Designing ticket price strategies for professional sports teams using conjoint analysis

Keywords

Conjoint analysis Ticket pricing strategies Ticket purchasing behaviour

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Please note that details of the team in this study (name, location etc.) are not included due to a confidentiality agreement with the team's management.

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Abstract

This study emphasises the need for professional teams to have sophisticated methods for devising ticket pricing strategies. The research was designed to supply team managers with meaningful information from which to construct ticket prices that fit the needs of their fans. Three different fan segments were identified (general adults, college students and middle and high school students) and four attributes for determining ticket prices in a given circumstance were selected (Player, Coupon, Point and Price). Conjoint analysis technique was used to conduct the research and analyse findings.

Executive summary

This study was originally conducted as part of a consulting project to provide practical information and strategic advice to the management of a professional soccer team in Korea. The consultation commenced when the management decided to transfer the team from its original home town to a town in another region. Since it was the first time in that region's history that any kind of a professional team had been

based there, there was insufficient information about operating in the region. Thus, the team required sports management consultation in order to adapt successfully to the region's culture and its fans. In addition, devising an effective pricing strategy was one of the main objectives of the project. This research, therefore, was initiated in order to provide management with practical information such as local fans' ticket purchasing behaviour, the importance of attributes when purchasing a ticket and price susceptibility. In order to provide this information, conjoint analysis, a technique that is normally used in general business, was utilised. This technique was used to discover which attribute was relatively more important and had most effect in selecting the optimal mix of benefits to purchase a ticket. The findings from this research will help managers to implement effective pricing strategies. In turn, an increase in total ticket sales and financial stability may be expected.

The findings of this research suggest several insights for management on constructing pricing strategies. Firstly, the fans in the particular region studied perceived Player (with a local home town background) to be the most prominent attribute that affected their interest in choosing the most appropriate ticket price set. This was followed by Price, Coupon and Point. Although Price was the most influential attribute to the high and middle school student segment, Player was still considered to be a more significant attribute in terms of retaining this particular segment in the longterm. Secondly, the importance level of both Coupon and Point were significantly lower than Player and Price. However, Coupon being more important than Point indicates that fans prefer immediate benefits rather than accumulating points for future usage. Finally, without losing large numbers of fans but maximising profit, the recommended range of ticket price sets were, in United States Dollars (USD), \$9 (\$14 for premium seats) to \$10 (\$16) for general adults and college students groups, and \$7 to \$8 for middle and high school students.

'Player' implies the existence of a star player within the team with or without a local home town background. 'Point' refers to accumulated points that can be used toward future benefits, such as participating in special team events. 'Coupon' refers to vouchers that can be utilised to obtain instant discounts on merchandise, concessions and products (or services) from participating local business affiliates. 'Price' is the expected ticket price.

Introduction

Price is perhaps one of the most prominent methods a business has for communicating the value of its product or service. It is also the most important factor that determines profit. Yet countless businesses fail to get their pricing strategies right (Bernstein, 2006). Devising successful pricing strategies is equally as important for managers in the sports industry as it is for general business managers. However, as in the general business environment, many professional sports teams fail to constitute successful pricing strategies. This is particularly the case in Korea.

For the Korean professional sports industry, economic success is critical as there are currently no professional sports teams that generate a profit (Kang et al, 2007). It has been a few decades since the first establishment of Korean professional baseball in 1982 and currently there are over 30 teams in three major professional sports (baseball, soccer and basketball). However, the managers of these teams have yet to calculate a way to profit from ticket sales and other business aspects. The Korean sports industry debts build up and the problem is becoming more severe. Several reasons are considered for this financial crisis. One is distorted ownership structures between teams and the parent companies (Choi, 2001). Professional sports teams are valued only as mere advertising tools for their parent company. Thus, sports managers bypass the implementation of systematic marketing strategies. Kim et al (2007) note that the failure to recognise the benefits of such a critical strategy has limited the growth and financial viability of Korean sports entities.

One of the major components of marketing strategy is pricing. When managers fail to construct a pricing scheme that complies with the needs of the fans, ticket sales will be negatively affected. In addition, handing out large numbers of free tickets to the public and invitations to affiliates has also contributed to the failure of financial growth in Korea. Most professional teams are owned by private corporations who offer free tickets to their employees, and to business

partners for hospitality purposes, so that empty seats will not be detected during games. Moreover, major credit card companies offer free game tickets or huge discounts to fans displaying their card upon entry. Even during international matches (excluding inevitable 'freeloaders' such as VIPs, staff and league personnel), non-direct event related friends, staff, family, local government officers, celebrities and so on are able to get in for free. In other words, one way or the other, a significant number of people get free entry, and many do so on numerous occasions. This, naturally, degrades the value of the event and fans are no longer willing to purchase tickets at their original price. The quality of the event is also perceived as relatively lower than the original ticket price because people would rather wait for a free ticket or promotional discount. The behaviour of management and affiliates diverts the fans' mindset away from paying the appropriate fees to attend and appreciate a professional sporting event.

A possible solution to the economic failure of Korean professional sports teams is for management to recognise the need for a scientific method of devising effective pricing strategies to satisfy fans with the most appropriate ticket price that meets their specific needs. This would allow teams to overcome their financial crisis by being able to sell more tickets and generate more revenue.

Literature review

Recent studies indicate that, when it comes to designing ticket prices, teams overlook the importance of serving the needs of the fans and concentrate rather on the perspective of management and performance of the team.

In research by Reese and Mittelstaedt (2001), the authors attempted to discover which factors most influenced ticket prices in the National Football League (NFL), the highest level of professional American football in the United States (US). The top three factors with the most impact were team performance from previous season, the revenue needs of the organisation, and public relations issues. The remaining factors were price sensitivities of the market, fan identification and average ticket price. The authors argue that winning percentage should not be a significant factor in the establishment of an increase in ticket prices. However, if performance were the driving force of ticket prices, then there should have been a pattern of ticket price reductions across the NFL during the past decade due to poor performance by many teams (Sports Illustrated, 1999). Although the study by Reese and Mittelstaedt (2001) displayed meaningful results, the survey approach limited the research by allowing the factors to be ranked in the order of importance, but with no further measurement of the relationship between ticket prices, ticket price increases and the factors that could cause these to differ among teams and across seasons.

Rishe and Mondello (2003) recognised the need to identify, by creating an empirical model, the factors that cause cross-sectional differences in average ticket prices among NFL teams and that influence the size of seasonal ticket price increases for individual teams. Research by Rishe and Mondello (2003) discovered that playing in a new stadium, the previous year's success, fan income levels and population size were all important determinants of cross-sectional differences in average ticket prices across teams. In addition, playing the first year of a new stadium, a change in win percentage from the previous year, reaching the conference championship game and size of the previous year's ticket price increase were all important determinants of seasonal increases in average ticket prices for individual teams.

Rishe and Mondello (2004) further extended their study across the US Major League Baseball (MLB), National Basketball Association (NBA) and National Hockey League (NHL) with almost identical results. Studies by Reese and Mittelsteadt (2001) and Rishe and Mondello (2004) attempted to analyse the ticket pricing strategies and the determinants of ticket prices in the NFL and other leagues. However, neither study successfully achieved their goals. Reese and

Mittelstaedt (2001) surveyed ticket managers, assuming that they were involved in decision-making processes. However, it emerged that procedures were operated at a higher organisational level and price was merely provided to the ticket managers for them to implement. In the case of Rishe and Mondello (2003), none of the proposed models explained over 50% of the variations in either cross-sectional differences or seasonal changes in average ticket prices across teams.

The implications from these studies supported the argument by Reese and Mittelstaedt (2001) that NFL teams did not possess any form of a standard pricing system and by Howard and Crompton (1995) that no standardised procedure is utilised in professional football to establish ticket prices. King (2002) observes recent attempts to apply variable pricing strategies (i.e. different prices for different games based on opponents' quality, time of year, day or week etc.). Three MLB franchises have utilised this strategy, originally associated with the airline industry. In addition, the Boston Bruins from the NHL have implemented a flexible pricing strategy by altering ticket costs by the hour (Cameron, 2002). In other studies, pricing strategies were based on a team's financial goals and team payrolls (Leeds & Allmen, 2002; Johnson, 2002).

Conventional wisdom views pricing as the search for one "perfect price" for a product or service - i.e. the Nirvana where profits are maximised (Mohammed, 2005). Establishing price based on this concept will inevitably result in a situation whereby, if the price is set too high, sales are lost from those not willing to pay. Conversely, if the price is set too low, then the business will miss profits from those willing to pay more. Mohammed (2005) gives the example of bidding wars at auctions where an opening price is always low enough to create a fast-paced oneupmanship between bidders. As the auction heats up, participants drop out and the item finally sells to a lone bidder willing to pay the highest price. The lesson from this example is that the value of a product or service is in the eye of the beholder and that different

people have different valuations for the same product. This concept is what transforms pricing from a search for a product's perfect price into a series of strategies that capitalise on different customer valuations. A price is therefore set based on the user's perspective not the supplier's requirements.

In this study, we attempted to provide managers of the team with a different approach to pricing – one that is not focused on finding one perfect price for all fans, but on discovering the needs of the fans in different segments and pricing the tickets accordingly.

Reese and Mittelstaedt (2001) expected to find sophisticated pricing processes in the NFL teams they studied. Instead, they found that teams prematurely devised their pricing strategies based merely on decisions made at high levels of their organisations. Howard and Crompton (1995) also found no evidence of a standardised method of establishing ticket prices in professional football teams. This is not to say that these methods of establishing prices were right or wrong, bad or good, but that involving method in the decision-making process is the most optimised and effective way of establishing prices. This is crucial for Korean professional teams, since not one generates a penny above break-even point. The reason for such failure is perhaps due to a misunderstanding about pricing. As Rishe and Mondello (2003) point out, evidence from their study implies it is near impossible to pinpoint a standard pricing model for a professional sports team. It can be surmised that this is due to different customers having different valuations for a product or service. Thus, it is important to understand that there is a need to alter the pricing perspective. Pricing should not be a search for a perfect price, rather it should be perceived as a series of strategies that capitalise on different fan valuations.

Methodology

Sample and data collection

The region to which the professional soccer team studied was relocated consists of approximately 550,000 residents with a local culture considered to be conservative and highly homogenous. The survey was conducted during 11-16 February 2006. A total of 670 surveys were collected with 656 surveys found valid and sorted according to the three segmentation categories: general adults (N=254); college students (N=183); and middle and high school students (N=219). The age of the subjects ranged from 14 to 71 years (M=29.88; SD=12.683). There were 397 males (60.5%), 258 females (39.3%) and 1 (0.2%) individuals with no gender specification. A total of 276 (42.1%) subjects were married, 379 (57.8%) unmarried and one individual had no response. In addition, information regarding household monthly income is indicated in Table 1 below.

The study was conducted in two phases. The first phase was conducted as a preliminary analysis to select the appropriate attributes for the study and includes description of attributes. The second phase was administered to apply conjoint technique for the study.

RESPONDENTS (N) % SAMPLE INCOME LESS THAN \$1,000 41 6.3 \$1,000-\$1,499 83 12.7 \$1,500-\$1,999 98 14.9 \$2,000-\$2,499 112 17.1 \$3,000-\$3,499 43 6.6 45 \$3,500-\$3,999 6.9 MORE THAN \$4,000 67 10.7 NO INCOME 28 4.3 NO ANSWER 76 11.6

TABLE 1 Household monthly income

Instrumentation

Conjoint analysis is a technique that has been widely used since the early 1970s (Green & Srinivasan, 1990). It has received considerable academic and commercial attention as a method for measuring buyers' trade-offs among multi-attributed products and services (Green & Rao, 1971; Johnson, 1974; Srinivasan & Shocker, 1973). Wittink and Cattin (1989) estimate that approximately 400 commercial applications per year were carried out during the early 1980s. Conjoint measurement can help marketing managers determine which qualities of a product or service are most important to the consumer (Green & Wind, 1975). Moreover, it provides information to help understand market preferences, predict market choices, develop marketing strategies and help segment the market (Wyner, 1992).

In addition, a preliminary data collection effort questioning consumers regarding attributes important to them usually helps in identifying those attributes that are most frequently regarded as relevant and aids researchers in identifying which attributes to select for the study (Braun & Srinivasan, 1975).

Phase 1

At the outset, there were plenty of attributes (such as ticket price, relative quality of the opposition, player profile, time of the day and week, promotion, location, and stadium amenities and facilities) to be considered before selecting the most reasonable attributes and number of attributes to be applied. The choices of which attributes to include in the study were established based upon local resident analysis such as demographics, lifestyle, social environment, surveys and focus group studies. Thereafter, the attributes – and the different levels of categories within each attribute – were investigated and customer segmentation was conducted by industry and conjoint analysis experts through a qualitative process. As a

1. Readers who are unfamiliar with conjoint analysis are recommended to read Green and Wind (1975).

result, Player, Coupon, Point and Price were the final four attributes selected for the study.

According to local resident surveys and historical background studies of the region, the demand for hosting sporting events within the region was significantly high. However, the residents were considered to be relatively deprived in experiencing professional sporting events due to special regional circumstances (the region is an island apart from the mainland). It was also recognised that there was a great need for sports events among the local residents and hopes were high in having a professional soccer team for the first time in the region's history. In addition, the region's residents had strong attachments to their home towns and the region was considered highly homogenous. Consequently, it was very important that, if a professional soccer team was to be established in the region, it should contain players from the region's home town.

Thus, the Player attribute was divided into three different sub-factors, indicating whether or not player from the home town was included in the team and the skill level of the player. The survey outcome, and experts consulted, also suggested that local residents were very interested in benefits such as discounts on merchandise, food, beverages, tickets and facilities adjacent to the stadium (cinema, indoor water park, sex museum, fitness centre, 4D theatre). Therefore, Coupon was selected as an attribute, giving instant benefits on game day, and Point(s) as a method of accumulation for future usage.

Since this was the first professional soccer team to be based in the region, there was insufficient information on how much the ticket price should be fixed at and how the fans would react to different levels of ticket prices. Therefore, it was natural to include Price as an attribute in the research.

Description of attributes

The attribute of Player is based on whether or not the team has a star player (high profile) on the roster. The level of player profile was subdivided into three different categories: regular player whose background is not from the home town; regular player from the home town; and national level player with home town background.

The Coupon attribute was also subdivided into three different levels of instant vouchers: high – 15 local business affiliates, 15-20% discount; medium – 10 affiliates, 10-15% discount; low – 5 affiliates, 5-10% discount. The vouchers could be exchanged for discounts from participating local business affiliates; including facilities adjacent to the stadium, such as a beauty salon, sports bar, movie theatre, clothing store, and food market.

The attribute Point was subdivided at three different levels, high (15%), medium (10%) and low (5%). Point can be understood as similar the mileage programme in the aviation industry, whereby customers can use accumulated mileage points to purchase bonus tickets or in-flight merchandise and to use the airport lounge. In this case, points could be used to attend off-season training camps or a team meeting, acquire first class service at the stadium, receive special gifts, meet individual players, participate in special team events and so forth.

The Price attribute was the expected ticket price that the fans would be offered. The price for regular seats ranged (in USD) from \$8 to \$11 and \$12 to \$18 for premium seats, with standard deviation of \$1 and \$2, respectively; the prices for middle and high school students were from \$6 to \$9, with a standard deviation of \$1.

Phase2

Three main preference models exist in conjoint technique: Vector model (linear), Ideal Point model (linear plus quadratic) and Part-worth Function model (piecewise linear). The Vector model assumes linear functional form and estimates the fewest parameters of the three. The Part-worth model is the most general form, with the number of parameters being largely estimated. Between these two extremes lies the third, Ideal Point, model (Green & Srinivasan, 1990).

Our study applied the full-profile conjoint procedure in order to estimate the part-worths. Responses were metric, i.e. ranking of consideration and expressed on a 1-10 scale. Each of the holdout options was evaluated individually in terms of the ranking that it would attain if considered for purchase. There were two different sets of multiple cards that displayed mixtures of the four attributes (Price, Point, Coupon and Player) in relation to the expected ticket price. Each group was given one of the sets, depending on their intention to purchase regular or premium seats. They were then asked to evaluate the cards on a scale from one (the worst combination to purchase game ticket) to 10 (the best combination to purchase game ticket). Prior to the survey, the definitions and descriptions of each of the four attributes were carefully explained to the survey participants. In addition, photographs of premium and regular seats from the actual stadium were presented during the survey in order to aid the image of the two different seat types. Premium seats are closer to the pitch with more space between them than regular seats.

Results

The three figures in this section cover the general adults, college students and middle and high school student segment groups. Each figure consists of a histogram that displays the relative importance of attributes and a utility scale chart that indicates how influential each attribute is in the segment group's evaluations. The Y axis of the utility scale chart represents the scale value and the X axis represents the different levels of the attribute. In addition, in order to get an understanding of their relative importance, all utility scales are stated in a common unit so that the utility ranges from attribute to attribute can be compared.

The general adults group (Figure 1) consisted of fans who decided to purchase tickets for premium seats or regular seats. Members of this general group perceived Player to be the most important attribute that influenced their decision (premium seats: 46.5%, regular seats: 48%) followed by Price (P: 37%, R: 35.4%), Coupon (P 9.26%, R: 12%) and Point (P: 7.2%, R: 4.66%). In addition, for both premium and regular seats, Player and Price attributes combined accounted for more than 80% of the total, while Coupon and Point combined only measured up to a little over 16%. The utility scale demonstrated a relatively less drastic change as the levels of Coupon and Point were altered. There was almost no change in the degree of the lines and the scores were insignificant compared to Player and Price. As for the level of player, the degree of the line shifted significantly as the level changed from national level to starter. However, an even more noticeable shift was detected when it changed from starter to regular player. As for Price, between the range of USD \$9 (14) and \$10 (16), fans were less sensitive to change of price levels compared to other ranges.

For the college students group (Figure 2), unlike the general adults group, the importance level of the attributes differed between fans who decided to purchase tickets for premium seats and fans who selected regular seats. College students who decided to purchase premium seat tickets considered Price (P: 42.3%, R: 34%) to be more important than other attributes. Player (P: 35%, R: 34%) and Price were considered equally important to the fans who decided to purchase tickets for regular seats. Coupon (P: 19.3%, R: 14.2%) was considered more important than Point (P: 8.5%, R: 12.7%) in both seat categories. The result of the utility scale was similar to that of the general adults group for Coupon and Point. However, the utility scores for both attributes were higher than the general adults group. According to the utility scale chart, college students cared less than the general adults when the level shifted from national level player to starter. However, when the level altered from starter to regular, college students were relatively



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FIGURE 2 Relative importance of factors (college students)



Utility Scale (General)

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more sensitive to the change. In addition, the scale as regards Price for regular seats displays a constant downward shift; however, a break can be noticed in the premium seat between (USD) \$14 and \$16.

The middle and high school student group¹ (Figure 3) perceived Price (high school: 30.8%, middle school: 38.3 %) to be more important than other attributes followed by Player (H: 27.75%; M: 32%), Coupon (H: 22%; M: 16.3%) and Point (H: 19.5%; M: 13.3%). This was a noticeable difference compared to the previous groups in that that the relative importance of Point and Coupon was much higher (41% for high school students and 30% for middle school students). This was an indication that although Price and Player attributes were still more important, Coupon and Point also played a significant part in the decision-making process, especially for high school students when the relative importance of Point and Coupon combined was higher than Price or Player. In addition, as for high school students, a constant downward movement was noticed during all price ranges in the utility scale chart. However, for middle school students, between the \$7 and \$8 price range almost no change was noticed. This implies that, once the barrier between \$6 and \$7 was broken, this particular group cares less about price until it reached \$8. Hence, the suggested optimal price would be \$8 rather than \$7, since almost no middle school students would be alienated when the price increased from \$7 to \$8, although an increase in sales would occur.

Discussion

In general, local fans considered the Player attribute to be more important than other attributes when considering ticket purchase. This implies that the key service of a sports event offsets other benefits that the team may offer. It can therefore be understood that if the team in this particular region does not acquire appropriate players with profiles that fit the local preference, fans will not visit the stadium for just the subsidiary benefits and marketing promotions. However, this may not be completely true with younger fans. Between middle school and high school students, the most important attribute was Price rather than Player, Coupon or Point. The result was different for this group compared to the general adults and college students groups because younger fans tend to be more sensitive to ticket prices since they generally have no substantial income source other than allowances from parents. Nevertheless, the second most important attribute was Player rather than Coupon or Point for these younger groups. This suggests that, if money is not a problem, then Player takes an important role even for younger fans. Consequently, the team must focus on obtaining high profile players with a local home town background in order to secure a larger fan base in the long term.

In addition, Coupon was considered more important than Point in all categories. This result indicates that fans desired to redeem the offered benefits almost immediately rather than waiting to accumulate Point(s) for future usage. It can also be deduced that fans in this particular region were more interested in instant benefits, such as getting discounts in local stores, rather than in fan and team-bonding activities, such as attending the team's training camp. Thus, the management should focus on building relationships with local sponsors for co-marketing opportunities and various promotional activities. However, the allocation of resources should not be focused extensively on these attributes since the relative importance was perceived very low compared to other attributes. The high and middle school group, in particular, displayed relatively more sensitive reactions when the levels of the attributes were altered. This implies that the risk of losing teenage fans is higher than for the other groups. However, it is also an indication of an opportunity to

^{1.} Middle and high school students were only given regular seat survey cards.



FIGURE 3 Relative importance of factors (middle and high school students)

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gain a long-term fan base when precise marketing strategies are implemented that meet the needs of teenage fans.

As regards setting ticket prices, if prices are set too low, then the number of fans might increase. However, if the prices are set too high the team will forfeit significant numbers of fans and total revenue will be jeopardised. Therefore, we attempted to find the ideal balance: to increase prices and secure financial stability without alienating the fans. Analysis suggests that, for the fans in this particular region, it is ideal to first secure players with a home town background. If this is achieved, then ticket prices can be established at rather higher levels than the base price, thereby gaining more revenue without losing many fans. Hence, based on the conjoint analysis results, the suggested ticket price for the general adults and college students groups was between USD \$9 (\$14; premium) and \$10 (16), and for the high and middle school group suggested ticket price was \$7-8.

According to the findings of this study, it appears that a team can increase its prices and profitability by hiring more star players as fans respond positively to a better team. While in itself this is not an original finding, what is significant is the use of a reasonable and reliable scientific method or process to establish these findings and to devise pricing strategies. The method assures credibility and provides lower risk to managers making decisions related to pricing. This is particularly the case for regions, as in our study, when a team is being established where no professional team has existed before or where no teams currently make a profit in the professional sports industry. Furthermore, this method offers the opportunity to discover useful information on the relative importance of attributes. Thus, even where the importance of Player is known, without conjoint analysis, managers would not know how much more important Player is to the fans and how much less so Coupon, for example. Moreover, it is important to know how strongly fans are attached or detached to the attributes so that managers can decide how much tangible and

intangible resource ought to be committed to each attribute and how pricing strategies should be established. By acquiring such knowledge managers can better implement more reasonable and profitable pricing schemes, such as price discounts and premium and dynamic pricing. The information can also be applied to various laws of price sensitivity, such as framing effect, fairness and reference pricing, price-quality effects, bundling and so on.

Conclusion and future research

The wide support conjoint analysis has received from academic and industry researchers in a relatively short time is an indication of its potential in providing a useful methodology for representing the structure of consumer preference and for predicting consumers' behaviour toward new stimuli (Green & Srinivasan, 1990). Despite popular usage in general business, conjoint measurement's potential in the sports industry is difficult to evaluate. This is due to its lack of usage and a lack of awareness of its existence among professional sports teams or sports-related organisations. Besides the overall awareness problem, technical issues may also need to be solved. Some products or services in the sports industry may involve utility functions and decision rules that are not adequately captured by the models of this technique.

What is important is that sports industry managers are recommended to attempt utilising conjoint analysis in various sports settings and sports activities. This is because the technique is capable of generating benefits by discovering the distinctive needs of the fans toward a team, sports events, merchandise, ticket price bundle, membership, player and so on. In addition, researchers should seek to extend conjoint models and applications to include marketing mix strategy variables such as advertising, promotion and distribution in sport.

It is also possible to develop a hybrid model to fit the characteristics of the sports industry by combining qualitative research techniques with conjoint analysis. This can help overcome identified general limitations of conjoint analysis (Bradlow et al, 2004) and specific limitations such as limited capacity, lost opportunities, and incomplete model of choice. For instance, qualitative efforts can offset the shortcomings of statistical measures by providing meaningful information regarding lost opportunities. These can then be considered in the final decision or additional attribute(s) can be included to the original model according to the knowledge of researchers or sports industry experts.

For this study, attributes were anchored on price only. Future studies could reveal even more meaningful discoveries if a variety of attributes were selected and anchored on an attribute other than price; such as concession, stadium amenities, promotion or team merchandise.

Finally, this study was based on a team located in Korea and may therefore display different patterns of fan behaviour from other countries and local cultures around the world.

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Biographies

Young Han Lee has a PhD in sports management and is a senior researcher at the Institute of Sports Science at Seoul National University. His primary research interests are sports marketing, sports management, relationship marketing, Data Envelopment Analysis (DEA) and pricing techniques.

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