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경영학석사학위논문

**The Impact of Brand-Event Fit
in Virtual Advertising on Viewers'
Attitude toward the Sponsor Brand**

가상광고의 브랜드-이벤트 적합성이
스폰서 브랜드에 대한 시청자의
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The Impact of Brand-Event Fit in Virtual Advertising on Viewers' Attitude toward the Sponsor Brand

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Abstract

The Impact of Brand-Event Fit in Virtual Advertising on Viewers' Attitude toward the Sponsor Brand

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When virtual advertising is inserted into sport broadcast, viewers are exposed to two factors simultaneously: (1) a sports match, and (2) a sponsor brand included in virtual advertising. The purpose of the present thesis is to study the impact of perceived fit between these two factors on viewers' attitude toward the sponsor brand. Audience confusion is proposed as a mediator and event suspense as a moderator. The results showed that perceived fit relates positively to viewers' attitude toward the sponsor brand, and that audience confusion partially mediates the relationship. However, contrary to my hypothesis, not only had event suspense no direct effect on viewers' attitude toward the sponsor brand, but it also did not interact with perceived fit.

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Keywords: Brand Attitude, Perceived fit, Suspense, Virtual Advertising, Audience Confusion

Student Number: 2014-20425

Table of Contents

1. Introduction	1
1.1 Research Background and Purpose.....	1
2. Main Concepts and Hypotheses Development	3
2.1 Definitions and Features of Virtual Advertising.....	3
2.2 Brand-Event Fit in Virtual Advertising.....	4
2.3 Audience Confusion.....	7
2.4 Event Suspense.....	10
3. Conceptual Framework and Hypotheses	13
3.1 Conceptual Framework and Hypotheses.....	13
4. Methods and Results	14
4.1 Pretest.....	14
4.2 Participants and Research Design.....	19
4.3 Procedures.....	20
4.4 Result.....	24
4.5 Discussion.....	28
5. Conclusion	30
6. References	34
7. Appendix	42

1. Introduction

1.1 Research Background and Purpose

The size of advertising market has been steadily growing around the world. According to Korea Creative Content Agency (2015), the magnitude amounted to \$473.6 billion in 2013, and the professionals in the field predicted that the magnitude will reach \$595.6 billion in 2018. However, the amount of sales on TV commercials in Korea decreased from \$1.6 billion in 2012 to less than \$1.4 billion in 2014 (Korea Broadcast Advertising Corporation 2014).

Broadcasting companies spend the profit from TV commercials on making TV programs, so the decrease in the profit from TV commercials tends to be directly related to the decline in the quality and diversity of TV programs (Byeon 2009). So, broadcasting companies in Korea sought to find ways to effectively recover their profit from TV commercials. In particular, they paid attention to the two trends: that sponsorship in sports had continuously increased around the world (International Event Group 2006), and that virtual advertising inserted into TV programs can give them additional advertising opportunities. As a result, the first virtual advertising in Korea was operated on a sports event in 2009 with the legal basis

established by Virtual Advertising Act on November 2009 (Moon 2002; Lee. S, Lee. H, and Sin 2010).

Sponsors invest their money in sponsorship in order to enhance their brand images and change people's attitude toward their brands (Cornwell, Roy, and Steinard II 2001; Dean 2002; Gwinner 1997). Then, can sponsors achieve the same goals by investing their money in virtual advertising? Regrettably, research in virtual advertising literature has mostly focused on the effect of virtual advertising on brand awareness and recognition (Breuer and Rumpf 2012, 2015; Tsuji et al. 2009; Kim and Lee 2011; Lee et al. 2010; Lee. S, Lee. H, and Sin 2011; Ha, Lim, and Han 2012). Little research has investigated the impact of virtual advertising on viewers' attitude toward the sponsor brand.

The present research aims to address this question. Specifically, this research examines the causal relationship between brand-event fit in virtual advertising and viewers' attitude toward the sponsor brand. This research proposes that a high level of perceived fit between a sponsor brand included in virtual advertising and a sports match will reduce audience confusion, helping viewers to concentrate on watching the sports event, which in turn relates positively to viewers' attitude toward

the sponsor brand. This research will also explore a moderator for the proposed effect, namely event suspense. In the following section, relevant literatures supporting these propositions are reviewed.

2. Main Concepts and Hypotheses Development

2.1 Definitions and Features of Virtual Advertising

Virtual advertising is defined as the insertion of digitized images into television broadcasts (Cianfrone et al. 2006 and Lee, Y and Kim, Y 2010), and it has many noticeable features (see Turner and Cusumano 2000; Kim et al. 2004). First of all, it is placed in television broadcasts. As a result, viewers cannot skip through advertisements, and they are exposed to both the television broadcasts and the communication content at the same time. Second, virtual advertisements can be animated. That is, virtual advertising firms can insert characters or logos in motion into television broadcasts.

These distinct features of virtual advertising may cause confusion for viewers. Audience confusion is defined as a subjective state in which audiences realize that it is difficult to follow a sports activity due to an overload of sport-related action and sponsorship signage (Schweizer et al. 2006; Walsh, Hennig-Thurau, and Mitchell 2007). Breuer and

Rumpf (2015) confirmed that the animated virtual advertising makes viewers more confused than any other types of virtual advertising stimuli do. Notwithstanding, broadcasting companies have increasingly preferred the animated virtual advertising to other types of advertising because the animated virtual advertising is the most effective in making viewers concentrate on the communication content.

2.2 Brand-Event Fit in Virtual Advertising

As mentioned above, the goal of companies to sponsor sports events is to enhance their brand image and change people's attitude toward their brand. (Cornwell et al. 2001; Dean 2002; Gwinner 1997). The present thesis proposes that when virtual advertising is inserted into sport broadcasts, a high level of perceived fit between a sport match and a sponsor brand included in virtual advertising will play an important role in achieving their goal.

The sponsor-event fit means "the degree to which the pairing of an event and sponsor is perceived as well matched or a good fit, without any restriction on the basis used to establish fit" (Speed and Thompson 2000). Spectators usually perceive a company as an appropriate sponsor when its products are related to an event's features (Pham and

Johar 2001). For example, when sports brands sponsor sports events, spectators will perceive the sports brands as correct sponsors. But, when cigarette brands sponsor sports events, spectators will regard the cigarette brands as inappropriate sponsors.

However, the fit can be perceived on the image dimension as well (Gwinner and Eaton 1999). For instance, if spectators judge that the image of sports brands does not fit that of sports events, they will perceive the fit between the sports brands and sports events as low. In other words, the perception by spectators changes the degree to which sponsors and sports matches belong to the same world (Bridges, Keller, and Sood 2000; Park, Jaworski, and MacInnis 1986; Park, Milberg, and Lawson 1991).

Perceived fit can affect spectators' attitude toward the sponsor brands. The degree to which consumers perceive an event and sponsor to be well-matched influences their responses to sponsorship (McDonald 1991). Consumers' response is a well-established determinant of their attitude, belief, and behavior intention (Becker-Olsen 2003). According to the match-up theory, a high level of fit between a brand and an advertising endorser enhances consumers' attitude toward the brand (Kamins 1990; Till, Stanley, and Priluck 2008). Mazodier and Merunka

(2012) confirmed that in paper advertisements, a high level of perceived fit between Beijing Olympics and sponsor brands increases subjects' attitude toward the sponsor brands.

The reason is that perceived fit plays an important role in shaping the interpretation of advertisements. Consumers interpret marketing communications of corporation through two steps (Campbell and Kirmani 2000; Gilbert 1989; Simmons and Becker-Olsen 2006). In the first step, consumers accept a marketing communication the way it is. The second step begins only when consumers put more cognitive efforts into interpretation of the marketing communication. During the second step, consumers interpret the surface meaning of marketing communication once again and more deeply, and then correct the meaning. In particular, unexpected accidents facilitate thinking and inference (Weiner 1985).

Therefore, when viewers are exposed to both a sports match and a sponsor brand included in virtual advertising simultaneously, an unexpected accident (a low level of perceived fit) will facilitate thinking and inference (the second step), which in turn will negatively affect viewers' attitude toward the sponsor brand because a low level of fit is usually perceived as negative (Mandler 1982). On the other hand,

an expected accident (a high level of perceived fit) will cause viewers to stay in the usual level of thinking and inference (the first step), which in turn will lead them to accept the marketing communications as the way they are, positively affecting viewers' attitude toward the sponsor brand. Formally,

Perceived fit between a sports match and a sponsor brand included **H1**: in virtual advertising relates positively to viewers' attitude toward the sponsor brand.

From now on, the present thesis regards the two terms *brand-event fit* and *perceived fit* as the same, and these terms are used interchangeably in this research.

2.3 Audience Confusion

The ultimate goal of viewers to watch a sport event is to concentrate on watching the match (d'Ydewalle et al. 1993). Scholars have pointed out that virtual advertising prevents viewers from watching sports events because it makes viewers confused (Breuer and Rumpf 2012; Kim et al. 2004; Moon 2002). The present research proposes audience confusion as a mediator: a high level of brand-event fit in virtual advertising will

decrease audience confusion, which in turn will enable viewers to concentrate on watching the program, positively affecting viewers' attitude toward the sponsor brand.

First of all, the higher the level of perceived fit, the lower the level of audience confusion. According to the information overload theory, human beings have finite capacity to assimilate and process information during any given amount of time. Once these limits are exceeded, the cognitive system is deemed to be "overloaded," and human beings feel confused (Jacoby 1977). That is, when a person tries to absorb more information than he or she can process at one time, information overload makes the person confused (Walsh et al. 2007).

Such information overload is also caused by the amount of information and the method of information delivery (Mitchell and Papavassiliou 1999). Huffman and Kahn (1998) found that when a newly developed product includes new functions that consumers would perceive as incompatible with the previous product, the consumers feel confused. This result shows that the harmony among various functions in a product is critical in minimizing the information overload. Sponsor-event fit is the perception of harmony between brands and sports events

(Speed and Thompson 2000). Therefore, the present thesis predicts that the level of brand-event fit in virtual advertising relates inversely to that of audience confusion.

Second, the level of audience confusion will negatively affect viewers' attitude toward the sponsor brand. According to Mitchell and Papavassiliou (1999), consumer confusion in a shopping context brings about negative consumer behaviors such as giving up or delaying purchase of products. In addition, the more confused consumers feel, the more likely they are to engage in negative word-of-mouth transmission (Mitchell, Walsh, and Yamin 2004). These results imply that consumer confusion results in negative consumer behaviors.

To sum up, in virtual advertising context, viewers will be confused due to information overload stemming from a low level of brand-event fit. As a result, they will not be able to concentrate on watching the program, which in turn will make their attitude toward the sponsor brand more unfavorable. That is, viewers will attribute their high confusion to the sponsor brand. On the other hand, a high level of brand-event fit will enable viewers to achieve their goal, and they will ascribe the attainment of their goal to the sponsor brand, which in turn

will make their attitude toward the sponsor brand more favorable.

Formally,

Audience confusion will partially mediate the causal relationship

H2: between brand-event fit and viewers' attitude toward the sponsor brand.

2.4 Event Suspense

When watching sport events, viewers sometimes feel suspenseful in the games. Consider a baseball game for instance. In the bottom of the 9th inning, a team is down 2-3 with two outs and runners on second and third. In this situation, a batter is at bat. If this batter makes a base hit, his team will win. But if not, his team will lose. At this time, viewers will feel suspenseful because it is possible that the result of the batter's box changes that of the game.

Event suspense is defined as a status in which nobody can predict the result of a sports game: who will be the winner or the loser (Peterson and Raney 2008). The present thesis proposes event suspense as a moderator.

The closer game two teams play, the more suspenseful and enjoyable viewers feel. In their research, Su-lin et al (1997) asked subjects to rate their enjoyment of one of eight 1995 NCAA men's basketball tournament games. Based on final score differences, eight games were categorized as either minimally, moderately, or extremely suspenseful. Participants felt more suspenseful when the score difference was smaller, and this suspense was positively correlated with enjoyment. This study confirmed the relationship between suspense and enjoyment.

A person's enjoyment is related to his or her involvement in a product, which in turn makes him or her concentrate on the product. As a result, the person will suffer from cognitive resource depletion. Specifically, enjoyment and delight stemming from a product increase involvement in the product (Kapferer, Laurent, and Hec 1993). In addition, involvement makes viewers concentrate on events (Kim and Ji 2008; Lee 1999). Finally, a person who is fully immersed in a task will not perform another new task well because he or she spends all of his cognitive resources on the extant task. Therefore, concentrating on watching a sports event will make viewers suffer from cognitive resource depletion.

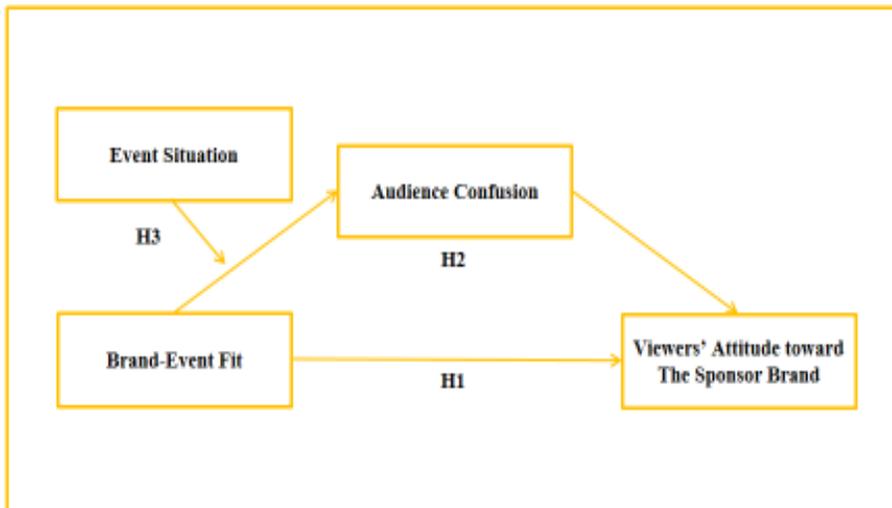
The present thesis proposes that the information overload stemming from a low level of brand-event fit will interact with the cognitive resource depletion resulting from a high level of event suspense, leading to an even higher level of audience confusion. On the other hand, in the case of a high level of perceived fit, event suspense will not have any effect on audience confusion at all. Specifically, a high level of perceived fit will help viewers not to suffer from information overload, which in turn will enable them to concentrate on the game whether or not they suffer from cognitive resource depletion stemming from a high level of event suspense.

In conclusion, a level of audience confusion will be *amplified* when there exist both a low level of brand-event fit and a high level of event suspense at the same time. Formally,

H3: When a level of event suspense is high (vs. low), a low level of brand-event fit will cause even greater audience confusion.

3. Conceptual Framework and Hypotheses

3.1 Conceptual Framework and Hypotheses



< Figure 1. Conceptual Framework >

H1: Perceived fit between a sports match and a sponsor brand included in virtual advertising relates positively to viewers' attitude toward the sponsor brand.

H2: Audience confusion will partially mediate the causal relationship between brand-event fit and viewers' attitude toward the sponsor brand.

H3: When a level of event suspense is high (vs. low), a low level of brand-event fit will cause even greater audience confusion.

4. Methods and Results

The main experiment was designed to test the three hypotheses proposed in this research. Sport match and virtual advertising were selected as follows: First of all, professional baseball games in Korea were chosen because in Korea, almost all of the virtual advertising is now operated on them. Second, animated virtual advertising stimulus was inserted into the professional baseball games because it is the most popular of all virtual advertising stimuli in Korea.

4.1 Pretest

Pretests were conducted in order to select a pair of brands to be used in the main experiment. Procedures were adapted from Mazodier and Merunka (2012).

The First Pretest In the first pretest, the familiar brands to Korean people were sorted from the 100 global famous brands. Subjects were 181 undergraduate and graduate students from Seoul National University and Hanyang University in Korea, who were recruited from Qualtrics. Participants' age ranged from 20 to 30.

First Pretest	Purpose	To select the familiar brands to Korean people
	Result	Seventeen brands were chosen
Second Pretest	Purpose	To discriminate high-fit brands from low-fit ones
	Result	Four high-fit brands and four low-fit brands were chosen
Third Pretest	Purpose	To select a pair of brands that provoke similar levels of brand attitude but different levels of brand-event fit
	Result	Nike and Disney were finally chosen as a pair of the brands

< Table 1. Summary of the Three Pretests >

The procedures were as follows: First, the logos of sixty brands appeared in the first page of the questionnaire. The sixty brands were chosen from the top-ranked brands in *2013 Global Brand Value Rank 1~100*, published by Inter-Brand, a famous brand evaluation company in the United Kingdom. Second, participants responded to a question: “Please choose all the brands you already recognize among these sixty brands.” Through this procedure, the seventeen brands were selected as the target brands for the second pretest. The selection standard was whether or not over 95% of all the subjects recognize each brand. The chosen brands included Google, Gucci, Nike, Nintendo, Disney, Louis Vuitton, Microsoft, McDonald’s, Sony, Audi, Apple, Canon, Coca-Cola, Toyota, Pepsi, Volkswagen and Adidas.

The Second Pretest In the second pretest, perceived fit between the professional baseball in Korea and the seventeen brands was measured. The purpose was to discriminate high-fit brands from low-fit ones. Subjects were 55 graduate or undergraduate students from Seoul National University, who were randomly recruited from Qualtrics (Male = 41, Female = 14). Subjects ranged from 20 to 40 in their age (20~29 year-old = 50, 30~39 year-old = 5).

The procedures were as follows: First, there emerged a logo of KBO (Korean Baseball Organization) with an instruction stating “Please deeply think about the image of KBO League for thirty seconds.” Second, the seventeen brand logos appeared in a serial order with three questions. Specifically, the items included “1. I think that the image of the KBO league and the image of the brand are similar,” “2. It makes sense to me that this cooperation advertises in KBO League,” and “3. The brand and the KBO League fit together well” (1 = completely disagree; 7 = completely agree) (Mazodier and Merunka 2012; Speed and Thompson 2000). Each participant answered total 51 items and demographic questions.

All scales exhibited excellent reliability (Cronbach’s alpha > .91). Confirmatory factor analysis was employed, which produced a single

factor score based on the three items with loadings exceeding 0.79 for all items. Accordingly, the three items were aggregated and the mean of them was utilized as the score of brand-event fit. The result showed that the four highest-ranked brands were Adidas ($M = 5.78$), Nike ($M = 5.57$), Coca-Cola ($M = 4.78$) and Pepsi ($M = 4.70$) while the four lowest-ranked ones were Louis Vuitton ($M = 1.71$), Gucci ($M = 1.88$), Disney ($M = 2.61$) and Microsoft ($M = 2.78$). These four highest-ranked and four lowest-ranked brands were defined as ‘high-fit brands’ and ‘low-fit brands’ respectively. The point difference in brand-event fit between these two groups was statistically significant ($F(1,430) = 587.419, p < .001$). In conclusion, eight brands were selected as the target for the third pretest.

The Third Pretest In the third pretest, a pair of sponsor brands that provoke similar levels of brand attitude but different levels of brand-event fit were selected for the main experiment. According to the information integration theory, a person’s attitude changes as he or she receives, evaluates, and integrates stimulus information with his or her existing attitude (Anderson 1981). Therefore, the purpose of the third pretest was to control for the previous brand attitude and eventually to eliminate an alternative explanation. Subjects were 61 graduate or undergraduate students from Seoul National University, who were

randomly recruited from Qualtrics (Male = 38, Female = 23). Subjects' age ranged from 20 to 40 (20~29 year-old = 50, 30~39 year-old = 11).

The procedures were as follows: First, each of the eight brand logos emerged in the questionnaire. Second, participants responded to three items per a brand. Specifically, there appeared a sentence stating "To me, the brand above is perceived as _____", with three items "1. Negative / Positive," "2. Unfavorable / Favorable," and "3. Bad / Good" (Mazodier and Merunka 2012; Simmons and Becker-Olsen 2006). Each participant answered total 24 items and demographic questions.

All scales exhibited excellent reliability (Cronbach's alpha > .97). Confirmatory factor analysis was employed, which produced a single factor score based on the three items with loadings exceeding 0.79 for all items. Accordingly, the three items were aggregated and the mean of them was utilized as the score of brand attitude. The result showed that the values of the previous brand attitude toward the four highest-ranked brands in brand-event fit were 5.54 (Adidas), 5.85 (Nike), 5.70 (Coca-Cola), and 4.88 (Pepsi) respectively while those of the previous brand attitude toward the four lowest-ranked brands in brand-event fit were 4.29 (Louis Vuitton), 4.36 (Gucci), 6.04 (Disney) and 5.27 (Microsoft)

respectively. Eventually, Nike ($M = 5.85$) and Disney ($M = 6.04$) were chosen as a pair of brands which provoke similar levels of brand attitude but different levels of brand-event fit. The point difference in the previous brand attitude between the two brands was not statistically significant ($F(1,120) = 0.849, p = .359$).

4.2 Participant and Research Design

The goal of the main experiment was to verify three hypotheses proposed in this research. The experiment employed a 2 (brand-event fit: high vs. low) x 2 (event suspense: high vs. low) between-subjects design. Subjects were randomly assigned across four conditions. Initially, 286 subjects attended the main experiment. However, more than half of the participants completed the main experiment just in five minutes. Since the length of the movie clip including the baseball game was nearly five minutes, it could be inferred that if a subject completed the questionnaire in less than five minutes, the subject answered the items halfheartedly or did not watch the movie clip from the beginning to the end. So, these participants were eliminated from the result analysis. In conclusion, the data of 131 participants (Male = 101, Female = 30) were used for testing the three hypotheses in this research.

4.3 Procedures

Before participating in the main experiment, subjects read an instruction stating “This experiment includes a movie clip with sound. Sound is necessary to understand the movie clip. Therefore, please go to an appropriate place and use earphones to listen to the sound.” On next page, participants watched a baseball game for about five minutes. Brand-event fit and event suspense were manipulated in the movie clip in advance.

Brand-Event Fit In order to manipulate brand-event fit in the movie clip, the logos of Nike and Disney were used. In the high brand-event fit condition, animated Nike logo popped up on the screen five times at regular intervals in the video clip. In the low brand-event fit condition, animated Disney logo appeared on the screen in the same way. For manipulation check, each participant responded to the three items measuring brand-event fit after watching the movie clip. Adapted from Mazodier and Merunka (2012) and Speed and Thompson (2000), the items included “1. I think that the image of the baseball game and the image of the brand are similar,” “2. It makes sense to me that this cooperation advertises in the baseball game,” and “3. The brand and the baseball game fit together well” (1 = completely disagree; 7 = completely agree).

Event Suspense Event suspense was also manipulated in the movie clip. The manipulation was adapted from the study of Su-lin et al. (1997). In the high event suspense condition, a team had a 4-4 tie in the bottom of the 9th inning and a batter is at bat now. In the low event suspense condition, a team was down 0-13 in the bottom of the 9th inning and a batter is at bat now.

Bryant, Comisky, and Zillmann (1981) confirmed that commentary in a sport game can have a certain effect on the degree to which viewers feel suspenseful in the game. Even though they recommended separating the commentary from the video clip in order to exactly manipulate or measure the suspense in a sports game, we included the commentary in the movie clip. The reasons were as follows: First of all, I wanted to provide subjects with a natural and real viewing condition. Second, I concluded from the pretest that the commentary is greatly affected by suspense in the sport match. Supporting this, a pretest confirmed that participants in a high event suspense condition felt more suspenseful than those in a low event suspense condition did even if both conditions included commentary ($F(1,30) = 12.186, p < .005$).

After watching the movie clip, each participant responded to the three items for manipulation check. Adapted from Alwitt (2002), the items

included “1. I felt suspenseful in this game,” “2. I was curious about the result of this game,” and “3. The complexion of this game made me surprised” (1 = completely disagree; 7 = completely agree). All scales exhibited excellent reliability (Cronbach’s alpha > .86). Confirmatory factor analysis was employed, which produced a single factor score based on the three items with loadings exceeding 0.82 for all items. Accordingly, the three items were aggregated and the mean of them was utilized as the score of event suspense.

After watching the movie clip and being manipulated according to each condition of brand-event fit and event suspense, participants answered an open-ended question. The question required participant to write how the game is progressed in the movie clip. On next page, subjects responded to the items for manipulations check, and then they answered the items relevant to audience confusion and viewers’ attitude toward the sponsor brand.

Audience Confusion Adapted from Schlinger (1979), audience confusion was measured through the three items. These items included “1. It was distracting-trying to follow the game/race and to watch the virtual advertisement,” “2. It required a lot of effort to focus on the game/race due to the advertisement,” and “3. I was so busy watching

both the advertisement and the game/race” (1 = completely disagree; 7 = completely agree). All scales exhibited excellent reliability (Cronbach’s alpha > .90). Confirmatory factor analysis was employed, which produced a single factor score based on the three items with loadings exceeding 0.84 for all items. Accordingly, the three items were aggregated and the mean of them was utilized as the score of audience confusion.

Viewers’ Attitude toward The Sponsor Brand Adapted from Simmons and Becker-Olsen (2006) and Mazodier and Merunka (2012), viewers’ attitude toward the sponsor brand was measured through the three items. There appeared a sentence stating “To me, the brand being advertised in this game/race is _____”, with the three items “1. Negative / Positive,” “2. Unfavorable / Favorable,” and “3. Bad / Good”. All scales exhibited excellent reliability (Cronbach’s alpha > .94). Confirmatory factor analysis was employed, which produced a single factor score based on the three items with loadings exceeding 0.90 for all items. Accordingly, the three items were aggregated and the mean of them was utilized as the score of viewers’ attitude toward the sponsor brand.

Other Measurements Participants also answered some additional items. First of all, subjects indicated whether or not they already knew the result of the game before watching the movie clip. I employed this question in order to eliminate the possibility that the manipulation on event suspense does not make an effect as intended. Second, demographic information such as age and sex was collected. Finally, participants wrote in an open-ended question what the real intention of the experiment would be. With all things above completed, the main experiment was finished.

4.4 Result

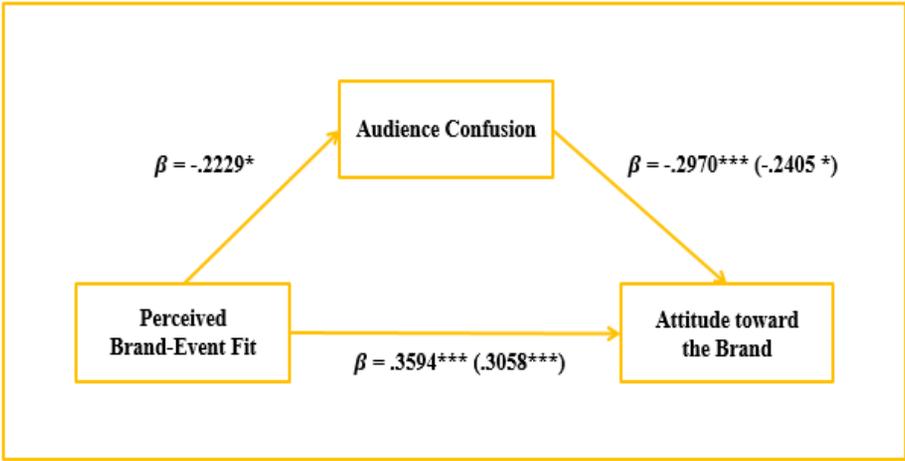
Manipulation Check The result showed that brand-event fit and event suspense were successfully manipulated. As expected, the subjects in high brand-event fit condition perceived the fit between the baseball game and Nike as higher than those in low brand-event fit condition did ($M_{Nike} = 4.35$, $SD = 1.43$ vs. $M_{Disney} = 2.27$, $SD = 1.25$; $t(113) = 8.69$, $p < .001$). Moreover, the subjects in high event suspense condition perceived the baseball game as more suspenseful than those in low event suspense condition did ($M_{High\ Suspense\ Condition} = 4.37$, $SD = 1.75$ vs. $M_{Low\ suspense\ condition} = 1.86$, $SD = 0.97$; $t(110) = 10.29$, $p < .001$).

Main Effect Analysis The first hypothesis in the present study was related to the effect of brand-event fit in virtual advertising on viewers' attitude toward the sponsor brand. Specifically, I proposed that perceived fit between a sports match and a sponsor brand included in virtual advertising relates positively to viewers' attitude toward the sponsor brand. As expected, a significant main effect of brand-event fit in virtual advertising appeared on viewers' attitude toward the sponsor brand ($F(1,129) = 14.065, p = .000$). Nike in high brand-event fit condition was perceived as more favorable than Disney in low brand-event fit condition ($M_{Nike} = 4.99, SD = 1.80$ vs. $M_{Disney} = 3.85, SD = 1.66$). This result supported hypothesis 1.

Mediating Effect Analysis The second hypothesis in the present thesis was related to the mediating role of audience confusion in the main causal relationship. Concretely, I proposed that in virtual advertising context, the higher the level of brand-event fit, the less confused viewers will feel, and the level of audience confusion will relate inversely to viewers' attitude toward the sponsor brand.

To test this hypothesis, I tested the role of audience confusion as the mediator, following the procedures Baron and Kenny (1986) recommended, for the three performance measures in all conditions.

First, regressing viewers' attitude toward the sponsor brand on brand-event fit showed that brand-event fit relates positively to viewers' attitude toward the sponsor brand ($\beta = .3594$, $p < .001$). Second, regressing audience confusion on brand-event fit indicated that brand-event fit relates inversely to audience confusion ($\beta = -.2229$, $p < .05$). Third, audience confusion related inversely to viewers' attitude toward the sponsor brand ($\beta = -.2970$, $p < .001$). Fourth, regressing viewers' attitude toward the sponsor brand on both brand-event fit and audience confusion resulted in a significant effect of both brand-event fit ($\beta = .3058$, $p < .001$) and audience confusion ($\beta = -.2405$, $p < .005$). Therefore, the effect of brand-event fit on viewers' attitude toward the sponsor brand was partially mediated by audience confusion (see Figure 2).



< Figure 2. Audience Confusion as the Mediator >

Additionally, the mediating effect of audience confusion was tested with bootstrapping samples (Hayes 2012; 5000 Bootstrapped samples; PROCESS SPSS Macro Model 4). Brand-event fit, audience confusion, and viewers' attitude toward the sponsor brand were established as independent, mediating, and dependent variables respectively. The result showed that the effect of brand-event fit on viewers' attitude toward the sponsor brand was partially mediated by audience confusion [Route of main effect: $\beta = .3594, p < .001$, Route of mediating effect: $\beta = -.3058, p < .001$]. Based on these results, hypothesis 2 was successfully supported.

Moderated Mediation Effect Analysis The third hypothesis in the present thesis was related to the moderating role of event suspense. Specifically, the present thesis proposed that when a level of event suspense is high (vs. low), a low level of brand-event fit will cause even greater audience confusion. To verify this hypothesis, the moderated mediation effect of event suspense was tested with bootstrapping samples (Hayes 2012; 5000 Bootstrapped samples; PROCESS SPSS Macro; Model 7). Brand-event fit, audience confusion, event suspense, and viewers' attitude toward the sponsor brand were established as independent, mediating, moderating and dependent variable respectively. The result showed that the index of moderated

mediation effect is .003 and the confidence interval included zero (index=.003, 95% CI [-.0239, 0.0397]). Accordingly, hypothesis 3 was not supported.

4.5 Discussion

Through the three pretests and one main experiment, the present research confirmed that perceived fit between a sports match and a sponsor brand included in virtual advertising relates positively to viewers' attitude toward the sponsor brand. Specifically, Nike was perceived as fit with Korean professional baseball game more than Disney, which in turn made viewers' attitude toward Nike more favorable than that toward Disney even though the two brands were perceived as equally favorable in the previous brand attitude. Additionally, this main effect was partially explained by audience confusion. Specifically, brand-event fit related inversely to audience confusion, which also related inversely to viewers' attitude toward the sponsor brand. Accordingly, hypothesis 1 and 2 were successfully supported.

However, hypothesis 3 was not supported. The present thesis proposed that when a level of event suspense is high (vs. low), a low level of brand-event fit will cause even greater audience confusion. But, contrary to my hypothesis, event suspense had no direct effect on

viewers' attitude toward the sponsor brand, and it did not interact with a high level of brand-event fit.

The reason is likely that subjects in high event suspense condition did not feel suspenseful in the movie clip, or that they did not concentrate on watching the movie clip although they felt suspenseful in the game. In the main experiment, the game score appeared on the screen. In Sulin et al (1997)' study, subjects felt suspenseful just by seeing the score difference between two teams, so I predicted that subjects in this study also will be able to feel suspenseful in the very same way.

However, in a follow-up interview, many subjects told me that they watched the movie clip and answered the questions on mobile phone and in noisy places. In addition, they mentioned that they used the jump button and watched the video intermittently. Finally, many subjects mentioned that they could not concentrate on the movie clip because the two teams in the movie clip were not the ones they like. These factors may have worked against finding support for the third hypothesis. Therefore, future research needs to control for these factors in advance before conducting an experiment.

5. Conclusion

The objective of the present research was (1) to examine the causal relationship between brand-event fit in virtual advertising and viewers' attitude toward the sponsor brand, (2) to grasp the underlying mechanism of the relationship, and (3) to explore a moderator for the proposed effect, namely event suspense. The three pretests and one main study demonstrated that in virtual advertising context, brand-event fit relates positively to viewers' attitude toward the sponsor brand, and that this main effect was partially explained by audience confusion. This finding provides scholars and practitioners in the field with various theoretical and practical implications.

Theoretical Implications First of all, the present research proposes that the effect of “fit” construct may be universal. Mazodier and Merunka (2012) demonstrated that in paper advertisement contexts, a high level of perceived fit relates positively to spectators' attitude toward the sponsor brand. The present thesis successfully applied the brand-event fit construct into virtual advertising context.

Second, the present thesis contributes to virtual advertising literature. Specifically, it provides virtual advertising literature with a new insight

into the impact of audience confusion on viewers. Scholars have pointed out that virtual advertising prevents viewers from watching sports events as it makes viewers confused (Breuer and Rumpf 2012; Kim et al. 2004; Moon 2002). However, little research has investigated the impact of audience confusion stemming from animated virtual advertising stimuli on viewers' attitude toward the sponsor brand. The present research proves that in virtual advertising context, audience confusion negatively affect viewers' attitude toward the sponsor brand.

Finally, the present research provides fruitful avenues for future research. To begin with, future research needs to find other consumer-related variables affected by virtual advertising. Most research in virtual advertising literature has mainly focused on the effect of virtual advertising on consumer recognition (Breuer and Rumpf 2012, 2015; Tsuji et al. 2009; Kim and Lee 2011; Lee et al. 2010; Lee, S, Lee, H, and Sin 2011; Ha, Lim and Han 2012). The present thesis shows that virtual advertising affects viewers' attitude. This means that there would be other consumer-related constructs influenced by virtual advertising. On top of that, future research needs to find other constructs to stop viewers from feeling confused in virtual advertising. The present research shows that brand-event fit can solve the problem.

This proves that there would be other variables to help reduce audience confusion stemming from virtual advertising.

Practical Implications Several implications for practitioners can be drawn from this research. First of all, the results of this research provide broadcasting companies with an opportunity to resolve a dilemma on animated virtual advertising. Compared to other types of virtual advertising stimuli, animated virtual advertising makes viewers more concentrate on the communication content, but at the same time, it makes them more confused. If broadcasting companies take brand-event fit into consideration in advance, they will be able to enjoy the effect of the animated virtual advertising without making viewers confused.

Second, in advertising price negotiation, broadcasting companies should emphasize the effect of virtual advertising and capture an advantageous position. In the main experiment, animated brand logos popped up on the screen five times at regular intervals in the video clip. So, subjects were exposed to animated virtual advertising stimuli just for a total of 25 seconds. But the short exposure successfully changed viewers' attitude toward the sponsor brand. This result implies how powerful the effect of virtual advertising is. Based on this feature,

broadcasting companies will be able to raise advertising unit cost when negotiating with prospective sponsors.

Finally, prospective sponsors should look for and make advertising contracts with the programs possessing a high level of fit with their brands. In the main experiment, the pair of brands (Nike and Disney) which provoke similar levels of brand attitude but different levels of brand-event fit were utilized, so the previous attitude toward these two brands were controlled. But, there emerged the difference in viewers' attitude between two brands after subjects watched the movie clip. Concretely, Nike in high brand-event fit condition was perceived as more favorable than Disney in low brand-event fit condition. This result implies that if prospective sponsors make advertising contracts with the programs fitted with their brands, they will be able to enhance viewers' attitude toward their brand more effectively.

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7. Appendix

Reference: Video Playback

Subjects watched a baseball game for about five minutes according to four conditions across which they were randomly assigned. Before watching the movie clip, subjects read an instruction stating “**This experiment includes a movie clip with sound. Sound is necessary to understand the movie clip. Therefore, please go to an appropriate place and use earphones to listen to the sound.**” After watching a movie clip and thereby being manipulated according to each condition, each participant answered **an open-ended question.** The question required participants to write **for about thirty seconds how the game is progressed in the movie clip.**

	
<p>High Fit * High Suspense</p>	<p>Low Fit * Low Suspense</p>
	
<p>High Fit * Low Suspense</p>	<p>Low Fit * High Suspense</p>

가상광고의 브랜드-이벤트 적합성이 스폰서 브랜드에 대한 시청자의 태도에 미치는 영향

박상철

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스포츠 이벤트에 가상광고가 삽입될 때, 시청자는 스포츠 이벤트와 스폰서 브랜드에 동시에 노출된다. 본 논문은 스포츠 경기에 삽입되는 가상광고의 브랜드-이벤트 적합성이 스폰서 브랜드에 대한 시청자의 태도에 미치는 영향을 연구하였다. 그 결과, 시청자가 느끼는 브랜드-이벤트 적합성이 증가할수록, 시청자는 해당 브랜드에 대해 더 호의적인 태도를 갖게 된다는 것을 확인하였다. 시청자 혼란 정도는 이 관계를 부분적으로 매개하였다. 그러나 조절변수인 이벤트 긴장감의 효과는 확인되지 않았다. 본 연구의 결과는 스폰서 기업과 가상광고를 시행하는 방송사에게 다양한 시사점을 제공한다.

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주요어: 브랜드 태도, 지각된 적합성, 긴장감, 가상광고, 시청자 혼란

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