IN-GAME PROMOTIONS AND THEIR EFFECTS ON SPORTING EVENT
ATTENDEES: A LOOK AT BRAND AWARENESS AND PURCHASE BEHAVIOR

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The undersigned, appointed by the Dean of the Graduate School, have examined the thesis entitled:

IN-GAME PROMOTIONS AND THEIR EFFECTS ON SPORTING EVENT ATTENDEES: A LOOK AT BRAND AWARENESS AND PURCHASE BEHAVIOR

presented by Todd Boedeker,

a candidate for the degree of Master of Arts

and hereby certify that, in their opinion, it is worthy of acceptance.

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Chapter I: Introduction

Consumers are constantly being exposed to brand messages through advertising. Whether they are walking down the street or watching television in their homes, consumers are being bombarded with advertisements. Consumers have become so accustomed to these messages that advertisers must continue to discover new ways to capture the attention of their target audience. Sporting events are a great avenue for communicating brand messages and have been for many years. The attendees do not have the option of changing the channel or fast-forwarding through advertisements. Environments, such as sporting events, in which advertising and other promotional efforts are delivered to a large number people at a particular location can be referred to as "place-based media" (Nicholls, Roslow, & Laskey, 2011).

In 1994, a study suggested that advertisements that appear inside an arena need approximately 8-20 times more exposure than a television commercial in order to achieve the same results (Pokrywcynski, 1994). However, what the researchers failed to acknowledge is that sporting events keep their audiences in their respected facilities for a long period of time, allowing the attendees to notice and process the information being presented to them in the ads numerous times over the course of the game. In these captive settings, a place where consumers cannot normally leave before the sporting event is over, advertisements must compete for attention with other aspects of the surrounding atmosphere (Turley & Shannon, 2000). These distractions force advertisers to determine which forms of advertising successfully break through the clutter and capture the attention of the audience.

All types of people enjoy attending sporting events. It is important that advertisers know how to effectively reach each and every one of them. Until the early 1990s, media coverage at sporting events was rated as the main objective of companies involved in sports sponsorship. Since then, sponsorship goals have migrated towards results more directly related to consumer behavior (Grohs, Wagner, & Vsetecka, 2004). Previous studies have determined that event-sponsor fit, event involvement, and ad exposure all have positive effects on sponsor recall at sporting events (Grohs, Wagner, & Vsetecka, 2004).

This study is not only attempting to determine which forms of in-game advertising are most effective, but which forms reach individuals based on their need for cognition. Measures of consumer behavior, brand awareness and purchase behavior will be used to determine the effectiveness of three types of advertisements commonly used at sporting events: on-screen advertising, live-action advertising, and constant advertising. The Elaboration Likelihood Model will be used to guide the research and will be explained in further detail later in the reading. The purpose of this research is to allow advertisers to have a better understanding of which types of in-game promotions resonate best with individuals along the elaboration likelihood continuum.

Chapter II: Literature Review

2.1. Summary of Sports Sponsorship

The following will describe the literature relevant to the research of in-game promotions and sponsorships in general. Sports sponsorship is a tool used by corporations in order to create brand awareness, alter attitudes, and attempt to influence consumer behavior patterns. As mentioned earlier, promoting at sporting events is a great way to cut through the clutter, as well as target specific consumer segments and generate beneficial consumer effects (Smolianov, 2009). A large portion of in-game promotions at sporting events is the result of sponsorships. Sponsorship is defined as "an investment, in cash or in kind, in an activity, person or event, in return for access to the exploitable commercial potential associated with that activity, person or event by the investor" (Weeks, Cornwell, & Drennan, 2008). Sports sponsors are more effective in conveying messages because of the size and variety of the audience, as well as the resources they have at their disposal (Sylvestre & Moutinho, 2007). Sporting events are also an effective advertising avenue because of the connection the fans have with their favorite teams. Tony Meenaghan argues that sponsorship engages so well with the consumers because the sponsored event can be one that the consumer has an emotional relationship with, a quality that is very apparent in sports fans (Meenaghan, 2001). Advertisers hope that the fans' excitement and overall level of enjoyment of the game transfers to their products (Heckman, 1999).

A rule of thumb for sponsorship is that the relationship between the sponsor and the event being sponsored must contain a high level of congruency. The higher the level of fit between the sponsor and event, the more positive the association that accompanies

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the relationship (Speed & Thompson, 2000). Congruence between the sponsor and the event has been discovered to result in more favorable consumer responses and an overall greater sponsorship success, including sponsorship recall and recognition (Coppetti, Wentzel, Tomczak, & Henkel, 2009).

Multiple studies have determined that memorization and brand awareness are consistently among the most important goals of sponsorship. Sponsorship is perceived to contribute more to building brand equity through awareness and image than through loyalty and brand personality (Henseler, Wilson, & Westberg, 2011). The variables that influence sponsorship memorization can be categorized into five groups: conditions of exposure, the product, the message, the target characteristics and the sponsorship integration (Hermann, Walliser, & Kacha, 2011). All five of these groups are present at sporting events. The retrieval process can be broken down into two forms of memory: explicit memory, which demands that subjects intentionally recollect information learned in the past, and implicit memory, which is an automatic retrieval of previously acquired information (Hermann, Walliser, & Kacha, 2011).

A study completed in 1989 determined that 72.6 percent of people surveyed in college basketball arenas and college football stadiums indicated that they noticed some sort of in-game advertising, while just under 70 percent of respondents could correctly identify at least one of the advertisements. The same study found that more people noticed advertising at football games, but the fans surveyed at basketball games had higher levels of advertising recognition (Stotlar & Johnson, 1989).

In 2000, L.W. Turley and J. Richard Shannon completed a study exploring the effects of advertising in a sports arena on message recall, purchase intentions, and actual

purchase behavior. They determined that people in a sports arena notice at least some of the advertisements they are exposed to but appear to screen out a large number of them (Turley & Shannon, 2000). This particular study was formulated in response to their future research suggesting that more research is definitely needed on this topic and that advertisers need to be able to evaluate the effectiveness of these ads better than what has already been researched and published (Turley & Shannon, 2000).

2.2. Theoretical Framework

2.2.1. Elaboration Likelihood Model of Persuasion.

In the 1980s, Richard E. Petty and John T. Cacioppo developed the Elaboration Likelihood Model (ELM) in order to provide a "framework for organizing, categorizing, and understanding the basic processes underlying the effectiveness of persuasive communications" (1986, p. 125). The ELM claims that there are variables that can impact people's judgments and that any of those variables can influence attitudes in multiple ways, increasing or decreasing the persuasion (Gass & Seiter, 2003). An understanding of the Elaboration Likelihood Model can be very beneficial for advertisers, especially those seeking to advertise at sporting events, which often contain a mass amount of spectators and potential consumers.

Within ELM is the elaboration continuum, which is "based on a person's motivation and ability to think about and assess the qualities of the issue-relevant information available in the persuasion context" (Gass & Seiter, 2003, p. 67). The ELM assumes that in any given situation the amount of elaboration, the degree of thought put into processing a message, can vary from very low to very high. The variation in elaboration is the result of a combination of individual differences and situational factors

(Chadee, 2011). It is important to note that knowing the amount of thinking people are engaging in can be very useful in explaining how people will be persuaded (Chadee, 2011). If the amount of thinking is low, then it is safe to assume that attitudes can be affected by simple factors, such as the number of arguments that are presented. Conversely, if the amount of thinking is high, then attitudes are determined by the quality of the arguments instead of the quantity (Chadee, 2011). The amount of thinking can be referred to as involvement. Building off of what was already said about the amount of thinking, messages with high involvement have greater personal relevance and implications or evoke more personal connections than messages of low involvement (Petty, Cacioppo, & Schumann, 1983). Sporting events offer an audience of all ages, races, religious backgrounds, genders, and more. The melting pot of audience members makes it a necessity that advertisers know how to reach all members of their audience at sporting events. An adequate understanding of the Elaboration Likelihood Model will allow them to do so.

2.2.2. Factors affecting ELM.

As mentioned earlier, the factors that affect the amount of thinking that a person engages in can be categorized as motivational factors and their ability to process the information presented in the message. The motivational factor that has arguably received the most attention is personal relevance (Chadee, 2011). High personal relevance translates to the proposal of the message relating directly to the recipient and stands to impact his or her life in some way (Petty & Cacioppo, 1990). Personal relevance seems to increase when the advertised product or service is located geographically near the

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recipient, concerns the near future, or if the recipient believes that they will soon have to make a decision about the advertised product or service (Chadee, 2011).

Other motivational factors include need for cognition, psychological consistency, emotions, and attitude accessibility (Chadee, 2011). Need for cognition refers to the tendency for individuals to engage in and enjoy thinking (Cacioppo & Petty, 1982). Relating to the Elaboration Likelihood Model, individuals who have a high need for cognition also have high elaboration likelihood, processing the persuasive messages very carefully; those who have a low need for cognition have a relatively low elaboration likelihood and are more dependent on simple cues in the persuasion messages (Chadee, 2011). Participants' need for cognition will be the foundation of measurement for the Elaboration Likelihood Model throughout this study.

The emotions experienced by the recipients of the persuasion message have an impact on the motivation of message elaboration (Chadee, 2011). Research shows that an individual that is in a good mood is less likely to elaborate the arguments presented than an individual that is in a bad mood (Bless, Bohner, Schwartz, & Strack, 1990). Negative emotions can relate to insufficiency, which motivates the message recipient to carefully analyze all available information. Positive emotions, on the other hand, indicate that everything is sufficient and that it is unnecessary to conduct an in-depth analysis of the available information pertaining to the persuasive message (Chadee, 2011). The result of the basketball game being attended by the participants can play a large role in their emotional state.

Motivational factors are not the influencers of elaboration. Individuals' ability to process information has an impact on the likelihood that people will carefully evaluate a

persuasive message (Chadee, 2011). Factors affecting ability include message repetition, time limitations, and degree of knowledge and experience (Chadee, 2011). Both the motivational and ability factors mentioned in this study will help determine which end of the elaboration continuum they land on and more specifically, their route to persuasion: peripheral or central.

2.2.3. Routes to persuasion.

The two routes are distinguished by the amount of elaboration that is put forth when evaluating a persuasive message. The Elaboration Likelihood Model specifies that the route taken has important implications for the strength of the resulting attitude (Gass & Seiter, 2003). An individual who has low motivation and a low level of ability to process information is expected to take the peripheral route to persuasion. Such an individual is likely to be persuaded by one of several low-effort mechanisms, such as humor or sex. When doing so, the recipient of the message simply creates a positive association between the brand and the attractive supermodel or funny mascot included in the ad without giving it much thought (Chadee, 2011).

Conversely, when an individual is highly motivated and able to think carefully about a persuasive message they are expected to take the central route to persuasion. Individuals who take the central route focus on the strength and quality of message arguments in which strong arguments lead to a favorable response and attitude change and weak arguments do the opposite (Chadee, 2011). Attitude changes resulting from high-elaboration processes tend to be more persistent, resistant, and predictive of behavior than changes resulting from low-elaboration processes (Gass & Seiter, 2003). In advertising, it is important to understand how people process information differently.

By having an understanding of these differences, advertisers can communicate their persuasive messages more effectively and efficiently to their target audiences.

2.3. Gaps in Research

After reviewing the literature it is apparent that there is not an extensive amount of research done specifically on in-game promotions at sporting events. Most research has been done on sporting event sponsorships and the overall effectiveness of advertising at sporting events. However, studies determining which specific forms of in-game promotions are the most effective were not found.

Building on the existing research, this study will look specifically at which forms of in-game advertising are most effective, in terms of brand awareness and purchase behavior, when presented to individuals at sporting events. The individuals will be asked a series of questions that will determine their need for cognition. From there, this study will not only attempt to determine which forms of in-game advertising are most effective to people as a whole, but also which forms are most effective for each types of thinkers.

Chapter III: Hypotheses

This section introduces the hypotheses about in-game promotions and their effects

on the people attending the game. After reviewing the literature and exploring the

limitations, the following hypotheses have been developed to guide the research:

> *H1: The form of in-game promotion (on-screen, live action, or constant) will
> have a significant effect on the brand awareness of advertising brands at sporting
> events and purchase behavior of the attendees.*
>
> *H2: The attendees' need for cognition will have a significant effect on the brand
> awareness of advertising brands at sporting events and purchase behavior of the
> attendees.*
>
> *H3: Factors such as gender, age, and the number of games attended will have a
> significant effect on the brand awareness of advertising brands at sporting events
> and purchase behavior of the attendees.*

The method used in order to test these hypotheses will be outlined in further detail

throughout the remainder of this study.

Chapter IV: Method

4.1. Summary

Consumers are constantly being exposed to advertisements throughout their everyday lives. Constant ad exposure has become an annoyance of consumers and advertisement avoiding products such as DVR and Netflix are the results. Advertisers are being forced to discover much more prominent ways to communicate their brand message to consumers more effectively. Traditional advertising such as television, radio, print ads and billboards are no longer sufficient due to media fragmentation. Sporting events are great opportunities for advertisers to communicate their brand messages. In sporting events, however, advertisements must compete for attention with other aspects of the surrounding atmosphere, such as the game being played, the people around them, and the overall excitement of the happenings in the venue. These distractions force advertisers to determine which forms of advertising successfully break through the clutter and capture the attention of the audience.

4.2. Variables

The overarching research question that guided this study is as follows, "What forms of in-game promotions at sporting events have the greatest influence on consumers' brand awareness and purchase behavior, according to their need for cognition?" There were two independent variables in this study: the type of in-game promotion and the attendee's need for cognition. In-game promotions are the advertisements that sporting event attendees are exposed to throughout the arena while at the game. For the purpose of this study, this independent variable had three levels: on-screen advertising, live action advertising, and constant advertising. On-screen

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advertising refers to the advertisements seen on the jumbotron and the video board that wraps around the entire arena. The brands that were studied as on-screen promotions in this study are Tiger Checking and The Reserve. Live action advertising refers to the sponsored events or anytime the announcer directs the attendees' attention to a sponsored message. The brands that were studied as live action promotions in this study are First State Community Bank and Columbia Regional Airport. Constant advertising refers to the advertisements that are the same throughout the entire game, such as stationary signs and sponsored areas of the arena. The brands that were studied as constant promotions in this study are Muscle Milk and Hy-vee. Individuals' need for cognition is determined by the amount of elaboration and analysis put forth when evaluating a persuasive message (Gass & Seiter, 2003).

There were two dependent variables, the levels of brand awareness and purchase behavior that result from the exposure to the advertisements. Brand awareness is the level of knowledge, familiarity, and recognition one has about a particular brand (Hoyer & Brown, 1990). Multiple studies have determined that high levels of brand recall and brand awareness are consistently among the most important goals of marketing. Purchase behavior refers to the desire of a consumer to purchase or acquire a product or service after being exposed to some form of advertising (Gruber, 1970). The higher the purchase behavior of the consumer, the more likely they are to complete a purchase, which is the ultimate goal of the marketer.

Surveys were given to consumers attending University of Missouri men's SEC conference games. The rationale for this method was due to both its convenience and its purpose of analyzing attendees of men's college basketball games.

4.3. Sample and Data Collection

Surveys were conducted at home conference games, using iPads, in order to gather data at games featuring competition of similar skill levels. The specific dates of games surveyed were as follows: March 1st (Mississippi State) and March 5th (Texas A&M), both in the year 2014. These dates were chosen because they are both conference games, in which provide more consistent attendance numbers and relatively equal levels of competition. There was not a limit on the number of consumers surveyed because the larger the sample, the more likely it is to better represent the entire population. The survey was cross-sectional. Although there were multiple games used for data collection, participants were surveyed only once. Participants were first asked if they had already completed the survey; if their answer was yes, they were thanked for their time and sent on their way.

The survey was self administered with the help of volunteers. Surveyors began approaching attendees when there were eight minutes remaining in the first half of the basketball games in the arena lobby (which was out of sight of the playing area and all advertising messages), testing their knowledge of the advertisements they were exposed to in the first half, as well as determining their need for cognition by using already established questions that measure need for cognition. For the purpose of this study, respondents had to be at least 18 years old in order to qualify to take the survey, and all questionnaires filled out by respondents under 18 were thrown out. A list of advertisers was obtained from the athletic department and brands were chosen based on their form of promotion. The questions were both open-ended and guided in order to fully understand the impact of the advertisements. The eight-minute mark of the first half was chosen

rather than at the end of the game in order to avoid conflict and the rush of people

wanting to leave the game. The basic design of the survey can be found in Appendix A.

4.3.1. Participants

The goal of this study was to survey at least 57 attendees at University of

Missouri Men's conference basketball games. The desired number of respondents was

reached by running a power analysis of a multiple linear regression containing five

predictors (total levels of independent variables). A total of 63 valid surveys were

completed during the specified time for data collection (*N=63)*. Of the respondents, 59

percent were male and 41 percent were female. The ages of respondents were broken

down into five categories: 18-24, 25-34, 35-44, 45-54, and 55+. The majority of

respondents, 44 percent, fell into the 18-24 age range. An overwhelming amount of the

respondents, 86 percent, categorized themselves as white or Caucasian. A breakdown of

all demographic data can be found in Tables 1, 2, and 3. An Independent Samples T-Test

was run in order to determine the gender statistics. A series of One-Way ANOVAs were

run in order to determine the age and ethnicity statistics.

4.4. Analysis and Interpretation

In addition to the data received from the survey, information about the games

such as the opponent and their record on the season, the current record for the Missouri

men's basketball team, and the score of the game at halftime were recorded as well. This

information can be found in Table 4. In order to increase validity, the demographic

questions were taken from previous studies as well as the scales used to describe

purchase behavior (Gruber, 1970) and the questions regarding need for cognition

(Cacioppo, Petty, & Kao, 1984).

In order to get a thorough understanding of the participants' purchase behavior, two scales were used: purchase intention scale and purchase probability scale. The purchase intention scale consisted of 5 items: Definitely would buy it, Probably would buy it, Might or might not buy it, Probably would not buy it, and Definitely would not buy it (Gruber, 1970). The purchase probability scale consisted of 11 items: Certain, practically certain (99 in 100); Almost sure (9 in 10); Very probably (8 in 10); Probably (7 in 10); Good possibility (6 in 10); Fairly good possibility (5 in 10); Fair possibility (4 in 10); Some possibility (3 in 10); Slight possibility (2 in 10); Very slight possibility (1 in 10); and, No chance, almost no chance (1 in 100) (Gruber, 1970).

The need for cognition scale was composed of 18 items, each scored from -4 to +4 as follows: +4, very strong agreement; +3, strong agreement, +2, moderate agreement, +1, slight agreement; 0, neither agreement nor disagreement; -1, slight disagreement; -2, moderate disagreement; -3, strong disagreement; and, -4, very strong disagreement (Cacioppo, Petty, & Kao, 1984). The 18-item scale being used for this study was formed from a 34-item scale developed by John Cacioppo and Richard Petty in 1982. The 34-item scale was developed from a pool of 45 items, in which correlation tests determined that the 34 items revealed a significant main effect for need for cognition. The remaining items that failed to correlate significantly were eliminated (Cacioppo, Petty, & Kao, 1984). In the development of the shorter 18-item scale, Caccioppo, Petty and Chuan Feng Kao reported coefficient alpha estimates of internal consistency reliability of 0.90 for the 18-item scale and 0.91 for the 34-item scale, assuring validity for the shorter version (Cacioppo, Petty, & Kao, 1984).

Brand awareness was determined by brand recall and recognition measures. In order to assure validity, these questions were modeled after previous studies done in the field. One technique used in a previous study that will be used in this study is asking the participant to list all of the brands for which they saw advertisements for while at the basketball game (Petty, Cacioppo, & Schumann, 1983).

Multiple linear regression is used when measuring the relationship between a dependent variable and multiple independent variables. For the purpose of this study, a multiple linear regression was run in order to determine the relationship between dependent variables, brand awareness and purchase behavior, and the two independent variables, type of in-game promotion and need for cognition. By measuring more than one dependent variable, there was a better chance of discovering which factor is truly important. A series of paired samples t-tests were run in order to compare each form of in-game promotion in terms of brand awareness and purchase behavior. Each survey question was coded appropriately in an attempt to statistically prove that a relationship exists between the types of in-game promotions and the resulting brand awareness and purchase intent.

Chapter V: Results

5.1. Hypothesis 1

The first hypothesis predicts that the form of in-game advertising (on-screen, live action, or constant) will have a significant effect on the brand awareness of advertising brands at sporting events and the purchase behavior of attendees.

A series of paired-samples t-tests were run in order to study the differences in brand recall between Live Action Brand Recall and On-Screen Brand Recall, Live Action Brand Recall and Constant Brand Recall, and On-Screen Recall and Constant Brand Recall. The mean for Live Action Brand Recall (M = .3810, SD = .37796) was slightly greater than the mean for On-Screen Brand Recall (M = .3651, SD = .35019). A paired samples t-test showed that there was not a significant relationship between the two: $t(62)$ = .314; p = .755. The mean for Live Action Brand Recall (M = .3810, SD = .37796) was greater than the mean for Constant Brand Recall (M = .1746, SD = 28623). A paired samples t-test showed significance beyond the .05 level: $t(62)$ = 4.015; p < 0.0005. The mean for On-Screen Brand Recall (M = .3651, SD = .35019) was greater than the mean for Constant Brand Recall (M = .1746, SD = 28623). A paired samples t-test showed significance beyond the .05 level: $t(62)$ = 4.154; p < 0.0005.

Once again, a series of paired-samples t-tests were run in order to study the differences in purchase intent between Live Action Purchase Intent and On-Screen Purchase Intent, Live Action Purchase Intent and Constant Purchase Intent, and On-Screen Purchase Intent and Constant Purchase Intent. The mean for On-Screen Purchase Intent (M = 3.0079, SD = .84478) was slightly greater than the mean for Live Purchase Intent (M = 2.9206, SD = .81442). A paired samples t-test showed that there was not a

significant relationship between the two: $t(62) = -1.057$; $p = 0.287$. The mean for Live

Purchase Intent (M = 2.9206, SD = .81442) was greater than the mean for Constant

Purchase Intent (M = 2.4444, SD = .7834). A paired samples *t*-test showed significance

beyond the .05 level: $t(62) = 3.617$; $p = 0.001$. The mean for On-Screen Purchase Intent

(M = 3.0079, SD = .84478) was greater than the mean for Constant Purchase Intent (M =

2.4444, SD = .7834). A paired samples *t*-test showed significance beyond the .05 level:

$t(62) = 4.060$; $p < 0.0005$.

Lastly, another series of paired-samples *t*-tests were run in order to study the

differences in purchase probability between Live Action Purchase Probability and On-

Screen Purchase Probability, Live Action Purchase Probability and Constant Purchase

Probability, and On-Screen Purchase Probability and Constant Purchase Probability. The

mean for On-Screen Purchase Probability (M = 7.1032, SD = 2.45304) was larger than

the mean for Live Purchase Probability (M = 6.7302, SD = 2.49649). A paired samples *t*-

test showed that there was not a significant relationship between the two: $t(62) = -1.661$;

$p = .102$. The mean for Live Purchase Probability (M = 6.7302, SD = 2.49649) was

larger than the mean for Constant Purchase Probability (M = 5.1111, SD = 2.25124). A

paired samples *t*-test showed significance beyond the .05 level: $t(62) = 5.161$; $P < 0.0005$.

The mean for On-Screen Purchase Probability (M = 7.1032, SD = 2.45304) was larger

than the mean for Constant Purchase Probability (M = 5.1111, SD = 2.25124). A paired

samples *t*-test showed significance beyond the .05 level: $t(62) = 5.848$; $p < 0.0005$.

5.2. Hypothesis 2

The second hypothesis predicts that the basketball game attendees' need for

cognition will have a significant effect on the brand awareness of advertising brands at

sporting events and the purchase behavior of attendees. A simple linear regression was run to determine if there is a significant relationship between need for cognition and brand awareness. The results of the regression revealed that there was not a relationship between need for cognition and brand awareness (F = 3.581, p = .063). With a beta of .235 (t = 1.892, p = .063), total need for cognition only accounts for about 6 percent of the variance in brand awareness.

Another simple linear regression was run to determine if there is a significant relationship between need for cognition and purchase intent. The results of the regression revealed that there was not a relationship between need for cognition and brand awareness (F = .264, p = .609). With a beta of .066 (t = .514, p = .609), total need for cognition only accounts for about 0.4 percent of the variance in purchase intent.

A third and final simple linear regression was run to determine if there is a significant relationship between need for cognition and purchase probability. Once again, the results of the regression revealed that there was not a relationship between need for cognition and brand awareness (F = .411, p = .524). With a beta of -.082 (t = -.641, p = .524), total need for cognition only account for about 0.7 percent of the variance in purchase probability.

Although there were no significant relationships discovered between need for cognition and purchase intent and purchase behavior as whole, when broken down slightly further, two significant relationships were found. The results of a linear regression analysis revealed a significant relationship between Constant Purchase Probability and total need for cognition (F = 4.465, p = .039). With a beta of -.261 (t = -2.113, p = .039), total need for cognition accounts for about 7 percent of the variance in

purchase probability resulting from constant ads. More specifically, a significant relationship was found between need for cognition and the purchase probability of the Hy-vee advertisements, which was one of the two constant advertisements studied, ($F = 4.959$, $p = .030$). With a beta of -.274 ($t = -2.227$, $p = .030$), total need for cognition accounted for about 8 percent of the variance in purchase probability resulting from the constant Hy-vee ads.

5.3. Hypothesis 3

The third and final hypothesis stated that factors such as gender, age, and the number of games attended would have an effect on brand awareness and purchase behavior. A series of One-Way ANOVAs were run in order to determine which factors would have a significant effect on brand awareness and purchase behavior. The first One-Way ANOVA was run in order to determine the relationship between gender, brand awareness and purchase behaviors. The results of the first One-Way ANOVA determined that there was not a significant relationship between gender and brand awareness ($F = .969$, $p = .329$), gender and purchase intent ($F = 3.374$, $p = .071$) or gender and purchase probability ($F = 2.674$, $p = .107$).

The second One-Way ANOVA was run in order to determine the relationship between age, brand awareness, and purchase behavior. The results of the second One-Way ANOVA determined that there was not a significant relationship between age and brand awareness ($F = .443$, $p = .777$), age and purchase intent ($F = 1.148$, $p = .343$), or age and purchase probability ($F = .151$, $p = .962$).

A third One-Way ANOVA was run in order to determine the relationship between the number of games attended, brand awareness, purchase intent, and purchase

probability. A significant relationship was found between the number of games attended and brand awareness ($F = 3.004$, $p = .037$). Participants who attended '0-2' games had a much lower recall rate ($M = .2333$, $SD = .24321$) than those who had attended '9+' games ($M = .4167$, $SD = .26527$). The same One-Way ANOVA also determined that there was not a significant relationship between number of games attended and purchase intent ($F = .494$, $p = .688$) or between number of games attended and purchase probability ($F = 1.952$, $p = .131$).

Chapter VI: Discussion

6.1. Summary

This study looked at the effect that in-game promotions had on college basketball game attendees in terms of brand awareness and purchase behavior. More specifically, this study measured which forms of in-game promotions had the greatest effect on brand awareness and purchase behavior for basketball game attendees, according to their need for cognition. Based on the theoretical framework of the Elaboration Likelihood Model, three hypotheses were tested and their results are discussed in this chapter. Some key finding from the study are listed below:

- Form of in-game promotion affects brand awareness: *statistically significant*

- Form of in-game promotion affects purchase behavior: *statistically significant*

- Need for cognition affects brand awareness: *not statistically significant*

- Need for cognition affects purchase behavior: *not statistically significant*

- Gender affects brand awareness: *not statistically significant*

- Gender affects purchase behavior: *not statistically significant*

- Age affects brand awareness: *not statistically significant*

- Age affects purchase behavior: *not statistically significant*

- Number of games attended affects brand awareness: *statistically significant*

- Number of games attended affects purchase behavior: *not statistically significant*

6.2. Practical Implications

The first hypothesis predicted that brand awareness and purchase behavior would rely on the form of in-game promotion. The first hypothesis was the only one proven to be statistically significant. The study showed that brands that advertise with on-screen

and live action promotions yield significantly higher brand awareness scores than constant promotions. More specifically, on-screen advertisements were recalled 36.5 percent of the time and live action advertisements were recalled 38.1 percent of the time compared to just 13.5 percent by constant advertisements. Of all brands studied, Tiger Checking was the brand that was recalled the most, 47.6 percent of the time, followed closely by Columbia Regional Airport with 46 percent recall. The high level of recall supports Speed and Thompson's rule of thumb, which states that the sponsor and the event being sponsored must contain a high level of congruency. The mascot of the University of Missouri is the tiger and a cartoon tiger was shown in the Tiger Checking advertisement, which could have played a large part in why Tiger Checking was remembered so often. As mentioned earlier in the text, congruence between the sponsor and the event has been discovered to result in more favorable consumer responses and an overall greater sponsorship success, including brand recall and recognition (Coppette, Wentzel, Tomczak, & Henkel, 2009). Chadee claims that personal relevance increases when the advertised product or service is located geographically near the recipient, which would also explain why Tiger Checking, a local bank, and Columbia Regional Airport, a local airport, would have a higher amounts of recall. Based on the results of this study, brands whose main objective is brand recall or awareness, on-screen and live action promotions are most favorable.

Conversely, brands advertising with constant promotions were more likely to be purchased than those advertising with on-screen and live action promotions. The average purchase intent score for constant promotions was a 2.4444, which on the purchase intent scale is between 'Probably would buy it' and 'Might or might not buy it', and a purchase

probability score of 5.1111, which is between 'Good possibility' and 'Fairly good possibility' on the purchase probability scale. The respected average purchase intent score for on-screen promotions was 3.0079, which lies between 'Might or might not buy it' and 'Probably would not buy it' on the purchase intent scale. Brands advertising with on-screen promotions found their purchase probability score between 'Fair possibility' and 'Some possibility' (7.1032). Lastly, brands advertising with live action promotions scored an average of 2.9206 on the purchase intent scale. Like the constant promotions, this score puts brands using live action promotions between 'Probably would buy it' and 'Might or might not buy it' but it lies closer to the latter. The average purchase probability score for brands using live action promotions was 6.7302, which puts them between 'Fairly good possibility' and 'Fair possibility' on the purchase probability scale. Based on the results of this study, if the sponsoring brand's main objective is purchase behavior, constant promotions appear to be more favorable.

The second hypothesis predicted that need for cognition would have a significant effect on brand awareness and purchase behavior. As a whole, there was not a significant relationship between need for cognition and brand awareness and purchase behavior. However, there were two significant relationships found within this hypothesis. First, it was found that there was a significant relationship between the constant form of in-game promotions and the purchase probability of those brands. What this means is that constant forms of in-game promotions may only have a significant effect on the purchase probability of the brands being advertised constantly. Looking at the two brands classified as constant in this study, Hy-vee and Muscle Milk, it was found that Hy-vee also had a significant relationship with the purchase probability of attendees. The

Elaboration Likelihood Model states that high personal relevance translates to the message relating directly to the recipient and stands to impact his or her life in some way (Petty & Cacioppo, 1990). The reasoning behind such a relationship may be the fact that Hy-vee is a dominant grocery store name in Columbia, and many people may already shop there.

The third and final hypothesis predicted that factors such as gender, age, and the number of games attended would affect brand awareness and purchase behavior. A significant relationship was found between the number of games attended and brand awareness. As one can imagine, those who attended more games had greater recall rates than those who attended fewer. Ad exposure is one of the variables that influence sponsorship memorization and is often explained as the more exposure and advertisement or a brand receives, the greater chance of recall and memorization (Hermann, Walliser, & Kacha, 2011). This study supports Hermann, Walliser, and Kacha's argument in the sense that those who attend games more often are being exposed to the ads at a greater rate, resulting in higher recall rates overall. Individuals who attended at least nine games prior to taking the survey had a recall rate of 42 percent, compared to those who attended between zero and two games and recalled the correct brand only 23 percent of the time.

Although there a significant relationship was not present between gender and recall, advertisers may find it useful that males had higher recall rates than females for all three forms of in-game promotions. As a whole, males recalled the brands in question 33 percent of the time, compared to females who recalled the brands in question just 27 percent of the time. Also, the age ranges that had the highest recall rates were those between the ages of 18 and 24, with a recall rate of 33 percent, and respondents between

25

the ages of 25 and 34, with a recall rate of 31 percent. Although these relationships were statistically insignificant, advertisers can use this information to their advantage by targeting these specific groups.

6.3. Limitations

Regarding this study, there were several limitations that exist that could possibly lead to further research in the future. The majority of the limitations relate to the number of survey respondents. Only gathering 63 total responses limited the number of tests and interactions that could be run. For example, more than 85 percent of the respondents in this study were white and 73 percent were 34 years of age or younger. Therefore, all data collected on the other races and older ages were insignificant. A broader range of respondents would be beneficial to the researcher. A larger sample would allow the researcher to compare more variables and discover more significant relationships. In this particular study, surveys were only conducted at two games. Conducting surveys at more games would allow the researcher to truly determine if the outcome of the games had any impact on the brand awareness or purchase behavior; both games chosen for this study resulted in wins and insignificant differences.

Another limitation to this study was the short amount of time given with each respondent. Being at a sporting event, where people go for entertainment, the surveyors were unable to ask too many questions. Some insights that may be beneficial in the future are brand loyalty and brand experience. The questionnaire written for this study was unable to determine the level of brand loyalty each respondent had to the brands in question and whether or not they had any positive or negative experiences with the brands in the past.

6.4. Future Research

After conducting this study, some future research opportunities were brought to light. In future studies more attention should be paid to the content of the advertisement. Factors such as music, brand mascot, and length of the advertisement should be noted. Having a better grasp of the content within the ads will allow researchers to determine with more confidence whether the form of in-game promotion was the sole reasoning behind brand awareness and purchase behavior, or if the content of the ad played a role as well.

A larger sample in the future will also allow the researcher to take a closer look at the differences in brand awareness and purchase probability based on where people are seated in the arena. It is important to have a strong understanding of how much of each ad the spectators can see from their seats. This study in particular did not have enough variance in seating to see significant differences. Knowing what promotions people can see from their seats can be very valuable to advertisers. If their brand is targeted more towards young adults, they should ensure that their promotion can be seen from the section of the arena that the students are seated in.

As mentioned earlier, brand loyalties and experience should also be studied. By knowing the history between the brands being studied and the respondent, researchers will have a better understanding of the implications of the advertisements. Some brands may yield more favorable purchase behavior because of their choice of promotion, but it could also be the result of the participant already having an allegiance or history with that brand. The use of in-depth interviews or focus groups would give future researchers better understandings of their participants.

Table 1

Demographic Data – Recall and Need For Cognition			
	N	**%**	**Average NFC**
Gender			
Male	37	58.7	19.9189
Female	26	41.3	15.4615
Total	63	100.00	
Age			
18-24	28	44.4	19.1429
25-34	18	28.6	18.5000
35-44	5	7.9	7.4000
45-54	9	14.3	17.8889
55+	3	4.8	24.0000
Total	63	100.00	
Ethnicity			
White	54	85.7	18.9815
Hispanic or Latino	2	3.2	-3.5000
African American	5	7.9	16.8000
Native American	1	1.6	37.0000
Other	1	1.6	0.0000
Total	63	100.00	

Table 2

Game Information						
Date	Opponent (W-L Record)	Mizzou's Record	Score at Halftime	Score at End of Game	Attendance	Mizzou's Outcome
3/1/14	Mississippi State (13-16)	20-9	45-32	85-66	9,403	Won
3/5/14	Texas A&M (17-13)	21-9	20-30	57-56	10,655	Won

Table 3

Form of In-Game Promotion and Brand Recall	
Form of In-Game Promotion	Percentage of Recall
On-Screen	36.5%
Live Action	38.1%
Constant	13.5%

Table 4

Brand Recall	
Brand	Percentage of Recall
Tiger Checking	47.6%
The Reserve	25.4%
Columbia Regional Airport	46.0%
First State Community Bank	30.2%
Muscle Milk	15.9%
Hy-vee	19.0%

Table 5

Form of In-Game Promotion and Purchase Behavior		
Form of In-Game Promotion	Purchase Intent [a]	Purchase Probability [b]
On-Screen	3.0079	7.1032
Live Action	2.9206	6.7302
Constant	2.4444	5.1111

[a] **Purchase Intent Scale**
  1 = Definitely would buy it
  2 = Probably would buy it
  3 = Might or might not buy it
  4 = Probably would not buy it
  5 = Definitely would not buy it

[b] **Purchase Probability Scale**
  1 = Certain, practically certain (99 in 100)
  2 = Almost sure (9 in 10)
  3 = Very Probably (8 in 10)
  4 = Probably (7 in 10)
  5 = Good Possibility (6 in 10)
  6 = Fairly Good Possibility (5 in 10)
  7 = Fair Possibility (4 in 10)
  8 = Some Possibility (3 in 10)
  9 = Slight Possibility (2 in 10)
  10 = Very Slight Possibility (1 in 10)
  11 = No chance, almost no chance (1 in 100)

Table 6

Brand and Purchase Behavior		
Brand	Purchase Intent [a.]	Purchase Probability [b.]
Tiger Checking	2.78	6.74
The Reserve	3.25	7.71
Columbia Regional Airport	2.78	6.30
First State Community Bank	3.05	7.34
Muscle Milk	2.73	6.02
Hy-vee	2.04	4.02

[a.] **Purchase Intent Scale**
        1 = Definitely would buy it
        2 = Probably would buy it
        3 = Might or might not buy it
        4 = Probably would not buy it
        5 = Definitely would not buy it

[b.] **Purchase Probability Scale**
        1 = Certain, practically certain (99 in 100)
        2 = Almost sure (9 in 10)
        3 = Very Probably (8 in 10)
        4 = Probably (7 in 10)
        5 = Good Possibility (6 in 10)
        6 = Fairly Good Possibility (5 in 10)
        7 = Fair Possibility (4 in 10)
        8 = Some Possibility (3 in 10)
        9 = Slight Possibility (2 in 10)
        10 = Very Slight Possibility (1 in 10)
        11 = No chance, almost no chance (1 in 100)

Table 7

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Live Brand Recall	.3810	63	.37796	.04762
	On-Screen Brand Recall	.3651	63	.35019	.04412
Pair 2	Live Brand Recall	.3810	63	.37796	.04762
	Constant Brand Recall	.1746	63	.28623	.03606
Pair 3	On-Screen Brand Recall	.3651	63	.35019	.04412
	Constant Brand Recall	.1746	63	.28623	.03606

Table 8

Paired Samples Test

	Paired Differences					t	df	Sig (2-tailed)
				95% Confidence Interval of Difference				
	Mean	Std. Deviation	Std. Mean Error	Lower	Upper			
Pair 1	.01587	.40129	.05056	-.08519	.11694	.314	62	.755
Pair 2	.20635	.40793	.05139	.10361	.30909	4.015	62	.000
Pair 3	.19048	.36399	.04585	.09881	.28215	4.154	62	.000

Table 9

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Live Purchase Intent	2.9206	63	.81422	.10258
	On-Screen Purchase Intent	3.0079	63	.84478	.10643
Pair 2	Live Purchase Intent	2.9206	63	.81422	.10258
	Constant Purchase Intent	2.4444	63	.78345	.09871
Pair 3	On-Screen Purchase Intent	3.0079	63	.84478	.10643
	Constant Purchase Intent	2.4444	63	.78345	.09871

Table 10

Paired Samples Test

	Paired Differences					t	df	Sig (2-tailed)
				95% Confidence Interval of Difference				
	Mean	Std. Deviation	Std. Mean Error	Lower	Upper			
Pair 1	-.08730	.64470	.08123	-.24967	.07506	-1.075	62	.287
Pair 2	.47619	1.04507	.13167	.21299	.73939	3.617	62	.001
Pair 3	.56349	1.10166	.13880	.28604	.84094	4.060	62	.000

Table 11

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Live Purchase Probability	6.7302	63	2.49649	.31453
	On-Screen Purchase Probability	7.1032	63	2.45304	.30905
Pair 2	Live Purchase Probability	6.7302	63	2.49649	.31453
	Constant Purchase Probability	5.1111	63	2.25124	.28363
Pair 3	On-Screen Purchase Probability	7.1032	63	2.45304	.30905
	Constant Purchase Probability	5.1111	63	2.25124	.28363

Table 12

Paired Samples Test

	Paired Differences					t	df	Sig (2-tailed)
				95% Confidence Interval of Difference				
	Mean	Std. Deviation	Std. Mean Error	Lower	Upper			
Pair 1	-.37302	1.78246	.22457	-.82192	.07589	-1.661	62	.102
Pair 2	1.61905	2.48984	.31369	.99199	2.24611	5.161	62	.000
Pair 3	1.99206	2.70378	.34064	1.31113	2.67300	5.848	62	.000

Table 13

Brand Recall and Need for Cognition	
Brand Name	Average Need For Cognition
Tiger Checking	21.6333
The Reserve	23.1875
Columbia Regional Airport	18.7931
First State Community Bank	23.4211
Muscle Milk	25.0000
Hyvee	18.8333

Table 14

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.235[a]	.055	.040	.24923

a. Predictors: (Constant), Total Need for Cogntion

Table 15

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.222	1	.222	3.581	.063[b]
	Residual	3.789	61	.062		
	Total	4.011	62			

[a.] Dependent Variable: Overall_BR
[b.] Predictors: (Constant), Total Need for Cognition

Table 16

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.245	.045		5.392	.000
	Total Need For Cognition	.003	.002	.235	1.892	.063

a. Dependent Variable: Overall_BR

Table 17

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.066[a]	.004	-.012	.60450

a. Predictors: (Constant), Total Need for Cogntion

Table 18

<p align="center">ANOVA^a</p>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.097	1	.097	.264	.609^b
	Residual	22.290	61	.365		
	Total	22.387	62			

^{a.} Dependent Variable: Overall_PI
^{b.} Predictors: (Constant), Total Need for Cognition

Table 19

<p align="center">Coefficients ^a</p>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.750	.110		24.973	.000
	Total Need For Cognition	.002	.004	.066	.514	.609

a. Dependent Variable: Overall_PI

Table 20

<p align="center">Model Summary</p>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.082^a	.007	-.010	1.98900

a. Predictors: (Constant), Total Need for Cogntion

Table 21

<p align="center">ANOVA^a</p>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.627	1	1.627	.411	.524^b
	Residual	241.324	61	3.956		
	Total	242.951	62			

^{a.} Dependent Variable: Overall_PP
^{b.} Predictors: (Constant), Total Need for Cognition

Table 22

<div align="center">

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	6.483	.362		17.891	.000
Total Need For Cognition	-.009	.014	-.082	-.641	.524

</div>

a. Dependent Variable: Overall_PP

Table 23

<div align="center">

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.261[a]	.068	.053	2.19086

</div>

a. Predictors: (Constant), Total Need for Cogntion

Table 24

<div align="center">

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	21.430	1	21.430	4.465	.039[b]
Residual	292.792	61	4.800		
Total	314.222	62			

</div>

[a.] Dependent Variable: Constant_PP
[b.] Predictors: (Constant), Total Need for Cognition

Table 25

<div align="center">

Coefficients [a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5.720	..399		14.332	.000
Total Need For Cognition	-.034	.016	-.261	-2.113	.039

</div>

a. Dependent Variable: Constant_PP

Table 26

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.274[a]	.075	.060	2.670

  a. Predictors: (Constant), Total Need for Cogntion

Table 27

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.360	1	35.360	4.959	.030[b]
	Residual	434.958	61	7.130		
	Total	470.317	61			

  [a.] Dependent Variable: Hy-vee Purchase Probability
  [b.] Predictors: (Constant), Total Need for Cognition

Table 28

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.989	.486		10.255	.000
	Total Need For Cognition	-.043	.019	-.274	-2.227	.030

a. Dependent Variable: Hy-vee Purchase Probability

Table 29

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overall_BR	Between Groups	.063	1	.063	.969	.329
	Within Groups	3.949	61	.065		
	Total	4.011	62			
Overall_PI	Between Groups	1.173	1	1.173	3.374	.071
	Within Groups	21.214	61	.348		
	Total	22.387	62			
Overall_PP	Between Groups	10.202	1	10.202	.2.674	.107
	Within Groups	232.748	61	3.816		
	Total	242.951	62			

Table 30

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overall_BR	Between Groups	.119	4	.030	.443	.777
	Within Groups	2.893	58	.067		
	Total	4.011	62			
Overall_PI	Between Groups	1.642	4	.410	1.148	.343
	Within Groups	20.745	58	.358		
	Total	22.387	62			
Overall_PP	Between Groups	2.501	4	.625	.151	.962
	Within Groups	240.449	58	4.146		
	Total	242.951	62			

Table 31

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Overall_BR	Between Groups	.532	3	.177	3.004	.037
	Within Groups	3.480	59	.059		
	Total	4.011	62			
Overall_PI	Between Groups	.549	3	.183	.494	.688
	Within Groups	21.838	59	.370		
	Total	22.387	62			
Overall_PP	Between Groups	21.932	3	7.311	1.952	.131
	Within Groups	221.019	59	3.746		
	Total	242.951	62			

Table 32

Demographic Data – Recall			
Gender	**On-Screen**	**Live Action**	**Constant**
Male	39.19%	41.89%	18.92%
Female	32.69%	32.69%	15.38%
Age			
18-24	42.86%	33.93%	21.43%
25-34	30.56%	44.44%	16.67%
35-44	10.00%	30.00%	10.00%
45-54	44.44%	44.44%	11.11%
55+	33.33%	33.33%	16.67%
Games Attended (N)			
0 – 2 (35)	24.29%	27.14%	18.57%
3 – 5 (8)	50.00%	37.50%	6.25%
6 – 8 (4)	62.5%	75.00%	12.50%
9 + (16)	50.00%	53.13%	21.88%

Table 33

Demographic Data – Purchase Intent			
	On-Screen	**Live Action**	**Constant**
Gender			
Male	3.1757	3.0811	2.4595
Female	2.7692	2.6923	2.4231
Age			
18-24	3.1250	3.0179	2.6250
25-34	2.9722	2.8889	2.3611
35-44	2.6667	3.1000	2.3000
45-54	2.6667	2.7778	2.2778
55+	3.0079	2.3333	2.000
Ethnicity			
White	2.9907	2.8796	2.4074
Hispanic	2.7500	3.0000	2.7500
African American	3.1000	3.1000	2.3000
Native American	2.0000	2.0000	2.0000
Other	5.0000	5.0000	5.0000

Table 34

Demographic Data – Purchase Probability			
Gender	On-Screen	Live Action	Constant
Male	6.7973	6.3919	4.7432
Female	7.5385	7.2115	5.6346
Age			
18-24	7.2143	6.8571	4.8929
25-34	7.3333	6.5556	4.8889
35-44	7.1000	6.6000	6.1000
45-54	6.8889	6.6667	5.9444
55+	5.3333	7.0000	4.3333
Ethnicity			
White	6.9907	6.6204	5.0093
Hispanic	5.7500	5.7500	5.7500
African American	8.9000	8.0000	5.8000
Native American	8.0000	9.0000	5.0000
Other	6.0000	6.0000	6.0000

Table 35

Form of In-Game Promotion and Need For Cognition	
Form of In-Game Promotion	Average Need For Cognition
On-Screen	21.1071
Live Action	22.4104
Constant	21.9166

Table 36

Seating – Need For Cognition and Recall					
Section	N	Average NFC	On-screen Recall	Live Action Recall	Constant Recall
Student Section	22	20.2727	40.9%	36.4%	18.2%
104 – 108	10	18.1000	30.0%	35.0%	15.0%
109 – 112	16	12.4375	34.4%	43.8%	21.9%
113 – 117	7	24.0000	42.9%	57.1%	21.4%
202 – 210	3	33.6667	50%	33.3%	16.7%
211 – 219	4	11.0000	12.5%	12.5%	0.00%

Table 37

Seating – Purchase Intent			
Section	On-Screen Purchase Intent	Live Action Purchase Intent	Constant Purchase Intent
Student Section	2.9773	3.0455	2.4773
104 – 108	2.8000	2.5500	2.5000
109 – 112	2.9375	2.9375	2.4063
113 – 117	2.7857	2.5000	2.3571
202 – 210	3.8333	3.1667	1.3333
211 – 219	3.2500	3.1250	2.6250

Table 38

Seating – Purchase Probability			
Section	On-Screen Purchase Probability	Live Action Purchase Probability	Constant Purchase Probability
Student Section	7.2955	6.9773	4.6136
104 – 108	6.9000	7.0000	5.6500
109 – 112	6.7813	6.4688	5.6875
113 – 117	5.9286	5.2143	4.5000
202 – 210	9.5000	7.0000	2.3333
211 – 219	8.3750	8.3750	7.1250

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Appendix

Questionnaire

Introduction: Thank you for taking the time to complete this survey for the University of Missouri. This is a research-based survey and your feedback is vital to the completion of the thesis of a graduate student at the University of Missouri School of Journalism, studying the effectiveness of advertising at sporting events. You must be at least 18 years of age to participate. The purpose of this research is to give advertisers a better understanding of their consumers and to increase the enjoyment had by those attending sporting events. This survey is voluntary and you may withdraw at any time. This survey should only take about 5 minutes of your time. Your answers will be completely anonymous and used for academic purposes only. If you are a student in Journalism 1000, you have the opportunity to earn extra credit by completing this survey or an alternative survey provided by your professor. If you have any questions please contact Todd Boedeker (tabyt3@mail.missouri.edu) or project advisor, Cyndi Frisby (frisbyc@missouri.edu.) Thanks!

1. Have you already completed this survey?
    a. Yes
    b. No

2. How many University of Missouri Men's basketball games have you attended this season?
    a. 0 – 2
    b. 3 – 5
    c. 6 – 8
    d. 9 +

3. Where were you seated at tonight's game?
    a. Sections 101 – 103 or 118 – 120
    b. Sections 104 – 108
    c. Sections 109 – 112
    d. Sections 113 – 117
    e. Sections 202 – 210
    f. Sections 211 – 219

4. Do you recall being exposed to any advertisements during the game?

    a. Yes
    b. No

5. Of the following brands, please click the ones you remember being advertised during the game:
    a. Columbia Regional Airport
    b. CNN

      c. Fox News
      d. Wal Mart
      e. Tiger Checking
      f. First State Community Bank
      g. Muscle Milk
      h. Century 21
      i. The Reserve
      j. Hyvee

(Some of the brands listed will not have advertised at the game)

6. Of the following brands, which one of these statements best describes how you would feel about buying it?

    a. First State Community Bank
        i. Definitely would buy it
        ii. Probably would buy it
        iii. Might or might not buy it
        iv. Probably would not buy it
        v. Definitely would not buy it

    b. Columbia Regional Airport
        i. Definitely would buy it
        ii. Probably would buy it
        iii. Might or might not buy it
        iv. Probably would not buy it
        v. Definitely would not buy it

    c. Muscle Milk
        i. Definitely would buy it
        ii. Probably would buy it
        iii. Might or might not buy it
        iv. Probably would not buy it
        v. Definitely would not buy it

    d. Hyvee
        i. Definitely would buy it
        ii. Probably would buy it
        iii. Might or might not buy it
        iv. Probably would not buy it
        v. Definitely would not buy it

    e. Tiger Checking
        i. Definitely would buy it
        ii. Probably would buy it
        iii. Might or might not buy it
        iv. Probably would not buy it
        v. Definitely would not buy it

    f. The Reserve
        i. Definitely would buy it
        ii. Probably would buy it
        iii. Might or might not buy it

      iv. Probably would not buy it

      v. Definitely would not buy it

7. Taking everything into account, what do you think would be the chances that you would buy this product?
   a. First State Community Bank
      i. Certain, practically certain (99 in 100)
      ii. Almost sure (9 in 10)
      iii. Very probably (8 in 10)
      iv. Probably (7 in 10)
      v. Good possibility (6 in 10)
      vi. Fairly good possibility (5 in 10)
      vii. Fair possibility (4 in 10)
      viii. Some possibility (3 in 10)
      ix. Slight possibility (2 in 10)
      x. Very slight possibility (1 in 10)
      xi. No chance, almost no chance (1 in 100)
   b. Columbia Regional Airport
      i. Certain, practically certain (99 in 100)
      ii. Almost sure (9 in 10)
      iii. Very probably (8 in 10)
      iv. Probably (7 in 10)
      v. Good possibility (6 in 10)
      vi. Fairly good possibility (5 in 10)
      vii. Fair possibility (4 in 10)
      viii. Some possibility (3 in 10)
      ix. Slight possibility (2 in 10)
      x. Very slight possibility (1 in 10)
      xi. No chance, almost no chance (1 in 100)

   c. Muscle Milk
      i. Certain, practically certain (99 in 100)
      ii. Almost sure (9 in 10)
      iii. Very probably (8 in 10)
      iv. Probably (7 in 10)
      v. Good possibility (6 in 10)
      vi. Fairly good possibility (5 in 10)
      vii. Fair possibility (4 in 10)
      viii. Some possibility (3 in 10)
      ix. Slight possibility (2 in 10)
      x. Very slight possibility (1 in 10)
      xi. No chance, almost no chance (1 in 100)
   d. Hyvee
      i. Certain, practically certain (99 in 100)
      ii. Almost sure (9 in 10)
      iii. Very probably (8 in 10)

iv. Probably (7 in 10)
                     v. Good possibility (6 in 10)
                    vi. Fairly good possibility (5 in 10)
                   vii. Fair possibility (4 in 10)
                  viii. Some possibility (3 in 10)
                    ix. Slight possibility (2 in 10)
                     x. Very slight possibility (1 in 10)
                    xi. No chance, almost no chance (1 in 100)
          e. Tiger Checking
                     i. Certain, practically certain (99 in 100)
                    ii. Almost sure (9 in 10)
                   iii. Very probably (8 in 10)
                    iv. Probably (7 in 10)
                     v. Good possibility (6 in 10)
                    vi. Fairly good possibility (5 in 10)
                   vii. Fair possibility (4 in 10)
                  viii. Some possibility (3 in 10)
                    ix. Slight possibility (2 in 10)
                     x. Very slight possibility (1 in 10)
                    xi. No chance, almost no chance (1 in 100)
          f. The Reserve
                     i. Certain, practically certain (99 in 100)
                    ii. Almost sure (9 in 10)
                   iii. Very probably (8 in 10)
                    iv. Probably (7 in 10)
                     v. Good possibility (6 in 10)
                    vi. Fairly good possibility (5 in 10)
                   vii. Fair possibility (4 in 10)
                  viii. Some possibility (3 in 10)
                    ix. Slight possibility (2 in 10)
                     x. Very slight possibility (1 in 10)
                    xi. No chance, almost no chance (1 in 100)

8. I would prefer complex to simple problems.
       a. Very strong agreement
       b. Strong agreement
       c. Moderate agreement
       d. Slight agreement
       e. Neither agreement or disagreement
       f. Slight disagreement
       g. Moderate disagreement
       h. Strong disagreement
       i. Very strong disagreement

9. I like to have the responsibility of handling a situation that requires a lot of
    thinking.

     a. Very strong agreement
     b. Strong agreement
     c. Moderate agreement
     d. Slight agreement
     e. Neither agreement or disagreement
     f. Slight disagreement
     g. Moderate disagreement
     h. Strong disagreement
     i. Very strong disagreement

10. Thinking is not my idea of fun. *
     a. Very strong agreement
     b. Strong agreement
     c. Moderate agreement
     d. Slight agreement
     e. Neither agreement or disagreement
     f. Slight disagreement
     g. Moderate disagreement
     h. Strong disagreement
     i. Very strong disagreement

11. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities. *
     a. Very strong agreement
     b. Strong agreement
     c. Moderate agreement
     d. Slight agreement
     e. Neither agreement or disagreement
     f. Slight disagreement
     g. Moderate disagreement
     h. Strong disagreement
     i. Very strong disagreement

12. I try to anticipate and avoid situations where there is likely chance I will have to think in depth about something. *
     a. Very strong agreement
     b. Strong agreement
     c. Moderate agreement
     d. Slight agreement
     e. Neither agreement or disagreement
     f. Slight disagreement
     g. Moderate disagreement
     h. Strong disagreement
     i. Very strong disagreement

13. I find satisfaction in deliberating hard and for long hours.

a. Very strong agreement
b. Strong agreement
c. Moderate agreement
d. Slight agreement
e. Neither agreement or disagreement
f. Slight disagreement
g. Moderate disagreement
h. Strong disagreement
i. Very strong disagreement

14. I only think as hard as I have to. *
    a. Very strong agreement
    b. Strong agreement
    c. Moderate agreement
    d. Slight agreement
    e. Neither agreement or disagreement
    f. Slight disagreement
    g. Moderate disagreement
    h. Strong disagreement
    i. Very strong disagreement

15. I prefer to think about small, daily projects to long-term ones. *
    a. Very strong agreement
    b. Strong agreement
    c. Moderate agreement
    d. Slight agreement
    e. Neither agreement or disagreement
    f. Slight disagreement
    g. Moderate disagreement
    h. Strong disagreement
    i. Very strong disagreement

16. I like tasks that require little thought once I've learned them. *
    a. Very strong agreement
    b. Strong agreement
    c. Moderate agreement
    d. Slight agreement
    e. Neither agreement or disagreement
    f. Slight disagreement
    g. Moderate disagreement
    h. Strong disagreement
    i. Very strong disagreement

17. The idea of relying on thought to make my way to the top appeals to me.
    a. Very strong agreement
    b. Strong agreement

c. Moderate agreement
d. Slight agreement
e. Neither agreement or disagreement
f. Slight disagreement
g. Moderate disagreement
h. Strong disagreement
i. Very strong disagreement

18. I really enjoy a task that involves coming up with new solutions to problems.
   a. Very strong agreement
   b. Strong agreement
   c. Moderate agreement
   d. Slight agreement
   e. Neither agreement or disagreement
   f. Slight disagreement
   g. Moderate disagreement
   h. Strong disagreement
   i. Very strong disagreement

19. Learning new way to think doesn't excite me very much. *
   a. Very strong agreement
   b. Strong agreement
   c. Moderate agreement
   d. Slight agreement
   e. Neither agreement or disagreement
   f. Slight disagreement
   g. Moderate disagreement
   h. Strong disagreement
   i. Very strong disagreement

20. I prefer my life to be filled with puzzles that I must solve.
   a. Very strong agreement
   b. Strong agreement
   c. Moderate agreement
   d. Slight agreement
   e. Neither agreement or disagreement
   f. Slight disagreement
   g. Moderate disagreement
   h. Strong disagreement
   i. Very strong disagreement

21. The notion of thinking abstractly is appealing to me.
   a. Very strong agreement
   b. Strong agreement
   c. Moderate agreement

d. Slight agreement
e. Neither agreement or disagreement
f. Slight disagreement
g. Moderate disagreement
h. Strong disagreement
i. Very strong disagreement

22. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
    a. Very strong agreement
    b. Strong agreement
    c. Moderate agreement
    d. Slight agreement
    e. Neither agreement or disagreement
    f. Slight disagreement
    g. Moderate disagreement
    h. Strong disagreement
    i. Very strong disagreement

23. I feel relief rather than satisfaction after completing a task that required a lot of mental effort. *
    a. Very strong agreement
    b. Strong agreement
    c. Moderate agreement
    d. Slight agreement
    e. Neither agreement or disagreement
    f. Slight disagreement
    g. Moderate disagreement
    h. Strong disagreement
    i. Very strong disagreement

24. It's enough for me that something gets the job done; I don't care how or why it works. *
    a. Very strong agreement
    b. Strong agreement
    c. Moderate agreement
    d. Slight agreement
    e. Neither agreement or disagreement
    f. Slight disagreement
    g. Moderate disagreement
    h. Strong disagreement
    i. Very strong disagreement

25. I usually end up deliberating about issues even when they do not affect me personally.
     a. Very strong agreement
     b. Strong agreement
     c. Moderate agreement
     d. Slight agreement
     e. Neither agreement or disagreement
     f. Slight disagreement
     g. Moderate disagreement
     h. Strong disagreement
     i. Very strong disagreement

26. What is your gender?
     a. Male
     b. Female

27. Which of the following best describes your age?
     a. 18 – 24
     b. 25 – 34
     c. 35 – 44
     d. 45 – 54
     e. 55 +

28. Please specify your ethnicity.
     a. White
     b. Hispanic or Latino
     c. African American
     d. Native American
     e. Asian
     f. Other

29. If you are participating in this survey for class credit, please include your Pawprint and the class you are taking the survey for.

30. Thank you for your time and enjoy the rest of the game.

* Reverse scoring used on this item.