**Sport Tourists in a Gaming Destination: Predicting Gaming and Non-Gaming Expenditures**

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**Abstract**

Sport tourism is the fastest growing segment of the tourism industry. Although there are a number of benefits to cities as a result of sport tourism, the most desired aspect of hosting contests is economic impact. This study examined the gaming and non-gaming impact of six major sporting events held in Las Vegas over a ten-year period. The results indicate that length of stay is a significant contributor to economic impact and that sport tourism has an important role to play in the economy of Las Vegas.

**Key Words:** Economic impact, sport tourism, gaming, non-gaming, expenditures

Sport tourism is a global phenomenon. China hosts the Dragon Boat Races on the fifth day of the fifth lunar month. The event has grown exponentially creating an international competition celebrated each year by thousands and watched by millions of people (Standeven & DeKnop, 1999). The Tour de France bicycle race has become the most watched sporting event with over 20 million spectators situated along the course and a billion more watching on television (Gunn, 2003). NASCAR began as a regional event and has expanded with tracks in Mexico and Canada with exhibition races in Japan and Australia. NASCAR is broadcast in 150 countries and attracts millions of spectators to events. Due to its universal appeal, sport and tourism are now among the "developed" world's most sought after leisure experiences (Ritchie & Adair, 2002). Higham and Hinch (2003) noted that there is a considerable amount of tourism that is driven by attendance and participation in sporting events and activities.

The relationship between sport and tourism has grown tremendously in the past few years. While the growth and significance of sport and tourism are well documented, the last decade of the twentieth century was marked by a growing recognition of the natural relationship between the two. According to Standeven and DeKnop (1999), sport is defined as the whole range of competitive and noncompetitive active pursuits that involve skill, strategy, and/or chance in which human beings engage, at their own level, simply for enjoyment and training or to raise their performance to levels of publicly acclaimed excellence.

Sport event tourism has its basis in leisure travel that takes individuals temporarily outside of their home communities to participate in events as spectators (Gibson, 1998). As a result, sport event tourism has a great opportunity to contribute to economic impact (Crompton, 1999a; Ritchie & Adair, 2002). Clearly, sport tourism can be significant to the economy of host cities. The economy of Las Vegas, Nevada, USA, is dependent on the economic impact of tourism and has been a major international gaming and vacation destination. Sport tourism is emerging as a major contributor to attracting tourists and complements existing entertainment. With the hotel infrastructure already in place,
Las Vegas has the capacity to attract large spectator events. In the latest report by the Las Vegas Convention and Visitors Authority (LVCVA), approximately 38,566,717 individuals visited in 2007.

Gaming destination development also plays an important role in the overall tourism strategy and can significantly drive visitor expenditures, especially in Las Vegas. The current downturn in the economy has had a significant impact on Las Vegas and the state of Nevada. Gaming revenues fell 10.4% in 2009, which is the largest single decline in the state's history (Stutz, 2010). Las Vegas relies heavily on non-gaming activities such as entertainment to be profitable. According to Gu (2004), because ample space is available for gaming development, Las Vegas can afford to develop mega entertainment, convention, shopping, and recreation facilities. These non-gaming activities provide tourists with ample opportunities to fully enjoy a destination as well as facilitate visitor spending. The LVCVA has developed an event division that is responsible for bringing spectator and participant sporting events that have a significant economic impact to Las Vegas.

The purpose of this study was to profile visitor expenditure patterns based on a select group of sporting events held in Las Vegas including Las Vegas Bowl, NASCAR, National Finals Rodeo, Supercross and Winston Cup from 1997 to 2006. In addition, the concept of sport tourism has taken on numerous forms and broadened tourism and recreation research tremendously, as well as provided the tourism (including gaming) industry with useful information to develop marketing and promotion strategies. This study provides valuable information for attracting tourists or sport tourists through product expansion, tourism packages, and target marketing. Understanding the impact of various travel expenditure patterns can be beneficial to sport tourism consumers and destinations, including Las Vegas.

**Literature Review**

The relationship between sport and tourism has grown tremendously in the past few years. While the growth and historical significance of sport and tourism are well documented, the last decade of the twentieth century was marked by a growing recognition of the inherent relationship between sport and tourism. Gibson (2003) defines sport tourism as leisure-based travel that takes individuals temporarily outside of their home communities to participate in physical activities, to watch physical activities, or to venerate attractions associated with physical activities. She suggests there are three types of sport tourism, active sport tourism, event sport tourism, and nostalgia sport tourism. This study concentrates specifically on event sport tourism, where participants travel to watch sport.

An understanding of the characteristics of a sport tourist is important information when defining event sport tourism and its participants. According to Standeven and DeKnop (1999), sport tourists can be characterized as individuals more likely to travel long haul, stay more days, stay in costlier accommodations, and spend more per day. There are a number of demographic variables that contribute to sport tourists spending. Saayman, Saayman, and du Plessis (2005) found that the age of sport tourists attending World Cup Cricket matches was a significant indicator of spending patterns. Specifically, individuals aged 35-49 spent significantly more money than those younger than 25 years old. Also tourists aged 25-34 spent significantly more money than those younger than 19 years old. Household income was found to be the most significant factor influencing expenditure patterns. In a study of the determinants of visitor spending, household income was the most significant factor influencing expenditure patterns (Wang, Rompf, Severt, & Peerapatdit, 2006).
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Travel Expenditures

The term travel/tourism expenditures has been defined many different ways by different tourism organizations. The World Tourism Organization (WTO) provided the most complete definition. According to the WTO, the definition of “tourism expenditure” is closely linked to that of tourism consumption. Tourism expenditure is defined as the total consumption expenditures made by a visitor or on behalf of a visitor for and during his/her trip and stay at the destination. This definition allows that the consumption of the good and service may not necessarily be by the visitor, as in the case of a gift or souvenir purchased by the visitor on the trip and given to someone else. (World Tourism Organization, 1995).

The World Tourism Organization also defines the domestic tourism expenditure. This is the consumption undertaken by a domestic visitor. The WTO defines a domestic visitor as any person residing in a country, who travels to a place within the country, outside his/her usual environment for a period not exceeding 12 months and whose main purpose of visit is other than the exercise of an activity remunerated within the place of visit. Within the overall definition of tourism expenditure, domestic tourism expenditure is defined as, “expenditure incurred as a direct result of domestic visitor travel” (World Tourism Organization, 1995; p.4). Domestic tourism represents an increase in economic activity and a redistribution of national income. Thus, it comprises two elements: (1) an increase in activity which would not otherwise have taken place; and, (2) activity which would have taken place anyway, but which transferred from one area (the origin area) to another (the destination area) (World Tourism Organization).

The importance of tourism expenditures has been recognized not only by the tourism industry itself but also by local, state, and national governments. Consequently, understanding tourism expenditure patterns has attracted a great deal of attention both from academic researchers and tourism practitioners. Understanding the expenditure patterns and activities of tourists during their visit to a particular destination is a key issue in the strategic planning of facilities and amenities (Mok & Iverson, 2000). Spots and Mahoney (1991) proposed that travel expenditures for a given unit of travel activity can vary significantly from one travel party to another. Two types of travelers who spend a vacation in the same area might spend their money in very different ways (Mok & Iverson). Research has shown that tourism expenditures depend on a number of factors including: purpose of trip, travel party size, length of stay, type of travel activities, and socio-demographic characteristics (Thrane, 2002).

Economic Impact of Sport Tourism

Major sporting events such as world championships and multisport festivals attract significant numbers of visitors, players, officials, spectators, and media. Kurtzman and Zauhar (2005) reported that sport tourism is one of the fastest growing niche markets and constitutes a $27 billion dollar industry in the United States. Every city throughout the world seeks to sport tourist events them to boost their tourist attraction (Standeven & DeKnop, 1999). Current research and economic analysis show that tourism is one of the world’s largest industries and should grow in the years to come. Sport tourism is one of the fastest growing sectors in the tourism industry (Gibson, 1998). The economic impacts of sport tourism are not narrowly confined to a specific sporting event. Research shows that money is spent on meals, transportation, entertainment, attractions, and gifts. Specifically related to Las Vegas, entertainment (gaming and non-gaming) spending provides a significant element of the economy. In economic terms, tourism has relatively elastic demand (Standeven & DeKnop). The overall elasticity of tourism, and sport tourism
specifically, provides cities, states, and countries with a product that could increase revenues and generate part-time and full-time employment, which in turn stimulates the local economy.

The economic impacts of sport tourism are far reaching. Standeven and DeKnop (1999) report that using arguably conservative assumptions, sport tourism is worth around UK£2.61 billion (US$3.9 billion) to the U.K. tourism industry. That tourism dollar also includes spending on clothing, footwear, and equipment specific to sport event tourism activities. Using the U.K. as a litmus test, Standeven and DeKnop report that in the early 1990s the estimated market value of sport tourism to be in the order of UK£3B (US$4.5B), representing activity holiday spending of UK£2.6B (US$3.9B) plus UK£407M (US$610) in sport related spending. This impact is also evidenced at the local level as well. McQuaid and McQuaid (2003) found that visitors to rugby tournaments contributed £20M to the Scottish economy and £12M to the city of Edinburgh economy. Gnuschke (2004) found that Motorsports contributed approximately $2.1M to the Memphis economy.

According to Moufakkir, Singh, Moufakkir-van der Woud, and Holecek (2004), it is important to understand the overall role of visitors to destinations and their interactions and use of other tourism products. Sport tourists that visit Las Vegas for major sporting events (i.e. Las Vegas Bowl, NASCAR, National Finals Rodeo, Supercross and Winston Cup from 1998 to 2006), average a longer length of stay and thus have expenditures that range from lodging, to food and beverages inside and outside of the casinos, local transportation, as well as gifts and souvenirs. The impact of sport tourists on gaming and non-gaming revenues has long been recognized. The casinos and gaming sector in the U.S. generated total revenues of $78.6 billion in 2005 (Datamonitor, 2006). The UK gaming sector is smaller yet is expanding at a faster pace. The UK gaming sector generated total revenues of $18 billion during this same period of time (Datamonitor, 2006).

There are a number of variables that apply to sport tourism and its economic impact; the cities themselves, the size of the city, the type of event, and the length of that event. Given the complexity of variables that contribute to the overall impact of sport tourism, Crompton (1999b) provided a list of emerging patterns that are consistent with substantial economic impacts. He found that the highest total expenditures correlated strongly with longer tournaments, which presumably required more overnight stays. He also indicated that large groups of participants and spectators do not necessarily equal large economic impacts, and that reasonable and accurate measures of economic impact are dependent upon accurate visitor counts. Most tourism research points to visitor days as an accurate indicator of economic impacts. Data suggest that sports tournaments are more likely to generate substantial positive economic impacts than special events because of the higher proportion of out-of-town participants and the frequent requirement that participants stay for multiple days.

Daniels, Norman, and Henry (2004) noted that the Travel Industry Association of America estimated that in a year’s time, over 50 million adults in the United States traveled 50 miles or more to attend organized sport events, competitions, or tournaments as either a spectator or participant. Communities large and small are beginning to recognize the development potential of sport tourism; they understand the economic impacts of sport events. Crompton (1999b) analyzed the reasons why local governments invest in major sports facilities. He identified five reasons for economic impact: increased community visibility, enhanced community image, stimulation of other development, and psychic reasons. Las Vegas’s largest revenue producer is gaming, however, the city recognizes the enormous economic potential that sporting events have on the local economy.
Sample
The sample consisted of Las Vegas visitors who attended one of 35 sporting events from 1997 to 2006. The sample archival data were obtained from the LVCVA and represented six different events: Las Vegas Bowl (n=10), National Finals Rodeo (n=10), NASCAR (n=4), Winston Cup (n=4), Motorcross (n=4) and, World Supercross Series (n=3). There were a total number of 35 events with aggregated intercept survey data.

Description of the Sport Tourist Events
Las Vegas Bowl. The Las Vegas Bowl is an annual college football game held at Sam Boyd Stadium (40,000 seats) in Las Vegas. Two representatives from two different college athletic conferences on the west coast, whose majority of member states are neighbors of Nevada, are selected to compete in this bowl game (“Pioneer PureVision Las Vegas Bowl,” 2007). During the 2006 Las Vegas Bowl week, pre-events started on Monday and lasted until game day on Thursday. Those pre-events fall under two distinct event types: one set of events are exclusively for coaches, staffs, their spouses, and football players, and the other set is for fans who are visiting Las Vegas. Visitors’ pre-events start on Tuesday night, with the opportunity of having a dinner buffet with the football teams. The dinner is followed by a celebration with the university’s band and cheerleaders. On Wednesday, the Las Vegas Bowl offers a luncheon and two pre-events for children. On Thursday, the tailgate party is held prior to the football game kick off (“Pioneer PureVision Las Vegas Bowl,” 2007).

National Finals Rodeo (NFR). The NFR is held at the Thomas and Mack Center in Las Vegas over ten days in December. The arena seats approximately 19,000 spectators for the NFR (“Thomas & Mack,” 2005). Some of the events include Barrel Racing, Bull Riding, Bareback Riding, Saddle Bronco Riding, Team Roping, Tie-Down Roping, and Steer Wrestling. Eighteen hotels were designated to be the host hotels for the NFR in 2007. In the last four years over 175,000 people were in attendance over the course of the ten-day event (“The Professional Rodeo Cowboys Association,” 2003).

NASCAR (Winston Cup and UAW Daimler Chrysler 400). NASCAR has continued to increase in spectator attendance and is the fastest growing spectator sport in North America. NASCAR grew not only in spectator attendance, but also in sponsorships, media activity, and retail opportunities. NASCAR is held all across the United States on tracks from Darlington, South Carolina to Southern California. One of the largest of these races is held in Las Vegas. Every March, thousands flock to Southern Nevada to witness the UAW-Daimler Chrysler 400 (previously the Winston Cup) at the Las Vegas Motor Speedway. This event spans a two-week period in which over 200 drivers take place in qualifying for the race and a three-day race for the cup. Local events tied to the NASCAR race begin the week of the actual UAW-Daimler Chrysler 400 and include but are not limited to conventions, tailgating parties, meet and greet with the drivers, and tours of the Las Vegas Motor Speedway that accommodates 142,000 spectators.

Motorcross (Supercross and World Supercross). The American Motorcycling Association is the leading sanctioning body for Motorcross racing in the U.S. Motorcycle racing is the second fastest growing spectator sport behind NASCAR. Supercross races are held on an indoor dirt track and feature high performance off-road motorcycles with obstacles and steep jumps that test drivers’ skill. These races are held almost exclusively in large professional baseball and football stadiums. The series of Supercross events culminate in the World Supercross Championships. These events are held at the Thomas and Mack arena at the University of Nevada, Las Vegas. This area has a capacity of 19,000 spectators.

Procedure
Visitors were intercepted at each event by interviewers with a request to complete the survey. Interviewers screened respondents to include only those event attendees who
traveled to Las Vegas from outside Clark County, Nevada. A total of 400 usable surveys were collected at each of the 35 sporting events.

**Questionnaire and Analysis**

The questionnaire was designed to be highly structured and to obtain consistent information across all event respondents. Each survey contained information addressing non-gaming expenditures, gaming expenditures and visitor demographics including age, income, and incremental room nights. In addition, total attendance at each of the events was reported. The data were analyzed using SPSS with descriptive statistics and multiple regression.

**Results**

Descriptive statistics were used to profile the events and their economic impact. The youngest spectators attended Supercross (M=37 years old) while the oldest group of spectators was present at the National Finals Rodeo (M=48 years old). Overall the average age of spectators at all events was 43. Out of town visitor attendance was highest at NASCAR (M=94,766) and lowest at the Las Vegas Bowl (M=17,616). There was little deviation in the average income for spectators across all events (SD=$5,597) with the highest income for attendees at the Las Vegas Bowl (M=$82,393) and lowest for the National Finals Rodeo (M=$78,431). The average attendance at the remaining events was: National Finals Rodeo, 39,384; Supercross, 25,318; Winston Cup, 91,093; World Supercross, 25,483.

Incremental room nights represent the number of hotel nights purchased by spectators who traveled to Las Vegas specifically for the event. Incremental room nights were highest for the Winston Cup (M= 101,558) and lowest for the Las Vegas Bowl (M= 14,804). The average incremental room nights for the remaining events was: NASCAR, 97,787; National Finals Rodeo, 73,658; Supercross, 16,200; World Supercross, 18,683.

The highest average total economic impact resulted from spectators who attended NASCAR (M=$160,000,000) and lowest for the Las Vegas Bowl (M=$15,819,266). The total economic impact from the remaining events was: National Finals Rodeo, $60,496,014; Supercross, $21,052,275; Winston Cup, $114,000,000; World Supercross, $63,821,336. Economic impact was broken down into gaming and non-gaming expenditures. The percentage of total expenditures for gaming ranged from a low of 10% for Supercross attendees to a high of 32% for spectators at the National Finals Rodeo.

**Table 1**

Regression Analysis Summary for Visitor Variables Predicting Non-gaming Expenditures

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental nights</td>
<td>1055.94</td>
<td>91.24</td>
<td>1.074*</td>
</tr>
<tr>
<td>Age</td>
<td>-33121104.65</td>
<td>841887.47</td>
<td>-.364*</td>
</tr>
<tr>
<td>Average income</td>
<td>1385.05</td>
<td>535.55</td>
<td>.218*</td>
</tr>
</tbody>
</table>

Note. R² = .90 (N = 18, p < .01)

*p < .05
Multiple regression analysis was used to gain an understanding of the variables that contribute to non-gaming and gaming expenditures for all event spectators. Three independent variables (i.e., incremental room nights, age, average income) were used to predict both dependent variables. Table 1 provides the results of the first test to predict non-gaming expenditures. All three independent variables were significant predictors of non-gaming expenditures for spectators to these sporting events. The variables accounted for 90% of the variance in non-gaming expenditures, which is exceptionally high for this type of analysis. Similarly, Table 2 provides the results of the second analysis to predict gaming expenditures. Incremental room nights and age were significant predictors of gaming expenditures but average income failed to have a significant effect. The variables accounted for 83% of the variance in gaming expenditures for sport spectators.

Discussion

The events examined in this study attracted large numbers of spectators to Las Vegas whose primary motivation to visit was to attend the sporting contest. As a result, descriptive statistics make it clear that the sporting events examined in this study contribute significantly to the Las Vegas economy. As expected the total economic impact varied depending on the event and was directly tied to the size of the venue and duration of the event. Both NASCAR events (Daimler Chrysler 400, Winston Cup) had the greatest impact on the economy followed by the National Finals Rodeo. This finding is consistent with research and indicates that a longer visit results in higher expenditures for accommodations, restaurants and other activities (Crompton, 1999b; Gibson, 2003 Ritchie & Adair, 2002).

The Travel Industry Association of America (n.d.) provides statistics that help explain trends and spending habits among U.S. travelers. Most of the travel in the U.S. is made up of short trips. As a result, most travelers (i.e., 80%) spend two nights or less in a destination. The duration of sporting events plays a direct role in length of stay for visitors. In this regard visitors in this study spent from a high of 4.8 nights while attending the National Finals Rodeo to a low of 2.8 nights for Supercross. In all cases these average stays are longer than those for most travelers in the U.S.

The results of the regression analysis confirm that incremental room nights spent in Las Vegas had a significant effect on non-gaming and gaming expenditures. In the case of non-gaming expenditures, age and income were also significant predictors while only age also contributed to explaining gaming expenditures. The results of both regression tests revealed that a large portion of the variance was explained by these variables. However, nongaming expenditures were predicted slightly better than gaming expenditures. The findings suggest that income was not a factor for gaming expenditures.

Future Research

Those who visit Las Vegas to attend sporting events likely budget a certain portion of their spending toward gaming regardless of their income. In addition, the highest percentage of expenditures dedicated to gaming was attributed to spectators.
at the National Finals Rodeo. This finding suggests that a deeper understanding of the characteristics of spectator attendees is warranted. One avenue of exploration would be to examine the sport motivations of spectators.

Wann, Schrader, and Wilson (1999) have identified eight major intrinsic and extrinsic motivations that help to explain why people are drawn to watch sports. The motivations include the need for escape, eustress (healthy stress as opposed to distress), aesthetics, self esteem, group affiliation, family, entertainment and economic. The Colonial Cup Races (CCR) in Camden, South Carolina, were used to study the motivation factors for equestrian fans. A questionnaire was given to spectators that measured the motivations. Example questions included: “One of the main reasons that I attend equestrian events is that doing so gives me the opportunity to temporarily escape life’s problems” (escape motivation) and “One of the main reasons I attend equestrian events is because most of my friends are fans” (group affiliation). The spectators were then asked to rate each motivation from “not at all descriptive of me” to “very descriptive of me” on a scale of one to eight (Daniels & Norman, 2005). The study found that individual’s motivation of entertainment, aesthetics, eustress and self-esteem increased as the level of identification with the sport increased.

There have been few studies on the demographic breakdown of those who participate in sport tourism. Future studies need to include this information. There may be links between particular sports and the race, gender, socioeconomic status, education level, marital status and age. This could also help sport event marketers to better understand their target market and how they can be best served.

Limitations of the Study

The purpose of this study was to examine the factors that predicted sport tourism event attendees gaming and non-gaming expenditures. This study is exploratory and has several limitations. First, the data are in aggregate form rather than individual responses. This has the effect of restricting the richness of the dataset. Further, the dataset has a limited number of event years. This combined with some missing data reduced the sample of events subjected to analysis.

Conclusion

Sport tourism represents the interaction of activity, people, and the destination that results in an overall experience (Weed, 2008). The sport tourism literature has been developing rapidly but there is still much that needs to be accomplished. There remains the need for descriptive and exploratory research (Jones, 2008). While this was an exploratory study of the economic impact of a select group of sporting events in one major tourist destination, the findings are compelling. Sport tourism in Las Vegas is an essential ingredient in the attractions that contribute to the economy. Additional research is needed to validate these findings and further understand event spectators and their expenditure patterns.

References


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