industry and will shape the future of the business.

The demand for sports will grow as the world population increases, metropolitan areas become larger, and globalization raises discretionary spending and leisure time around the world. To meet the demand, new stadiums will be built, and stadium design firms will profit.

Size

Before any designs can be drawn for the construction of a new stadium, the demand for the sport must be assessed. As obvious as this seems, it represents a relatively new way of thinking when it comes to stadium building. The 1950’s through 1970’s represented an era which stressed building stadiums as large as possible. These “white concrete doughnuts” of stadiums were virtually unidentifiable from each other – especially when compared to the differences in both stadium designs and playing field dimensions of today and the pre-WWII era. Many were built to serve multiple uses (i.e. football, baseball, concerts). These massive stadiums, which required acres of land for the actual facility as well as the sprawling parking lots, were often built miles away from downtown – capitalizing on the cheaper suburban land (Raitz, 15). These stadiums were (and for those still being used, are) destinations by themselves and little development occurred around them. Today, these stadiums rarely come close to filling-up, and their average attendance is typically one-third of capacity. Examples of these stadiums include: RFK Memorial Stadium in Washington, D.C., and Oakland Coliseum in Oakland.

These multi-use stadiums were built to accommodate the attendance of the most popular sport… American football. In 2000/2001, the NFL averaged 66,078 fans per game while MLB averaged 30,073 fans, and MLS averaged 13,756. (Smith, 108) The result is a stadium that's filled to capacity eight times a year for football games, and is cavernously empty for the 86 home baseball games and 16 home soccer games.

However, this doesn't mean that stadiums should be built smaller. In fact, some of the world's largest stadiums often reach or exceed capacity. These include the 250,000 capacity Indianapolis Speedway, the 223,000 capacity Tokyo Horseracing Course, the 114,000 capacity Estadio Azteca Soccer Stadium in Mexico City, and the 107,000 capacity Beaver Stadium for football at Penn St. (World Stadiums)

Rather, stadiums should be built so that average attendance mirrors capacity. According to Gary Boon in his Deloitte & Touche Annual Review of Football Finance (1998), "It may be great to have a 20,000 capacity stadium but an average attendance of only 4000 creates a negative atmosphere. A 10,000 or 12,000 capacity stadium can provide a better atmosphere and paradoxically, increased support."

The English Premier League is by far the most popular professional soccer league in the world. Its star teams: Manchester United, Chelsea, and Arsenal, helped the league reach a total attendance of 12,505,200 fans during the 2000/2001 season – compared to MLS's 2,641,085 fans or the NFL's 16,387,289 fans over the same season. Part of the league's popularity and success can be attributed to stadiums whose capacity mirrors the league's average attendance of 33,000 fans per match (Smith, 107). Below are the top 5 stadium occupancy rates (%) of English Premier League teams:

Team	**Stadium Capacity**	**Occupancy Rate**
Charlton Athletic	20,043	116
West Ham United	26,054	116
Chelsea	35,421	108
Ipswich	22,559	104
Fulham	19,000	102

Source: Lifted from Sport Business in the Global Marketplace (2003) pg. 112

Overall, the average occupancy for English Premier League teams is 90 percent. The most popular league in the world, the NFL, has an average occupancy rate of 91 percent (Smith, 112).

Limiting seating to maximize occupancy can actually be self serving for sports franchises. According to a 1994 study conducted by the Australian Football League, empty stadiums create bad impressions; whereas, full stadiums can create a crowd atmosphere that is part of the entertainment experience and adds to the game ethos (Smith, 113).

The MLS is copying the EPL's winning strategy of stadium downsizing. MLS Commissioner Don Garber hopes to achieve his goal of creating a "passionate environment in a close space" which emulates the foreign soccer experience by building soccer specific stadiums with capacities for 18,000-20,000 fans. Currently, seven teams of the league's 13 play in soccer specific stadiums. Last season, the five teams playing in soccer specific stadiums drew significantly more fans – nearly 13% more than the others. The teams playing in the smaller stadiums paradoxically averaged 16,608 compared to 14,716 for the others (Ruibal, 2007).

Ultimately, stadiums should be built for optimal capacity rather than maximum capacity.

Financing

Between 1990 and 1998, 46 major league stadiums were built or renovated in the US alone. And in 1999, an additional 49 stadiums were either under construction or being planned. These stadiums represented a total of $21.7 billion in spending during the 1990's. The construction cost of each individual stadiums rose from $3.8 million in the 1950s, to $25 million in the 1960s, to $71 million in the 1970s, to $103 million in the 1980s, to $200 million in the 1990s, to approximately $306 million today (Siegfried 2000, 95). Stadiums can easily exceed those estimates. Allianz Arena in Germany, built for the 2006 FIFA World Cup, cost nearly $500 million, and the new Washington Nationals' ballpark slated to open in 2008 is expected to cost at least $611 million (JD, 2007)

In the past, gate receipts were enough to cover operations, player salaries, and stadium construction. However, with rising construction costs and salary increases, sports franchises looked to the public to finance their stadiums. Today, match-day sales for the EPL generate only 34 percent of the league's total income – a little over half the amount required just to cover salaries (Smith, 123). Italy's soccer league only generates 19 percent of its income from match-day sales and France only 16 percent. Both leagues generate 56 percent from TV revenue and the rest from commercial sales (Smith, 115).

Kevin Roberts, Sports Business Group's editorial director says fourth generation stadiums have had to identify alternative funding strategies as costs increase and public willingness to finance stadiums decreases. These alternatives include distributing concession, alcohol, merchandising, and media rights. Further, stadiums are being built with more luxury boxes and club seating to attract high income fans and advertising. Stadiums are even selling away their naming rights. The naming rights to the Staples Center in Los Angeles sold for $120 million (Smith, 116).

The public heavily financed third generation stadium building (1950's-1970's) – contributing nearly 83% of stadium spending (Siegfried, 97). Today, the public only finances an average of 66.7 percent of stadium costs. The most common form of public financing is the use of government issued federal-taxexempt bonds. The interest rates on these bonds are roughly 1/3 less than they would otherwise be (Zimbalist).

Private investors and sport team owners have relied increasing on public financing because building a new stadium is rarely financially attractive. Since most of the revenue from licensing agreements and match-day sales go to operational and salary expenses, a new stadium would have to generate revenue above and beyond the increase in those expenses (which are typically proportional to total revenue) and the cost of the new stadium.

However, these arguments are irrelevant if the government subsidizes construction costs. The government might provide direct funding, reduced cost or free land, bonds, or special tax agreements to entice the investors or owners to build a new stadium.

Governments are willing to finance the stadiums to gain perceived benefits. Often local and state governments believe that a new stadium increases economic activity in the area. However, according to Andrew Zimbalist, “every independent economic analysis on the impact of stadiums has found no predictable positive effect on output or employment. Some studies have even concluded that there is a possible negative impact.” (Zimbalist, 125)

The revenue generated by the jobs, taxes, and tourism created by a new stadium represent too small a portion of economic activity to justify large government subsidies. Yearly team revenues for a MLB team constitute only 0.3 percent of local economic activity for a small city such as St. Louis and only 0.03 percent for a large metropolitan area such as New York (Zimbalist, 126).

The substitution effect is another major reason a new stadium fails to increase economic activity. The money spent on a game or match would have gone to a different leisure activity such as bowling, movies, or golf. A new stadium simply reallocates money from one activity to another rather than substantially increasing it. A stadium may attract 5-20 percent of its fans from out of the area, but these fans often came to the city to visit family or for work; their sports entertainment needs are secondary, and they would have likely contributed to the economy anyways (Zimbalist, 126-127).

As early as 78 BC, Gaius Maecenas warned, “Cities should not waste their resources on expenditure for a large number and variety of games, lest they exhaust themselves futile exertion and quarrel over unreasonable desire for glory.” Yet local governments continue subsidizing stadiums by reasoning that the utility derived by the city’s citizens – by providing a leisure activity, a focus of civic pride, and external benefits for citizens who don’t attend the games but enjoy reading, talking, or listening about the team – is greater than the cost in dollars to the city. Cities also view stadiums as an advertising expense since the increased exposure attracts tourism, investors, and businesses. Further, a stadium can be built to attract a team to the city, and besides the already mentioned benefits, the new team legitimizes the city as “Major-League” – making the team’s new home one of the premiere cities in the US (or on a global scale, the world) (Siegfried, 97-100).

Prices

The price charged for admission is based primarily on supply and demand from competition. The demand side is dictated by factors such as: quality of play, win percentage, size of market, team parity, star power, fans' income levels, weather, societal preferences, and the venue.

The majority of these factors are beyond the realm of the stadium business. The two most important factors in attracting fans (i.e. win percentage and competition parity) are controlled by the team or league and are not directly affected by venue. However, the stadium can affect overall interest – increasing demand and price. Besides the attraction to the novelty and atmosphere of certain stadiums, studies have shown a significant relationship between venue management and attendance. The quality of food and drink, ticketing, child facilities, and secondary in-park entertainment options can lead to an increase in attendance. Whereas, a lack or inadequacy of these amenities can have a negative influence on attendance (Smith, 67).

Team owners keep demand high for their sport by maintaining monopolistic power over their leagues. By limiting the supply of teams, owners can control demand and therefore prices while still expanding rapidly enough to satisfy demand and prevent rival leagues from forming (Siegfried, 98-99).

Demand for spectator sports is generally price inelastic. An increase in admission prices or overall cost of attending is not likely to substantially decrease attendance. According to Smith, "Analysis of longer time series data on some sports has suggested that total attendances have been only marginally influenced by admission prices."

Design

The 1992 opening of Baltimore's Oriole Park at Camden Yards represented the birth of a new era in baseball and stadium building in general. The massive, identical, concrete doughnuts of the 1950's through 1970's were reaching the end of their useful life and needed to be replaced. In the four years before Camden Yards opened, the Orioles averaged an attendance of 29,458 fans per game. In the five years after the new stadium, the Orioles' average attendance jumped to 45,034. (Hamilton 1997, 245) Further, 71 percent of this attendance increase came from out of state – suggesting Camden Yards was attracting non-Orioles fans who wanted to see the new stadium. The increased attendance provided an expanded financial base from which to build a team. And by 1996, the team made the playoffs for the first time in thirteen years.

The design of Camden Yards became the prototype from which subsequent stadiums for all sports were built. The stadium represented a departure from the previous standards of thinking. Unlike Memorial Stadium (which it replaced), Camden Yards was built for a single use… baseball. MLS commissioner Don Garber said about the importance of a team having its own facility, "all revenue streams can be controlled, scheduling of games in relation to television broadcast can be optimized and customers can be serviced according to the standards set by the league (or team), not by the stadium operators."

Camden Yards also differed from Memorial Stadium and other stadiums from that era in its own unique ways. The stadium incorporates the luxuries of modern technology in service and construction while maintaining an image reminiscent of turn of the twentieth century parks. Unlike its suburban predecessors, Camden Yards is located in the heart of Baltimore – only a 12 minute walk from the city's inner harbor (Orioles.com). Even the stadium's design is distinct. The backdrop for right field is an old B&O Railroad warehouse renovated into offices, and the Baltimore skyline is visible beyond centerfield (Hamilton, 252). Even the dimensions of the playing area differ substantially from any other park.

Since Camden Yards was built, there has been a steady trend for other teams, in all sports, to build new modern, distinct, and readily identifiable stadiums. Examples of these stadiums abound in all sports across all countries; however, they are most noticeable in baseball because of the licenses allowed in designing playing field dimensions.

HOK Sport

Engineering, architectural, and construction firms from around the world participate in the designing and construction of stadiums. However, the recognized world leader in stadium design is HOK Sport. The architectural firm Hellmuth, Obata and Kassabaum (HOK) began its HOK Sport division in 1983 after recognizing a potential market for the designing of sports facilities. Today, HOK Sport employs 350 people in offices world wide and has helped to make its parent company the world's largest engineering/architectural firm, according to

Building Design and Construction magazine, July 2006. The company is now also offering construction services (HOK Sport).

HOK Sport has been involved in over 800 sports projects with design costs totaling $12 billion. Their clients include 24 of 30 MLB franchises, 30 of 32 NFL franchises, 75 professional and civic arena clients, 40 soccer and rugby teams, 75 colleges and universities, plus 30 major events. They have been involved in every summer and winter Olympic Games since 1996 (except for 1998) and currently have bids to construct stadiums for the next three in Beijing, Vancouver, and London. Their expertises extend to virtually every sport: aquatics, baseball, cricket, horse racing, football, speed skating, etc. (HOK Sport)

HOK Sport's business strategy is unique in that it not only recognized a potential niche but it turned that niche into a sustainable market. In the 13 years prior to 1989, no Major League Baseball stadiums were built (Zimbalist). By the time the white concrete doughnut MLB stadiums of the 1950s and1970s needed replacement, HOK Sport had already established itself through the designing and construction of several minor league stadiums. Orioles Park at Camden Yards was one of HOK Sport's first projects. But rather than build another generic stadium (as it had done with New Comiskey Park in 1991), HOK Sport built the stadium easily identifiable, unique to Baltimore, and reminiscent of baseball's golden era. Sports writers attributed the Baltimore Orioles' success attracting fans (average attendance of 45,034 in the stadium's first five years compared to 29,457 in the four before) and subsequent success on the field to a "honeymoon" effect. Soon, other franchises scrambled to build unique stadiums that their fans, too, could fall in love with (Hamilton, 253-255).

Today, stadiums are so intricately connected with the team and fans that a readily identifiable and aesthetically pleasing stadium is essential to team branding and business success – something on which HOK Sport capitalizes.

Growth

The futures of sport and stadium development as businesses appear especially prosperous. The United Nations estimates the global turnover for sports at US$1.5 trillion ($250 per person in the world) equating to 3 percent of total output. The impact for countries and cities that host international events (such as the FIFA World Cup, the Olympics, or the Cricket World Cup) is especially large – since the event will “increase tourism, create jobs, improve infrastructure, and boost national demand for products and services” on a global-level (Helibronn Business School).

International sports competitions experienced the greatest gains from globalization of sports and media. In 1948, 59 countries competed in the Olympic Games; by 1996, this number had increased to 197. Globalization of the media also significantly increased sports popularity. Only 200,000 spectators witnessed the 1936 Olympic Games but the 1996 World Cup drew 33.4 billion viewers worldwide (Smith, 80).

The growth of sports in emerging markets is especially impressive. China and India, which represent one-sixth of the world’s GDP and one-third of the world’s individual consumers, offer great potential for sports growth and stadium building. Pepsi Co. recognized China as an emerging market and paid $6 million to be the official sponsor of the China Football Association National Football

League (Smith, 11). In India, an average of 300 million fans tune in to watch or listen to their national Cricket champion, Gachin Tendulkar (Smith, 12).

China's $35 billion in Olympic-related spending (an amount equal to 43 percent of all Olympic spending from 1976-2006) should increase sports interest within the country and should attract teams, players, and investors who see China as a new playing field (The Economist, 2007).

The past several decades of globalization broke down economic barriers and facilitated the spreading of Western ideas and Western venture capital. The Western vision of sports as business and the backing of Western money have expanded foreign leagues into international products. As breakdowns in barriers continue, sports will become more accessible and fans will be connected through the exchange of players from across the globe, introduction of new/foreign sports, global owner and sponsorship, and shared globalized media (Smith, 10-11).

Already, ownership groups have attempted to expand their markets through cross-sport and cross-country alliances. A cooperative between Manchester United and the New York Yankees allows team penetration into untapped fans (Smith, 35).

On the most basic level, globalization increases sports growth by increasing economic growth. Increased discretionary spending and leisure time will promote sports growth in developing countries (Smith, 11).

Urbanization will also increase business opportunities for sports as larger numbers of people will be confined to smaller areas. 2006 represented the first year in human history that more people lived in cities than in towns or rural areas. By 2015, the number of people living in cities of 10 million or more people will double and the world population will increase from 6.1 billion to 7.2 billion (Smith 28-30). This population presents sports with untapped markets from which to draw future fans. In less than ten years, currently moderately sized cities will be large enough to support professional franchises, and the largest cities will host additional teams (much like Los Angeles does with two NBA and MLB franchises). Opportunities for new sports or leagues to develop will also abound if the most popular leagues continue their monopolistic practice of limiting supply. The NFL's decision not to grant a new franchise to Los Angeles has only redirected the demand for spectator sports in the city elsewhere – in part explaining the popularity of the city's two MLB, NBA, and MLS teams as well as the increased support of alternatives to professional football such as the city's college teams (USC and UCLA) and its Arena Football League team.

One criticism of globalization, according to How Soccer Explains the World, is in an effort to fight the encroachment of Western ideology, many foreigners have abandoned their national ties to seek association among more similar individuals within their own communities. However, this tribalism also presents an opportunity for sports growth. Since sports act as an important source of tribal identification and self esteem, fans will want a local team to which they can associate, identify, and draw feelings of success. This will further the expansion of new sports teams and the need for stadiums to house their fans.

The effects of tribalism can already be seen in the success of minor league teams in America. Fans are more likely to support a local team to which they identify and tie their success. Attendance for minor league baseball increased from 27 million fans in 1992 to 34.7 million in 1997. The East Coast Hockey League has seen attendance double in the past four seasons – reaching 4.7 million fans in 1998 (Smith, 109).

Conclusion

Sports will continue to grow as globalization spreads across the world. Emerging markets, with newly forming and growing leisure classes, will experience the greatest demand for entertainment. Sports which were once simply pastimes and games will, under the spread of capitalism and foreign investment, become businesses. The growth of sports in these emerging markets will mirror the process sports went through in the United States during the turn-of-the twentieth century, and will generate billions of dollars in stadium construction.

In developed markets, increasing population and demand for entertainment will force the expansion of existing leagues or the growth of new sports. Currently less popular or known sports such as soccer, lacrosse, cricket, or rugby may fill a future demand, and stadiums specific to that sport will be built to house them.

Finally, across the global, local governments will continue to view stadiums as the centerpiece to their cities, and will continue to finance them through subsidies. The combination of tribal-like desire to establish a city's identity, the perceived economic impact, and the increased advertisement and tourism (including sports tourism) associated with hosting a sports team will push stadium building to unprecedented levels.

And stadium design firms such as HOK Sport, which have a strategy to fill this demand, will prove extremely successful.

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