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### IMPACT OF ADVERGAMES ON BRAND MEMORY AND BRAND RECALL

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#### ABSTRACT

Advergaming is the delivery of advertising messages through electronic games. Among the various forms of advertising used nowadays, advergames are one of the most influential methods. Advergames are different from others forms of advertising as they involve the customers directly. They impact a person's brand memory and brand recall by affecting their subconscious. In the present study, the authors attempted to find how advergames influence the brand memory and recall of gamers. Customer's memory is affected by gaining positive feelings through positive gaming experiences. For studying cognitive development, it is important to study the effects of memory. The authors also found the prominent factors affecting the brand memory and recall while playing advergames. These factors include brand prominence, arousal, game involvement, persuasion knowledge and game-product congruence. Thus, it can be understood that by manipulating these factors, advergames can be used in a better way for the best possible outcomes for different brands. Brands have been able to successfully position themselves using mobile gaming in western countries. Therefore, Indian marketers also believe that it will be a success among Indian audience as well despite it being a costly investment. This is mainly because it is believed that increase in supply of gaming talent will eventually bring down their costs.

**Keywords-** Advergames, brand memory, brand recall.

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#### 1. Introduction

"Advergaming is the delivery of advertising messages through electronic games" (Hernandez and Chapa, 2010). This technique is a distinctive feature which offers extensive exposure to brands. There is a paucity of literature assessing consumer memory on advergames despite the possibility of it being used as a promotional tool. Therefore, in the coming sections the authors will introduce certain concepts related to advergames which have been discussed by previous authors. As early as the 1980s, product placements appeared in video games but still advergames are an evolved form of product placement where rather than the brand placed in the game, the game itself is centralized

around the brand. These types of marketing tools consist of advertisements and games which is a good means for companies to target audiences in a different way (Toth and Nagy, 2011).

Brand recall is also known as spontaneous recall or unaided recall and refers to the ability of the customers to correctly generate a brand name from memory on being prompted by a product category. There have been several arguments in previous studies regarding the impact of Advergaming on memory and recall. Hernandez and Chapa (2010) found that adolescents chose snacks endorsed in advergaming over other snacks and a positive relationship between liking, enhanced memory and snack choice was also established.

Indian businesses are taking a slow approach towards promotion of their products through gaming. This can be seen through the example of Hindustan Unilever Limited that promoted its Surf Excel Matic detergent and its fabric conditioner named Comfort through an online game "Kheloge to Jeetoge". As a reward the customers receive a certain talk time amount in their phones. With the availability of the games on mobile it becomes easier for the target audience i.e. housewives to access it. Brands have been able to successfully position themselves using mobile gaming in western countries. Therefore, Indian marketers also believe that it will be a success among Indian audience as well despite it being a costly investment. This is mainly because it is believed that increase in supply of gaming talent will eventually bring down their costs.

## 2. Literature Review

**Winkler and Buckner (2006)** through their investigation tried to find the extent to which advergaming made audiences responsive. They also studied attitude towards product placement and how it influenced reception to embedded messages. A total of 80 respondents were included in the study using snowball sampling. This research showed that recall of companies and products was high and that being opposed to advertising in general had a greater influence on attitude towards placement of products in advergaming in comparison to being positive about advertising. The authors also concluded that advergaming worked more efficiently for brands and products that were already known to the game players and that advergaming were more suited to altering and enhancing impression of brands rather than creating awareness of products that were new to the target audience.

**Lee and Faber (2007)** probed the on-line games for product placements that were remembered and noticed using model of attention with limited capacity. Students from mass communications classes who volunteered to participate were included in the study. In total, 155 students participated in on-line games developed professionally. The study suggested that a person's processing of embedded messages was influenced by the placement of messages in the games. In comparison to peripheral placement, the focal product placement led to superior recognition and recall of brands. Findings also demonstrated that the degree of congruity between the game content and the product category of a brand influences brand memory such that in comparison to either moderately incongruent brands or highly congruent brands, highly incongruent brands were better recalled.

**Gross (2010)** tried to find effect on brand memory and attitude because of game-product congruity. A total of 42 respondents participated in the study. The results suggested that for driving brand awareness, advergaming can be used as an effective tool. In order to establish or reinforce brand associations there was a need for congruent games. There was no effect of previous game playing experience on brand memory. It was found that highly congruent games led to superior memory. However, these effects may be negated due to negative attitudes of players towards thematic games with low-involvement.

**Hernandez and Minor (2011)** compared the quantitative and qualitative approaches in context of advergaming to understand the effects on short-term memory due to arousal. An electrocardiogram machine was used to collect the qualitative data during exposure to brand placements and these results were compared with quantitative data. Results of the study suggested that bodily expressions and physiological data produced more genuine results than self-reported data. It was also found that

in comparison to self-reported measures, there was a greater contribution of physiological measures towards memory results and the contribution of the behavioural measures was the least.

**Kinard and Hartman (2013)** used an online experiment that involved advergames associated with television series which suggested that for consumers who lack prior brand experience, playing advergames results in change of behaviour toward the parent brand. Primarily, for encouraging new product trial behaviour, advergames seem to be more effective as a promotional tool. Additionally, when compared to advergames with fewer brand elements, advergames with highly integrated brand elements produced more negative attitudes toward the advergame. Therefore, advergame designers must tactfully balance the usage of brand elements to prompt product trial without being perceived as unnecessary advertising clutter that leads to distraction from the enjoyment of game play.

**Hernandez and Minor (2015)** attempts to study an interactive environment like advergaming in order to find whether a difference exists between recall (correct/false) of brands through retrieving memory. The researchers also aimed to find whether a difference exists between memory of languages based on same script or different scripts. A study was conducted on subject from China, South Korea and Mexico through a series of experiments. It was found that a difference existed among correct and false recall due to the type of script used. There was no superiority among the correct recall by the logographic script group. On the other hand, there was difference among false recall of brands for different script groups.

**Vashisht and Shreejesh (2015)** probed the gamers' brand recall and the effect of strength of brand placement on brand recall moderated by game involvement and experience. Data was collected from 220 gamers who were students of undergraduate programs. Among several important results of the study, firstly, inexperienced gamers reported higher recall rate for prominently placed brands. However, there was no significant difference among experienced gamers for prominently or subtly placed brands. Secondly, inexperienced gamers showing low game involvement with prominently placed brands showed higher brand recall in comparison to the ones with high game involvement. This result supports the relationship between game involvement and brand recall.

**Vashisht and Shreejesh (2015)** researched Indian gamers brand attitude and brand recall depending on the effects of game speed. The conditions studied included varied persuasion knowledge and game-product congruence. The data was collected from 235 graduate students using experimental research. It was found that low game-product congruence in slow paced advergames resulted in high brand recall whereas for a fast paced advergame there was no difference in brand recall for high game product congruence and low game product congruence. Further, it was revealed that for a low game-product congruence with slow-paced advergame, subjects with high persuasion knowledge reported high brand recall and less favourable brand attitude.

**Vashisht and Royne (2016)** studied how brand recall was impacted by consumers' persuasion knowledge, brand placement strength and advergame speed. The study included 300 management students who were asked to play a randomly selected game for 10 minutes. The outcomes of the study suggested that the influence of persuasion knowledge on gamers brand recall was conditional. It was found that gamers with high persuasion knowledge showed high recall rates when playing low speed advergames with prominently placed brands. The interaction effect between brand placement and advergame speed showed that in comparison to a subtly placed brand, a prominently placed brand in low speed game showed higher recall rates.

### **3. How Advergames effect Brand Memory and Recall**

Psychological elements are used to target audiences using advergames. These games integrate operant and classical learning theories by associating positive feelings with certain brands. The application of Social Cognition Theory (SCT) to advergames involves identification of game characters by two mechanisms. The characters act as guides during game-playing besides gamers having control over the characters which assists the identification process. These brand characters are used as models by the players (Toth and Nagy, 2011). Customer's memory is affected by gaining

positive feelings through such experiences. For studying cognitive development, it is important to study the effects of memory as hinted by many researchers (Piaget and Inhelder, 1973). The incoming information is encoded, stored and retrieved as per normal functions of memory. Memory retrieval is assisted by physical environment corresponding to the instance when the information was being encoded. This fact can be used by advergames companies by captivating a gamer's memory through creation of an environment suitable to them on its webpages. A good consumer brand relationship is developed by using advergames because they impact cognitive development process of gamers (DiClemente and Hantula, 2003). Further it can be added that a positive attitude towards the game helps in forming a positive attitude towards the brands (Wise *et al.*, 2008).

**Table 1 How advergames effect brand memory and recall**

Authors	Findings
Cauberghe and De Pelsmacker (2010)	Brand recall was found to be positively affected by <b>brand prominence</b> , without influencing brand attitude. There was no effect on brand recall due to game repetition, but there was negative impact on brand attitude because of game repetition.
Gross (2010)	Memory for the sponsoring brand is enhanced by highly <b>congruent games</b> .
Hernandez and Chapa (2010)	Adolescents chose snacks endorsed in advergames over other snacks and a positive relationship between liking, enhanced memory and snack choice was also established.
Van Reijmersdal <i>et al.</i> (2012)	<b>Brand prominence</b> in an advergame evokes brand memory among children aged 7-12 years. <b>Game involvement</b> stimulates affective responses (i.e. more positive brand attitudes). Game attitude mediated the effect of game involvement.
Vashisht and Shreejesh (2015)	Inexperienced gamers reported higher recall rate for prominently placed brands.
Vashisht and Shreejesh (2015)	Low <b>game-product congruence</b> in slow paced advergames resulted in high brand recall whereas for a fast paced advergame there was no difference in brand recall for high game product congruence and low game product congruence.
Vashisht and Royne (2016)	Gamers with higher <b>persuasion knowledge</b> showed high recall rates when playing low speed advergames with prominently placed brands.

Source: Literature Review

#### 4. Factors affecting Brand Memory and Recall

**Brand Prominence:** The advertising literature has defined brand placement strength (or brand prominence) as "the extent to which the appearance of the brand possesses characteristics designed to make it the central focus of audience attention" (Gupta and Lord, 1998). Brands that are placed prominently in the game are processed more intensively and can benefit from this focused attention. Previous authors have found positive effect of brand prominence on brand recall, without influence on brand attitude (Cauberghe and De Pelsmacker, 2010). According to traditional product placement research the affect transfer mechanism has an impact of brand placements due to brand attitudes (Baker 1999), the affect transfer mechanism is an unconscious mechanism by which brand attitudes are formed by the context in which the brands are embedded.

**Arousal:** According to Cahill and McGaugh (1995), enhanced long-term memory was manifested by aroused subjects. Contrarily, from a theoretical perspective that independent of valence there is an effect of arousal, Shapiro *et al.* (2002) found support for the claim that in comparison to subjects in the high arousal condition, those subjects that exhibited a moderate arousal condition were better able to discriminate target attributes from distractors. Alternately, Tavassoli (1995) indicated negative influence on cognitive capacity due to arousal that might be generated by emotional intensity. As



perPavelchaket *al.*'s (1988) findings, in order to characterize the effects of emotion on ad recall both arousal and pleasure were necessary dimensions. However, a higher impact on recall was demonstrated by arousal. Newell *et al.* (2001) suggested that strong emotional reactions discourage ad and brand recall due to programs evoking such emotions.

**Game Involvement:** In advertising and consumer research one of the most frequently studied topics has been involvement. Game involvement can be defined as "a motivational state to exert cognitive effort at playing a game and that its primary antecedents are a game player's desire to beat the game or improve his or her game score". Studies on program/game involvement have shown the mixed outcomes of effect of brand placements in online games, magazine articles and television programs on consumers' brand memory. According to various researches related to program involvement when a customer is highly involved with a program, then his/ her focus on brand placements in program is much lower because of less mental resources left to process in-game placements, in comparison when the involvement in the program is lower, then the attentional capacity of a consumer available to process in-game brand placements is high and hence, in comparison to the former case, the brand recall is higher in the latter case (McClung *et al.*, 1985; Krugman, 1983).

**Persuasion knowledge:** In comparison to the subtly placed brand, the prominently placed brand is expected to show higher persuasion knowledge. In order to cope with the persuasive attempts of marketers, customers use their knowledge regarding the persuasive goals and tactics as postulated by the Persuasion Knowledge Model (PKM) (Friedstad and Wright 1994). Additionally, more negative brand attitudes are generated by higher placed brands given that prominently placed brands have more obvious persuasive goals than subtly placed brands as the knowledge of the persuasive intention of the brand placement seems to be comparatively high (Campbell and Kirmani 2000).

**Game-Product congruence:** The content of some advergaming conveys experiences about the product integrating the product with content that strengthens brand propositions whereas content of some advergaming manifests itself as not fitting well with the advertised product. Lee and Faber (2007) coin this relationship as game-product congruity and define it as "the extent to which the product category of the embedded brand is related to the content of the game". Brand memory may be influenced if product placements are attended to, for example the congruity between the content of the game and the product category of brands being promoted (Srull and Wyer 1989). Congruent information is remembered better than incongruent information as suggested by studies researching congruity between the ad's product category and the ad context.

## 5. Conclusion

Among the various forms of advertising used nowadays, advergaming are one of the most influential methods. Advergaming are different from other forms of advertising as they involve the customers directly. Advergaming impact a person's brand memory and brand recall. As the person's memory is influenced by classical and operant conditioning, when a person experiences a similar environment while playing advergaming his/her memories get recollected. Memory retrieval is assisted by physical environment corresponding to the instance when the information was being encoded. This fact can be used by advergaming companies by captivating a gamer's memory through creation of an environment suitable to them on its webpages. There are several factors that influence brand memory and brand recall which include brand prominence, arousal, game involvement, persuasion knowledge and game-product congruence. Previous authors have found positive effect of brand prominence on brand recall, without influence on brand attitude. Even so, arousal expressed a higher impact on recall. Studies on program/game involvement have shown the mixed outcomes of effect of brand placements in television programs, magazine articles and online games on brand memory of consumers. In comparison to the subtly placed brand, the prominently placed brand is expected to show higher persuasion knowledge. It is easier to remember congruent information than incongruent information as suggested by studies researching congruity between the product category

of the ad and the ad context. Thus, it can be understood that by manipulating these factors, advergames can be used in a better way for the best possible outcomes for different brands.

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