Make Your Brand Move!
Effects of Animated Brands in a Mobile Game on Consumer Responses

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Abstract

This study examined the effects of animated vs. non-animated brand placed in a mobile game on brand recall and attitudes toward the game and the brand, and tested the mediating role of attitudes toward the game. Findings demonstrated that the use of animated brand generated higher brand recall and more positive attitudes toward the game and the brand. The positive influence of animated brand on attitudes toward the brand was mediated by positive attitudes toward the game. Theoretical and practical implications are discussed.

Key words: animation; attitudes; mobile games; product placement; recall

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With the high penetration of smartphones, it is impossible to imagine our lives without smartphones. Adult smartphone owners in the U.S. use smartphones almost every day to access the Internet or applications (Nielsen, 2016). Among various applications available, games are one of the most popular applications for smartphone users. According to eMarketer (2016), about 69 percent of mobile phone users play mobile games at least once a month in 2016 and 77 percent of them are expected to play mobile games at least once a month in 2020. Current and projected popularity of smartphones and smartphone games coincides with the increase in mobile ad spending from $42.01 billion in 2016 to $65.49 billion in 2019 (eMarketer, 2015a). One of the most often used strategies in mobile advertising is to integrate brands into mobile games (eMarketer, 2015b).

There are several advertising formats to place brands in mobile games, such as banner ads, product placements, and advergames. Previous studies have examined the ways in which products or brands can be effectively placed in games (e.g., Lee & Faber, 2007; Lee, Park, & Wise, 2014; Peters & Leshner, 2013). Scholarly efforts to find effective strategies have been limited to examine the effects of brand location in games (Cauberghe & De Pelsmacker, 2010; Kim, Lee, Hwang, & Jeong, 2016; Lin, 2014) and those of game-product congruity (Gross, 2010; Lee & Faber, 2007; Peters & Leshner, 2013), however.

In an attempt to address the gap in this line of research, this study proposes and tests that the use of animated brands in mobile games would be helpful in generating advertiser-intended outcomes (e.g., Brasel & Hagtvedt, 2016; Cian, Krishna, & Elder, 2014; Guido, Pichierri, Natarajan, & Pino, 2016). When brands are integrated into moving game features (e.g., game characters, point targets), consumers can pay more attention the brands while play the games, and brands can contribute to
enhancing their game experience, resulting in positive consumer responses. Moreover, to better understand the process whereby an animated brand in a mobile game generates positive attitudes toward the brand, this study tests the role of attitudes toward the game as a mediator.

The objectives of this study are (1) to test the effects of animated vs. non-animated brand placed in a mobile game on brand recall and attitudes toward the game and the brand and (2) to examine the mediating role of attitudes toward the game in the positive effects of animated brand in the mobile game on attitudes toward the brand. In doing so, this study would contribute to research on product placement and mobile games, especially for games incorporating animated brands, and provide practical implications for both advertisers and game developers.

**Literature Review**

**Brand in mobile games**

Brands appear in online games in a variety of ways, such as banner ads, product placement, and advergames. With the increased popularity of different brand placement strategies in online games, researchers have investigated the effects of those strategies (e.g., location) on consumer responses (e.g., Lee & Faber, 2007; Lee et al., 2014; Peters & Leshner, 2013; Robinson, Wysocka, & Hand, 2007; Yeu, Yoon, Taylor, & Lee, 2013). For example, Yeu et al. (2013) found that the existence (vs. non-existence) of banner ads in online games was more likely to generate players’ message recall. Lee and Faber (2007) found that placing products in the focal location in online games was more likely to improve brand awareness than peripheral
location.

Considering the high penetration rate of smartphones and the popularity of mobile games (eMarketer, 2016; Nielsen, 2016), scholarly and industry attention has been paid to mobile phones as a promising platform to promote brands (Kim et al., 2016; Lin, 2014). In addition, there are several characteristics making mobile media unique. First of all, unlike other mass media, mobile phones are considered personal media (Lüders, 2008). Mobile media are also characterized as ubiquitous media, indicating that consumers can use mobile phones without any restrictions of time and spaces (Barnes & Huff, 2003). Additionally, it is easy for mobile phone users to access the Internet and download various applications, including games, at anytime and anywhere (Leung & Wei, 2000; Wei & Lo, 2006). Finally, the entire screen of mobile phones can be in mobile phone users’ primary attention field because of their smaller screen size, as compared to tablets and laptops (Hou, Nam, Peng, & Lee, 2012). Along with these unique characteristics of mobile media, games tend to generate a longer brand exposure times than other traditional media, such as TV or radio, do (Nelson, Keum, & Yaros, 2004). Taken together, it is not surprising that smartphones caught advertisers’ attention to promote their brands.

One of the advantages of promoting brands on mobile games is that consumers’ excitement and positive emotions generated by playing the mobile games could be transferred to brands placed in the mobile games (Kim et al., 2016; Lee et al., 2014; Nelson & Waiguny, 2012; Wise, Bolls, Kim, Venkataraman, & Meyer, 2008). Games are entertainment media, attracting consumers by using various stimulations, such as colors, sounds, visuals, and motions (Nelson & Waiguny, 2012). When playing mobile games, game players feel excited, and they would often find themselves immersing into the game situation (i.e., flow
state) (Csíkszentmihályi, 1990; Fang, Zhang, & Chan, 2013) or being in the game (i.e., telepresence) (Nelson, Yaros, & Keum, 2006). These positive emotions related to the games enable players to evaluate brands promoted during or after playing the games more positively and be more likely to accept the brand messages.

The affect transfer theory or the emotional spill-over explains the aforementioned phenomena (Kim et al., 2016; Lee et al., 2014; Nelson et al., 2006; Nelson & Waiguny, 2012). According to the affect transfer theory, positive emotions generated by the mobile games can be moved to the brands placed in games, contributing to game players’ positive evaluations of the brands (Ham, Yoon, & Nelson, 2016; Waiguny, Nelson, and Marko, 2013).

In sum, mobile games have been considered a promising platform to place brands. Given the entertainment nature of mobile games, brand placements can produce consumers’ positive attitudes toward the brand, resulting from positive experience and emotions generated by playing mobile games (Ham et al., 2016; Waiguny et al., 2013). The following section discusses the use of animated brands as a potentially effective strategy in the context of mobile games and its positive impacts on advertising outcomes.

Animated vs. non-animated brands and their effects on ad outcomes

Animation refers to an “illusion of life in an object” (Brasel & Hagtvedt 2016, p. 640). Motions are an important element in animation (Rieber, 1991; Yoo, Kim, & Stout, 2004) because it can make an objective look like a living creature (Brasel & Hagtvedt, 2016; Morewedge, Preston, & Wegner, 2007; Yoo et al., 2004).
Using the interactive technology, such as plug-ins, JAVA script, Flash, and Shockwave (Lee et al., 2014; Yoo et al., 2004), brands in mobile games can be accompanied by moving game-related features (e.g., game characters, point targets). In this study context, animation is characterized by the use of moving (instead of static) brands in mobile games by incorporating them into moving characters in mobile games.

Previous studies found that animated brands had a positive impact on memory than static brands (Sundar & Kalyanaraman, 2004; Yoo et al., 2004). In the context of banner ads, Yoo et al. (2004) found that animated banner ads showed better recall and explained their finding in that animation required more mental efforts and cognitive capacity (Kahneman, 1973), which in turn, attracted greater attention (Thorson, Chi, & Leavitt, 1992). By conceptualizing animation as the degree of speed, Sundar and Kalyanaraman (2004) found that ads with fast-animated objects were more likely to attract attention than ads with slow-animated objects.

Similarly, animated brands can generate more positive attitudinal outcomes than static brands (Cian et al., 2014; Brasel & Hagtvedt, 2016; Yoo et al., 2004). For instance, Cian et al. (2014) showed that perceived movement of brands generated more positive attitudes toward the brands. Brasel and Hagtvedt (2016) also found that animated brand logos resulted in more favorable attitudes toward the brands than non-animated brand logos.

Games may benefit from animated brands as well. A higher likelihood of animated brands’ attracting game players’ attention can lead players to be more immersed into the game and more likely to enjoy it (Coyle & Thorson, 2001). Additionally, previous studies have noted that positive attitudes toward the platform where brands are placed (e.g., games, movies, or television programs) are an important antecedent of positive attitudes.
toward the promoted brands (Lee et al., 2014; Mau, Kehres, & Silberer, 2008).

Taken together, incorporating brands into moving game features in mobile games makes them animated in games. Animated brands are expected to produce more positive consumers’ cognitive and attitudinal responses both to the game and the brands than static, or non-animated brands.

**Hypotheses**

Animated brands in mobile games tend to attract greater attention, improving memory outcomes, as compared to static brands (Sundar & Kalyanaraman, 2004; Yoo et al., 2004). In addition, an animated brand would contribute to the positive evaluation of the game where the brand is placed and the brand itself (Brasel & Hagtvedt, 2016; Cian et al., 2014; Yoo et al., 2004). Thus, the following three hypotheses are posed:

- **Hypothesis 1:** A mobile game with the animated brand will generate a higher level of brand recall than the game with the non-animated brand.
- **Hypothesis 2:** A mobile game with the animated brand will generate more positive attitudes toward the game than the game with the non-animated brand.
- **Hypothesis 3:** A mobile game with the animated brand will generate more positive attitudes toward the brand than the game with the non-animated brand.

In the context of advergames and in-game advertising research, attitudes toward the game are considered an antecedent of attitudes toward the brand (Lee et al., 2014; Mau et al., 2008).
The use of animated brands would contribute to producing more positive attitudes toward the game, generating more positive attitudes toward the brands (Lee et al., 2014; Mau et al., 2008; Sundar & Kim, 2005). In addition, based on the affect transfer theory perspective, positive experiences resulting from mobile games with animated brands can be transferred to the brands placed in games (Ham et al., 2016; Waiguny et al., 2013). Thus, this study predicts the mediating role of attitudes toward the game in the effects of animated vs. non-animated brand in a mobile game on attitudes toward the brand. Thus, the following hypothesis is posed:

- **Hypothesis 4:** Attitudes toward the game will mediate the effects of animated vs. non-animated brand on attitudes toward the brand.

**Method**

This study conducted a lab experiment using two mobile pinball game conditions. In the animated brand condition, the brand was placed on moving characters in the pinball game. In contrast, in the non-animated brand condition, the brand was placed on fixed bumpers in the game.

**Participants**

A total of 80 undergraduate students enrolled in a large Midwestern university were recruited by using a convenience sampling method. Given that 18- to 35-year-olds, which include the college student population, are the most avid gamers (eMarketer, 2015c), they were considered to be an appropriate sample in this
Participants were randomly assigned to one of the two conditions: (1) the animated brand condition \((n = 40)\) and (2) the non-animated brand condition \((n = 40)\). The average age of the total sample was 21.71 \((SD = 2.65)\). Males (51.2 percent) slightly outnumbered females (48.8 percent). Most of the participants were Caucasians (63.7 percent), followed by Asians/Asian Americans (25 percent), mixed race (5 percent), African-Americans (3.8 percent), Hispanics (1.3 percent), and Native Americans (1.3 percent).

**Experimental stimuli**

Two different types of mobile pinball game were created by the researcher. The game is similar to typical pinball games where game players move the ball to hit the objects in the game to earn scores. As a stimulus brand, this study used a German candy brand, Pulmoll, which is unknown to the U.S. market. A candy brand was selected because it looked similar to a ball used in typical pinball games. The animated brand condition is created by placing the brand on five moving characters in the game, whereas the non-animated brand condition is created by having the brand appear in five different spots in the middle of the game field. The screenshots of two experimental games are presented in Appendix. If participants hit the brand by using the ball, they would earn scores. To control for extraneous factors other than the brand’s animatedness, the brand appeared in the middle of the game in both conditions, and both games used the same background music and promoted the same candy brand.

**Experimental procedure**

Those who agreed to participate in this study were invited to come to a research lab where the experiment was conducted. The
identical experimental procedure was used for all participants in order to control for extraneous factor. First, upon arriving at the research lab, participants were seated in front of a computer and told that they would be participating in a study about the effects of brand placement in a mobile game. Participants were given a smartphone prepared by the researcher and were instructed to put headphones on and played the game for seven minutes. Immediately after playing the game, participants were directed to an online survey to answer questions.

**Measurements**

Brand recall was measured by asking participants to write the brand name appeared in the game. Two independent coders who were blind to the two experimental conditions coded the brand name participants recalled. If participants correctly listed the promoted brand or if it was slightly misspelled, the response was coded as correct (“1”). Incorrect responses included a no or wrong response (“0”). Scott’s $\pi$ showed the perfect inter-coder reliability.

Attitudes toward the game were measured by using Lee et al.’s (2014) seven 7-point semantic differential scales. The items included: “bad – good,” “not interesting – interesting,” “not attractive – attractive,” “unpleasant – pleasant,” “not likable – likable,” “depressing – refreshing,” and “not enjoyable – enjoyable.” The inter-item consistency was acceptable, and the responses were averaged across the seven items (Cronbach’s $\alpha = .90$, $M = 4.83$, $SD = .97$).

Attitudes toward the brand were measured by using five 7-point semantic differential scales (Lee et al. 2014; Spears & Singh, 2004). The items included: “bad – good,” “unappealing – appealing,” “unfavorable – favorable,” “unpleasant – pleasant,”
and “unlikable – likable.” The inter-item consistency was acceptable, and the responses were averaged across the five items (Cronbach’s $\alpha = .93, M = 4.26, SD = 1.06$).

Several potential confounding variables were measured. First, attitudes toward mobile games in general were measured by using seven 7-point semantic differential scales (MacKenzie, & Lutz, 1989). The items included: “bad – good,” “negative – positive,” “unfavorable – favorable,” “unpleasant – pleasant,” “harmful – beneficial,” “not useful – useful,” and “worthless – valuable” (Cronbach’s $\alpha = .91, M = 4.62, SD = 1.13$). Perceived game difficulty was measured by a 7-point semantic differential scale, ranging from one (“very easy to play”) to seven (“very difficult to play”) ($M = 2.01, SD = 1.34$) (Lee et al., 2014). Frequency of playing mobile games was measured by a 7-point semantic differential scale, ranging from one (“rarely”) to seven (“very often”) ($M = 3.08, SD = 2.08$). Hours spent to use mobile phones weekly and to play games in general and mobile games in particular weekly were measured by asking participants to write number of hours. Brand familiarity was measured by using three 7-point semantic differential scales (Simonin & Ruth, 1998). The items included: “not at all familiar – extremely familiar,” “definitely do not recognize – definitely recognize,” and “definitely have not heard of it before – definitely have heard of it before” (Cronbach’s $\alpha = .82, M = 1.67, SD = .86$). Finally, demographics, such as gender, age and race were measured.

**Results**

**Randomization check**

Before testing hypotheses, a series of chi-square tests and ANOVAs
was performed to examine potential confounding variables, including attitudes toward mobile games in general, perceived game difficulty, frequency of playing mobile games, hours spent to use mobile phones weekly and to play games in general and mobile games in particular weekly, brand familiarity, and demographics. As shown in Table 1, none of these variables were significantly different between the two experimental conditions. Thus, no covariate was included in testing hypotheses.

**Correlation analyses and hypotheses testing**

Prior to testing hypotheses, the correlations between the key outcome variables (i.e., brand recall and attitudes toward the game and the brand) were obtained (see Table 2). Three variables

| Table 1. Results of ANOVAs and Chi-square Tests of Potential Confounding Variables Across Two Experimental Conditions |
|-------------------------------|---|---|---|
| Variables                     | df  | F / Chi-square | p   |
| Attitudes toward mobile games in general | 1, 78 | .18 | .68 |
| Perceived game difficulty     | 1, 77 | .11 | .75 |
| Frequency of playing mobiles games | 1, 78 | .10 | .75 |
| Hours spent to use mobile phones (weekly) | 1, 78 | .05 | .83 |
| Hours spent to play games (weekly) | 1, 78 | 1.75 | .19 |
| Hours spent to play mobile games (weekly) | 1, 77 | 2.03 | .16 |
| Brand familiarity             | 1, 78 | .31 | .58 |
| Age                           | 1, 73 | .00 | .99 |
| Gender†                      | 1   | 1.25 | .37 |
| Race†*                       | 1   | .49  | .64 |

† chi-square test.
* Race was recoded as Whites and non-Whites.
were significantly and positively correlated in that brand recall was positively associated with attitudes toward the game \( (r = .33, p < .01) \), and attitudes toward the brand \( (r = .41, p < .01) \) and attitudes toward the game was also positively related to attitudes toward the brand \( (r = .57, p < .01) \).

**H1: The positive effect of animated brand on brand recall.**

A chi-square test was conducted to test the difference in brand recall between the animated and non-animated brand conditions. As predicted, 42.5 percent of participants in the animated brand condition correctly recalled the brand, whereas 10 percent of participants in the non-animated brand condition showed the correct brand recall \( (df = 1, \chi^2 = 10.91, p < .01) \). This indicates that the animated brand placed in the mobile game generated higher brand recall than the non-animated brand. Thus, H1 was supported.

**H2: The positive effect of animated brand on attitudes toward the game.**

A one-way ANOVA was performed to examine the difference in attitudes toward the game between the animated and non-animated brand placed in the mobile game. In consistent with H2, individuals who played the animated brand condition \( (M = 5.20, SD = .77) \) showed more positive attitudes toward the game.

<table>
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<th>Table 2. Correlations between the Key Outcome Variables</th>
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<td>1. Brand Recall (correct recall coded high)</td>
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<td>2. Attitude toward the game</td>
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<td>3. Attitude toward the rand</td>
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**p < .01.**
than those who played the non-animated brand condition \((M = 4.47, SD = 1.02)\) \([F(1, 78) = 13.28, p < .01, \text{ partial } \eta^2 = .15]\). Thus, H2 was supported.

**H3: The positive effect of animated brand on attitudes toward the brand.**

A one-way ANOVA was performed to examine the difference in attitudes toward the brand between the animated and non-animated brand conditions. As predicted, the animated brand condition \((M = 4.68, SD = 1.04)\) generated more positive attitudes toward the brand than the non-animated brand condition \((M = 3.84, SD = .91)\) \([F(1, 78) = 15.03, p < .01, \text{ partial } \eta^2 = .16]\). Thus, the finding provides support for H3.

**H4: The mediating role of attitudes toward the game.**

H4 predicted that attitudes toward the game would serve as the mediator of the positive effects of animated vs. non-animated brand on attitudes toward the brand. A mediation model was employed to test this hypothesis (Hayes, 2013). By using an SPSS macro, PROCESS (i.e., a nonparametric sampling procedure) (Mallinckrodt, Abraham, Wei, & Russell, 2006; Preacher & Hayes, 2008), this study tested the indirect effects by using a bootstrap analysis. In other words, based on the original sample of 80 participants, a bootstrap sample of 80 participants with replacement was generated. The indirect effects were calculated with this set of bootstrap sample and repeated with 5,000 samples to generate parameter estimates.

As shown in Figure 1, the animated brand had positive effects on the mediator, attitudes toward the game \((B = .74, SE = .20, p < .01)\), and the dependent variable, attitudes toward the brand \((B = .85, SE = .22, p < .01)\). Additionally, attitudes toward the game positively influenced attitudes toward the brand \((B =
As shown in Table 3, the indirect effect of the animated (vs. nonanimated) brand on attitudes toward the brand through attitudes toward the game, was significant (B = .39, SE = .14, lower level confidence intervals = .17, upper level confidence intervals = .74), while the direct effect of the animated (vs. non-animated) brand on attitudes toward the brand (B = .45, SE = .11, p < .01).
SE = .21, p < .05, lower level confidence intervals = .04, upper level confidence intervals = .86) was reduced. That is, the animated (vs. non-animated) brand generated more positive attitudes toward the brand, which was partially mediated by more positive attitudes toward the game in response to the animated brand condition. Thus, H4 was partially supported.

**Discussion**

In an attempt to advance the research stream of product or brand placement in mobile games, this study proposes the use of animation as an effective strategy to generate advertiser-intended outcomes. Findings showed that animated brands generated higher brand recall and more positive attitudes toward the game and the brand. This finding is consistent with previous studies testing the effects of animated brands in the interactive media on consumer responses (e.g., Brasel & Hagtvedt, 2016; Cian et al., 2014; Sundar & Kalyanaraman, 2004; Sundar & Kim, 2005; Yoo et al., 2004). The findings indicate that the animated brands play an important role in attracting game players’ attention, generating in higher brand recall. Additionally, the positive effects of animation on attitudinal outcomes suggest that both the promoted brand and the game where the brand was placed can benefit from the use of animation (Cian et al., 2014; Sundar & Kim, 2005; Yoo et al., 2004).

The positive effect of animated brand on brand recall can be understood by the limited capacity model of attention (Kahneman, 1973; Lang, 2000, 2006). This model posits that individuals’ mental ability and cognitive resources are limited at a given moment because they are allocated to all ongoing mental activities. Individuals may actively distribute their cognitive
resources to activities (Kane, Bleckley, Conway, & Engle, 2001), or they may automatically pay attention to certain activities (e.g., moving objects) (Lang, 2006). As the brand was placed on the moving characters in the animated brand condition of this study, a larger amount of cognitive resources would have been allocated to the brand for those who were in the animated (vs. non-animated) brand condition, resulting in higher brand recall.

This study also demonstrated that attitudes toward the game partially mediated the served as the mediator of the positive effect of animated vs. non-animated brand on attitudes toward the brand. As the affect transfer theory suggested that positive emotions resulting from playing games could be transferred to positive brand attitudes (Ham et al., 2016; Waiguny et al., 2013), the finding of this study indicates that the inclusion of animated brands in games could make the game more enjoyable. Additionally, as some previous studies suggested (Lee et al., 2014; Mau et al., 2008; Sundar & Kim, 2005), this study showed that attitudes toward the game could partly explain the positive effects of animated brand on attitudes toward the brand.

The concept of animation is particularly applicable and relevant to the digital entertainment media, such as in-game advertising or advergames. In-game advertising or advergames are designed to generate positive ad outcomes by increasing consumer engagement and actively building a relationship with consumers (Lee et al., 2014), unlike traditional advertising, which is a more passive form of communication. In this sense, the use of animation in product or brand placement in mobile games allows game players to interact with the brands, develop attachment to them, and ultimately generates positive consumer responses, while they enjoy playing the game.

This study extends the scope of research on product or brand placement in games. Prior research in this stream was in
the context of either advergames (Gross, 2010; Lee et al., 2014; Peters & Leshner, 2013) or in-game advertising (Lee & Faber, 2007; Lin, 2014; Nelson et al., 2004). Despite of the increased popularity of using mobile games among advertisers, little empirical research has examined different product or brand placement strategies on consumer responses in the context of mobile games, except for a few studies (e.g., Kim et al., 2016). Thus, this study advances this line of research by examining the effects of the animated vs. non-animated brand in a mobile game on consumer responses.

The smaller screen size of mobile phones, as compared to tablets, laptops, and televisions, can maximize the positive influence of animated brands on consumer responses (Hou et al., 2012). This is because a wider portion of mobile phone (vs. tablet, laptop, or television) screens is assumed to be included in consumers’ primary attention field. As the use of animation itself is an effective strategy to attract consumers’ attention, placing animated brands in mobile games is expected to generate most desirable outcomes as compared to placing them in video games available in tablets, laptops, or game consoles.

The positive impact of animated brands on memory outcome provides important implications. As motion is an important element in animation (Rieber, 1991; Yoo et al., 2004), animated brands in games naturally have the ability to cover a wider game field than static brands. This indicates that the positive influence of animated brands on memory may be explained not only by greater attention to animated (vs. non-animated) brands, but also by repetition effects. Prior research on repetition effects on brand memory has mainly focused on the number of times consumers are exposed to the brands (Burke & Srull, 1988; Yaveroglu & Donthu, 2008). In the context of mobile games, however, repetition could be conceptualized as
the number of times brands re-occupy the primary attention field of the screen. In doing so, future research on the effects of animated brands on consumer responses in mobile games could potentially advance the conceptualization of repetition effects on brand memory.

Attitudes toward the game being the partial mediator of the effects of animated vs. non-animated brand on attitudes toward the brand provides implications for game developers. Prior research on in-game advertising or advergame has mainly focused on consumers’ attitudes toward the brand, and thus little attention has been paid to attitudes toward the game (e.g., Cauberghe & De Pelsmacker, 2010). The core finding of this study, however, suggests that both games and brands can benefit from animated brand placement. In this sense, game developers are also advised to be aware of the positive effects of selling their games to advertisers who would like to place their brands in an animated format.

This study provides practical implications for advertisers and game developers. First, as mentioned earlier, advertisers are advised to place their brands on moving objects in mobile games to attract greater attention and ultimately enhance memory based on the limited capacity model of attention (Kahneman, 1973; Lang, 2000, 2006). Additionally, game developers should be aware of the fact that placing animated brands in mobile games contributes to consumers’ positive evaluation of their games as well. Consequently, game developers are advised to incorporate animated brands into moving objects in their games. This would also help the promoted brands to be evaluated positively, which indicates that the use of animated brands in mobile games can benefit both advertisers and game developers.

This study has some methodological limitations. The findings of this study are based on the college student sample.
Although college students frequently play mobile games, they do not represent the population. Participants found the pinball game used in this study fairly easy. Given that perceived game difficulty plays an important role in ad-related and game-related outcomes (Waiguny, Nelson, & Terlutter, 2012), future researchers are encouraged to test the effects of animated vs. non-animated brands on consumers’ cognitive and attitudinal outcomes in a more difficult game context.

Despite some methodological limitations, this study suggested an effective strategy for product or brand placement in mobile games, which is the use of animated brands. Animated brands are expected to produce positive consumer responses, such as brand recall and attitudes. The use of animation in product or brand placement can also have a positive impact on a game where the brand is placed. Future researchers are encouraged to consider other variables along with animated brands, such as product involvement (e.g., Yoo et al., 2004) and consistency between brands and companies’ dynamism (vs. stability) (Brasel & Hagtvedt, 2016). For example, Yoo et al. (2004) found that the effects of animation on ad recall and attitudes toward the ad were more prominent when product involvement was high. In addition, Brasel and Hagtvedt (2016) found that animated brand logos generated more positive attitudes toward the companies when consumers expected the companies to be dynamic (vs. stable). As such, a fruitful avenue for future research is to find the boundary conditions under which the effects of animated brands on consumer responses in mobile games vary.
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Appendix

The Screenshots of Two Experimental Mobile Games

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<th>The animated brand condition</th>
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<td><img src="image" alt="Animated brand condition" /></td>
<td><img src="image" alt="Non-animated brand condition" /></td>
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