Will Cavanaugh – HW#2 Carolina Panthers Ticket Pricing Analysis

Summary of Factors

The relevant factors I will observe in this analysis are Ticket Prices, Opponent Type, Seat-Level, Seat-Location, and Gameday. As a lifelong sports fan, these are the factors that influence my willingness to purchase a ticket to a sporting event. These factors likely impact other fans' willingness to purchase tickets as well.

Ticket Price: Ticket Price has been determined using SeatGeek[i], as the only Panthers tickets available are on the secondary market. As a Panthers' season ticket holder, I compared the cost of my tickets to the price on SeatGeek and used this ratio to estimate the face value of other tickets. The ticket prices used are $100, $175, and $250 which represent an estimated range of ticket prices across the three levels of the stadium. Currently, ticket prices primarily depend on which level of the stadium that the tickets are located in.

Opponent-Type: Opponent Type is divided into three categories: Premier, Divisional, and Standard. Premier opponents include the Patriots, Cowboys, Eagles, Giants, Steelers, and Packers. Divisional opponents are the Panthers' primary rivals: the Falcons, Saints, and Buccaneers. Standard opponents are the other 22 uncategorized teams. According to the Charlotte Business Journal[ii], the Panthers have increased prices for games against premier opponents, due to high demand, which led to the inclusion of this category. Divisional opponents will also be observed to gauge if rivalry games are preferred compared to standard games.

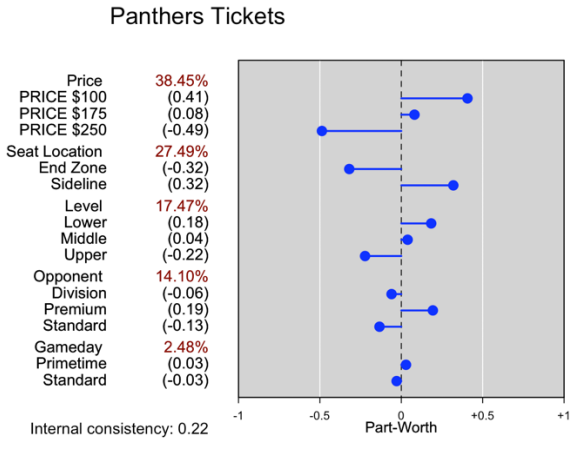
Seat-Level (Level): Seat-level categorizes three sections of the stadium: lower bowl, middle bowl, and upper bowl. Based on the secondary market, seats closer to the field of play are more expensive. Ticket prices currently depend on proximity to the field of play which has been considered in this analysis. The estimated average ticket price for each level has been used in this analysis: Lower ($250), Middle ($175), Upper ($100).

Seat-Location (Location): Seat location is categorized as Sideline or End Zone, regardless of level. Currently, tickets on the sideline cost slightly more than end zone tickets within the same level. I will determine whether this pricing structure aligns with consumer preferences. These two locations offer drastically different vantage points of the stadium which could lead to differing preferences among ticket buyers.

Gameday: Gameday is divided into two groups: Standard and Primetime. Standard games are Sunday afternoon games while primetime games are games played on Thursday, Sunday, or Monday night. In 2014, TicketIQ[iii] conducted a study on this topic which delivered mixed results. This variable will determine whether Panthers' ticket buyers are willing to pay a premium, or not pay as much, for tickets to night games compared to afternoon games. Currently, the Panthers do not charge a premium for tickets to Primetime games.

Summary of Code

I compiled my survey using the LMA.Design() and Questionnaire() commands included in the example code. This code provided 36 question sets, one for each person who takes the survey. Respondents will be randomly assigned four (4) combinations of attributes to rank from most (4) to least preferable (1). The questions were manually entered into excel and responses were generated by surveying family members and friends, answering a few questions on my own, and randomizing others. Next, I generated a spine chart which summarizes my results (below left). The second chart below is a bar graph depicting the average ranking across each of the variables. The bars are ordered by variable to show relative differences in respondent preferences. These charts will be discussed more thoroughly in the next section. Finally, I calculated the dollar value of one unit part-worth (util) for each of the variables to assess consumer willingness to pay across each option. This was calculated by taking the range of dollar values divided by the range of units associated with the dollar values; the util value is $166.67. Using the util value, I calculated the dollar-value difference between each of the provided choices which are shown in Table (A) below.



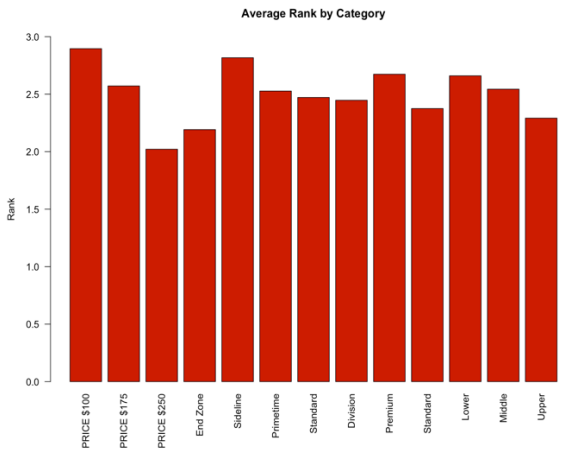


Table (A): Part-Worth Dollar Values			
Location (Sideline vs. End Zone)	**Seat Location (Lower vs. Mid)**	**Seat Location (Mid vs. Upper)**	**Seat Location (Lower vs. Upper)**
$106.67	$23.33	$43.33	$66.67
Opponent (Premium vs. Divisional)	**Opponent (Divisional vs. Standard)**	**Opponent (Premium vs. Standard)**	**Gameday (Primetime vs. Standard)**
$41.47	$11.67	$53.33	$10.00

Note: Can be read as "Fans are willing to pay $106.67 more to sit along the sideline rather than in the end zone".

In this study, I want to determine which factors Carolina Panthers ticket purchasers care most about when buying a ticket so that a dynamic pricing model which aligns with ticket purchaser preferences can be developed. Through this model, we will be able to optimize our pricing structure and ensure perceived value is considered when pricing tickets. My outlined process is appropriate as it allows us to better understand what fans truly care about when purchasing tickets. The spine chart is useful as it depicts preferential differences between categories, determines which levels of each category are most important, and calculates how much fans are willing to pay in order to secure certain ticket preferences.

Discussion of Findings and Recommendations

Price and Seat Location are the main influencers of fan ticket preference. Combined, Price (38.45%) and Seat Location (27.49%) account for over 55% of ticket buyers' decision criteria. Level and Opponent make up similar portions of decision criteria and gameday is relatively unimportant. In the spine chart, the levels with positive part-worths are preferred by ticket buyers. Panthers ticket buyers prefer lower prices, sideline seating, lower level seating, games against premier opponents, and primetime games. While each of these preferences are supreme in their categories, price is the most important driver of preference. The largest willingness to pay gap is between sideline and end zone seating. Ticket buyers are willing to pay $106.67 more to have their seat on the sideline, possibly due to a more complete view of the field. This indicates that sideline seating should be more expensive than end zone seating moving forward. Similarly, fans prefer lower level seating but are only willing to pay $23.33 more to sit in the lower level compared to middle level, and $66.67 more to sit in the lower level compared to upper level. Fans will pay $43.33 more to sit in the middle

level compared to upper level. Ticket buyers are willing to pay more to attend a game against a premier opponent compared to a divisional (+$41.47) and standard (+$53.33) opponent. The difference in willingness to purchase a ticket against a divisional opponent and standard opponent is minimal (+$11.67). Finally, fans are not as drawn to primetime games as I would've anticipated, they are willing to pay an extra $10 to attend a primetime game. This factor is the least significant across the surveyed ticket buyers.

Heading into next season, I recommend implementing a dynamic ticket pricing structure which varies based on Location, Level, and Opponent. These pricing differences are already in place but the current variance in pricing does not accurately reflect what the market is willing to pay. I would encourage the team to continue charging higher prices as the tickets get closer to the field, closer to the 50 yard-line (sideline) and when the team hosts marquee opponents. Given the negligible differences between divisional and standard opponents, along with gameday, I would not charge dynamic prices for these differences. These two factors ranked lowest in the spine chart which leads to the smallest change in willingness to purchase. The baseline ticket price will remain $100 for Upper Level End Zone seats during a game against a standard opponent. The same ticket against the Cowboys (Premium Opponent) would be $100 + $53 = $153. Ticket prices can be built from this base by applying the relevant uplifts to the base of $100. For example, a middle level (+$43), sideline (+$107) ticket against a non-premium opponent would cost $100 + $43 + $107 = $250.

As a next step, I recommend testing these new prices within the market in either another study or on a trial basis to work out any necessary adjustments. For example, although my research indicates the difference between sideline and end zone tickets is >$100, this seems high and should be tested. I recommend that the team continue to charge higher prices for sideline seating, lower or middle level seating, and for games against premier opponents. However, the current gap ($75) between the three stadium levels is larger than consumer preference would indicate and should be re-considered in the off-season. Similarly, the team is only charging $30 more for premier games compared to other games; I recommend charging $40-$50 more for these matchups. Finally, I recommend conducting an analysis similar to this every year or two to gauge how fan preferences are changing which will ensure the team stays as up-to-date with their pricing model as possible.

[i] "Carolina Panthers Tickets." TBA, 13 Nov. 2018, seatgeek.com/carolina-panthers-tickets.

[ii] Lawrence, Jesse. "How Do Monday Night Football Tickets Compare To Other Games On The NFL Schedule?" Forbes, Forbes Magazine, 18 July 2014, www.forbes.com/sites/jesselawrence/2014/07/18/how-do-monday-night-football-tickets-compare-to-other-games-on-the-nfl-schedule/#587a61d54f24.

[iii] Spanberg, Erik. "Carolina Panthers Raising Prices for 2018." Bizjournals.com, The Business Journals, 15 Feb. 2018, www.bizjournals.com/charlotte/news/2018/02/15/carolina-panthers-raising-prices-for-2018.html.