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Attendance for the Knoxville Ice Bears and Elements that Have an Impact

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As a marketing major and a sports enthusiast, I have always been interested in the techniques sports teams use to bring in the most fans to their games. For this reason, I conducted research on the Knoxville Ice Bears of the Southern Professional Hockey League (SPHL) to determine what techniques they use and to see how they could better determine what effects attendance and what they can do themselves to bring in more people at every game throughout the hockey season.

Background of the SPHL

The SPHL officially began with the 2004-05 season, and saw a large expansion in 2009 that included three new franchises in Biloxi, Mississippi, Lafayette, Louisiana, and Pensacola, Florida. Again in 2010, the SPHL saw the addition of another expansion team this time located in Augusta, Georgia. During the off-season in 2015, the SPHL added another two teams and currently there are a total of ten teams in the SPHL which include the Columbus Cottonmouths, the Evansville Thunderbolts, the Fayetteville FireAntz, the Huntsville Havoc, the Knoxville Ice Bears, the Macon Mayhem, the Mississippi RiverKings, the Pensacola Ice Flyers, the Peoria Rivermen, and the Roanoke Rail Yard Dawgs. A major accomplishment of the Southern Professional Hockey League is the presence of Shannon Szabados, the first female goalie to win an SPHL game, who currently plays for the Peoria Rivermen. It is also important to note that the Knoxville Ice Bears are the most successful team in SPHL history, having won four William B. Coffey Trophy championships as the regular season champions, and four Presidents Cup championships.

Research Question

The questions I tried to answer throughout this thesis project revolved around the elements I researched. These elements were promotions used, day of the week the game was played on, opponent played, and the attendance count for each game. The following were the questions I focused on:

- Which promotion type generated the highest attendance rates?
- Which day of the week saw the greatest number of people?
- Which opponent (or distance of that opponent) generated a high attendance?

With these questions I hope to learn more about what the Knoxville Ice Bears can do to generate the highest attendance rates for their games.

Research Method

In order to receive the data I needed for this project, I reached out Buzz Parrinello, the ticket director for the Knoxville Ice Bears. With his help, I was able to receive the majority of the attendance numbers for the 2015-2016 season of the Knoxville Ice Bears. I was able to look on Knoxville New Sentinel to fill in the blanks on the rest of the attendance numbers. For day of the week and opponent, I was able to look on the Ice Bear's website to get all of the needed information. As for the final element, promotions, I used a number of sources. These sources consisted of the Knoxville New Sentinel, season ticket holders of the Ice Bears, and Mr. Parrinello.

Once I had all of the data I needed, I moved on to SPSS. SPSS is a predictive analysis software provided by IBM that allows users to run analyses on data to figure out a number of

factors. For this particular project, I used SPSS to find out if the average attendance numbers for each promotion category, day of the week, and opponent category were statistically significant. Fortunately, each element proved to be statistically significant as will be discussed at a future point in this paper.

Below is the initial data set I started with before running any tests:

The most important factor to glean from this data set is the fact that the six lowest attended games of the 2015-2016 season were all played on either Tuesday or Thursday. As mentioned previously the Ice Bears cannot change what days they play games, but they can change the promotions used at weekday games.

As the data shows, all the Tuesday and Thursday games used the same promotion, Black Out Night. Also shown with the data, is the fact that this promotion was wholly unsuccessful, bringing in only 3,000 fans on the most attended night and only 1,774 on its lowest attended night (for comparison the Ice Bears hosted 5,107 fans at their highest attended game). This factor alone shows how important promotion is. While Tuesday and Thursday games will never be as highly attended as weekend games, it is possible to increase the attendance by offering better promotions.

Team	Opponent	Attendance	Day of the Week	Date	Promotion
Knoxville Ice Bears	Fayettevill Fireantz	5107	Saturday	2/13/16	Weiner Dog Race #2
Knoxville Ice Bears	Colombus Cottonmouths	4569	Friday	1/29/16	Scout Night
Knoxville Ice Bears	Colombus Cottonmouths	4312	Saturday	1/16/16	Baby Races Night
Knoxville Ice Bears	Louisiana Ice Gators	4261	Saturday	2/6/16	Legends Night
Knoxville Ice Bears	Macon Mayhem	4117	Saturday	1/9/16	Super Hero Night
Knoxville Ice Bears	Mississippi Riverkings	4,011	Friday	11/27/15	Weiner Dog Race #1
Knoxville Ice Bears	Macon Mayhem	3887	Saturday	3/12/16	Country Night
Knoxville Ice Bears	Peoria Rivermen	3833	Saturday	4/2/16	Pucks & Paws Night
Knoxville Ice Bears	Huntsville Havoc	3743	Saturday	12/5/15	Star Wars Night
Knoxville Ice Bears	Pensacola Ice Flyers	3641	Friday	11/13/15	Military Appreciation Night
Knoxville Ice Bears	Fayettevill Fireantz	3623	Friday	3/4/16	Youth Sports Night
Knoxville Ice Bears	Huntsville Havoc	3618	Friday	3/25/16	Fight Night
Knoxville Ice Bears	Colombus Cottonmouths	3457	Saturday	10/24/15	Opening Night
Knoxville Ice Bears	Colombus Cottonmouths	3361	Saturday	11/21/15	Pucks & Princesses
Knoxville Ice Bears	Mississippi Riverkings	3357	Friday	1/1/16	Friends and Family Night
Knoxville Ice Bears	Huntsville Havoc	3282	Saturday	12/19/15	Kids Run the Show (Zoooperstars)
Knoxville Ice Bears	Peoria Rivermen	3109	Friday	4/1/16	Hot Wheels Night
Knoxville Ice Bears	Colombus Cottonmouths	3039	Friday	3/11/16	Alzheimer's Awareness Night
Knoxville Ice Bears	Macon Mayhem	3025	Tuesday	12/29/15	Black Out
Knoxville Ice Bears	Louisiana Ice Gators	3011	Friday	2/5/16	Hockey Night in Knoxville
Knoxville Ice Bears	Huntsville Havoc	2642	Friday	12/18/15	Old School Night
Knoxville Ice Bears	Fayettevill Fireantz	2418	Sunday	3/6/16	Pucks & Paws Night
Knoxville Ice Bears	Pensacola Ice Flyers	2397	Thursday	2/18/16	Black Out
Knoxville Ice Bears	Fayettevill Fireantz	2225	Thursday	3/3/16	Black Out
Knoxville Ice Bears	Peoria Rivermen	2115	Thursday	12/3/15	Black Out
Knoxville Ice Bears	Huntsville Havoc	2021	Tuesday	11/17/15	Black Out
Knoxville Ice Bears	Mississippi Riverkings	1947	Tuesday	2/2/16	Black Out
Knoxville Ice Bears	Macon Mayhem	1774	Tuesday	2/9/16	Black Out

Color code for the above chart:

Opponent:

- Brown: short distance; people travelling to these games drive but do not have to stay overnight
- Yellow: medium distance; people travelling to these games drive and stay overnight in Knoxville
- Green: long distance; people travelling to these games must fly

Day of the Week:

- Blue: Saturday
- Grey: Friday

- Orange: Tuesday
- Green: Sunday
- Pink: Thursday

Promotion:

- Blue/Grey: Entertainment games
- Grey: Kids
- Orange: Other
- Green: Jersey Auction
- Brown: Charity
- Blue: Fan Appreciation

Promotions

Promotions were categorized six different ways. These categories included Jersey Auction, Kids, Entertainment, Fan Appreciation, Charity, and Other. Below you can see the attendance averages, the p-value (found using SPSS), and whether the p-value shows statistical significance.

	Jersey Auction	Kids	Entertainment	Fan Appreciation	Charity	Other
Average	3,883	3,596	3,836	3,275	3,097	2,632
P-Value	0.367					
Significant?	Yes					

As well be shown throughout this paper, promotions are the most statistically significant element in regards to attendance. What this means is that promotions have the biggest impact on the amount of people that will attend a game. Religiously, year to year, the highest attended game for the Knoxville Ice Bears is a promotion that falls in the entertainment category, usually a Weiner Dog Race. However, as seen in the chart above the Jersey Auction category has the highest average, even if just by 47 fans. This is attributed to the fact that fans love to get players' jerseys, and they are hard to come by if not bought at a jersey auction.

The least attended type of promotion category is the other. This is mainly attributed to the Black Out games that occurred every Tuesday and Thursday. These games were very poorly attended and brought down the average for the other category dramatically.

Day of the Week

The next element I looked at was day of the week, and any impact the day had on the number of fans who attended the given game. Below you can see the attendance averages for each day of the week, the p-value, and whether or not that value is statistically significant.

	Sunday	Saturday	Tuesday	Thursday	Friday
Average	2,418	3,936	2,192	2,246	3,462
P-value	0.377				
Statistically Significant?	Yes				

As shown by the table above, Saturday and Friday are by far the most attended games for the Knoxville Ice Bears. The Sunday average is somewhat misleading because there was only

one game played on Sunday and it was a rescheduled game from earlier in the season. As also shown, Saturday night games are by far the best attended games.

There is one obvious outlier for day of the week. The outlier is a Tuesday night game that was played on 12/29/2015 which garnered an attendance value of 3,025, which is 833 people higher than the average Tuesday night game. This single outlier can be attributed to the date. Most, if not all, children are out of school for winter vacation. This allows parents to take them to a week night game without having to worry about them being tired at school the next day. Most week night games would have attendance rates similar to the 12/29 game if the Ice Bears could play all of them on the night before a school holiday, however, the Ice Bears do not have much control over this factor.

Opponent

I categorized the opponents in three ways. Teams far enough that their fans could drive to Knoxville and drive back in the same day, teams that are a medium distance where fans must stay in Knoxville overnight, and then teams that are a far distance where fans must fly to Knoxville in order to see games.

	Drive	Overnight	Fly
Average	3,346	3,192	3,267
P-value	0.4		
Statistically Significant?	Yes		

The highest attended games are ones where opponents faced are only a short distance away. However, with a p-value of 0.4, while still showing statistical significance, is much closer

to 0.5, which is the value when an element is no long significant, which leads me to believe that fans do not choose a game based on opponent, nor do many fans travel with their team.

There were no outliers as far as opponent is concerned. This further goes to show that opponent does not have much impact on the amount of people who attend Ice Bears games.

Recommendations

Based on my findings, it would be my recommendation that the Knoxville Ice Bears focus on their promotions as the main way to bring in people to the games. While day of the week and opponent both showed a significant impact on attendance, these are not elements that the Ice Bears can easily control, if they are able to at all. However, the Ice Bears can use promotions to boost the attendance on unfavorable days, or against opponents that people do not seem to enjoy seeing the Bears play against as much. As shown in the promotion chart previously, games using either an entertainment promotion or a jersey auction promotion bring in the most fans. It is my recommendation that the Ice Bears use one of the above promotion categories on Tuesday and Thursday games. This will allow for an increase in attendance for these games, while keeping the average for the other days of the week relatively the same. By doing this, the Ice Bears will not only increase their attendance, but they will also increase their per game income.

Conclusion

I have found through my research that the main elements that impact the attendance at the Knoxville Ice Bears' games are the following: day of the week the game is played on, the promotion used for the game, and opponent played. However, I also found that attendance is mainly determined through promotion. Opponent has little to no impact on whether or not

someone will attend an Ice Bears game. Day of the week, while having a large impact on attendance, is not a factor that the Ice Bears can control. Therefore, it is paramount that the Ice Bears choose promotions strategically. For example, the Ice Bears should hold one of the jersey auction promotions, such as Military Appreciation Night, on a Tuesday or Thursday night to bring in more fans to those week night games. This project has shown just how important promotions are to the attendance for minor professional hockey teams, in particular the Knoxville Ice Bears.