Chapter 2

LITERATURE REVIEW
2. Literature Review

The alchemists in their search for gold discovered many other things of greater value.

Arthur Schopenhauer, German Philosopher

2.1 Introduction

History of any and research lays down the foundations for its future scope. Any research would be empty and incomplete without a thorough study of its existing literature. To achieve this mammoth task we had split the entire literature review into three different concepts and their intersection brings us to the way forward. Thus it is required to divide this chapter into three different segments that would independently discuss each concept and build it forward. Each sub unit of the chapter concludes into theoretical variables of study which would go ahead to finalize the objectives and the parameters which need to be studied. At the end of this chapter we would have a clarity about the important gaming parameters along with the chief constructs of this study.

2.2 Gamification of Advertisements or Advergames

Gamification is a technique which is perpetually used in different forms of promotions, just to build customer engagement and interest. As advertising techniques move from traditional media to new media, newer and more engaging tools take over and Advergames seems to be just one of them. The term gamification was first coined in 2008 (Deterding S., Dixon, Khaled, & Nacke, 2011) and has gained a lot of popularity ever since 2010. And yet it’s not a new concept at all. Use of game elements and game design in human computer interaction has been long studied specially in an attempt to create enjoyable interfaces. Piggybacking serious concepts on game play has been part of human nature for a long time. (Malone, What makes things fun to learn? Heuristics for designing instructional computer games. , 1980) (Malone, Heuristics for designing enjoyable user interfaces: Lessons from computer games. Proc. 1982 conference on Human factors in computing systems, 1982). The design of a game has to be such that there is a high level of extrinsic and intrinsic motivation in the elements so as to lure the user to play. (Xu, Weber, & Buhalis, 2014). Just putting together some game elements would not result in expected amount of interest or motivation. It is important to use those game
elements in gamification which are characteristics of the game, have a significant role in the game play and can be found in most games. (Deterding S., Dixon, Khaled, & Nacke, 2011). The same research has divided the game elements into five levels as per Table 2.1.

Table 2.1: Levels of Game Design Elements
Source: (Deterding S., Dixon, Khaled, & Nacke, 2011)

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Example</th>
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<tbody>
<tr>
<td>1</td>
<td>Game Interface Design patterns</td>
<td>Common, successful interaction design components and design solutions for a known problem in a context, including prototypical implementations</td>
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<tr>
<td>2</td>
<td>Game design patterns and mechanics</td>
<td>Commonly reoccurring parts of the design of a game that concern gameplay</td>
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<td>3</td>
<td>Game design principles and heuristics</td>
<td>Evaluative guidelines to approach a design problem or analyze a given design solution</td>
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<td>4</td>
<td>Game models</td>
<td>Conceptual models of the components of games or game experience</td>
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<td>5</td>
<td>Game design methods</td>
<td>Game design-specific practices and processes</td>
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Based on these elements gaming has been classified into three different trajectories playful interaction, extension of games (pervasive games) and using games in non-gaming contexts. The level of game design, the extent of gamification, context and

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<sup>2</sup> Mechanics-Dynamics-Aesthetics framework
<sup>3</sup> Core Elements of the Gaming Experience
usage of games the definition of gamification can be understood using figure 2.1 and completed as follows (Deterding S. , Dixon, Khaled, & Nacke, 2011) (Nicholson, 2012):

- the use (rather than the extension) of game
- design (rather than game-based technology or other game-related practices)
- elements (rather than full-fledged games)
- characteristic for games (rather than play or playfulness)
- in non-game contexts (regardless of specific usage intentions, contexts, or media of implementation)

Figure 2.1: Situating “gamification” in the larger field;
Source: (Deterding S. , Dixon, Khaled, & Nacke, 2011)
And yet gamification is not exactly same as an Advergames. An Advergames is a tool/ technique which helps to achieve gamification of the advertisement. It is the employment of a game to communicate and advertise to people (Lovell, 2011). Having understood the basic premise and concept of an Advergames, we now need to study its attributes and impact.

2.3 Advergames Attributes

Advergames are basically online games which have subtle, implicit or explicit references to brands in an attempt to bring about visibility to the brand, suggest usability of the product, involve and engage a customer. In 2012 the gaming market in US was worth more than $68 billion with almost half the country playing online games. (Giallourakis, Advergames, 2009). The reason for this huge surge in the number of Advergames as well as gamers can be explained with the following advantages (Power Of Advergaming And Its Impacts On Consumers Marketing Essay) (L, 2006):

a. **Better Brand Awareness:** The Advergames are a highly engaging tool with several places at which you can highlight your brand name/ logo/ tag line. Other than that, as these games are online, you are freely able to spread the word about the game and the brand using emails or even social media tools such as Facebook, twitter etc. Eg. Several Indian action movies such as Ra.1, Krishh 3 etc. launch an Advergame before the release of the movie. The chief character of the game is the same as the protagonist of the movie. These Advergames build familiarity with the characters and plots of the movie and hence raise the level of brand awareness. As compared to other advertising techniques, here the key differentiator for Advergames is the fact that they provide a much longer duration of exposure as against usual electronic media (Snider, 2002). And thus provides a far better brand recall.

b. **E-Commerce:** The online presence of the games, allows them to sell products online too. As soon as the customer’s interest has been built, he/she can simultaneously convert it into a sale by shopping online. It can also be used as a sales promotion tool where the customers can receive free gifts, discounts and coupons on achieving a particular score. Eg. Johnson &
Johnson launched the online game Buddies Scrubbies in which you could win a discount coupon in case you are able to bathe the maximum number of toddlers online in a given set of time.

c. **Research**: The games bring about a two way communication and helps companies interact with their customers and potential customers and get feedback from them. Eg. Many automobile companies launch the latest model through a game so that the customers can get a virtual tour and access the features of their product.

d. **Education**: Advergames are widely used as a source to train and educate the customers regarding the uses and advantages of the product. (Lee, Choi, Quilliam, & Cole, 2009) Eg. Kellogs game in which the gamer is supposed to fetch chocos in the bowl and add milk to achieve to the next level which suggests how to consume the product.

e. **Cost Sharing**: The presence of advertisers helps the serious game players enjoy the online gaming environment for free. It’s the same as any other media advertising such as TV, Newspapers where the advertisers help bear the cost.

f. **Cost Effectiveness**: An Advergames is a much more economical and effective model than TV commercials, print ads and even online banners. (Giallourakis, The Showdown)

g. **Competitive advantage**: Advergames provide a huge competitive advantage especially in industries with frequently changing fickle minded customers. (Smith, Sun, & Mackie, 2014)

A brief look at the above advantages gives an insight into the possible benefits, but to understand both the sides of the coin it is important to list down all the features and attributes of an Advergames.

**A. GAME RELATED ATTRIBUTES**

I. **TYPE OF ADVERGAME**
All Advergames are not successful, and all types of Advergames cannot yield the same result. It is important to understand the classification of Advergames as well as to know which one of them creates a positive impact. A three-step systemization has been identified by (Mráček & Mucha, 2011) (Svahn, 2005) as follows:

1. **Associative**: These Advergames are related to the communication and brand building. They are not completely into game playing and are more focused on building customers’ awareness about the brand. Most of these games primarily have billboard or banners within the game which reinforce the brand or its logo or philosophy.

2. **Illustrative**: These type of games try to illustrate or educate the customers about the use and the technique of use of the product. In an attempt to meet the objectives of the game the user lands up learning how to use the product.

3. **Demonstrative**: These games are designed for playability and highlights the attributes of the products. E.g. One can win an online basketball game by selecting the right kind of shoes to wear. (Svahn, 2005).

While these terminologies do classify the Advergames, these classifications are not complete or exhaustive. There is always a possibility of a game which is demonstrative as well as illustrative. Among these three games, research has shown that illustrative Advergames increase maximum brand recall (Huang & Dinu, 2010).

**II. THEME AND GENRE**

Use of technology creates an important unrest in the human mind. The engagement theory an audience using technology if they are able to relate - create – donate as depicted in Figure 2.2. While using Advergames, one uses the benefits of technology so that the audience is able to relate with the game, participate and create in the game and also forward the knowledge and tips about the game in an attempt to donate with the game this builds a successful engagement with the customer.
Not only does a customer gets successfully engaged, he/she is also transported into the game. Psychology expresses through Narrative Transportation theory (Deighton, Romer, & McQueen, 1989) that a person tends to feel transported into a good story. Hence one can easily conclude that the presence of a good story line or theme is an essential characteristic for the customer to feel transported and engaged in it. Many examples can be quoted specially of Advergames regarding movies and entertainment, which bring out an important theme or story line through the game and ultimately lead to an inquisitive and engaged audience. This type of engagement works well as it creates a hype for an upcoming project and continues to build the fever even after the event is far over.

The intensity of engagement also changes with the change in genre of the game. An Advergame may be a shooter, strategy, gambling, role playing or sports related game (Apperley, 2006) (Entertainment Software Association, 2012)and while one player plays more than one type of game (Juul, 2010) each genre of game has different acceptability towards advertising through the game. E.g A user may like the presence of brand images in a sports related game as it enhances his experience (Michelle, 2002) but not in a strategy game where it feels like a source of irritation.

III. CONTENT

The content of a game primarily includes the gaming features, technology, concept, rules/procedures etc. Each of these factors contributes to make or break the interaction of an Advergamer and all these features combine to create the experience/ story (Ritterfeld & Weber, 2006). Gamers become very particular about the kind of technology they use to play the game. A game played on an XBOX gives
a completely different experience from that on a smart phone. Hence gaming platform and technology are important to every game and gamer. Many at times marketers use novel and ‘out of box’ conceptsto build a game so as to raise the curiosity and interest of the gamers in the game’s content and hence the brand. E.g. An excellent example of such an Advergame is *Pleasure Hunt – 5 lost kisses* by the ice-cream brand Magnum. In this game unlike the usual ‘prince fights the bad guys and gets the princess’ the protagonist is a girl whose prince has been kidnapped by the bad girls and she runs through various popular webpages (look alike)in an attempt to save the prince. In the whole process the background of the game changes from YouTube to Bing Maps and even covers product websites such as Citrine Jewelry and SaaB convertible cars. This concept is un-conventional, interesting and also engaging hence draws the attention of many users. The curiosity to see the next level of visuals build the hype for the game.

Unlike traditional advertising in advergaming multiple persuasion models work simultaneously in the mind of the gamer (Nelson & Waiguny, Psychological Processing of In-Game Advertising and Advergaming: Branded Entertainment or Entertaining Persuasion, 2012). The content of an Advergame works to arouse, engage, entertain and increase the cognitive load of the gamer (Grodal, 2000). Many at times, marketers put in different features and background and music in a way that it is liked by the gamers.

The content of an Advergame is carefully chosen as it impacts not only the implicit behavior of the player but also tends to transfer the attitude to the brand. Research shows that any type of violence or cruelty which is expressed in the Advergame in the form of killing, hitting or hunting; gets transferred to the attitude towards the brand. (Waiguny, Nelson, & Marko, How Advergame Content Influences Explicit and Implicit Brand Attitudes: When Violence Spills Over, 2013). Hence is a game’s content closely influences the brand attitude.

**IV. TECHNICAL PLATFORM**

Today gamers have large number of technical platforms on which they can access their favorite games. It ranges from PC/Laptop, Smart phones, Wii, Sony
Playstation, Xbox and many more. Most of these platforms can be clubbed together and classified into two sections, stationary games (Playstation, Laptop, Xbox etc) and mobile games (on-the-go games using smart phones). Initially it was attempted to classify the research into two categories, PC based Advergames and mobile based Advergames. But after the pilot study on 50 game players, it was observed that those people who are comfortable with playing games on a PC are also comfortable playing games on a smart phone and vice versa. This is primarily because smartphones today are a distinct and integral feature in everyone’s lifestyle (Feijoo, Gómez-Barroso, Aguado, & Ramos, 2012). As they become inevitable need of our life, people have started having an increased comfort zone with them. They are inbuilt with large number of user friendly applications (Apps) which allow users to play games while on the go. (Taylor, Voelker, & Pentina, 2011). Visual Appeal, enjoyment, escapism, economic value, efficiency and perceived risklessness are some of the reasons why people have starting moving to games on the phone more than any other platform (Okazaki, 2008). While using mobile games, the duration of game play decreases but the easy and any time access allows for increased frequency. (Choi, Lee, & Li, 2013). Though this increases the repetition of game play it raises the bar for the advertisers to increase the level of interest and engagement so that the customer keeps coming back for more even if it is just for a short duration.

V. GAME PRODUCT CONGRUITY

The primary aim of these games is to increase the brand recognition (Youn, Lee, & Doyale, 2003), which can be achieved by a lavish display of the brand image or logo during the game. At the same time, since the focus of the player is on the game, how much of the brand logo or image is actually getting the right “attention” is still questionable; here attention can be defined as the allocation of cognitive capacity (Kahneman, 1973). Under such conditions, a strong relationship should be maintained between the theme of the game and that of the product so that the attention which is given to the brand is high and also the brand recall become much higher. (Peters & Leshner, 2008). It has been found by (Hernandez, Minor, & Maldonado, Hispanic Attitudes toward Advergames: A Proposed Model of Their Antecedents, 2004) that incase the display of the advertisement is not in sync with the game play it is considered as intrusiveness and acts as a source of negative
attitude towards the brand. (Lee & Faber, Effects of Product Placement in On-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention, 2007) have also shown that if there is a strong positive relationship between game concept and product advertised, there is a higher probability brand recall and brand recognition. (Lewis & Porter, 2010) had studied MMORPG and found that while mild incongruence between the game and the advertisement was acceptable sometimes a highly incongruent game only left the user annoyed and irritated. And yet, if we detail through the Elaboration Likelihood model (Petty & Cacioppo, 1984) and the Persuasion Knowledge Model (Friestad & Wright, 1994) it only emphasizes that high level of congruency between the game and the product would compel users to believe completely that the game is nothing but an advertisement.

VI. PRODUCT PLACEMENT PROXIMITY

The placement of the brand in the advertisement has a huge effect on the brand memory/brand recall. On the same lines in case of Advergames, the placement of product ideas within a game can be varied largely and each leading to a different impact. The placement of the brand can be categorized into visual or verbal (Gupta & Lord, 1998) (Russel, 2002) and attributes such as visual prominence (Brennan, Dubas, & Babin, 1999) (D' Astous & Chartier, 2000) (Law & Braun, 2000) and products involvement in the plot of the story (Russel, 2002) also plays an important role. (John M., 2004) (Yang & Roskos-Ewoldsen, The Effectiveness of Brand Placements in the Movies: Levels of Placements, Explicit and Implicit Memory, and Brand-Choice Behavior, 2007) have identified that the brands which are placed peripherally in an advertisement, result in lower levels of recognition memory. Similarly (Schneider & Cornwell, 2005) (Yang, Roskos-Ewoldsen, Dinu, & Arpan, 2006) deduced that brands which were placed prominently and centrally in an online game environment were much easily recognized and had a strong recall as the centrally placed brands required higher cognition. Thus there is a strong positive relationship between and prominent brand placement and brand memory and yet a prominent brand placement can sometimes lead to a negative brand attitude. If the

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4massively multiplayer online role-playing game
Advergamers become aware of the fact that the game is nothing but an attempt to promote the brand, their attitude towards the brand may turn to be negative (Nairn & Fine, Who’s Messing with My Mind? The Implications of Dual-Process Models for the Ethics of Advertising to children, 2008) (Wright, Friestad, & Boush, 2005) (Soontae & Stern, 2011)

VII. GAME REPETITION

For any advertising technique, repeated exposure to advertising stimuli increases brand recall. This has been well studied and documented in the case of traditional media. (Gorn & Goldberg, 1980) (Calder & Sternthal, 1980). (Berlyne, 1970) propose a two factor model in which there are two factors or phases namely wear-in and wear-out as depicted in figure 2.3.

![Figure 2.3: Berlyne's theory of Optimal Complexity](image)

Source: (Berlyne, 1970)

In the wear in phase, the customer gets familiar with the brand and the recall rate increases with every exposure. (D'Sousa & Rao, 1995) (Newell & Henderson, 1998). In the wear out phase on the other hand, the effectiveness decline forming an inverted U shaped curve. Further repetition only leads to boredom, irritation or reactance towards the ad (Sawyer, Repitition and Cognitive Response, 1981) (Cacioppo & Petty, Effects of Message Repetition and position on Cognitive Response, Recall and Persuasion, 1979). If the same is applied to Advergames, peak effects of attitude have been observed and three exposures (Krugman H. E., 1972) (Pechmann & Stewart, 1988). Thus we can comfortably say that the wear-in and
wear-out levels are achieved faster in case of Advergames due to their high level of engagement and interactivity. Thus it is successful in building strong brand attitude even with a small exposure and a small increase from that level soon leads to wear out (Cauberghe & De Pelsmacker, 2010). Thus we can conclude that the right amount of exposure to game also helps in maintaining the correct and positive brand recall in the mind of the customer.

VIII. SELF BRAND CONGRUITY

Self-brand congruity is defined as the evaluation of the product/service image with the consumers’ self-concept (Joseph, 1982). It is also expressed by some authors as the match between the brand’s value expressive attributes, and consumers’ image of self. With reference to luxury brands (Liu, Li, Mizerski, & Soh, 2012) describes self-brand congruity as a summation of brand personality congruity, brand user imagery congruity, brand usage imagery congruity. Research shows that user brand congruity and usage brand congruity are strong antecedents of brand attitude and brand loyalty (Liu, Li, Mizerski, & Soh, 2012) (Adis & Jun, 2013). Thus the game and its theme should be designed such that there is a strong congruity and the user is able to relate himself with the brand.

IX. INTRUSIVENESS

Advertisements in general are found to be interruptive in nature. An ad in between a nail biting soap opera or an ad which spoils the scenic beauty due to its presence on billboards or any other media channel, all are seen to be a cause of irritation and intrusiveness to the potential customer (Vespe, 1997) (Krugman H., 1983). It was predicted that ads via new media being more interactive are less likely to be intrusive in nature (Varki & Rust, 1996) yet research shows that online ads are also disturbing (Reed, 1999). Brand perception and brand attitude are heavily impacted by the negativity which is generated by the ad intrusiveness and also the prime reason for a user to avoid ads all together. (MacKenzie & Lutz, 1989) (Abernethy, 1991) (Clancey, 1994) (Krugman & Keith, 1991). An Advergame when played for the first time is examined and evaluated closely. While the kids of younger age group are not able to differentiate between the Advergames and the real games for those who have higher knowledge about the persuasion, they are likely to get all the more irritated and annoyed by the intrusiveness of the game or if the brand images
in the game are not well placed. (Li, Edwards, & Lee, Measuring the Intrusiveness of Advertisements: Scale Development and Validation, 2002).

B. INDIVIDUAL RELATED ATTRIBUTES

Just like the above attributes of the game which impact the perception in the mind of the customer, similarly some of the gamer/customer related attributes also define the success or failure of a give Advergame which have been listed as below:

I. GENDER

Traditionally, marketers had marked a huge difference in the way men and women perceive the same online advertisement. (Brunel & Michelle, 2003). (Meyers & Maheswaran, 1991) (Meyers-Levy & Sternthal, 1991) (Phillip & Suri, 2004) (Raman, Chattopadhyay, & Wayne, 1995) (Weiser, 2000). It had been observed that men naturally prefer online advertisements which require more of cognition as against women who prefer more of emotional messages (Raman, Chattopadhyay, & Wayne, 1995). Yet with the changing times women are becoming more and more open to technology and the gender difference is minimizing. (McMahan, Hovland, & McMillan, 2009). The woman today has an equal access and exposure to internet and its tools. In many researches, the women have showed an NFC5 much higher than that of men while processing internet advertisements. And yet the NFE6 for women is much higher than that of men. For this purpose while designing Advergames for men and women, different emotions need to be addressed. It is also an indicator that the kind and type of products which can be sold to men through Advergames is very different from that of women.

II. LEVEL OF MATURITY (CHILDREN, ADOLESCENTS, ADULTS)

An interesting story / narrative is also one of the prime reasons why Advergames have been consistently, effectively and mostly used for children. Children have a tendency to get carried away into a story and the stories characters. (Hoy, Young, & Mowen, 1986). Their understanding of commercials is surprisingly different from ours. They find commercials and programs same, just that the commercials are funnier or shorter. (Brucks, Armstrong, & Goldberg, 1988). A large number of

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5 Need for Cognition
6 Need for Emotion
Advergames publicize food products through the game. In fact many of the low nutrition and high density food products advertised through gaming are becoming fast popular and in fact a prime reason for child obesity. (Harris, Bargh, & Brownwell, 2009). The young mind of a child is also far more susceptible to brand recognition, due to which there is a very strong brand integration in the child Advergames. (Paek, Quillian, Kim, Weatherspoon, & Rifon, 2014). The wide presence and penetration of social media has also created a perception where Advergames are also seen by children as a means to build a social bond. (Hernandez, Determinants of children’s attitudes towards ‘advergames’: the case of Mexico, 2008). Many researchers have identified that the success of an Advergames or the convincing power of an Advergames is directly impacted by the age of the player. A younger player is likely to be left mesmerized and convinced about brand than an old child. (Mallinckrodt & Mizerski, The Effects Of Playing An Advergame On Young Children's Perceptions, Preferences, 2007). This concept is further intensified by the understanding of the Persuasion Knowledge Model (PKM) (Friestad & Wright, 1994), as depicted in Figure 2.4, which insists that a person’s attitude about the persuasion knowledge shapes and ripens with time. And as it matures people only become more and more aware of the advertising tactics and tricks and hence immune to the pressure of the marketer. Children after the age of 8-10 years start building up knowledge about the persuasion techniques used by the marketer and the fact that everything which is told in an ad may not be true (John D. R., 1999). Thus children younger than eight years are most easily convinced into playing Advergames. And yet (Panic, Cauberghe, & Pelsmacker, 2013) have shown through their research that the persuasion knowledge of children becomes lower while playing Advergames. Hence it is appropriate to conclude that children younger than eight years would make maximum purchase requests (purchase intentions) after using Advergames. (Soontae & Stern, 2011) had devised a way to mitigate the negative impact of an Advergames by inserting ad breaks inside an ad (Advergames). The complete success of this is yet to be practically implemented.
III. GAME FAMILIARITY & PAST GAMING EXPERIENCE

A pilot study was conducted in which 50 people of various age groups were exposed to a simple Advergame and after they played the same for 15-20 minutes, various game and brand related questions were asked. In this study a detailed demographic profile of the most successful gamers was created and it was found that those who had some or any kind of online gaming experience were not only excited to play the game, but also understood the controls and the tips and tricks of the game better. They were easily able to differentiate the Advergame from a regular online game. A small number of participants had also played the same game earlier, which again showed a positive association with the brand recall and also achieving high scores. Thus one can easily conclude that consumers who are regular game players or at least familiar with the concept of gaming form a positive audience for a product through advergaming. This positive association between the past experience and brand recall can be taken further towards purchasing intention. It would help us
identify the group of potential customers that are most susceptible to purchase and the ones which should be targeted for communication through Advergames.

IV. ATTITUDE TOWARDS ADVERTISING AND PRODUCT PLACEMENT

Most consumers today are familiar with the intent of the marketer when they come across advertisements on various media channels. Yet consumers have developed a positive attitude towards advertising and product placement as they are aware of the economic advantages of the advertisements. Most people become comfortable with ads due to the reduced cost of the product which they receive. Information, entertaining and educational (Pollay & Mittal, 1993) (Muehling, 1987) benefits surpass the annoyance and advertisement cluttering (Haller, 1974). While these past researches were focused on older media channels, new media has made the consumer less critical about advertisements (Youn, Lee, & Doyale, 2003). New media even provides consumers with the space to express their thoughts about the marketer’s persuasion (Kozinets, 2002) (Hirschman & Thompson, 1997) and also critically analyze, discuss and share it. And yet some group of customers are more sensitive to a particular set of products display and placement, than others. E.g. Women are sensitive and uncomfortable with the display and placement of ethically charged products such as cigarettes, gun, alcohol or media which targets children (Gould, Gupta, & Grabner-Krauter, 2000). Thus the attitude of the consumer, though mostly positive towards online advertisements, sometimes gets polarized towards sensitive issues and products. (Nelson, Keum, & Yaros, Advertainment or Adcreep Game Players' Attitudestoward Advertising and Product Placements in Computer Games, 2004).

V. ENTERTAINMENT

A video game is popular because of its features like interactivity (Rouse, 2004), temporality (Eskelinen, 2001), spatiality (Aarseth, 2000) and collectively put together, for its wholesome entertainment. Being entertained is the prime reason why people play video games and in fact video games prove to be a better source of entertainment than TV, game playing is the most fun activity on the internet. (Youn, Lee, & Doyale, 2003). Ad-makers take special care to ensure that the positivity and
entertained mood gets a spillover effect which encourages a positive predisposition towards the brand. (Balasubramanian S. K., 1994).

VI. SUSCEPTIBILITY TO ADVERTISING

Research shows that all individuals differ in their thought processes and effect of influence which may be through personal sources (friends, family etc) or non-personal sources such as advertising. (Bearden, Netemeyer, & Teel, Measurement of Consumer Susceptibility to Interpersonal Influence, 1989) (Bearden & Rose, Attention to Social Comparison Information An Individual Difference Factor Affecting Consumer Conformity, 1990). (Barr & Kellaris, 2000) defines the consumers’ non personal susceptibility as “the extent to which individuals attend to and value commercial messages as sources of information for guiding their consumptive behaviors”. This susceptibility is strongly related to the advertising outcome (LaTour & LaTour, 2009). Based on the outcome different individuals even after having same awareness about the persuasion attempt of advertising would treat advertising differently. Research shows that individuals who are susceptible to personal sources are also likely to be susceptible to non-personal sources and may just enjoy the advertising or not care at all but the persuasion attempt. (Barr & Kellaris, 2000). Thus it is important to understand if any positive relationship exists between people who are susceptible to advertising and if they are able to get engaged through Advergame as an advertising tool.

C. BRAND RELATED RESPONSES

I. COGNITIVE RESPONSES TO BRAND

a. Brand Recall & Recognition: This is the most commonly used parameter to measure the effectiveness of any advertisement or promotional message. Even in the case of advergaming, most researchers have studied the impact and effectiveness of an Advergame by measuring the brand recall and brand recognition (Lee & Faber, Effects of Product Placement in On-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention, 2007) (Yang, Roskos-Ewoldsen, Dinu, & Arpan, 2006) (Soontae & Stern, 2011) (Nelson, Keum, & Yaros, Advertainment or Adcreep Game Players' Attitudes toward Advertising and Product Placements in Computer
Games, 2004) (Nelson & Waiguny, Psychological Processing of In-Game Advertising and Advergaming: Branded Entertainment or Entertaining Persuasion, 2012) (Schneider & Cornwell, 2005) (Balasubramanian S. K., 1994) (Balasubramanian, Karrh, & Patwardhan, 2006) (McKee, Pardun, & Karrh, 2003). Most studies have concluded that repeated exposure to Advergames enhanced the brand recall and brand recognition. Products’ prominent placement and integration into the game also ensured a better brand recall. (Cauberghe & De Pelsmacker, 2010) (Nelson & Waiguny, Psychological Processing of In-Game Advertising and Advergaming: Branded Entertainment or Entertaining Persuasion, 2012) (Nelson, Keum, & Yaros, Advertainment or Adcreep Game Players’ Attitudes toward Advertising and Product Placements in Computer Games, 2004) (Schneider & Cornwell, 2005). (Gross, 2010) compared a highly congruent product game to a highly incongruent product game in the realm of low involvement product category and found that a highly congruent game led to high brand recall but a negative attitude. On the other hand (Lee & Faber, Effects of Product Placement in On-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention, 2007) have shown that a central or prominent placement of a brand cannot ensure a better brand memory. And sometimes incongruent themes and ads create higher cognition in the mind of the customer and thus a better memory and recall.

b. **Brand Beliefs and thoughts:** Advergames typically display the brand name/logo or some symbol/image of the product. (Balasubramanian, Karrh, & Patwardhan, 2006) (Russell, 1998) They primarily do not provide extensive information about the brand for the audience to build strong thoughts or beliefs about the brand. To the audience this placement of the brand is of secondary interest ad they are primarily engrossed in the game. Yet by using images and characters which have a strong rhetoric the games are able to mildly alter and build brand beliefs. (Waiguny, Terlutter, & Nelson, Entertainment Matters The Relationship between Challenge and Persuasiveness of an Advergame for Children, 2012) (Mallinckrodt & Mizerski, The Effects of Playing an Advergame on Young Children’s Perceptions, Preferences, and Requests, 2007). An important finding in
(Kinard & Hartman, 2013) research is the fact the Advergames prove to be extremely effective in cases where the user has no prior experience or exposure to the brand and encourages new product trial.

c. **Learning content from the game (explicit and implicit):** Advertisers constantly target the information processing, attitude formation and behavioral response ability through advertisements. Large amount of research focusses on collecting explicit memory measures in the form of brand recall and recognition (Dimofte, 2010) (Shapiro & Krishnan, 2001). But the impact of advertising goes beyond it and affects the implicit memory too. (Yang, Roskos-Ewoldsen, Dinu, & Arpan, 2006) have shown through their research that Advergamers had a higher implicit memory of the brands than explicit memory which they tested using word fragment completion test. It has also been shown that people have a tendency to remember more number of familiar brands in digital ads than in other medium (Yoon & Vargas, 2013). This however decreases if the there is a presence of large number of unfamiliar brands.

II. **ATTITUDINAL RESPONSES TO BRAND**

a. **Brand Attitude:** Large number of aforementioned variables impact the brand attitude in the mind of the customer. Among these variables, familiarity with the brand (Cauberghe & De Pelsmacker, 2010), strength of the pre-existing attitude (Mackay, Ewing, Newton, & Windisch, 2009), attitude towards brand placements (Bambauer, 2006), level of entertainment during the game (Waiguny, Terlutter, & Nelson, Entertainment Matters The Relationship between Challenge and Persuasiveness of an Advergame for Children, 2012), game repetition (Cauberghe & De Pelsmacker, 2010), game outcome (Steffen, Mau, & Schramm-Kle, 2013), game product congruency (Wise, Bolls, Kim, Venkataraman, & Meyer, 2008), game involvement (van Reijmersdal, 2009) (Redondo, 2012) all play an integral role. (Mau, Silberer, & Constien, 2008) have shown that unfamiliar brands receive positive brand attitudes whereas attitude towards familiar brands only worsens. While these studies focused and measure the explicit brand attitude, (Gawronski,
Hofmann, & Wilbur, 2006) studied the implicit attitudes which a customer develops but is not aware of himself.

b. **Awareness, content awareness and impact awareness.** Source awareness refers to the phenomenon where the person may not be aware of the source of the attitude. Content awareness happens when the person is not aware about the attitude at all and the impact awareness occurs when the individual is aware of the impact and the origin of an attitude but not fully aware of the impact of the attitude on other attitudes and behavior. A thorough analysis of this domain of implicit attitudes in the context of Advergames is still rare though partially reflected in some researches (Waiguny, Nelson, & Marko, How Advergame Content Influences Explicit and Implicit Brand Attitudes: When Violence Spills Over, 2013).

### III. BEHAVIORAL RESPONSES TO BRAND

Detailed studies have been performed to measure the brand attitude and the brand recall but little work has been done to measure the behavioral change if any which an Advergame is able to bring out. Using controlled experiments one of the researchers have observed changes in behavior especially of children of younger age group after exposure to the Advergame. (Mallinckrodt & Mizerski, The Effects of Playing an Advergame on Young Children’s Perceptions, Preferences, and Requests, 2007) showed that children who were exposed to an Advergame of fruity loops did not believe the claims made by the brand even after the game. Whereas the study carried out by (Pempek & Calvert, 2009) exposed children to the concept of healthy and unhealthy food items through an Advergame and they were able to choose healthy items because of the experience of this game. This leads us to a rather interesting introspection. While it has been proven time and again that Advergames have a positive impact on the mind of the customer and various attributes help in increasing brand recall and recognition, it is important to find out can an Advergame increase the behavioral responses as well.
2.4 Emotional Engagement and loyalty

It is necessary to define the contribution of all these aspects in brand building of any organization and increased purchase intention of the customer. In our study, we try to gauge the effectiveness of an Advergame by measuring its contribution in increasing the emotional customer engagement and loyalty. To do so, it is important to first define the concept of emotional customer engagement and loyalty.

Marketers are evolving everyday moving from customer satisfaction to customer delight and now are looking to build long time relationships with customers by keeping them emotionally engaged and loyal. Emotional engagement was conceptualized way back in 1990 by (Kahn, 1990) but was not exactly termed as emotional engagement. He had bifurcated engagement as a concept into three categories i.e. cognitive, affective (emotional) and physical. The concept was used by (May, Gilson, & Harter, 2004) as well but was coined by (Fleming, Coffman, & Harter, 2005). They clearly pointed out that emotionally satisfied and engaged customers contribute to the company’s bottom line far more than the rationally satisfied ones. Engagement theory (Kearsley & Shneiderman, 1998) and the transportation theory (Deighton, Romer, & McQueen, 1989) put together elaborate that when individuals play an Advergame they feel engaged and lost in the narrative world due to the personal enjoyment derived out of it and this enjoyment impacts their attitudes and beliefs towards the brand. The focus of companies has always been to have repeat customers and loyal customers, but to do so, it is important to build and engage customers. (Nolinske, 2015) mentions that customers can be regular and repeat customers yet emotionally disconnected. They may not be the most profitable customers to the company. Infact customer engagement can also be used as a tool to enhance the loyalty and connectivity of the customer with the organization which can further enhance the customers’ awareness about the organizations’ social activities (O’Brien, Jarvis, & Soutar, 2015). And this tool is used most commonly in online communities to enhance loyalty (Brodie, Ilic, Juric, & Hollebeek, 2013). (Brodie, Hollebeek, Juric, & Ilic, 2011) have conceptualized five fundamental principles of customer engagement and based on the same they have defined customer engagement as:
Customer engagement (CE) is a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g., a brand) in focal service relationships. It occurs under a specific set of context-dependent conditions generating differing CE levels; and exists as a dynamic, iterative process within service relationships that co-create value. CE plays a central role in a nomological network governing service relationships in which other relational concepts (e.g., involvement, loyalty) are antecedents and/or consequences in iterative CE processes. It is a multidimensional concept subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioural dimensions.

The use of Advergame is seen to enrobe, transport and engage its users into the theme of the game. (Nairn & Hang, Advergames: It’s not child’s play, 2012). Thus it is a rather interesting tool which can be used to engage first time users as well as regular users. The presence of realistic 3D and 4D technology will only enhance its look and feel of the brand and lay the seeds of loyalty.

Emotional customer engagement steeply differs from transactional customer engagement. Transactional engagement speaks about engaging a customer only through the process of a transaction of money exchange, whereas emotional engagement deals with the customers engaging with the values of the organization and feels emotionally intrigued enough to be part of the organization. (Dyer, 2012). Figure 2.5 shows a detailed hierarchy of 20 emotions which can drive or destroy the customer experience.

![Figure 2.5: Hierarchy of Emotional Value](source: Shaw)
These emotions have been created into the following clusters based on their impact of the customers’ emotion the value of the product. Emotions such as irritated, unhappy, frustrated etc. are clubbed under destroying cluster as they, if perceived by the customer, will completely destroy the customers’ experience. Interesting, Simulated and exploratory type of emotions create attention and interest in the mind of the customer hence under attention cluster. The recommendation cluster of emotions contains cared of, safe, focused type of emotions while happy and pleased emotions run under advocacy cluster. The emotions in the recommendation and advocacy cluster are the ones which create a long term engagement and loyalty in the mind of the customer. (Shaw). Thus an emotionally engaged customer is connected to the organization and not only recommends but even advocates for it. It is this set of customer that co-create, recommend to the organization, give constructive feedback and inputs and help the organization grow (Greve, 2014).

2.5 Impact of Advergames and Marketing Returns on Investment (MROI)

The above section discussed in detail about the attributes of Advergames, Advergame players and their corresponding impact on various aspects of brand and purchase intentions. These can be clubbed together in the following conceptual framework as depicted in figure 2.6 which clearly brings out the relationship between various attributes. It is visibly clear that the most important set of attributes here are those of the gamer. They are impacting all other conditions in which it wouldn’t be wrong to say that a good gamer can absorb from a bad game what a bad gamer can’t absorb from a good game. The game and the gamer together impact the psychology of the gamer in terms of cognitive, affective and behavioral responses which in turn are the chief antecedents for the positive or negative behavior towards that game and the brand. A positive behavior here would in turn lead to an emotionally connected and highly engaged audience who would with time, develop a loyalty which would help to overcome competition.
Characteristics of the game + brand
- Type of Advergame
- Theme & Genre
- Content
- Technical Platform, PC, Tablet, Smart Phone
- Game Product Congruity
- Product Placement proximity
- Repetition of the game
- Self-Brand Congruity
- Intrusiveness

Psychological Responses the game + brand
- Cognitive Reactions
  - Recall and Recognition of Brand
  - Brand beliefs and thoughts about the brand
  - Learning of contents from the game
- Affective Reactions
  - Brand Attitude
- Behavioural Reactions
  - Propensity to buy
  - Propensity to recommend
  - Propensity to Pester

Behaviour toward the game + brand
- Choice/purchase of brand
- Spending for brand
- Pestering for brand
- Recommendation for brand
- Recommendation of game to others
- Replay of game

Individual factors (of players)
- Gender
- Level of Maturity
- Game familiarity and Past Gaming Experience
- Attitude towards advertising & Product placement
- Entertainment
- Susceptibility to advertising

Emotional engagement + Loyalty

Figure 2.6: Conceptual Framework
Adapted from: (Terlutter & Capella, 2013)
In the mind of the marketer all the effort or promotional activities is successful not just when the customers are engaged or hooked but also when it starts to impact the customers’ wallet and adds the returns which one receives on all the investments made during the various marketing activities. Some authors find it hard to define marketing activities per say for B2B type of set ups. Thus for the benefit of all we define marketing here as “meeting needs profitably” (Kotler & Keller, Marketing Management, 2006). The performance of this investment which is made on marketing has to be quantifiably justified. The ultimate goal of marketing should be increase in shareholder value and that, as per most researchers should be the measure of the success of the money invested in it. (Bahadir & Tuli, 2002) (Bruno, Parthasarthi, & Singh, 2005) (Debruyne & Hubbard, 2000). Thus it has been proposed at several instances that a silver metric must be used to evaluate marketing returns. This silver metric may even by some of the Discounted Cash Flow techniques or just a simple return on marketing investments (ROMI) or marketing returns on investment (MROI) (Morgan, Clark, & Gooner, 2002) (Rust, Lemon, & Zeithaml, 2004).

Another thought process in evaluation of marketing investment is that most financial indicators restrict their calculation to the explicit and current impact of marketing. On the other hand marketing investments also have an implicit and silent impact which at times is not quantifiable. (Aaker, 1991) This is in terms of brand equity and brand attitude (Ambler, Marketing and the Bottom Line, 2003). The three most commonly used methodologies are Return on Investment (ROI), Discounted Cash Flows (DCF) and Return on Customer (ROC) (Peppers & Rogers, 2005) Yet DCFs are the most commonly used techniques which get reinvented in the form of Net Present Value (NPV), Brand Evaluation (Perrier, 1997), Customer Lifetime Value (Venkateshan & Kumar, 2004) (Gupta & Lehmann, Managing Customers as Investments, 2005) and customer Equity (Rust, Lemon, & Zeithaml, 2004).

Out of all these our study is going to focus on customer lifetime value as a metric to measure the impact of an Advergame on the marketing returns. CLV suffers from various drawbacks which have been pointed out by various researchers as follows (Ambler & Roberts, Assessing marketing performance: don’t settle for a silver metric, 2008):
• A strong integration between marketing managers and the forecasters (financial managers) is required.
• Uncertainty in the forecasts (high level of probability)
• Forecasting error with every variation in market performance
• Reconciling multiple forecasts.
• Accounting the future m

At the same time the whole concept of using CLV to measure profitability of a customer is best suited and well-fitting in an online environment because (Hahnloser) (Hawkes V. A., 2000) (Kanungo, 2014):

• It evaluates and allocates a measurable quantity against each customer
• Customers’ value once quantified makes it easy to segment them and identify which are the most profitable customers and by how much
• It gives a future forecast of who are likely to be the most profitable customers
• The accuracy of the forecast is higher in an online setup where the customers’ behaviour in terms of viewership and engagement is far more easily accountable.
• As a part of the future prediction it also forecasts cases where a customer may cease to be one or churn rate

CLV can be described by the following equation:

\[
 CLV_i = \sum_{t=1}^{n} \frac{(Future\ contribution\ margin_t - Future\ Cost_t)}{(1+r)^t}
\]

Where
i = customer index,
\( t = \) time index,
n = forecast horizon, and
\( r = \) discount rate

As this model speaks about future contribution and future costs it wouldn’t be wrong to mention that the main idea behind this model is to focus on future customer
relationship. In situations where the buyer and seller undergo a contractual relationship, the seller’s main focus is on whether and when the customer would terminate the contract or the relationship. If a customer terminates a contract, it is considered lost for good and there is no scope set for the customer to join back again after a break. If the customer does join after a gap it is treated like a brand new customer. This assumption itself is a source of error and possibly one of the drawbacks of this technique. On the other hand, in case of non-contractual settings the focus of the seller is to predict the future customer activity which would help in identifying the contribution margin of each customer. One of the techniques of predicting the future customer activity is by predicting the frequency of purchase. It runs on the assumption based on work of previous researchers which states that a customer is likely to reduce the frequency of purchase before terminating a relationship (Dwyer, Schurr, & Oh, 1987) (Jap, 2001) and it gives the leverage of a dormant stage. This technique of measurement of CLV is called “always-a-share” and is treated better than the lost for good approach. This can be represented in the form of equation as given below:

\[
\text{CLV}_i = \sum_{y=1}^{T_i} \frac{CM_{i,y}}{(1+r)^y/frequency_i} - \sum_{l=1}^{n} \frac{\sum_{m} c_{i,m,l} x_{i,m,l}}{(1+r)^{l-1}}
\]

Where
- \( \text{CLV}_i \) = lifetime value of customer \( i \);
- \( CM_{i,y} \) = predicted contribution margin from customer \( i \) (computed from a contribution margin model) in purchase occasion \( y \), measured in dollars;
- \( r \) = discount rate for money (set at 15 percent annual rate in our study);
- \( c_{i,m,l} \) = unit marketing cost for customer \( i \) in channel \( m \) in year \( l \) (the formulation of CLV does not change if \( l \) is used to represent periods other than one year);
- \( x_{i,m,l} \) = number of contacts to customer \( i \) in channel \( m \) in year \( l \);
- \( frequency_i \) = predicted purchase frequency for customer \( i \);
- \( n \) = number of years to forecast; and
- \( T_i \) = predicted number of purchases made by customer
This has been represented in the form of a framework figure 2.7, which relates the antecedents, covariates and expected effects from a CLV and the details of which are further explained in table 2.2
Figure 2.7: CLV Framework

Customer Characteristics
- Involvement
  - Bidirectional Communication
  - Number of web based contacts
  - Duration of customer online activity
  - Enhanced product awareness
  - Heightened curiosity for next release
- Switching Costs
  - Upgrading
  - Cross buying
- Previous Behaviour
  - Product category purchased

Supplier-Specific Factors:
- Channel Communication
  - Level of rich modes
  - Level of standardized modes

- Customers’ contribution
  - Lagged contribution margin
  - Establishment size
  - Industry category
  - Total quantity of purchases

Supplier-Specific Factors
- Total marketing communication

\[
\text{PREDICTED PURCHASE FREQUENCY}
\]
\[
\text{MARKETING COSTS}
\]
\[
\text{CONTRIBUTION MARGIN}
\]
\[
\text{TOTAL PROFIT}
\]
\[
\text{NET PRESENT VALUE (FUTURE PROFITS)} = \text{CLV}
\]

generate allocation rules

allocate appropriate resources

net present value (future profits) = CLV

discount rate

allocate appropriate resources

Source: (Venkateshan & Kumar, 2004)
i.) **Antecedents of Purchase Frequency:**

a. **Customer Specific:** Multiple antecedents have been identified which directly impact the frequency of purchase of a product. Different types and source of communication between the buyer and the seller are the chief amongst them. It has been observed that customers which are ready for an upgrade or even cross sell are basically positive indicators of increasing purchase frequency. Customer communications can be due to various factors under different situations. Under B2C, there is little or no customer initiated communication. But in case of a B2B set up a customer requiring maintenance, or training or a product improvement all are source of customer initiated communication (Cannon & Homburg, 2000). In fact even suppliers can invite their customers for a new product development discussion session. A high level of bilateral communication is a predictor of high level of purchase frequency.

Some businesses relay more on web based contacts rather than rich mode contacts. Deliberately use of web based contacts is pushed as it is the most cost effective method and also it signals the seller more about the buyers’ relationship orientation (Grewal, Corner, & Mehta, 2001). It has been proved that participation of an organization in electronic markets improves its efficiency and effectiveness in transactions (Rindfleisch & Heide, 1997). And a communication channel with the buyer which has high efficiency and effectiveness primarily means higher customer involvement (Sheth & Parvatiyar, 1995). It is a proven fact that the higher the number of web based contact the higher is the frequency of purchase. (Venkateshan & Kumar, 2004)

b. **Supplier Characteristics:** When customers are contacted by the supplier through rich mode of communication (Eg. Face to Face communication, Direct Mail, Telephone etc), the customer response is considered to be higher and so is the customer acquisition cost (Mohr & Nevin, 1990) (Morgan & Hunt, 1994). Some business to B2B setups find this as the most commonly used tool because rich mode communication is more effective in converting transactional customers into relational customers. (Ganesan, 1994). And yet too much communication proves the relationship dysfunctional (Fournier, Dobscha, & Mich, 1997). Thus an inverted U shaped curve is followed where the impact of over communication
starts to become negative (Venkateshan & Kumar, 2004). To maintain a reasonable magnitude of communication one also needs to maintain an optimum frequency of communication and schedule. Thus an optimum time between two contacts made with the customer which is known as inter-contact time (Morgan & Hunt, 1994) and this inter-contact time also follows an inverted U shaped curve and too much of it makes the relationships dysfunctional (Venkateshan & Kumar, 2004). Further details of the same are enlisted in the table 2.2

ii.) **Antecedents for Contribution Margin**

Based on previous research we can comfortably say that the antecedents for contribution margin will be the same as that for customer revenue (Niraj, Gupta, & Narasimhan, 2001) and purchase quantity (Gupta S., The Impact of Sales Promotion on When, What, and How Much to Buy, 1988) (Tellis & Zufryden, 1995). Table 2.3 given complete details of the customer and supplier side characteristics which impact the contribution margin. In this model the covariates would be establishment and industry category. All these antecedents are based on previous research and elaborated in table 2.3

**Table 2.2: Antecedents, Covariates, and Expected Effects Purchase Frequency Model**

Source: (Venkateshan & Kumar, 2004)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Operationalization</th>
<th>Expected Effect</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Frequency Model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antecedents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrading</td>
<td>Number of product purchase upgrades</td>
<td>+</td>
<td>Customers who upgrade have higher switching costs with each upgrade, which can lead to lower propensity to leave and higher recurrent needs (Bolton &amp; Lemon, 1999)</td>
</tr>
<tr>
<td></td>
<td>until an observed purchase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Buying</td>
<td>Number of different product categories a customer has purchased</td>
<td>+</td>
<td>Customers who purchase across several product categories have higher switching costs and recurrent needs (Bowman &amp; Narayandas, 2001)</td>
</tr>
<tr>
<td></td>
<td>Ratio of number of customer-initiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bidirectional communication</td>
<td>contacts to total number of customer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>contacts (customer initiated and</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>supplier initiated</strong> between two observed purchases</td>
<td>recalled when a need arises (Morgan &amp; Hunt, 1994)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returns</td>
<td></td>
<td>Returns provide an opportunity for firms to satisfy customers and ensure repeat purchases (Reinartz &amp; Kumar, 2003), but too many purchases can be detrimental to the relationship and can indicate that the firm has not used the return opportunities appropriately. Customers who use online communication want transaction efficiencies, and customers who want to create efficiencies are highly relational and have recurring needs (Grewal, Corner, &amp; Mehta, 2001) (Rindfleisch &amp; Heide, 1997) Acknowledgment of customers with relationship benefits reduces the propensity of customers to quit and increases the probability that the focal firm is recalled when a need arises (Morgan &amp; Hunt, 1994)</td>
<td></td>
</tr>
<tr>
<td>Number of products the customer returns between two observed purchases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of times in a month the customer contacts the supplier through the Internet between two observed purchases</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator variable of whether a customer is a premium service member (based on revenue contribution in the previous year)</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship benefits</td>
<td></td>
<td>Timely communication between parties reduces the propensity of a customer to quit a relationship (Mohr &amp; Nevin, 1990) (Morgan &amp; Hunt, 1994), but too much communication can be detrimental to the relationship (Fournier, Dobscha, &amp; Mich, 1997) (Nash, 1993); thus, there is an optimal communication level.</td>
<td></td>
</tr>
<tr>
<td>Number of customer contacts by the supplier in a month (through sales personnel) between two observed purchases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of customer contacts by the supplier in a month (through telephone or direct mail) between two observed purchases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average time between two customer contacts by the supplier across all channels of communication between two observed purchases</td>
<td></td>
<td>A long time between contacts can lead to forgetfulness, but contacts that are too soon can cause dysfunction</td>
<td></td>
</tr>
<tr>
<td><strong>Covariate</strong></td>
<td></td>
<td>A customer’s purchase patterns may depend on the product category purchased (Niraj, Gupta, &amp; Narasimhan, 2001)</td>
<td></td>
</tr>
<tr>
<td>Two indicator variables: one indicates a hardware purchase; the other indicates a software purchase</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2.3: Antecedents, Covariates, and Expected Effects of Contribution Margin Model

Source: (Venkateshan & Kumar, 2004)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Operationalization</th>
<th>Expected Effect</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contribution Margin Model</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Antecedents</strong></td>
<td></td>
<td></td>
<td>Previous revenue is a good predictor of current revenue and accounts for any model misspecification (Niraj, Gupta, &amp; Narasimhan, 2001)</td>
</tr>
<tr>
<td>Lagged contribution margin</td>
<td>Customer’s contribution margin from the previous year</td>
<td>+</td>
<td>Previous marketing communications and depth (quantity) of purchases positively affect contribution margin (Gupta S., The Impact of Sales Promotion on When, What, and How Much to Buy, 1988) (Tellis &amp; Zufryden, 1995)</td>
</tr>
<tr>
<td>Total marketing efforts</td>
<td>Total number of customer contacts across all channels</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td><strong>Covariates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of firm</td>
<td>Number of employees in the customer firm</td>
<td>+</td>
<td>Control variables that accommodate for customer heterogeneity (Niraj, Gupta, &amp; Narasimhan, 2001)</td>
</tr>
<tr>
<td>Industry category</td>
<td>firm belongs</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>
2.6 Research Gaps

The above review of literature points out some of the areas which have so far been untouched and hence can be best describes as research gaps. These gaps lead to areas where this study would work and make it a useful insight for future researchers. The primary gaps identified through this research are as follows:

- **Most past research on Advergames focussed on children**: Maximum work on the study of Advergames has been focused on children under 12 years of age. They are also the most susceptible group. This seems like a gap as the use of Advergames should be open to other age groups also as it may be have the potential to emotionally engage audience of different age groups as well.

- **Analysis of Advergames focussed on brand recall and persuasion**: Research in the field of Advergames focusses on brand recall and persuasion. While brand recall and persuasion are indeed effective means to measure the viability of a given advertising tool, it doesn’t speak about emotional connectivity or engagement which can be created using an Advergame.

- **Identify potential consumer susceptible to Advergames**: All respondents/customers cannot be equally targeted as they are all governed by various demographic variables and would not respond equally to a given stimulus. It is important to find out who are the most susceptible customers so that the marketers of tomorrow can customise their product in a way to reach out to the right audience.

- **Emotional engagement and loyalty with respect to Advergames**: Little literature is present which speaks about Advergames and loyalty or Advergames and emotional engagement. Games are known to bring about strong emotions of happiness, excitement elation during game play and it is inevitable to measure the emotional impact which a game may have on the mind of the customer.

- **Financial Impact and ROI of using an Advergame**: It is important to understand if the Advergame is leading to a positive ROI in the form of increased purchase or purchase intention. Without this analysis it would be hard to understand whether the given tool is effective or not.
Most research on Advergames was focussed on a small group of respondents in an experimental mode: While experimental studies are robust in their own manner, they work in a very restricted environment and have large number of assumptions. It would thus be important to understand Advergames in vivo mode where they are exposed to all the various types of distractions and are able to build the required amount of emotional connect.

2.7 Construct for the study
The above discussions regarding the existing literature and research gaps are surrounding the core constructs which have been identified for this study. To understand the concept of Advergames and to identify their impact on emotional loyalty as well as returns on investment, it is necessary to create the following four core constructs of our study.

- **Game Engagement:** We have studied the games and their attributes in the above sections. It has been found that the categorization of games and its attributes all culminate and contribute in creating an engagement with its audience. No matter how novel the game idea may be its utility is understood from the engagement it create with its target audience. Multiple attributes of the game contribute towards the positive engagement and decrease the dissonance that may occur in the mind of the consumer. It is essential to study these attributes and the magnitude with which they impact the engagement. Game engagement has been defined and elaborated in several studies (Goh & Ping, 2014) (Kearsley & Shneiderman, 1998) (Chapman, Selvarajah, & Webster, 1999) (Higgins, 2006). It has been proven that when people are engaged in any activity or product they will have a tendency to prolong that activity (Sandelands, 1988) and/or use the product repeatedly (Jordan, 1998). Keeping these in mind would help us in evaluating various Advergames and also create the appropriate questions for the questionnaire.

- **Emotional Customer Loyalty:** This construct would be of extreme importance as it would define whether the Advergames are successful in
creating engagement enough to bring in repeat purchase and an irrational biasness which is defined as an emotional loyalty. This concept was defined in the works of (Shaw) (MarketingNPV Journal). It has been further studied to measure the emotional satisfaction through increase in positive band of emotions and decrease in the negative band of emotions. (Dean, 2001) (Uncles, Dowling, & Hammond, 2003). This construct has been studied in various contexts but there is little literature to connect emotional customer loyalty to Advergames. Some studies have focussed on Advergames which were focused on a specific group of children but it would be required to test if Advergames can build emotional customer loyalty across age groups. Hence this construct will lay the foundation of the study and would be studied through various indirect and direct questions to the consumer which would identify his or her emotional connect with the game as well as the brand.

- **Brand Attitude:** This is no new concept and has been studied deeply in various contexts of online and offline customer engagement ever since it has been defined by (Wilkie, 1986) (Keller, 1993). It is an important construct as it defines clearly the reasons for the customer’s choices towards a particular brand and most marketing studies would be incomplete without analysing the brand attitude of the customer. A positive brand attitude is likely to lead to a positive engagement and hence an increase in purchase intention and thus eventually an increase in marketing returns on investment.

- **Purchase Intention:** There are multiple ways to study the marketing returns on investment in a study. For the purpose of this research, we would analyse the MROI as a function of purchase intention. It has been analysed that increase in bidirectional communication, increased curiosity for next release and increased intention to purchase a product are precursors to defining MROI using CLV method (Venkateshan & Kumar, 2004). Here the purchase intention would also be a measure to test if the engagement created by the game and the emotional connect of the game is leading to any positive increase in the tendency to buy the advertised product. This parameter has been used (Hans van der Heijden, 2003) (Mattila, 2001) (Papadatos, 2006) in studies to evaluate the impact of various marketing tools.
2.8 Conclusion

The above chapter of literature review studies in detail regarding all the various aspects of gamification, inception of Advergames, its attributes, its impact on a gamer and his/her psychology and attitude towards a given brand. This chapter is an attempt to build the bridge across the research gaps and explore the utility and usability of Advergames as a tool by checking the impact of various game as well as individual parameters on game engagement, emotional customer loyalty and purchase intentions.

The ultimate goal is to study the behaviour of an Advergamer while he is playing an Advergame and to test whether the Advergame impacts the mind of the customer enough for them to want to buy a given product or to choose the brand of the Advergame over all its competitors. While the literature review has certainly opened our doors of knowledge to various theories, models and concepts related to Advergames, psychology of a gamer and the impact on their attitude; it has also parallel opened up doors to various research gaps. These research gaps are addressed in detail in the next chapter.