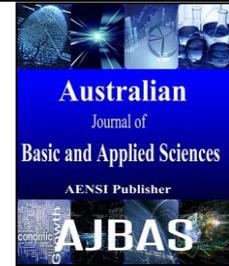




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The Impact of Character Presence and Entertainment Value on Brand Recall and Brand Attitude in Advergame

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ABSTRACT

Background: The increase of online advertising, in particular advergame, has become popular method in strengthening consumer brand recognition by inserting attractive characters and entertainment value. Studies on using spokes-characters in advertising effectiveness had showed convincing result in marketing communication. However, few studies have examined the link between character presence and consumers' brand recall and attitude in advergame. Moreover, how the entertainment value of an advergame influences brand recall and brand attitude and the mediating role of brand recall in influencing character presence and entertainment on brand attitude are still lacking in the advergame literature. **Objective:** This paper examines the influence of character presence and entertainment on brand recall and brand attitude in advergame. **Results:** Using structural equation modeling, the results showed that character presence had no influence but entertainment value had a positive influence on brand recall and brand attitude. This study confirmed the role of brand recall as a mediator of the effect of between entertainment and brand attitude in advergame. **Conclusion:** This study fills the gap of the relationship between character presence and entertainment on brand recall and attitude in advergame.

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INTRODUCTION

In recent years, advergames have been used by companies to promote their new and existing products. Aggressive marketers placing their brands in interactive tools such as games to build product awareness and strengthen brand association. It is a cross between advertising and computer games, 'advergaming' combines the word 'advertising' and 'video games' (Choi and Lee, 2012). Advergame also refers to product-related messages from companies which are embedded in the form of game pieces, hidden treasures and other game components (Nelson, 2002; Neuborne, 2001). Advergame can be utilized as a 'free of charge' of place to play and explore (Morton and Friedman, 2002).

Although several studies have explored spokes-characters in advertising effectiveness (Choi and Lee, 2012; Neely and Schumann, 2004; Mizerski, 1995; Percy and Rossiter, 1992; Callcott and Phillips, 1996; Garretson and Niedrich, 2004), few studies have analyzed the impact of character presence on consumers' brand recall and attitudes in advergames

(for example, Choi and Lee, 2012). Previous studies investigated the impact of spokes-character features on brand attitude (Garretson and Niedrich, 2004), but the impact of the character presence on brand-related cognition is still lacking. Other less examined issues include how entertainment value influences brand recall and brand attitude in advergames as well as the mediating role of brand recall in influencing character presence and entertainment on brand attitude. This study expects to fill these gaps. The primary purpose of this study is to examine the effect of gamers' perceptions of the importance of character presence and entertainment value in influencing their brand recall and brand attitude in advergames. Specifically, this study attempts to determine the effects of brand recall as a mediator in linking both character presence and entertainment and brand attitude in advergames.

Literature review:

Character Presence:

Spokes-characters are defined as *animate beings or animated objects that are used to promote a*

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product, service, or idea (Phillips and Lee, 2005). They are used to transfer the positive effect they induce to the brands they endorse (Choi and Lee, 2012) and ultimately help marketers establish an emotional relationship between the brand and the consumer. Many online marketers use animated characters in advergames to make the games more interesting and entertaining (Choi and Lee, 2012).

The use of characters or spokes-characters to influence consumer behavior towards purchase intention has been utilized specifically with a certain consumer age group. A study by Lapierre *et al.* (2011) found that licensed media spokes-characters on food packaging and nutrition cues affected young children's subjective taste assessments of the products. Advertisements containing an animated spokes-character generated high levels of attention, character recognition and partiality, as well as product recognition and liking (Neely and Schumann, 2004). In online video games, a significant correlation exists between character presence and product type on both brand attitude and purchase intention (Choi and Lee, 2012). The attractiveness of the characters in games is measured by using an audiovisual cue. The use of audiovisual message presentations can result in more attention and recognition building among young consumers (Neely and Schumann, 2004). Previous studies have investigated the impact of spokes-character features on brand attitudes (Garretson and Niedrich, 2004) but not on the impact of the character presence on brand-related cognition. In the present study, character presence is expected to increase gamers' brand recall and ultimately improve their attitude towards the brand. Therefore, we expect:

H1: The higher the character presence in advergames, the higher the level of brand recall

H2: The higher the character presence in advergames, the higher the level of brand attitude

Entertainment:

Entertainment is a component of Internet advertising. Internet advertising has become increasingly aggressive in recent years; advertisers strive to be more creative, targeted and effective (Mangalindan *et al.*, 2004). In a game, advertising is creatively placed by combining animation elements and games to persuade audiences to play. In purchase behavior, because consumers not only purchase toys, but are also entertained while in the store, this type of advertising will extend consumers' purchasing experiences to complementary entertainment, which may both keep them in the store longer and stimulate sales (Kim *et al.*, 2007). In advergames, the change in brand attitude attributable to game enjoyment is stronger for product-relevant advergames than for product-irrelevant ones (Wise *et al.*, 2008).

The entertainment aspect of advergames is an important source of value for gamers that is expected to reflect an advergames' ability to enhance the

gamers' experience. Uses and gratification research indicate that the entertainment value of a commercial exchange lies in its ability to fulfill the audience's needs for escapism, diversion, aesthetic enjoyment, or emotional release (Ducoffe, 1996). In advertising value, Ducoffe (1995) introduced perceived informativeness, perceived entertainment, and perceived irritation to influence user attitude toward a communications message in the traditional media.

Ducoffe (1995, 1996) finds a significant positive relationship between entertainment and advertising value in traditional media and in Web advertising. A study of SNS users' perceptions of SNS advertisements as being entertaining and positive would influence their attitudes toward advertising appearing on the same advertising platform (Taylor *et al.*, 2011). Perceived entertainment has been identified as a determinant that influences consumer attitudes toward advertising in electronic commerce (Gao and Koufaris, 2006; Brackett and Carr, 2001). In advergames, entertainment is the main driver of brand attitude (Martí-Parreño *et al.*, 2013). Therefore, we expect:

H3: The higher the entertainment value in advergames, the higher the level of brand recall

H4: The higher the character presence in advergames, the higher the level of brand attitude

Brand Recall and Brand Attitude:

Many authors have argued that the use of advergaming is more persuasive than traditional advertising, especially on young children (Pavlov and Stewart, 2000). This argument is supported by Nelson's (Nelson, 2002) study on familiar brand and non-familiar brand placement in advergames. Nelson's (2002) findings noted an almost 30 percent brand recall among all respondents, and 90 percent of the sample remembered at least one brand when asked immediately after the game.

Different people might have different experiences and form different perceptions and attitudes. For example, in a study of college students, men were found to be significantly more likely to play video games two or more hours a week and to indicate that video game playing interfered with sleep and class preparation as compared to their female counterparts (Ogletree and Drake, 2007). In terms of brand placement and brand memory, Yang *et al.*, (2006), found that college students overall had low levels of explicit memory (recognition test) for brands, but showed implicit memory (word-fragment test) for the brand names placed in video games. This phenomenon generally leads to a consumer's intention to purchase the product after brand exposure. The probability that a consumer plans to buy a certain brand or product during a certain period of time is established after the consumer has stored relevant information about the purchase decision (Howard and Sheth, 1971).

The impact of brand recall on consumer attitude can be different according to the factors involved in the relationship. It has been confirmed that highly congruent games lead to superior memory for the sponsoring brand in advergames (Gross, 2010). Most scholarly interest in the issue of attitude towards ads results from its theorized relationship with attitude towards the brand (Huang *et al.*, 2013; MacKenzie and Lutz, 1989; MacKenzie *et al.*, 1986). Brand attitude is a necessary communication effect for a brand purchase to occur (Percy and Rossiter, 1992).

In the present study, brand recall is expected to mediate the relationship between character presence and brand attitude in advergames. The higher the character presence in a game, the greater the likelihood a consumer will find the game attractive and will recognize the brand related with the character presence. Consequently, the gamers' brand attitude will improve. We also expect that the entertainment value will increase the level of brand recall in advergames and also influence the attitude towards a brand. Therefore, we expect:

H5: There is a positive effect of brand recall on brand attitude.

H6: Brand recall mediates a positive relationship between character presence and brand attitude in advergames.

H7: Brand recall mediates a positive relationship between entertainment and brand attitude in advergames.

Research method:

This study's scope includes character presence, entertainment, brand recall and brand attitude in advergames. Brand recall was also used as a mediator in this study. The sample for this study was collected through an online survey of gamers in Malaysia. The respondents were contacted and asked whether they were playing video, mobile, or SNS games. Then, the respondents were guided to click on a link to an online questionnaire. If they did not play games, they were asked to refer their game-playing friends to participate in this study. Approximately seventy four percent of the respondents habitually played games a maximum of eight hours per week. A total of three hundred and sixty six respondents were participated in this study. They were contacted through email based on suggestions from friends of the author. Besides personal email invitations, participants were also invited through links placed in social networks such as Facebook.

For this study, a structured online survey questionnaire was designed. There were several reasons for using a survey in this study. First, this study attempted to test a natural viewing environment without using artificial stimuli to test consumer memory. Respondents were asked whether they had experienced in-game advertisements during game playing. Second, this study also examined consumer recall on advertising in general based on consumer experiences in playing games; thus, the questions were adopted and designed to suit this study's particular aims. To test respondents' memory of brands appearing in the games, they were asked to recall those brands without asking them to play the games. This approach was used to encourage the respondents to recall brands they observed in the games in a natural viewing environment. This approach differed from that of most previous advertising effectiveness studies, which used experimental control and artificial stimuli to test a respondent's memory. Third, using an online survey saved the respondent's time in answering the questions. For example, a test was conducted to compare the time spent between online and offline surveys. The results showed that compared with offline surveys, online surveys saved almost half the respondent's time in completing the questionnaires.

The measurements used in this study were adopted from previous studies and were modified to suit the context of this study and survey approach. Character presence measurements were newly developed for the purpose of this study, entertainment measurements were adopted from Ducoffe (1996), brand recall from Morton and Friedman (2002), and brand attitude from Batra and Stayman (1990). All measurements were measured by 5-point Likert scales of "1 = strongly disagree" to "5 = strongly agree".

In total, three hundred sixty six respondents participated in this study and completed an online survey. Table 1 shows the sample profile by gender, age, time spent playing games per week, preferred game mode, preferred game and type of game played referred to when this survey was conducted.

Results:

Measurement Model Testing:

The means, standard deviations, Cronbach's alphas, and correlations among the variables are shown in Table 2. The scale alpha reliabilities for all constructs are above .70 indicating the reliability of each construct.

Table 2: Summary of Mean, Standard Deviation, and Correlations Among the constructs (N=366).

	M	SD	α	1	2	3	4
Entertainment	3.702	0.851	.768	1			
Character presence	4.036	0.641	.836	.470**	1		
Brand recall	3.359	0.869	.766	.307**	.196**	1	
Brand attitude	3.139	0.844	.807	.466**	.221*	.404**	1

** Correlations are significant at 0.01 levels (two-tailed)

*Correlation are significant at 0.05 levels (two-tailed)

CFA analysis was conducted to examine the validity of the measurement model. The overall fit of the CFA as well as structural models were examined using common parameters, namely, chi-square statistics, goodness-of-fit index (GFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA; Hair et al. 2006). As a rule, the recommended cutoff value for GFI, NFI, and CFI is $\geq .90$, and the acceptable threshold level for RMSEA is $\leq .08$ (Hu and Bentler, 1998). The model fit the data relatively well (see Table 3). According to the goodness-of-fit indices ($\chi^2 = 32.723$, $df = 14$, $RMSEA = .061$, $GFI = .943$, $CFI = .984$, $NFI = .972$) from CFA, the measurement model provided evidence of satisfactory fit. Therefore, the fit measure of the model suggested a reasonable fit. Simultaneously, the validity test that covered convergent and discriminant validity were also examined. As shown in Table 2, all AVE were greater than the recommended cutoff point of .5 (Bagozzi and Yi, 1988). This result suggests convergent validity at a satisfactory level. However, the reliability indices were above the recommended thresholds of .60 as suggested by previous formulas (Fornell and Larcker, 1981).

Structural Equation Modeling:

After the overall measurement model was found to be acceptable, the structural equation model was used to examine the relationship between character presence, entertainment, brand recall and brand attitude. The relationship was tested with the entire sample ($N=366$). The results of SEM analysis are shown in Figure 1. The fit indices of the model are summarized in Table 3. The initial structural model suggested that the data fit the model reasonably well. However, one of indices, GFI, suggested that the model needed to be modified further to improve goodness-of-fit. Therefore, model modification was necessary. The fitness indices were shown in Table 3. The measurement model structure failed to fit due to high RMSEA and low GFI value, leading to the removal of the ATT3 factor, which was below .7. After removing this item, the structural model fit was slightly improved. GFI was significantly improved to .9, and RMSEA decreased to .063. To achieve a satisfactory value of model fit, a final structural model was conducted by removing ENT4 and CP3. The final model showed adequate model fitness of ($\chi^2 = 32.723$, $df = 14$, $RMSEA = .061$, $GFI = .943$, $CFI = .972$, $NFI = .984$).

Table 3: The empirical result of brand attitude model with parameter estimate.

Model	χ^2	df	χ^2/df	RMSEA	GFI	NFI	CFI
Measurement model	124.959	38	3.288	.079	.897	.950	.964
Initial structural model	70.403	29	2.428	.063	.930	.967	.980
Final structural model	32.723	14	2.337	.061	.943	.972	.984

Table 4: Summary of Factor Loading, Average Variance Extracted, and Composite Reliability.

Factor/Items	Standardized Factor Loading	Average Variance extracted	Composite Reliability
<i>Character presence</i> CP1: The characters appear in games attracted me to play CP2: Most of characters in games are very attractive	.769 .802	0.718	0.836
<i>Entertainment</i> ENT3: The brand you saw in game is enjoyable ENT5: The brand you saw in game is pleasing	.765 .811	0.654	0.788
<i>Brand recall</i> RE3: I can recall at least one brand placement in the games I played on the following day RE6: When I see a particular brand at a store or supermarket that had appeared in a game, I would think of that placement scene in the game	.778 .666	0.675	0.800
<i>Brand attitude</i> ATT1: The brand you saw in the game is bad/good ATT2: The brand you saw in the game is not lovable/lovable	.669 .808	0.706	0.825

Hypothesis Testing:

The proposed hypotheses were tested using a series of regression analyses using SEM with maximum likelihood estimation. Overall, the estimates of the structural coefficients provided the basis for testing the proposed hypotheses. Hypotheses were tested by examining the

significance level, direction, and magnitude of the standardized estimates of paths that linked independent variables with the dependent variable as well as the mediating variable. Results of the hypotheses testing are summarized in Table 4. Of the five hypotheses tested, H1 (character presence effect brand recall) was not found to be significant at a .05

significant level. This result means that the more interesting the character presence in advergaming, there is no effect on consumer's memory in recalling the brand. The findings therefore indicated support for a positive relationship among H3, H4 and H5, which were significant at .001. However, only H2 (character presence effect brand attitude) was

found to be not significant. To test mediation effects of brand recall, a bootstrapping technique was used. The results showed that both character presence and entertainment had a significant relationship with brand attitude through brand recall at .001. Thus, this result supports H6 and H7.

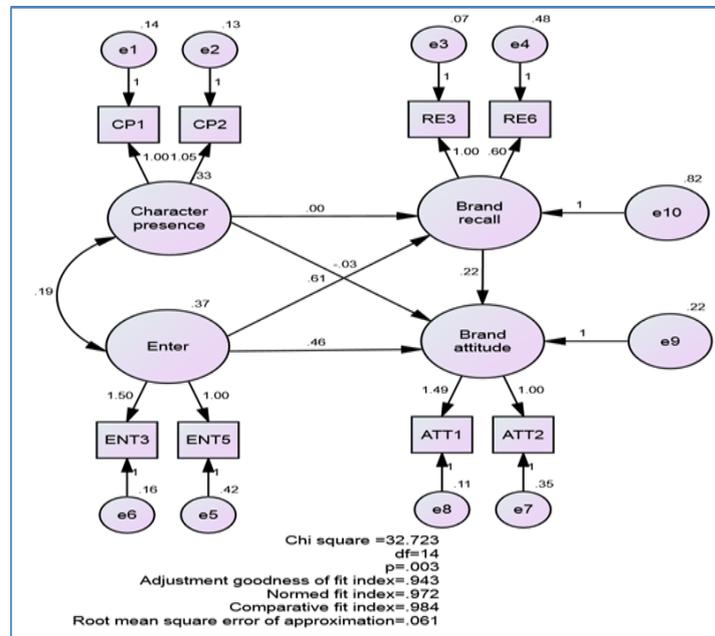


Fig. 1: The Results of Structural Model.

Table 5: Research Results and Hypotheses Testing.

	Estimate	Remarks
H1: Character presence → brand recall	.000	Reject hypothesis
H2: Character presence → brand attitude	-.032	Reject hypothesis
H3: Entertainment → brand recall	.611***	Support hypothesis
H4: Entertainment → brand attitude	.458***	Support hypothesis
H5: Brand recall → brand attitude	.223***	Support hypothesis
H6: Character presence → brand recall → brand attitude	.045	Reject hypothesis
H7: Entertainment → brand recall → brand attitude	.208***	Support hypothesis

***<0.001

Discussion and conclusion:

The focus of this study was to examine the relationship between character presence, entertainment and brand recall on brand attitude in advergaming. The study also examined the moderating role of brand recall between character presence and entertainment factors on brand attitude in advergaming. The findings indicated that character presence has no effect on brand recall and brand attitude. As expected, entertainment has a positive effect on brand recall and brand attitude in advergaming. This study also confirmed that brand recall has a positive effect on brand attitude. Interestingly, brand recall plays as significant a mediating role in this study, which mediates a positive relationship between entertainment and brand attitude.

The presence of characters did not influence gamer's attention in memorizing brand in the advergaming. This may be due to that game character's

role was measured based on their existence in the game without concerning their role solely on promoting the brand or product. This was different with Garretson and Niedrich (2004) which focused the role of characters was created solely to promote a product or brand. In addition, this study found that entertainment determines consumers' brand recall and brand attitude in advergaming. This outcome is possible when the gamers are having fun playing games, and this feeling would automatically influence them to increase their recall of the brand appearing in the game. This finding is consistent with previous studies in which perceived entertainment has been identified as a determinant that influences consumers' attitudes toward advertising in electronic commerce (Gao and Koufaris, 2006; Brackett and Carr, 2001) and as the main driver of brand attitude in advergaming (Martí-Parreño *et al.*, 2013). The present study also found that brand recall influences

brand attitude positively. This result is consistent with MacKenzie *et al.* (1986), who suggested that attitude toward the ad influences brand attitude.

Nevertheless, the present study contributes to the role of character presence in advergames interactive campaigns and the role of brand recall as a mediator in brand attitude. Previous studies investigated the impact of spokes-character features on brand attitude (Garretson and Niedrich, 2004), but the impact of the character presence on brand-related cognition has not yet been investigated. This study addressed this issue empirically. Academically, the relationship between brand recall and brand attitude is well known in advergame research, but the impact of brand recall as an important mediator of brand attitude adds new understanding to the interactive communication literature. This study contributes to filling those gaps in the advergame literature. Methodologically, this study sought to better understanding the importance of using a survey design approach in determining brand recall effectiveness on advertising.

This study examined the impact of character presence and entertainment on brand recall and brand attitude as well as the role of brand recall as mediator in advergame. However, this study had several limitations. First, the respondents were drawn from the researcher's list of friends' social networks due to the time constraints faced while conducting this study. Second, the type of game genre was not specified in the testing of the effects of brand recall and brand attitude and their antecedents on purchase intention, even though the study scope covered three types of popular games played, namely video, mobile and SNS games. A study on a specific game genre would be an interesting research topic for a future study. Finally, this study found no impact of character presence or spokes-character in decreasing brand recall and brand attitude in advergame. Therefore, future research to examine the effects of spokes-characters on other dominant factors would help to better determine the success of an in-game advertising strategy.

REFERENCES

- Bagozzi, R.P. and Y. Yi, 1988. On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16: 74-94.
- Batra, R. and D.M. Stayman, 1990. The role of mood in advertising effectiveness. *Journal of Consumer Research*, 17: 203-214.
- Brackett, L. and B.N. Carr, 2001. Cyberspace advertising vs. other media: consumer vs. mature student attitudes. *Journal of Advertising Research*, pp: 23-32.
- Callcott, M.F. and B.J. Phillips, 1996. Observations: Elves make good cookies: Creating likable spokes-character advertising. *Journal of Advertising Research*, 36: 73-79.
- Choi, Y.K. and J.G. Lee, 2012. The persuasive effects of character presence and product type on responses to advergames. *Cyberpsychology, Behavior, and Social Networking*, 15(9): 503-506.
- Ducoffe, R.H. 1996. Advertising value and advertising on the web. *Journal of Advertising Research*, 36(5): 21-34.
- Ducoffe, R.H., 1995. How consumers assess the value of advertising. *Journal of Current Issues and Research in Advertising*, 17(1): 1-18.
- Fornell, C. and D.F. Larcker, 1981. Evaluating structural equation models with unobserved variables and measurement error. *Journal of Marketing Research*, 18(1): 39-50.
- Gao, Y. and M. Koufaris, 2006. Perceptual antecedents of user attitude in electronic commerce. *The DATA BASE for Advances in Information Systems*, 37(2&3): 42-50.
- Garretson, J.A. and R.W. Niedrich, 2004. Spokes-characters: Creating character trust and positive brand attitudes. *Journal of Advertising*, 33: 25-36.
- Gross, M.L., 2010. Advergames and the effects of game-product congruity. *Computers in Human Behavior*, 26: 1259-1265.
- Grossman, S., 2005. Grand theft oreo: The constitutionality of advergame regulation. *Yale Law Journal*, 115(10): 227-237.
- Hair, J.F., W.C. Black, B.J. Babin, R.E. Anderson and R.L. Tatham, 2006. *Multivariate Data Analysis*. 6th Ed. Upper Saddle River, NJ: Pearson.
- Howard, J.A. and J.N. Sheth, 1971. A theory of buyer behavior. *Journal of Marketing*, 35(1): 467-487.
- Hu, L. and P. Bentler, 1998. *Structural equation modeling: Concepts, issues, and applications*. London, UK: Sage, pp: 76-99.
- Huang, J., S. Su, L. Zou and X. Liu, 2013. Attitude toward the viral ad: Expanding traditional advertising models to interactive advertising. *Journal of Interactive Marketing*, 27: 36-46.
- Kim, Y.K., P. Sullivan and J.C. Forney, 2007. *Experiential retailing: Concepts and strategies that sell*, New York: Fairchild Publications, Inc.
- Lapierre, M.A., S.E. Vaala and D.L. Linebarger, 2011. Influence of licensed spokescharacters and health cues on children's ratings of cereal taste. *Arch Pediatr Adolesc Med*, 165(3): 229-234.
- MacKenzie, S.B. and R.J. Lutz, 1989. An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *Journal of Marketing*, 53: 48-65.
- MacKenzie, S.B., R.J. Lutz and G.E. Belch, 1986. The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, XXIII: 130-143.
- Mangalindan, M., K. Swisher, D. Bank, D.P. Hamilton and D. Clark, 2004. Starting to click: After wave of disappointments, the web lures back

advertisers; New generation of pitches nets data on consumers; Not a mass audience; Getting drivers to showroom. The Wall Street Journal, Eastern edition (February 9): R.3.

Martí-Parreño, J., J. Aldás-Manzano, R. Currás-Pérez and I. Sánchez-García, 2013. Factors contributing brand attitude in advergames: Entertainment and irritation. *Journal of Brand Management*, 20: 374-388.

Mizerski, R., 1995. The relationship between cartoon trade character recognition and attitude toward product category in young children. *Journal of Marketing*, 59: 58-70.

Morton, C. and M. Friedman, 2002. I saw it in the movies: Exploring the link between product placement beliefs and reported usage behavior. *Journal of Current Issues and Research in Advertising*, 24: 33-40.

Neely, S.M. and D.W. Schumann, 2004. Using animated spokes-characters in advertising to young children: does increasing attention to advertising necessarily lead to product preference? *Journal of Advertising*, 33(3): 7-23.

Nelson, M.R., 2002. Recall of brand placements in computer/video games. *Journal of Advertising Research*, 42(2): 80-92.

Neuborne, E., 2001. For kids on the web, it's an ad, ad, ad, and ad world. *Business Week*, 3475(13): 108-109.

Obringer, L.A., 2007. How advergaming works. Retrieved from

Howstuffworks.com.online.<http://www.Howstuffworks.com/advergaming.html>. on 20 February, 2013.

Ogletree and Drake, 2007. College students' video game participation and perception: Gender differences and implications. *Sex Roles*, 56: 537-542.

Pavlov, P. and D. Stewart, 2000. Measuring the effects and effectiveness of interactive advertising: A research agenda. *Journal of Interactive Advertising*, 1(1).

Percy, L. and J.R. Rossiter, 1992. A model of brand awareness and brand attitude advertising strategies. *Psychology & Marketing*, 9(4): 263-274.

Phillips, B.J. and W.N. Lee, 2005. Interactive animation: Exploring spokes-characters on the internet. *Journal of Current Issues and Research in Advertising*, 27: 1-17.

Taylor, D.G., J.E. Lewin and D. Strutton, 2011. Friends, fans, and followers: Do ads work on social networks? how gender and age shape receptivity. *Journal of Advertising Research*, pp: 258-275.

Wise, K., P.D. Bolls, H. Kim, A. Venkataraman and R. Meyer, 2008. Enjoyment of advergames and brand attitudes: The impact of thematic relevance. *Journal of Interactive Advertising*, 9(1): 27-36.

Yang, M., R.R.E. David, D. Lucian and M.A. Laura, 2006. The effectiveness of 'in-game' advertising: comparing college students' explicit and implicit memory for brand names. *Journal of Advertising*, 35(4): 143-152.