# The Effects Promotional Incentives Have On College Basketball Attendance In Power Five Conferences 

Alexander Ryan Cramer<br>University of Mississippi

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## ATTENDANCE IN POWER FIVE CONFERENCES

A Thesis<br>presented in partial fulfillment of requirements for the degree of Master of Arts in Recreation Administration in the Department of Health, Exercise Science, and Recreation Management The University of Mississippi

By
ALEXANDER R. CRAMER
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#### Abstract

The purpose of this study was to explore promotional incentives effects on attendance at men and women college basketball games in Power Five conferences during the 2015-16 season. The sub-objective was to explore the data to determine if distinct market segments emerged based on the promotional strategies measured as part of the study. The study variables are based on recommendations and suggestions from completed research exploring similar phenomenon among MLB teams (Boyd \& Krehbiel, 2003, Boyd \& Krehbiel 2006, Browning \& Debolt, 2007, Howell, Klenosky, McEvoy, 2015).

There were 20 men and 20 women teams from Power Five conference with a total of 641 games played by these 40 teams; 335 men games and 306 women games, respectfully. A multiple linear regression was applied using attendance as the dependent variable. Attendance was defined as the percentage of venue capacity filled for each game.

Results revealed that several promotional strategies at women games significantly (p < .05) increased attendance. Significant women strategies included: giveaways under \$5, t-shirt giveaways, and group discount. There were no significant promotional strategies that increased attendance for men games. There were two strategies that predicted lower attendance; giveaways under $\$ 5$, and ticket discounts. Women results found significant predictors that increased attendance in covariate predictors; conference games, and home team winning percentage. Several covariate factors increased attendance at men games; conference games and weekend games. One covariate for women and one covariate for men had a negative effect on attendance. A Hierarchal Cluster Analysis revealed a three group cluster and four group cluster


for women and men, respectively.
Results suggest that collegiate marketing directors develop non-conference and weekday game promotions at men games, and spend more money on inexpensive promotions at women games. Promotions at women games should focus on identifying giveaways under $\$ 5$ during conference games to maximize these findings. Conversely, men games should not spend money on promotions if the intent is to increase attendance. Future studies should focus on delineating promotion categories, exploring college basketball outside the Power Five conferences, and applying this study's methodology to explore other collegiate sports.

## DEDICATION

My thesis is dedicated to my parents, Michael and Christina Cramer. I would not be where I am today without their constant guidance and support.

# ABBREVIATIONS AND SYMBOLS 

| ACC | Atlantic Coast Conference |
| :--- | :--- |
| AD | Athletic Director |
| MLB | Major League Baseball |
| NCAA | National Collegiate Athletics Association |
| PS | Promotional Strategies |
| SEC | Southeastern Conference |

## ACKNOWLEDGEMENTS

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## CHAPTER I

## INTRODUCTION

The roar of a sold-out crowd and the revenue that comes with it would not be possible without some first-rate marketing. Marketing directors in collegiate athletics have been tasked with making sure fans have a reason to attend games, even when the teams they work for aren't winning. This chapter examines the research topic at hand, it's importance, definitions of key terms, limitations, assumptions, and some expected outcomes.

## Background

College sport is a big business and has been steadily growing for the last 25 years.
Today, there is a large amount of money on the line when it comes to determining the right mix of promotions.

The worldwide sports industry as a whole reached an estimated worth of $\$ 213$ billion dollars during the 1990's (Mahony \& Howard, 2001) and has since then soared even higher. Updated figures provided by Plunkett Research (2015) suggests that the global sport industry had an estimated worth of $\$ 1.5$ trillion dollars in 2015 with $\$ 989$ million of those dollars coming from National Collegiate Athletic Association (NCAA) sports revenue across Divisions I, II, and III. Every school in the NCAA has a different budget to work with, but they all have one thing in common - every budget is limited.

Athletic departments across the country spend hundreds of thousands of dollars on marketing (Hansen \& Gauthier, 1992). Providing a clear picture of what methods of marketing
work best will save marketing departments money and, in turn, save athletic departments money that can be spent elsewhere. As the financial landscape of college athletics grows, the responsibilities and expectations of its administrators grow too. Athletic Directors of Marketing are often tasked with developing strategies and efforts to increase attendance at collegiate sporting events, which in turn increases direct (tickets sold) and indirect revenues (concession and merchandise). One popular strategy for growing attendance is through promotions, such as giveaways or group discounts. These game promotions make attending games more attractive and fun for fans to attend which is shown to increase attendance (Boyd \& Krehbiel, 2003), purchase of sport-related merchandise (Cebula, Coombs, Lawson, \& Foley, 2013), and fan motivation and satisfaction (Armstrong, 2008).

According to Trail \& Yu (2011) motivation to attend sporting events varies from fan to fan, necessitating more diverse marketing promotions. Moreover, NCAA administrators are challenged with determining the most effective marketing strategies that will increase attendance (Cooper, 2015). Collegiate sport marketing professionals are responsible for developing this challenge into operational plans. Marketing professionals have no control over the product on the field, but they can manipulate marketing strategies and promotions to positively affect attendance (Browning \& DeBolt, 2007), and more spectators can impact the outcomes on the field by their fan noise alone (Ballard, 2013)

Although little research has explored promotion success in collegiate sports, professional sports have tracked the successes of promotions in increasing fan attendance and satisfaction, both related to increased ticket and merchandise sales. There are large amounts of money at stake when it comes to determining the right mix of promotions. For example, professional baseball has more regular season home games in its schedule than any other sport, and as a by-
product, requires the most effort to attract fans to its events. Several studies have been done in professional baseball to look at promotions and their role in increasing attendance. These results have shown success, and the methods used in their research have served as a guide for analyzing promotions and their effect on attendance (Boyd \& Krehbiel, 2006, Browning \& Debolt, 2007, McDonald \& Raseker, 2000).

While much has been written about the effect promotions have on attendance at professional baseball games, nothing has been written about the direct effect promotions have at college basketball games. The majority of college athletics research has focused on qualitative research that examines marketing strategies in areas that administrators think are important to increase attendance, but little has been done on a large scale to quantitatively see what the actual end of season results reveal (Martin, Miller, Elsisi, Bowers, \& Hall, 2011). While the general consensus is that promotions increase attendance, some marketers fear that an overload of promotions can dilute the effectiveness that promotions ultimately have on attendance (Hixson, 2005). Therefore, determining the best marketing mix is vital for year-to-year improvement. One reason promotions are so important to sports marketing professionals is the fact that they can be controlled (Boyd \& Krehbiel, 2006). Day of the game, time of the game, weather, commuting distance, and other factors are completely out of administrators' control. With so few elements that can be controlled, promotions are worth manipulating.

The purpose of this study was to determine the mix of promotions that best increase spectator attendance at Power Five college basketball games. By comparing data from the Power Five schools, the goal is that college athletic administrators will have a better understanding of what can be done to impact attendance at their school's sporting events. A main premise of this study is that non-price promotions will generate the most fans at a sporting
event, non-price meaning something that is added to the sporting event as an add-on. The premise is based on a similar study conducted in professional baseball which found that adding value to a sporting event rather than reducing the price of admission yielded better results in increasing attendance (Browning \& DeBolt, 2007).

## Statement of Purpose

The purpose of this study is to determine the effect promotional strategies have on basketball game day attendance in the Power Five conferences. Presently, 20 schools in the Power Five conferences conduct promotions at both their men and women basketball games.

The secondary objective of this study is to identify the promotional mix most likely to increase basketball attendance based on sport venue, day of the week, time of the game, opponent winning percentage, conference opponents, and weather.

## Importance of the Study

Athletic department budgets are not unlimited. Being able to make effective, informed decisions based on data could allow collegiate marketers to perform their job more effectively. With the average college basketball home schedule consisting of 16 games, there are many different dates to fill with promotional content.

The right promotion, on the right day, against the right opponent, could yield benefits in the stands via increased attendance. Increased spectators at home games provide a home court advantage that cannot be understated. The home team wins more than $50 \%$ of the time across all different levels and sports, and research suggests the home crowd has an impact on outcome.
(Watkins, 2012). Common sense says that the larger the crowd the greater that effect.

## Hypotheses

The following are the null hypotheses posited for the study.

Hypothesis One $\left(\mathrm{H}_{0}{ }^{1}\right)$ : Promotional strategies will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for women.

Hypothesis Two $\left(\mathrm{H}_{0}{ }^{2}\right)$ : Promotional strategies will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for men.

Hypothesis Three $\left(\mathrm{H}_{0}{ }^{3}\right)$ : Covariate predictors will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for women.

Hypothesis Four $\left(\mathrm{H}_{0}{ }^{4}\right)$ : Covariate predictors will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for men.

Sub-objective: Determine if distinct market segments emerge based on the promotional efforts measured for men and women.

## Definition of Terms

For the purpose of the study the following definitions of terms were used:

1. Atlantic Coast Conference (ACC): A conference that covers states along the Atlantic Ocean portion of the United States. It is comprised of Boston College, Clemson, Duke, Florida State, Georgia Tech, Louisville, Miami, North Carolina, NC State, Notre Dame, Pitt, and Syracuse.
2. Attendance: The number of fans who attend a given sporting event. For the purpose of this study the attendance figure will be determined by dividing the raw attendance number by the venue capacity to determine a percentage.
3. Attendance raw number: The reported number of people who attended a sporting event. Found in the final box score.
4. Big Ten Conference (Big Ten): A conference that covers states in the mid-west part of the United States. It is comprised of Indiana, Illinois, Iowa, Maryland, Michigan, Michigan

State, Minnesota, Nebraska, Northwestern, Penn State, Purdue, Rutgers, and Wisconsin.
5. Big XII Conference (Big XII): A conference that covers states in the middle of the United States. It is comprised of Baylor, Iowa State, Kansas, Kansas State, Oklahoma, Oklahoma State, Texas, TCU, Texas Tech, and West Virginia.
6. Football Bowl Subdivision (FBS): The schools that compete in football post-season bowl games.
7. Group discount: A discounted ticket price given to specific groups such as the Boy Scouts, military personnel, or a youth basketball league.
8. Inclement weather: Any day where rain or snow is present the day of the game.
9. Marketing Mix: Price, product, place, and promotion make up the marketing mix. These factors can be manipulated to increase the attractiveness of a product or an event.
10. National Collegiate Athletic Association (NCAA): The governing body of college athletics that all FBS schools play under.
11. Pac-12 Conference (Pac-12): A conference that covers states near the Pacific Ocean part of the United States. It is comprised of Arizona, Arizona State, California, Colorado, Oregon, Oregon State, Stanford, UCLA, USC, Utah, Washington, and Washington State.
12. Power Five: A group of conferences that possess the biggest budgets in college athletics. It consists of the SEC, ACC, Big Ten, Big XII and Pac-12.
13. Promotion: An event, give away, or special deal performed by the marketing department at a given school with the desired end result being more fans at the game; e.g., high-value giveaway, low-value giveaway, group discount, t -shirt giveaway
14. Southeastern Conference (SEC): A conference that spans 11 states in the southeast part of the United States. It is comprised of Alabama, Arkansas, Auburn, Florida, Georgia,

Kentucky, LSU, Mississippi State, Missouri, Ole Miss, South Carolina, Tennessee, Texas A\&M, and Vanderbilt.
15. Sports Marketing professional/director: An individual whose job consists of growing the brand of the team and devising ways to attract new and old fans to attend sporting events.
16. Time of day: The time of day that a game is played.
17. T-shirt giveaway: An item given away at the door
18. Venue: The stadium or arena where a basketball game is played.
19. Winning percentage: winning percentage is computed by dividing the number of wins by the total number of games. The formula is: Winning Percentage $=$ Wins/Games.

## Delimitations

The following delimitations were placed on this study:

1. The study is delimited to regular season games only.
2. The study is delimited to what attendance data is available online.
3. The study is delimited to what promotion data is available online.
4. The study is delimited to what weather data is available online.
5. The study is delimited to men and women college basketball

## Limitations

The following were limitations of the study:

1. The study is limited to the 2015-2016 season.
2. The study is limited to college basketball.

## Assumptions

In the research design for the study the following assumptions were necessary:

1. All promotional schedules provided online by the schools being studied are accurate and
were performed on the dates provided.
2. All attendance numbers reported in the game box scores are accurate and truthful.

## CHAPTER II

## REVIEW OF RELATED LITERATURE

While studies on the effect promotions have on college basketball attendance have never been done before, such studies have been performed in professional and minor league baseball. Researchers have studied effects on baseball game attendance including spectator motivations and fireworks. The long seasons that accompany baseball, as many as 81 home games in a single season, make it an ideal sport for research on promotion effects. The different marketing studies explored in this literature review provide a historical background and findings of the most pertinent studies compatible with the purpose and goals of this study.

## Introduction

Sports are a popular subject for research, but studies focused on promotions and their effect on attendance to sporting events has resulted in only a few research studies. Notably, none of these studies explored promotions and/or their effect on attendance in men and women basketball games at the collegiate level.

Martin, et al. (2011) studied sports marketing strategies of college athletic marketing directors (Martin, Miller, Elsisi, Bowers, \& Hall, 2011). The study utilized a survey of all active NCAA Division 1 marketing directors. Only $63 \%$ percent felt their marketing strategies were effective. While the results showed that halftime promotions and game giveaways were used by more than $90 \%$ of those who responded to the questionnaire, the findings provided no evidence that marketing directors had methods to determine if promotions and giveaways were effective in
increasing attendance. Universally accepted, detailed accounts of past marketing data can show trends which can help marketing professionals spend their promotional budgets effectively. The researchers also point out how this kind of academic research is important because there is a niche for concise methods to conduct marketing evaluations within the field of sports (DeGaris, 2008). Martin, Miller, Elsisi, Bowers, \& Hall (2011) put it best when they said "In short, more attention can be given to effective strategies while ineffective strategies can be eliminated-both of which will contribute to a more resourceful sport organization" (p. 44). The focus of this study was to develop a research methodology based on past marketing efforts to provide empirical evidence to guide future efforts effective at increasing attendance.

## Sports Reviewed

Of the studies reviewed, none studied men and women college basketball and the effects promotions had on game attendance. Trail \& Yu (2011) studied NCAA women's college basketball, but they only researched the motivators and constraints that impacted attendance from an emotional angle-the fan experience. Another study researched the concept of the "Home Court Advantage" at college basketball games (Watkins, 2012). Ballard's (2013) study researched promotional factors that may increase attendance at NFL games (Ballard, 2013). One study focused on NBA marketing techniques (Dick \& Turner, 2007), and the remainder of the studies all concentrated on professional baseball—both major and minor league teams. Baseball seasons lend themselves to research that explores factors that might increase attendance because there are approximately 81 home games each season to measure the phenomenon.

## Other Factors Reviewed

Of the studies reviewed that were sports related, some researched factors that had nothing to do with promotions. The NFL study looked at the impact of game noise on the home field and
its advantages to a team's winning percentage (Ballard, 2013). The "Home Court Advantage" was researched to determine its impact on a team's winning percentage (Watkins, 2012). The weather and the timing of games (e.g., afternoon, weekend, evening, or holiday break) were researched to determine their impact on attendance at games (Howell, Klenosky, McEvoy, 2015). Motivators and constraints that looked at emotional elements that influenced a spectator's attendance at games was researched as well (Trail \& Yu Kyoum, 2011). Another study considered the color and "culture" of game spectators and the impact those factors have on game attendance (Armstrong, 2008). Even though these factors are interesting aspects to consider, they will not be the focus of this study. Although the impact of weather and timing will be taken into consideration over the various promotions that are offered at the individual games.

## Promotions Reviewed

The studies that focused on the impact of promotions on increasing attendance used to form the hypotheses and methodology for this study were based on professional baseball games. Browning and Debolt (2007) tracked attendance and promotions for every game over the course of a season for four different teams and combined the different types of promotions into categories: price, non-price, no promotion and a combination of promotions. A unique aspect of this study was it explored four different professional baseball teams in the same geographic region-Ohio. Half the teams found an increase in attendance when non-price promotions were present, as well as with a combination of promotions. The research from this study supports the notion that non-price promotions draw bigger crowds (Browning \& Debolt, 2007).

Another Major League Baseball study (McDonald \& Raseker, 2000) didn't look at the effect of specific types of promotions on attendance, but focused on aspects that were controllable by marketing professionals. The study covered over 1,500 MLB games during the

1996 season and examined whether promotions work and whether there is a "watering down" effect from fans being exposed to too many promotions. The question regarding whether promotions work or not was answered with an emphatic yes. Games that used a promotion versus games that did not use a promotion experienced a $14 \%$ increase in attendance. The answer to the "watering down" effect is more complicated. While more promotions over the course of the season showed less of an individual game impact, they ultimately found a large net total. So while on a game-by-game basis it did not make sense to have more promotions, it made the most sense over the course of a long season.

A study done by Boyd and Krehbiel in 2006 is one of the most detailed and well thoughtout studies done regarding specific types of promotions and the impact on attendance. The model the researchers used to measure attendance was adopted and revised for use in this study. The following items were tracked: 1) team; 2) winning percentage; 3) opponent winning percentage; 4) weekend game; 5) day game; 6) interleague game; 7) divisional game; 8) temperature; 9) inclement weather; 10) promotion; 11) bobble head giveaway; 12) giveaway < $\$ 5 ; 13$ ) giveaway > \$5; 14) special events; 15) two or more special events; 16) giveaway and special event; 17) price discount (Boyd \& Krehbiel, 2006). Not only was this study thorough, it was also very comprehensive, covering all 30 Major League Baseball teams across the country. One theory supported in the study is the idea of stacking promotions. Rather than just having an item giveaway or just having a special event, it argues that combing the two is a very effective strategy. The results of the study also suggest that there is no "best time" to offer a promotion; a factor explored further in this study on men and women college basketball.

Finally, a study conducted at the minor league baseball level was conducted during the 2010 season. Triple-A teams in the International league had their promotional schedules
examined along with weather and timing to determine the most effective promotions in relations to generating more attendance (Howell, Klenosky, McEvoy, 2015). Similar to Boyd and Krehbiel in 2006, this study looked at low and high value giveaways as well. The independent variables were broken up into internal and external categories with internal being factors that are under the marketing directors control while external factors are not. Internal factors were: low value giveaway, high value giveaways, fireworks, special events, and ticket price. External factors were: temperature, precipitation, timing of game, and whether the game was played on a weekend or not. Results showed that local temperature at the game's first pitch, precipitation, opening day/final home game, and weekend games were found to be statistically significant for attendance among others. Low and high valued promotional giveaways were associated with a $10.8 \%$ and $10.5 \%$ increase in attendance respectively, while fireworks moved the attendance needle the most with a $20.1 \%$ increase in attendance. These variables were used in this study.

## The Future

While there are many different conferences of NCAA Division I college basketball whose promotional strategies could be evaluated, the Power Five conferences were chosen for the purpose of this study because of their perceived elite status. A recent study argued that the NCAA could no longer properly govern the over 1,000 colleges and universities that make up the NCAA athletic conferences. The results of an article contend that the Power Five should separate from the NCAA and form its own independent athletic association. If these conferences were ever to leave the NCAA and join an independent athletic conference the disparity between the Power Five schools and the rest of the remaining schools would grow even larger, leaving Power Five schools as the only highly competitive college athletic institutions in the country (Bush, 2014).

If marketing professionals are not diligent in evaluating their methods, then history is doomed to repeat itself. Tracking data allows marketers to repeat successes and avoid failures. Ultimately, marketing directors must understand the consumer to develop cost-effective marketing strategies using promotions. A study done in the National Basketball Association looked at what marketing directors valued versus what ticket holders valued (Dick \& Turner, 2007).

Although NBA teams are spending more than $\$ 1$ million a year in marketing their product to potential fans and...until recently, NBA marketing directors have continued to value and use techniques similar to those used almost 30 years ago...These techniques may now be obsolete, and although some marketers have tried new techniques, no one has thoroughly assessed whether they work. (Dick \& Turner, 2007)

Interestingly, ticket holders ranked 'promotional premium' or 'giveaway items at the door' as the number one most effective marketing technique, while marketing directors ranked it as the $13^{\text {th }}$ most effective. Marketing Directors ranked 'mini packs' (partial season ticket plans) as the most effective while ticket holders ranked it fifth. This study on college basketball hopes to bridge the gap between the expectations of Marketing Directors and the expectations of the ticket holders that they are trying to get in the seats. This study illuminates the effect that promotions had on attendance at men and women basketball games and useful market segments that should be considered in planning promotions.

## CHAPTER III

## METHODOLOGY

This study utilized a cross-sectional design and was exploratory in nature. Men and women basketball teams among National Collegiate Athletic Association (NCAA) schools were examined in this study to determine the effect promotions had on reported attendance for the 2015-16 season. The methodology section is comprised of participants, procedure, variables, analysis, and anticipated problems.

## Participants' Data

The school attendance and promotion records in this research came from the schools among the NCAA Division I Power Five conferences. This population included schools from the SEC, Big XII, Big Ten, and Pac-12. These conferences were selected above others because they have similar athletic department budgets and compete at the highest collegiate athletic level. From these conferences, only schools that performed promotions for both their men and women teams were included. Due to no schools meeting the inclusion criteria, no schools from the ACC were included in the study. The final list ended up including: Alabama, Auburn, Baylor, California, Georgia, Iowa, Kansas State, LSU, Northwestern, Oklahoma, Oklahoma State, Ole Miss, Purdue, Rutgers, Texas A\&M, UCLA, USC, Utah, West Virginia, and Wisconsin. Having both men and women basketball teams examined provided insight into any predictors between promotions at men and women sporting events. These 20 schools created a sample size of 40 teams: 20 men and 20 women basketball teams.

Each school's official athletic website was examined for a copy of their promotional schedule for men and women basketball. These schools provided this information to the general public via their school's athletic website. Winning percentage, attendance, game time, and day of week, were taken from the box scores also available on the school's official athletic website. Historical weather data was pulled from the website Weather Underground based on arena zip code.

## Procedure

School athletic websites provided promotional schedules for both men and women basketball. The information from those promotional schedules was coded into respective promotional categories was entered into the Statistical Package for the Social Sciences software (SPSS). Promotionally, each game that each team played was categorized into one of 11 categories: giveaway under \$5, giveaway between $\$ 5-\$ 10$, giveaway over $\$ 10$, t-shirt giveaway, group discount, ticket discount, one special event, two special events, three or more special events, no promotion, and combination games. Giveaways were categorized into various giveaway categories based on their perceived value. The perceived value price point was determined by utilizing a study done by PPAI (Promotional Products Association International) research (Kuruvilla, \& Ebel, 2011). Group discount games were any games where a specific group of people received a discounted ticket price to attend, such as boy scout night, youth basketball player night, etc. Ticket discounts were any games where discounted tickets were available to the general public regardless of affiliation with a group or organization. Special events were anytime a game had something done to try and attract fans that didn't involve a giveaway or a discount. Some examples were: a concert, family centered activities, clinic, special halftime show, autograph session, etc. These special event games were then broken into
three separate categories based on the number of special events happening in one game: one special event, two special events, or more than three special events. Finally, the raw number of promotions happening in any one game were tracked and any games with two or more promotions were identified as combination games. Games that featured no promotions were categorized as no promotion games.

Attendance was reported in the box score after every team's home game, and these box scores were found on each team's official website. Those attendance numbers were then uploaded into SPSS. Other information, as follows, was put into SPSS from the box score: home team winning percentage, opposing team winning percentage, time of game, conference or nonconference game, and day of week. Additional variables were also gathered from each game to include: average temperature the day of the game, precipitation for that arena's zip code, and whether the game was played over holiday break between traditional academic semesters. Teams who do not provide a promotion schedule online for public use were not included in the study.

## Independent Variables

Promotions were key to exploring the research questions of the study. The independent variable, promotions, were divided into eight categories: giveaway under $\$ 5$, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway, group discount, ticket discount, no promotion, and special event. covariate variables consisted of the following: home team winning percentage, away team winning percentage, time of game, conference or non-conference game, day of week, average temperature the day of the game, precipitation for that arena's zip code, and whether the game was played over holiday break between traditional academic semesters.

## Dependent Variable

The dependent variable in this study was the percentage of venue capacity filled at the college basketball games during the 2015-16 season. Attendance was collected from the home team box score from each team's official website. The attendance raw number was then operationalized as a percentage of the stadium capacity where each game was played and this value served as the dependent variable for the study. Promotion types and other covariates were tested to determine their effect on attendance at the basketball games. For the purpose of this study, anytime attendance is referred to, it will be referring to the percentage of venue capacity filled.

## Data Analysis

Once the data was entered, quantitative statistics and a Multiple Linear regression were used to discover if there were significant predictors of attendance by promotional strategy. A multivariable linear regression analysis was employed to examine the relationships among the following promotional categories of attendance: giveaway under \$5, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway, group discount, ticket discount, and special event. For both models the following covariates were included: home team winning percentage, away team winning percentage, time of game, conference or non-conference game, day of week, average temperature the day of the game, precipitation for that arena's zip code, and whether the game was played over holiday break between traditional academic semesters. Appropriate statistical analyses were calculated to either fail to reject or reject the null hypotheses of the study. After the data was collected and categorized, data was analyzed to determine if and which independent variables, or groupings of individual variables, predict significantly greater ( $\mathrm{p}<.05$ ) attendance. Analyses included cluster analysis and linear regression. The results were used to identify homogenous segments of promotions that have similar effects on attendance but are distinctively
different from other promotions. All calculations were computed using SPSS.

## CHAPTER IV

## RESULTS

The primary purpose of the study was to explore how promotional incentives effect college basketball attendance. The sub-objective was to explore the data to determine if distinct market segments emerged based on the promotional efforts measured as part of the study. Findings of the research include a descriptive profile of the participants and results of the linear regression analyses calculated to test the hypothesis. Finally, the results of hierarchal cluster analysis are presented to address the sub-objective of the research. Data was gleaned from 40 Power Five men and women 2015-16 collegiate promotional schedules on each team's official athletic website. To be included in the study, both men and women teams must have posted their seasonal promotional schedules.

## Profile of the teams

There were 20 men and 20 women teams included in the study. These teams included six teams from the Southeastern Conference, five teams from the Big XII Conference, five teams from the Big Ten Conference, and four teams from the Pac-12 Conference. The study consisted of a total of 40 teams.

There were 641 games played by the 40 teams examined in this study with 335 men games and 306 women games included in the data analyses. Table 1 presents the attendance average to men and women games were 9,641 and 3,209 respectively. The mean attendance for men and women were $78 \%$ and $29 \%$ respectively. Winning percentage, temperature, and
precipitation produced similar averages for both men and women games.
Table 1
Descriptive analyses of external covariate factors and dependent variable

|  | Group |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Women's Games |  |  |  |
| Mean | Standard <br> Deviation | Men's Games |  |  |
|  |  |  | Mean <br> Standard <br> Deviation |  |
| Home team Winning \% | $69.9 \%$ | $24.1 \%$ | $66.9 \%$ | $24.4 \%$ |
| Away team Winning \% | $59.4 \%$ | $28.3 \%$ | $56.3 \%$ | $27.9 \%$ |
| Game Attendance | 3209.3 | 2014.8 | 9641.2 | 3762.7 |
| Actual Capacity | 11693.4 | 3032.9 | 12227.6 | 2535.1 |
| Venue \% capacity filled | $28.9 \%$ | $19.02 \%$ | $77.6 \%$ | $21.5 \%$ |
| Temperature (Fahrenheit) | 45.8 | 13.6 | 45.5 | 13.5 |
| Precipitation (inches) | .11 | .37 | .08 | .30 |

Table 2 presents the count and frequencies of when games were played for men and women games. These measures included whether the game was placed on a weekend, including Friday games, whether the games were played before or after 5 pm , whether they were played during conference play, and whether they were played over the college's holiday break between fall and spring semester.

Table 2
Covariate game timing and frequency variables

|  |  | Gender |  |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | Women |  | Male |  |
|  | Neekday | 139 | $45.4 \%$ | 169 | $50.4 \%$ |
| Game Day | Fri-Sun | 167 | $54.6 \%$ | 166 | $49.6 \%$ |
|  | earlier 5pm | 132 | $43.1 \%$ | 92 | $27.5 \%$ |
| Game time | 5pm or later | 174 | $56.9 \%$ | 243 | $72.5 \%$ |
|  | non-conference | 131 | $42.8 \%$ | 154 | $46.0 \%$ |
| Conference game | Conference | 175 | $57.2 \%$ | 181 | $54.0 \%$ |
|  | not holiday break | 227 | $74.2 \%$ | 258 | $77.0 \%$ |
| Holiday Schedule | holiday break | 79 | $25.8 \%$ | 77 | $23.0 \%$ |

Table 3 presents the count and frequencies of the occurrence of various promotions strategies during each game played $($ men $=335$, women $=306)$. These strategies included
whether a promotion occurred or not, whether a giveaway under $\$ 5$, between $\$ 5-\$ 9.99$, or over $\$ 10$ occurred, whether a t-shirt giveaway occurred, whether a group or ticket discount was offered, whether a special event occurred, how many special events ( $1,2,3$ or more), and how many promotions occurred in the same game (zero, one, two or three promotions).

Table 3
$\underline{\text { Promotional strategies frequencies }}$

|  |  | Gender |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Women |  | Male |  |
|  |  | N | \% | N | \% |
| No Promotion | Promo | 246 | 80.4\% | 231 | 69.0\% |
|  | No Promo | 60 | 19.6\% | 104 | 31.0\% |
| Giveaway under \$5 | No | 226 | 73.9\% | 294 | 87.8\% |
|  | Yes | 80 | 26.1\% | 41 | 12.2\% |
| Giveaway \$5-\$9.99 | No | 294 | 96.1\% | 313 | 93.4\% |
|  | Yes | 12 | 3.9\% | 22 | 6.6\% |
| Giveaway over \$10 | No | 298 | 97.4\% | 325 | 97.0\% |
|  | Yes | 8 | 2.6\% | 10 | 3.0\% |
| T-Shirt Giveaway | No | 285 | 93.1\% | 310 | 92.5\% |
|  | Yes | 21 | 6.9\% | 25 | 7.5\% |
| Group Discount | No | 273 | 89.2\% | 311 | 92.8\% |
|  | Yes | 33 | 10.8\% | 24 | 7.2\% |
| Ticket discount | No | 234 | 76.5\% | 300 | 89.6\% |
|  | Yes | 72 | 23.5\% | 35 | 10.4\% |
| Special Events | No | 140 | 45.8\% | 187 | 55.8\% |
|  | Yes | 166 | 54.2\% | 148 | 44.2\% |
| \# Special Events | 1 event | 77 | 46.4\% | 93 | 62.8\% |
|  | 2 events | 45 | 27.1\% | 33 | 22.3\% |
|  | 3 or more | 44 | 26.5\% | 22 | 14.9\% |
|  | None | 60 | 19.6\% | 104 | 31.0\% |
| \# Promotions | 1 promotion | 137 | 44.8\% | 171 | 51.0\% |
|  | 2 promotions | 77 | 25.2\% | 47 | 14.0\% |
|  | 3 promotions | 32 | 10.5\% | 13 | 3.9\% |

## Hypotheses Testing

Four hypotheses were tested to address the purpose of the study; to explore how promotional incentives effect college basketball attendance. Half of those hypotheses tested women games and half tested men games. The hypotheses were tested using multiple linear
regressions.

## Hypothesis One

The first hypothesis stated that promotional strategies would not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for women. The null hypothesis was tested by calculating a multiple linear regression to determine if there were promotional strategies that significantly predicted attendance based on the promotions: no promotion, giveaway under \$5, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway, group discount, ticket discount, and special event. The results of the linear regression equation calculations for women are presented in Table 4 and Table 5.

For women games, a multiple linear regression was calculated to predict attendance based on the eight promotional strategies. A significant regression equation was found (F $\left.(8,297)=5.511, \mathrm{p}<.000, \mathrm{R}^{2}=.129, \mathrm{R}^{2}{ }_{\text {Adjusted }}=.106\right)$. Attendance based on promotions offered predicted weight is equal to $22.122+8.811,8.073,8.510$ (giveaway under $\$ 5$, t-shirt giveaway, and group discount) when promotions effect attendance. The analysis shows attendance would increase $8.81 \%$ for each giveaway under $\$ 5,8.07 \%$ for each $t$-shirt giveaway, and $8.51 \%$ for each group discount.

Table 4
ANOVA results for promotional strategies at women games

| Model | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :---: | :--- | :--- | :--- | ---: |
| Regression | 14257.824 | 8 | 1782.228 | 5.511 | $.000^{c}$ |
| Residual | 96052.816 | 297 | 323.410 |  |  |
| Total | 110310.640 | 305 |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender = Women
c. Predictors: (Constant), Special Event, T-Shirt Giveaway, Ticket discount, Giveaway under \$5, Giveaway over \$10, Giveaway \$5-\$9.99, Group Discount, No Promotion

The ANOVA table for women games indicates there was a significant difference (p < .05) in attendance among promotional categories. Therefore, one or more promotional strategies significantly affected attendance.

Table 5
Coefficient results for promotional strategies at women games

|  | Unstandardized Coefficients <br> B |  |  | Standardized <br> Coefficients |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Std. Error | Beta | t | Sig. |  |  |
| (Constant) | 22.122 | 2.803 |  | 7.894 | .000 |  |
| No Promotion | -1.790 | 3.639 | -.037 | -.492 | .623 |  |
| Giveaway | 8.811 | 2.567 | .204 | 3.433 | .001 |  |
| under \$5 | 3.658 | 5.371 | .037 | .681 | .496 |  |
| Giveaway | -2.736 | 6.618 | -.023 | -.413 | .680 |  |
| \$5-\$9.99 | 8.073 | 4.151 | .108 | 1.945 | .053 |  |
| Giveaway over \$10 | 8.510 | 3.468 | .139 | 2.454 | .015 |  |
| T-Shirt Giveaway | 3.246 | 2.649 | .073 | 1.225 | .221 |  |
| Group Discount |  |  |  |  |  |  |
| Ticket discount | 4.702 | 2.621 | .123 | 1.794 | .074 |  |
| Special Event |  |  |  |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender $=$ Women

## Hypothesis Two

The second hypothesis stated that promotional strategies would not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for men. The null hypothesis was tested by calculating a multiple linear regression to determine if there were promotional strategies that significantly predicted attendance based on the promotions: no promotion, giveaway under \$5, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway, group discount, ticket discount, and special event. The results of the linear regression equation calculations for men are presented in Table 6 and Table 7.

For men games a multiple linear regression was calculated to predict attendance based on the eight promotional strategies. A significant regression equation was found $(\mathrm{F}(8,326)=2.976$,
$\left.\mathrm{p}<.003, \mathrm{R}^{2}=.068, \mathrm{R}^{2}{ }_{\text {Adjusted }}=.045\right)$. Attendance based on promotions offered predicted weight is equal to $81.938-8.247,-11.882$ (giveaway under $\$ 5$, and ticket discount) when promotions effect attendance. The analysis shows attendance would decrease $8.25 \%$ for each giveaway under $\$ 5$, and $11.88 \%$ for each ticket discount.

Table 6
ANOVA results for promotional strategies at men games

| Model | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Regression | 10506.136 | 8 | 1313.267 | 2.976 | $.003^{c}$ |
| Residual | 143848.402 | 326 | 441.253 |  |  |
| Total | 154354.538 | 334 |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender = Male
c. Predictors: (Constant), Special Event, Giveaway under \$5, Giveaway \$5-\$9.99, Group Discount, Giveaway over \$10, T-Shirt Giveaway, Ticket discount, No Promotion

The ANOVA table for men games indicates there was a significant difference ( $\mathrm{p}<.05$ ) in attendance among promotional categories. Therefore, one or more promotional strategies significantly affected attendance.

Table 7
Coefficient results for promotional strategies at men games

|  | Unstandardized Coefficients |  | Standardized <br> Coefficients |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Model | B | Std. Error | Beta | t | Sig. |
| (Constant) | 81.938 | 3.576 |  | 22.913 | .000 |
| No Promotion | -6.994 | 4.127 | -.151 | -1.695 | .091 |
| Giveaway | -8.247 | 3.808 | -.126 | -2.165 | .031 |
| under \$5 |  |  |  |  |  |
| Giveaway | -5.619 | 4.793 | -.065 | -1.172 | .242 |
| \$5-\$9.99 | 3.778 | 6.891 | .030 | .548 | .584 |
| Giveaway over \$10 | -.066 | 4.720 | -.001 | -.014 | .989 |
| T-Shirt Giveaway | -7.986 | 4.767 | -.096 | -1.675 | .095 |
| Group Discount | -11.882 | 4.302 | -.169 | -2.762 | .006 |
| Ticket discount | 2.176 | 3.387 | .050 | .642 | .521 |
| Special Event |  |  |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender = Male

## Hypothesis Three

The third hypothesis stated that several covariate predictors would not significantly ( p > .05) predict attendance at Power Five conference basketball games for women. The null hypothesis was tested by calculating a multiple linear regression to determine if there were covariate predictors that significantly predicted attendance based on the covariates: weekend or weekday game, before or after 5pm game, conference game, holiday break game, home team winning percentage, away team winning percentage, outside temperature, and day of game precipitation. The following promotional categories were included as well: no promotion, giveaway under \$5, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway, group discount, ticket discount, and special event. The results of the linear regression equation calculations for women are presented in Table 8 and Table 9.

For women games a multiple linear regression was calculated to predict attendance based on the eight covariate predictors. A significant regression equation was found $(\mathrm{F}(16,289)=$ 3.930, $\mathrm{p}<.000, \mathrm{R}^{2}=.179, \mathrm{R}^{2}$ Adjusted $=.133$ ). Attendance based on covariates present predicted weight is equal to $14.735+5.652,0.135$, and -5.684 (conference game, home team winning percentage, and night game) when covariates effect attendance. The analysis shows attendance would increase $5.65 \%$ for conference games, $0.14 \%$ for each percentage point increase in home team winning percentage, and decrease $5.68 \%$ for night games.

Table 8
ANOVA results for promotional strategies/covariates at women games

| Model | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Regression | 19710.719 | 16 | 1231.920 | 3.930 | $.000^{c}$ |
| Residual | 90599.921 | 289 | 313.495 |  |  |
| Total | 110310.640 | 305 |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender $=$ Women
c. Predictors: (Constant), Precipitation, Giveaway \$5-\$9.99, Giveaway under \$5, T Shirt Giveaway, Ticket discount, Giveaway over \$10, holiday Break, Away team Winning \%, Night Game, Group Discount, Home team Winning \%, Special Event, Temperature, Conference Game, Weekend game, No Promotion

The ANOVA table for women games indicates there was a significant difference (p < .05 ) in attendance among covariate predictors. Therefore, one or more covariate predictors significantly affected attendance.

Table 9
Coefficient results for promotional strategies/covariates at women games

| Model | Unstandardized Coefficients | Standardized <br> Coefficients |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | B | Std. Error | Beta | t | Sig. |
| (Constant) | 14.735 | 6.510 |  | 2.264 | .024 |
| No Promotion | -1.705 | 3.660 | -.036 | -.466 | .642 |
| Giveaway | 9.429 | 2.616 | .218 | 3.605 | .000 |
| under \$5 |  |  |  |  |  |
| Giveaway | 4.858 | 5.327 | .050 | .912 | .363 |
| \$5-\$9.99 |  | 6.605 | -.009 | -.169 | .866 |
| Giveaway over \$10 | -1.113 | 4.170 | .102 | 1.829 | .068 |
| T-Shirt Giveaway | 7.627 | 3.469 | .120 | 2.125 | .034 |
| Group Discount | 7.372 | 2.635 | .085 | 1.436 | .152 |
| Ticket discount | 3.784 | 2.664 | .114 | 1.629 | .104 |
| Special event | 4.339 | 2.611 | -.130 | -1.895 | .059 |
| Weekend game | -4.947 | -5.684 | 2.596 | -.148 | -2.189 |
| Night Game | -5.029 |  |  |  |  |
| Conference Game | 5.652 | 2.485 | .147 | 2.274 | .024 |
| Holiday Break | -1.864 | 2.453 | -.043 | -.760 | .448 |
| Home team | .135 | .046 | .171 | 2.924 | .004 |
| Winning \% |  |  |  |  |  |
| Away team | -.039 | .041 | -.058 | -.941 | .347 |
| Winning \% | .074 | .083 | .053 | .901 | .368 |
| Temperature | -.117 | 2.927 | -.002 | -.040 | .968 |
| Precipitation |  |  |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender $=$ Women

## Hypothesis Four

The fourth hypothesis stated that covariate predictors would not significantly (p>.05)
predict attendance at Power Five conference basketball games for men. The null hypothesis was tested by calculating a multiple linear regression to determine if there were covariate predictors that significantly predicted attendance based on the covariates: weekend game, night game, conference game, holiday break game, home team winning percentage, away team winning percentage, temperature, and precipitation. The following promotional categories were included as well: no promotion, giveaway under $\$ 5$, giveaway between $\$ 5-\$ 10$, giveaway over $\$ 10$, tshirt giveaway, group discount, ticket discount, and special event. The results of the linear regression equation calculations for men are presented in Table 10 and Table 11.

For men games a multiple linear regression was calculated to predict attendance based on the eight covariate predictors. A significant regression equation was found $(\mathrm{F}(16,318)=7.091$, $\mathrm{p}<.000, \mathrm{R}^{2}=.263, \mathrm{R}^{2}$ Adjusted $\left.=.226\right)$. Attendance based on the covariates present predicted weight is equal to $86.530+8.578,8.215$ and -0.447 (conference game, weekend game, and temperature) when covariates effect attendance. The analysis shows attendance would increase $8.56 \%$ for conference games, $8.22 \%$ for weekend games, and decrease $0.45 \%$ for each degree the temperature decreases.

Table 10
ANOVA results for promotional strategies/covariates at men games

| Model | Sum of Squares | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Regression | 40587.994 | 16 | 2536.750 | 7.091 | $.000^{c}$ |
| Residual | 113766.544 | 318 | 357.756 |  |  |
| Total | 154354.538 | 334 |  |  |  |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender = Male
c. Predictors: (Constant), Precipitation, T-Shirt Giveaway, Special Event, Night Game, Giveaway \$5-\$9.99, Giveaway under \$5, Giveaway over \$10, Ticket discount, Away team Winning \%, Holiday Break, Temperature, Group Discount, Home team Winning \%, Conference Game, Weekend game, No Promotion

The ANOVA table for men games indicates there was a significant difference ( $\mathrm{p}<.05$ ) in attendance among covariate predictors. Therefore, one or more covariate predictor significantly
affected attendance.

Table 11
Coefficient results for promotional strategies/covariates at men games

| Model | Unstandardized Coefficients |  | Standardized Coefficients Beta | t | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | Std. Error |  |  |  |
| (Constant) | 86.530 | 7.609 |  | 11.373 | . 000 |
| No Promotion | -3.314 | 3.777 | -. 071 | -. 877 | . 381 |
| Giveaway under \$5 | -3.094 | 3.624 | -. 047 | -. 854 | . 394 |
| Giveaway \$5-\$9.99 | -6.092 | 4.400 | -. 070 | -1.384 | . 167 |
| Giveaway over \$10 | 6.846 | 6.259 | . 054 | 1.094 | . 275 |
| T-Shirt Giveaway | 2.222 | 4.320 | . 027 | . 514 | . 607 |
| Group Discount | -9.100 | 4.492 | -. 109 | -2.026 | . 044 |
| Ticket discount | -6.231 | 4.020 | -. 089 | -1.550 | . 122 |
| Special Event | 1.552 | 3.080 | . 036 | . 504 | . 615 |
| Weekend game | 8.215 | 2.631 | . 191 | 3.122 | . 002 |
| Night Game | -1.935 | 2.915 | -. 040 | -. 664 | . 507 |
| Conference Game | 8.578 | 2.499 | . 199 | 3.433 | . 001 |
| Holiday Break | . 536 | 2.617 | . 011 | . 205 | . 838 |
| Home team Winning \% | . 065 | . 048 | . 074 | 1.360 | . 175 |
| Away team Winning \% | . 029 | . 043 | . 038 | . 688 | . 492 |
| Temperature | -. 447 | . 084 | -. 281 | -5.318 | . 000 |
| Precipitation | . 786 | 3.664 | . 011 | . 215 | . 830 |

a. Dependent Variable: \% capacity
b. Selecting only cases for which Gender = Male

## Sub-Objective

The first part sub-objective of the study was to determine if there were any significant segments emerge based on the groupings of various promotions that can be implemented by collegiate sport marketing personnel to increase attendance at basketball contests at women games. A Hierarchal Cluster Analysis was calculated to illuminate possible groupings occurring within the promotional strategies using the attendance dependent variable of the study, results are found in Figure 2, Appendix B.

For women games a three group cluster emerged indicating special events as the main characteristic separating clusters. Group one, the "rivalry weekend extravaganza" group, accounted for $39 \%$ of the total women games, and had a special event $81 \%$ of the time. This group also typically occurred during the day on a weekend throughout the conference schedule. T-shirt giveaways and giveaways under $\$ 5$ were common in this group. Group four, the "after work special" group, accounted for $34 \%$ of the total women games, and had a special event $55 \%$ of the time. Games in this group were primarily played at night Monday through Thursday, and consistently offered ticket discounts. The sixth group, the "lost causes" group, accounted for $56 \%$ of the total women games, and had a special event $0 \%$ of the time. Games in this group were primarily played during the non-conference schedule over Holiday break and many times did not even offer a promotion. The Hierarchal Cluster Analysis is presented in Figure 2, Appendix B.

The second part of the sub-objective of the study was to determine if there are any significant groupings of promotions that can be implemented by collegiate sport marketing personnel to increase attendance at men's basketball games. A Hierarchal Cluster Analysis was calculated to illuminate possible groupings occurring within the promotional strategies using the attendance dependent variable of the study.

For men games a four group cluster emerged indicating conference games as the main characteristic separating clusters. Group one, the "weekday t-shirt" group, accounted for $22 \%$ of the total men games, and had a special event $43 \%$ of the time. Games in this group relied on tshirt giveaways during weekday conference games to and gather a crowd. Group two, the "November cheap giveaway night" group, accounted for $6 \%$ of the total men games, and had a special event $33 \%$ of the time. Games in this group occurred primarily during the non-
conference schedule at night, and utilized giveaways under \$5. The third group, the "special conference games" group, accounted for $56 \%$ of the total men games, and had a special event $49 \%$ of the time. Games in this group more often than not put on a special event that coincided with a conference game. The fourth group, the "group games" group, accounted for $12 \%$ of the total men games, and had a special event $41 \%$ of the time. Games in this group focused on group discounts and non-conference games to drive attendance. The Hierarchal Cluster Analysis is presented in Figure 2, Appendix D.

## CHAPTER V CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

The purpose of this study was to explore the effects of promotional incentives on attendance at college basketball games. The sub-objectives of the study were to identify what promotional strategies best predict increased attendance at college basketball games, and see if there are any significant groupings of promotions that can be implemented by collegiate sport marketing personnel to increase attendance at college basketball contests. Data was collected and analyzed by ANOVA and multiple linear regressions to determine whether to reject or fail to reject the null hypotheses and to discover significant predictors and relationships between dependent and independent variables. A cluster analysis was built to give greater insight into the promotional effects. The intent of this chapter is to present conclusions and discussions of this data with respect to the profile of the sample, hypotheses, and sub-objectives of the study. Recommendations for future research will conclude this chapter.

## Conclusions

Hypothesis One
The first null hypothesis-stated that promotional strategies will not significantly (p>.05) predict attendance at Power Five conference basketball games for women. A multiple linear regression was calculated to determine if there were promotional strategies that significantly predicted attendance based on the promotional categories: no promotion, giveaway under $\$ 5$, giveaway between $\$ 5-\$ 10$, giveaway over $\$ 10$, t-shirt giveaway, group discount, ticket discount,
and special events. For women games, significant ( $\mathrm{p}>.05$ ) predictors of attendance were found in promotional strategies: giveaway under $\$ 5(\mathrm{p}=.001)$, t -shirt giveaway $(\mathrm{p}=.053)$, and group discount $(\mathrm{p}=.015)$. For women games, hypothesis one results support rejecting the null hypothesis. The results showed that attendance increased $8.81 \%$ for each giveaway under $\$ 5$, $8.07 \%$ for each t-shirt giveaway, and $8.51 \%$ for each group discount.

## Hypothesis Two

The second null hypothesis stated that promotional strategies will not significantly (p > .05) predict attendance at men games from the Power Five conference basketball leagues. A multiple linear regression was calculated to determine if there were promotional strategies that significantly predicted attendance based on the promotional categories: no promotion, giveaway under $\$ 5$, giveaway between $\$ 5-\$ 10$, giveaway over $\$ 10$, t-shirt giveaway, group discount, ticket discount, and special event. For men games, significant predictors of attendance were found in promotional strategies: ticket discount $(\mathrm{p}=.006)$, and giveaway under $\$ 5(\mathrm{p}=.031)$. For men games, hypothesis two results support rejecting the null hypothesis. The results showed that attendance decreased $8.25 \%$ for each giveaway under \$5, and $11.88 \%$ for each ticket discount.

## Hypothesis Three

The third null hypothesis stated that covariate predictors will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for women. A multiple linear regression was calculated to determine if there were covariate predictors that significantly predicted an increase in attendance based on covariates: weekend game, night game, conference game, holiday break game, home team winning percentage, away team winning percentage, temperature, and precipitation. The following promotional categories were included as well: no promotion, giveaway under \$5, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway,
group discount, ticket discount, and special event. For women games, significant predictors of attendance were found in multiple covariate factors: conference game $(\mathrm{p}=.024)$, night game $(\mathrm{p}=$ $.029)$, and home team winning percentage $(\mathrm{p}=.004)$. For women games, hypothesis three results support rejecting the null hypothesis. The results showed attendance increased 5.65\% for conference games, $0.14 \%$ for each percentage point increase in home team winning percentage, and decreased $5.68 \%$ for night games.

## Hypothesis Four

The second null hypothesis stated that covariate factors will not significantly (p>.05) predict attendance at Power Five conference basketball games for men. A multiple linear regression was calculated to determine if there were covariate predictors that significantly predicted an increase in attendance based on covariates: weekend game, night game, conference game, holiday break game, home team winning percentage, away team winning percentage, temperature, and precipitation. The following promotional categories were included as well: no promotion, giveaway under \$5, giveaway between \$5-\$10, giveaway over \$10, t-shirt giveaway, group discount, ticket discount, and special event. For men games, significant predictors of attendance were found in multiple covariate factors: conference game ( $\mathrm{p}=.001$ ), weekend game ( $\mathrm{p}=.002$ ), and temperature $(\mathrm{p}=.000)$. For men games, hypothesis four results support rejecting the null hypothesis. The results showed attendance increased $8.56 \%$ for conference games, $8.22 \%$ for weekend games, and decreased $0.45 \%$ for each degree the temperature decreases.

## Sub-Objective

The sub-objective of the study was to determine if distinct market segments emerge based on the promotional efforts measured for men and women.

For women games a three group cluster emerged indicating special events as the main
promotional characteristic separating clusters. Other key differentiators were day of game, game time, and giveaways under \$5. Group 1 ( $39 \%$ of games) mainly consisted of weekend day games with special events and giveaways under \$5. Group 4 ( $34 \%$ of games) mainly consisted of weekday night games during the conference schedule. Group 6 ( $22 \%$ of games) mainly consisted of games with no promotions.

For men games a four group cluster emerged indicating conference games as the main promotional characteristic separating clusters. Other key differentiators were special events, day of game, and giveaways under $\$ 5$. Group 1 ( $22 \%$ of games) mainly consisted of $t$-shirt giveaways during the work week. Group 2 ( $6 \%$ of games) mainly consisted of non-conference night games that featured giveaways under \$5. Group 3 ( $56 \%$ of games) mainly consisted of conference games with a special event as the headline. Group 4 (12\% of games) mainly consisted of non-conference games that included a group discount.

## Discussions

## Hypothesis One

The first null hypothesis stated that promotional strategies will not significantly (p>.05) predict attendance at Power Five conference basketball games for women. The hypothesis was rejected. Women games used more (80.4\%) promotions than men games (69\%) and it appears there are more promotions at those games for a reason; because they work. Adding value to what is typically a cheap game ticket increased attendance at women games by using giveaway promotional strategies. It was interesting to note that as giveaway prices increased and items became more valuable, they were not more likely to predict attendance. Future research that can analyze a larger number of high-value giveaways would be able to determine if this is a phenomenon.

## Hypothesis Two

The second null hypothesis stated that promotional strategies will not significantly (p > .05) predict attendance at Power Five conference basketball games for men. The hypothesis was rejected. For men games the only predictors were negative. While ticket discount and giveaways under $\$ 5$ were significant promotional strategies, they had a negative impact on attendance. One reason ticket discounts might be associated with a negative attendance figure is because teams typically slash ticket prices and offer discounts for games that are less desirable. The same can be said for giving away cheap inanimate objects at the door. Whether these less desirable games see effects from year to year is a different matter and would be worth looking into in future research.

## Hypothesis Three

The third null hypothesis stated that covariate predictors will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for women. The hypothesis was rejected. Statistical analysis of women's games found conference games as a predictor for increased attendance. This result was not surprising due to the familiarity fans have with teams on the conference schedule. These conference teams can also contain in-state and geographical rivals. Women night games were a negative predictor. This could be because of the tendency for night games to be played during the work week where people tend to have less leisure time. Home team winning percentage was determined to be a predictor for increased home attendance.

## Hypothesis Four

The fourth null hypothesis stated that covariate predictors will not significantly ( $\mathrm{p}>.05$ ) predict attendance at Power Five conference basketball games for men. The hypothesis was rejected. Men games found conference games as a predictor for increased attendance. This
result was not surprising due to the familiarity fans have with teams on the conference schedule. These conference teams can also contain in-state and geographical rivals. Analysis of men's games found weekend game as a predictor for increased attendance. This result was not surprising due to the extra free time weekends provide people to attend sporting events.

## Sub-Objective

The sub-objective of the study was to determine if distinct market segments emerge based on the promotional efforts measured for men and women. Strong segments emerged for the women games with three distinct segments separating themselves from one another. In one segment, accounting for $39 \%$ of games analyzed, special events on weekends emerged as strong segment strategies. Moreover, these games were not played before 5pm nor during holiday break. Based on the findings of this study giveaways under $\$ 5$, t -shirts and group discounts should be utilized for this segment. Another segment, accounting for $34 \%$ of games analyzed, was similar to the aforementioned segment, however, the effective promotional strategies does not include group discounts and the games are played after 5pm. This segment also had the highest attendance rate of the three segments. The last women segment, accounting for $22 \%$ of the games analyzed used no promotional strategies or only those providing a giveaway worth $\$ 10$ or more and had the lowest attendance rate.

Men games were more homogenous with only subtle differences separating the segments. The largest segment, accounting for $56 \%$ of men games played used special events during conference games and achieved a $90 \%$ capacity rate. Clearly, promotions other than special events, play no part in their promotional strategies to increase attendance. Another men segment, accounting for the next largest segment ( $22 \%$ ) did use t-shirt giveaways, primarily for games played after 5pm. However, these games were not conference games and had the lowest
attendance rate of any segment (51\%). Being a conference game appears to be the most significant factor effecting attendance and promotional strategies used for games with lower attendance rates. In fact, the results support not providing promotions, other than special events, as there is an inverse relationship between promotions offered and increased attendance.

## Limitations

There were several limitations placed on this research. This section will discuss these limitations and how they affected the study and results.

This study was limited to Power Five college basketball games played during the 201516 regular season. Due to the timing of this study this was the only year where data was available. This study was also limited to the promotional information that was available online via team's official promotional calendars. Whether or not teams adhered to the advertised promotional calendar is unknown. Of the 65 schools affiliated with Power Five conferences only $31 \%$ were analyzed, making it difficult to generalize the results. The valuation of promotional giveaway items was based on a previous study (Kuruvilla, \& Ebel, 2011) that determined perceived value. This method of valuation was imperfect. During the data collection process, the special events promotional strategy was further delineated by the number of special events during a game. This delineation technique proved to be ineffective and was not useful in predicting attendance.

## Recommendations

The following recommendations are based on the results of the study. All recommendations illuminate how the measure of attendance and the effects of the independent variables add to increasing attendance at Power Five college basketball games.

The purpose of this study was to determine the effect promotional strategies have on
basketball game day attendance in Power Five conferences. This study was also done to aid athletic marketing directors in their decision making process regarding promotional scheduling. The results of this study could be used to help athletic marketing directors increase attendance at college basketball games more effectively. In turn, increased attendance will lead to more revenue, fuller looking stadiums to recruits, and a more impactful home court advantage.

Future research in the field of athletic promotion strategies should examine how promotional incentives affect fan experience. It was impossible to test in this research whether or not promotions had a positive impact outside of an increased attendance figure. Whether or not giveaways or special events resonate with fans on a deeper level after leaving the arena could justify the money spent on promotions and lead to different motivations besides increasing the attendance. A better method of valuation for giveaway items could also be looked at to improve future research. Devising a survey to administer to selected schools marketing directors would provide a more accurate valuation of giveaway items. Finally, a more effective means to delineate the special event promotional strategy would be useful in future studies. Rather than using the number of special events in defining each sub-category, specific groupings such as halftime show, team/fan interaction, or student focused event, could serve as new promotional strategies.

The ability to look at more schools to compile a larger pool of data would also be interesting to look at in future research. These results focused on the Power Five conferences may not be indicative to other conferences, and in fact, the results suggest there would be differences in smaller conferences or collegiate conferences at different levels.

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APPENDICES

APPENDIX A

| Average Linkage (Between Segments) - Women Cluster |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Frequency | Percent | Valid Percent Cumulative |  |  |
|  |  |  |  | Percent |  |
|  | 1 | 120 | 18.7 | 39.2 | 39.2 |
|  | 2 | 2 | .3 | .7 | 39.9 |
|  | 3 | 11 | 1.7 | 3.6 | 43.5 |
| Valid | 4 | 105 | 16.4 | 34.3 | 77.8 |
|  | 5 | 2 | .3 | .7 | 78.4 |
|  | 6 | 66 | 10.3 | 21.6 | 100.0 |
|  | Total | 306 | 47.7 | 100.0 |  |
| Missing | System | 335 | 52.3 |  |  |
| Total |  | 641 | 100.0 |  |  |

APPENDIX B


APPENDIX C

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valid | 1 | 75 | 11.7 | 22.4 | 22.4 |
|  | 2 | 21 | 3.3 | 6.3 | 28.7 |
|  | 3 | 187 | 29.2 | 55.8 | 84.5 |
|  | 4 | 39 | 6.1 | 11.6 | 96.1 |
|  | 5 | 12 | 1.9 | 3.6 | 99.7 |
|  | 6 | 1 | . 2 | . 3 | 100.0 |
|  | Total | 335 | 52.3 | 100.0 |  |
| Missing | System | 306 | 47.7 |  |  |
| Total |  | 641 | 100.0 |  |  |

APPENDIX D


## VITA

## ALEXANDER R. CRAMER

Oxford, MS • Department of Health, Exercise Science, and Recreation Management

## EDUCATION

M.A., Recreation Administration, University of Mississippi, August 2016

Thesis: The Effects Promotional Incentives have on College Basketball
Attendance in Power Five Conferences
B.S., Business, University of Colorado-Colorado Springs, May 2014

Emphasis: Sport Management
Minor: Military Science

## TEACHING EXPERIENCE

Graduate Instructor, 2016
University of Mississippi
Courses: Racquetball, Tennis

## PROFESSIONAL EXPERIENCE

Assistant Manager of Game Presentation, 2016 - Present
Arizona State Athletics
Human Resources Officer, 2012 - Present
United States Army Reserve
Marketing \& Fan Experience Graduate Assistant, 2014-2016
Ole Miss Athletics

Sports Information Assistant, 2011 - 2014
UCCS Athletics
Marketing \& Development Intern, 2010 - 2011
Air Force Athletics
HONORS
NACMA Convention Mike Cleary Stipend Recipient, 2016
IMG Intercollegiate Athletics Forum Scholarship, 2015

