

# How can Coca-Cola Advertise in World of Warcraft? An Exploratory Examination of Gamers Attitudes Towards Around-Game Advertising

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## ABSTRACT

Marketing messages are everywhere, even in the digital world of gaming, advertising and product placements make regular appearances. However, not every game is suited to In-Game Advertising and as such companies have had to look at alternative ways of associating their brands with games. The purpose of our study was to examine the attitudes of gamers towards the concept of Around-Game Advertising, which we define as ‘Advertising and promotion linked to video and computer games through non-intrusive around game displays or licensing of game branding with associated third-party products’ (Smith et al., 2014). Participants (N=32) considered to be expert gamers, were exposed to four different brands of carbonated soft drinks or energy drinks as well as viewing eleven associated advertisements which had associations with sixteen different games deemed unsuitable for In-Game Advertising. Data was collected through questionnaires completed before and after participating in a focus group. Results showed that that this form of advertising, gamer attitudes and buying behaviour can be positively influenced through exposure. In addition, a comparison of the ordinal regression models, showed that their influence factors for buying decisions were also influenced.

**Keywords:** Game Advertising, Video Games, Computer Games, Promotional Merchandising, Consumer Attitudes, Consumer Buying Behaviour

## Introduction

Historically, those who play video and computer games (games) have been stereotypically viewed as being teenage boys playing in their bedroom (Tucker, 2011). However, nothing could be further from the truth as although these types of gamers exist, in 2013 it was found that within the US, 39% of gamers were actually aged 36 and over, the average age of those playing games was 31 and 48% were female (ESA 2014). These figures build upon similar previous findings in 2012 (ESA, 2013), 2011 (ESA, 2012) as well as 2010 (ESA, 2011). Even as far back as 2003, the average age of a gamer was found to be 29, 17% of gamers were over 50 and 39% were female (ESA, 2004). Therefore, it is not that surprising that gaming has transformed itself into a multi-billion dollar business, with some even suggesting that it is now the largest global entertainment industry (Barker, 2013; Davidson, 2011). In 2013, it was estimated that there were over 1.1 billion people who played games on a regular basis, with these gamers generating over \$US 70 billion in revenue for the global games industry. Table 1 outlines these figures in more detail, where it can be seen that although the Asia-Pacific region has the highest number of players (477 million) as well as the highest revenue figure (\$US 25.1 billion), North America appears to generate the most revenue per player (\$US 118.75).

Table 1. Global Games Industry Overview – 2013

REGION	# OF PLAYERS (MILLION)	REVENUE (US \$) (BILLION)	AVG REVENUE PER PLAYER (US \$)	% GROWTH FROM 2012
Asia-Pacific	477	25.1	52.62	11
Europe, Middle-East and Africa	466	19.5	41.85	4
Latin America	116	3.0	25.86	11
North America	192	22.8	118.75	2
<b>GLOBAL</b>	<b>1,251</b>	<b>70.4</b>	<b>56.27</b>	<b>7</b>

(Adapted from Ligman, 2013, non-paginated)

## What is Game Advertising?

Part of the revenue generated within the games industry comes from advertising associations with games and according to the Interactive Advertising Bureau, this can be referred to as ‘Game Advertising’ (Madden

2007; Madden and Richards 2010). Where they failed to present any clear definition of this concept, we have defined this previously as “The association of marketing communications messages with video & computer games to target consumers through Advergames, Around-Game Advertising or In-Game Advertising activities”, (Smith et al., 2014, p. 97). Figure 1 outlines a framework we developed, which provides a clear overview of this concept, highlighting that although the three facets of Advergames, Around-Game Advertising and In-Game Advertising are distinct in nature, linkages can be found between them. Each of these facets will be outlined in more detail over the following few sections. It is worth noting that some authors who have examined the area previously, consider the use of fake brands to be a form of Game Advertising (Nieborg, 2007; Chaney, Lin and Chaney, 2004; Nelson, Keum and Yaros, 2004). However, we believe this to be an incorrect interpretation of the concept as by its very nature advertising is “Any paid form of nonpersonal presentation and promotion of ideas, goods, or services by an identified sponsor” (Kotler et al. 2009, p. 861).

Figure 1. Game Advertising Framework



(Adapted from Smith et al., 2014, p. 97)

In 2013, it has been estimated that Game Advertising was worth in the region of \$US 2.7 billion to the industry. This is expected to rise for the foreseeable future, with the indication being that it may reach the \$US 4 billion mark by 2017 (Murdoch, 2014). Table 2 highlights that although video game advertising lies at the bottom in terms of actual revenue, it has witnessed the second highest growth percentage rate, only being outperformed by digital advertising. In addition, it is also indicated that advertising revenue from games has outperformed cinema based advertising since 2011, which is no mean feat considering that companies have only been taking the concept seriously in the last 10 years or so.

Table 2. Global Advertising Revenue and Revenue Growth 2008-2017

GLOBAL ADVERTISING BY CATEGORY (US \$ MILLIONS)										
CATEGORY	2008	2009	2010	2011	2012	2013*	2014*	2015*	2016*	2017*
Digital	61,438	63,761	75,676	90,189	106,772	125,223	144,718	165,992	188,307	212,163
Television	157,727	146,523	163,856	169,117	179,954	186,493	203,937	212,376	232,293	244,094
Audio	33,363	28,963	30,882	31,387	32,029	32,869	33,896	34,871	36,117	37,211
Cinema	1,854	1,828	2,047	2,073	2,175	2,252	2,350	2,481	2,621	2,759
Out-of-Home	31,630	27,438	28,816	29,592	30,440	31,466	32,882	34,435	36,187	37,967
Consumer Magazines	33,562	27,198	27,920	27,973	27,226	26,642	26,370	26,348	26,605	26,991
Newspapers	107,369	88,840	89,534	88,722	86,425	84,786	83,947	83,667	83,926	84,419
Video Games	1,374	1,602	1,864	2,147	2,442	2,745	3,036	3,344	3,643	3,939
<b>TOTAL</b>	<b>428,317</b>	<b>386,153</b>	<b>420,595</b>	<b>441,200</b>	<b>467,463</b>	<b>492,476</b>	<b>531,136</b>	<b>563,514</b>	<b>609,699</b>	<b>649,543</b>

GLOBAL ADVERTISING GROWTH BY CATEGORY (PERCENT)										
CATEGORY	2008	2009	2010	2011	2012	2013*	2014*	2015*	2016*	2017*
Digital	18.7	3.8	18.7	19.2	18.4	17.3	15.6	14.7	13.4	12.7
Television	1.1	-7.1	11.8	3.2	6.4	3.6	9.4	4.1	9.4	5.1
Audio	-4.5	-13.2	6.6	1.6	2.0	2.6	3.1	2.9	3.6	3.0
Cinema	-0.5	-1.4	12.0	1.3	4.9	3.5	4.4	5.6	5.6	5.3
Out-of-Home	1.1	-13.3	5.0	2.7	2.9	3.4	4.5	4.7	5.1	4.9
Consumer Magazines	-2.0	-19.0	2.7	0.2	-2.7	-2.1	-1.0	-0.1	1.0	1.5
Newspapers	-7.9	-17.3	0.8	-0.9	-2.6	-1.9	-1.0	-0.3	0.3	0.6
Video Games	30.9	16.6	16.4	15.2	13.7	12.4	10.6	10.1	8.9	8.1
<b>TOTAL</b>	<b>-0.3</b>	<b>-10.1</b>	<b>8.6</b>	<b>4.5</b>	<b>5.5</b>	<b>5.0</b>	<b>7.5</b>	<b>5.7</b>	<b>7.9</b>	<b>6.2</b>

\* = estimated

(Adapted from Murdoch, 2014, p. 8)

## **Advergames**

The term 'Advergame' originated in January 2000 when Anthony Giallourakis purchased the domain name *advergames.com* and is simply a hybrid of the words 'advertising' and 'game'. It subsequently appeared in the October 2001 edition of *Wired Magazine* with the definition "Advergame: A downloadable or Web-based game created solely to enable product placements", (Branwyn, 2001, non-paginated), and was quickly adopted by the industry. However, this early definition no longer reflects the true nature of Advergames as they have evolved beyond being simple online or downloadable games to include those which can be played via a games disk on both computer and video console. As such, a more accurate definition can be indicated as being "A digital game specifically designed for the primary purpose of advertising and promotion of an organisations product, service or brand played via the Internet or on a compatible medium via a games disc or digital download", (Smith et al., 2014, p. 101). Figure 1 outlines that this type of advertising association can be considered to be either (1) Direct Response, where the game has been designed to generate either leads for the brand being promoted and may involve gamer details being passed to organisations or (2) Experiential, where the game is developed to sustain positive consumer attitudes through associations with particular lifestyle or social choices (Abbot, 2008). No matter the intention of why these games have been designed, they are usually considered to be more casual in nature, allowing products and brands to be promoted in a more engaging and fun way to new and existing customers of all ages.

## **In-Game Advertising**

An alternative form which maybe better suited to mainstream games is that of In-Game Advertising. We define this as "The integration of non-fictional products and brands within the playing environment of video & computer games through simulated real life marketing communications mechanisms" (Smith et al. 2014 p. 101). This facet of game Advertising is achieved through placing products directly into the games via Product Placement or communicating with gamers through Marketing Displays. Product Placement is defined here as being "...the integration of branded non-fictional products embedded within the gaming environment as either a passive implicit background element or as a contextually active, explicit and interactive element which can be static or dynamic in nature" (Smith, et al., 2014, p. 9). Moreover, Marketing Displays are defined as "...static or dynamic displays which can be either associative or interactive simulations of real world mediums such as advertising hoardings, posters, store signage, sports apparel sponsors, etc but not the actual products themselves" (adapted from Smith et al., 2014, p. 99).

Figure 1 highlights that In-Game Advertising can be placed within a game as either (1) a Static placement, where advertising elements are coded directly into the game during its development and cannot be altered or removed without a new version of the game being released (IAB, 2009; Bardzell, Bardzell and Pace 2008) or (2) a Dynamic placement, where advertising elements can be changed or additional branded items added through downloads, via disks or more conveniently, via an internet connection which adjusts pre-existing areas within the game in real-time as it is being played. This allows for consumer targeting with alternative messages being displayed at different times and for time limited campaigns similar to television advertising. In addition, advertisers are able to react to changing trends as well as promoting new products such as the release of a new film or television programme within pre-existing games which have built up an online following (Wallington, 2010; Krihak, 2008; Steiner, 2008).

Unlike Advergames, games which usually incorporate In-Game Advertising are not specifically designed to promote a product, brand or service. Rather the use of this form of Game Advertising is more concerned with enhancing the playing environment by creating a more accurate reflection of the real world advertising and promotion mediums.

## **Around-Game Advertising**

However, not all games are suited to take advantage of the potential revenue from either being designed as an Advergame or for the inclusion of In-Game Advertising. In terms of In-Game Advertising, the gaming environment or setting may not be conducive to the inclusion of advertising. For example, would it really be acceptable to see Coca Cola being promoted in fantasy games such as the *Final Fantasy* through purchasing cans from their item shops or having billboards placed in *World of Warcraft*? Would sci-fi games set in a distant future be deemed suitable for the inclusion of *Mountain Dew*? We think not. As such, a third facet of Game Advertising exists which attempts to eliminate the intrusive nature of incorporating such advertising associations. This is termed as Around-Game Advertising which we define as "Advertising and promotion

linked to video and computer games through non-intrusive around game displays or licensing of game branding with associated third-party products” (Smith et al., 2014, p. 101).

Figure 1 shows that Around-Game Associations can be either in the form of (1) Banners, which are usually placed around the gaming environment and hyperlinked to product websites (Wang, Shih and Peracchio, 2013) and according to Acer (2007) they have proven to be so popular that it would be extremely rare to play Advergaming online without being exposed to banners; (2) Interstitials, which usually take the form of videos played pre and post-game as well as during load screens (Verna, 2012; IAB, 2010; Panda, 2008); (3) Sponsorship, where an advertiser has sponsored part of the game environment such as allowing free game access; sponsoring a game level or through ‘Game Skinning’ where the advertiser sponsors the game environment within which the game is placed or has been given a sponsored area within the game portal (Charlesworth 2009; Nichols, 2008) or finally (4) Promotion, where licensing agreements are set up to allow for advertising associations with the game away from the playing environment such as (a) Cross Promotion, defined by Chalmers et al. (2013, p. 4) as ‘...a form of marketing promotion whereby customers of one product or service are targeted with the promotion of a related product [or service]. This includes the area of Cross Media Promotion, which is defined by Hardy, (2010 p. xv) as “...the promotion of one media service or product through another”. within games this includes games which have been turned into movies or television programmes and vice versa; or (b) Promotional Merchandise, which involves “...employing promotional products to help companies and other organizations advertise their products and services” (Long 2014 non-paginated) and in some cases are viewed as being Collectables. Within games, this form of advertising has proved to be quite popular over recent years with highly successful campaigns being carried out with ‘World of Warcraft’ and Coca Cola; ‘Halo 2’ and ‘Halo 3’ with PepsiCo’s Mountain Dew brand and various promotions linking Final Fantasy games with the Japanese drinks manufacturer Suntory (Beavis, 2007; Hampp, 2008 & Muzellec et al., 2012).

### **Methodology & Research Design**

The study outlined here was part of wider research which examined ‘Product Associations with Incongruent Games: An Exploratory Study of Game Advertising’. This consisted of three main phases of (1) conducting a Systematic Literature Review, which examined published material between 2001 and 2013 in the area of Game Advertising; (2) a Content Analysis of Game Advertising within the top 200 selling games in 2005 through 2009 and finally, (3) Focus Groups examining Game Advertising attitudes. It is within this final phase of the research where this paper is based, linking to the research question ‘What are the thoughts and attitudes of gamers to the use of Around-Game Advertising through Promotional Merchandising to target them as consumers’. Overall this aspect of the research was mixed methods in nature. From a quantitative perspective, a pre and post focus group questionnaire was used to gauge attitudes. The majority of the questions utilised a 5-point Likert-type ranging from 1 (strongly disagree) to 5 (strongly agree). Other questions asked participants to rank five items in order of influence ranging from 1 (least influential) to 5 (most influential), with others being open questions asking for textual comments. Qualitatively, the groups were digital recorded to ascertain more in-depth insights into gamers attitudes.

A total of four focus groups were held on the same day lasting on average 90 minutes, with eight participants in each group who were selected through a non-probability, purposive homogeneous sampling strategy of students undertaking games based degrees within a university based in Scotland. Upon arrival, each participant was asked to complete the first three sections of the focus group booklet which included (1) the participant consent form; (2) a demographic questionnaire and (3) the first focus group questionnaire which included questions on their general advertising attitudes, their interaction with carbonated soft drinks and their thoughts on advertising and games in general. Thereafter, each group was briefed on how the session would work, with the indication being that this would be broken down into two main areas. The initial discussion would be aimed at examining participants knowledge, attitudes and opinions on various facets and issues associated with Game Advertising. This would then be followed by a more focused discussion on elements associated with Around-Game Advertising where participants would get the opportunity to discuss and comment on four different brands of carbonated soft drinks or energy drinks (Coca Cola, Mountain Dew, Suntory and Boston America Corp.) which had ties to sixteen different games (Aion, Donkey Kong, Final Fantasy VII, Final Fantasy IX, Final Fantasy X, Final Fantasy XII, Final Fantasy XIII, Final Fantasy Dissidia, Gears of War, Halo Reach, Halo 3, Pac-Man, Resident Evil, Street Fighter, Super Mario Brothers, and World of Warcraft) through exposure to fourteen products and eleven associated advertisements. Finally, each group was informed that the sessions would be audio recorded with two digital voice recorders openly

placed on the table and that all responses would be anonymised. Two moderators, including the researcher, were present in the room at all times allowing for ample opportunities for questions to be asked throughout the session. Upon completion, participants were reminded about confidentiality and not to discuss their participation with any of the subsequent groups. Moreover, they were reminded that they would be approached the following week to complete the last section of the booklet. Consequently, each participant was approached within a computer lab one week after the focus group and were asked to complete the final section of the focus group booklet. All participants completed the questionnaire in full.

As this research was looking to ascertain meanings and perceptions rather than absolute truths, Thematic Analysis was deemed to be most the appropriate qualitative analysis technique. Braun and Clarke, (2006, p. 79) define this as "...a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail". Due to the exploratory nature of the research, using this process allows for themes to naturally emerge from the data as it is not embedded within any pre-existing theoretical framework. Other techniques were considered such as Grounded Theory and Interpretive Phenomenological Analysis (IPA), however these were ultimately discarded. Although IPA relies on a purposive homogeneous sampling strategy, it is too heavily reliant on participant shared experiences (Seamark et al., 2004), which was not the focus of this research. In addition, grounded theory was discarded as it relies on a comprehensive data collection process which is continuous until a saturation point is reached where no new insights are discovered as well as looking to develop theory, (Cohen, Manion and Morrison, 2011), which again was not the focus within this research.

Furthermore, to help alleviate some of the concerns which can be associated with qualitative research related to issues such as objectivity, rigour, trustworthiness and transparency, (May, 1996; Clarke, 2002 and Oliveira & Ferreira, 2011), elements of Thematic Network were utilised. According to Attride-Stirling, (2001, p. 185), this is "...a robust and highly sensitive tool for the systematization and presentation of qualitative analyses". In essence, this framework provides a conceptualisation of the qualitative analysis undertaken within three hierarchical thematic layers. These have been interpreted within this research as being: (a) the Global Theme: which provides the holistic contextual point of reference for the analysis; (b) the Organising Themes: which provide the collective grouping of similar positions or assertions and (c) the Basic Themes: which provide derived foundation principles appearing within the textual data. Moreover, this framework is developed from a six step process of (1) Code Material; (2) Identify Themes; (3) Construct Thematic Networks; (4) Describe and Explore Thematic Networks; (5) Summarize Thematic Networks and (6) Interpret Patterns (Attride-Stirling, 2001, p. 391).

## **Findings**

This section outlines some of the main quantitative and qualitative results obtained from the third and final phase of the research investigation which looked at Around-Game Advertising as an alternative to In-Game Advertising:

### **Quantitative**

Although the focus groups were predominately used for collecting qualitative insights, some basic quantitative data was also collected, This was analysed from both a descriptive and inferential perspective through the use of 'IBM SPSS Statistics 20' software examining the areas of participants: (a) demographics and gaming experience; (b) attitudes towards advertising and advertising of soft drinks and energy drinks; and (c) attitudes towards Game Advertising.

#### *Participant demographics and gaming experience*

The demographic outline of the groups is presented in Table 3, which highlights that the majority of participants were male (90.6%) and aged between 18 and 25 (93.8%). This reflected the make-up of the undergraduate degree courses from which these participants were chosen, with the majority studying Computer Games Development (59.4%) rather than Computer Games Technology (40.6%). We were interested in the thoughts of gamers who could be considered to be experts in terms of their knowledge and experience of playing games. Expert gamers can be defined in various ways with Gangadharbatla, Bradley and Wise (2013) indicating that this can range from the number of hours played per week to their knowledge or familiarity with games and gaming consoles. As such, we adopted two characteristics for our participants to be considered experts, namely if they played regularly for more than five hours per week (Schneider & Cornwell, 2005) and had more than two years' gaming experience (Boot et al., 2008). It can be seen from

Table 3 that all our participants indicated that they played games on average for six hours or more and all had been playing games for eight or more years. In light of these results and the fact that all participants were studying for a games related degree, we consider them to be experts as they exceed the minimum criteria.

Table 3. Focus Group Demographic Characteristics

CHARACTERISTIC	GROUPING	FREQUENCIES (N=32)	PERCENTAGES (%)
<b>Gender</b>	Female	3	9.38
	Male	29	90.62
<b>Age*</b>	18-20	14	43.75
	21-25	16	50.00
	31-35	2	6.25
<b>Degree</b>	Computer Games Development	19	59.38
	Computer Games Technology	13	40.62
<b>Gaming Experience* (Years)</b>	8-10	6	18.75
	10 and over	26	81.25
<b>Average Weekly Playing* (Hours)</b>	6-10	8	25.00
	11-15	7	21.88
	16-20	6	18.75
	21-25	5	16.62
	25+	6	18.75
<b>Gaming Medium</b>	PS3	5	15.63
	Xbox 360	6	18.75
	PC	7	21.88
	Nintendo Wii	4	12.50
	PS2	2	6.25
	Xbox	2	6.25
	PSP	3	9.37
	Nintendo DS or DSi	3	9.37
<b>Favourite Gaming Genre</b>	1 Person Shooter	3	9.38
	Action/Adventure	11	34.38
	Platform	2	6.25
	Puzzle	1	3.12
	RPG	12	37.5
	Sports/Racing	2	6.25
	Strategy	1	3.12

\* Any gaps within groupings indicates zero participant response (e.g. Age grouping 26-30 had zero responses)

#### *Participant attitudes towards advertising and advertising of soft drinks and energy drinks*

Using a 5-point likert scale (from 1=Strongly Disagree to 5=Strongly Agree) participant attitudes towards whether they viewed advertising as being annoying/intrusive was gauged through their responses to various statements as outlined in Table 4. Using both descriptive statistical analysis through a series of Mean (M) and Standard Deviations (SD) tests as well basic inferential analysis with a series of Wilcoxon Signed Rank tests (Wilcoxon Test), we found that overall participants attitudes became more positive towards advertising after participating in the focus group, although the only significant change was found to be in regards to their general attitude rather than concerning some of the more specific issues related to advertising format.

Table 4. General Advertising Attitude

QUESTION STATEMENT	BEFORE FOCUS GROUP	AFTER FOCUS GROUP	WILCOXON TEST
In general, advertising in any form is annoying/intrusive to me	M = 2.87, SD = 0.94	M = 2.59, SD = 1.01	Z = -2.179, $p = 0.029$ (Significant change)
Advertising is annoying/ intrusive when the product/service being advertised is of no interest to me	M = 3.63, SD = 1.13	M = 3.69, SD = 1.09	Z = -0.351, $p = 0.726$ (No significant change)
Advertising before movies is annoying/intrusive to me	M = 2.97, SD = 1.28	M = 2.91, SD = 1.23	Z = -0.816, $p = 0.414$ (No significant change)
TV programmes sponsored by a particular brand/product is annoying/intrusive to me	M = 2.94, SD = 1.05	M = 2.88, SD = 1.10	Z = -0.816, $p = 0.414$ (No significant change)
Commercial breaks during TV shows are annoying/intrusive to me	M = 4.03, SD = 0.82	M = 3.84, SD = 1.05	Z = -1.561, $p = 0.119$ (No significant change)
Product placement in Films or TV shows is annoying/intrusive to me	M = 2.97, SD = 1.20	M = 2.97, SD = 1.20	Z = 0.000, $p = 1.000$ (No significant change)

In addition, we also examined participants attitudes concerning different advertising mediums by asking them to rank their top three influences from Cinema, Games, Mobile, Online, Outdoor, Print Media, Radio, and Television advertising. Through a Friedman test, we that found clear preferences existed ( $\chi^2 = 86.652$ ;  $p < 0.05$ ) with Weighted Mean analysis (WM) showing that participants were more influenced by the mediums

of Online (WM=2.21, SD=0.73), closely followed by Television (WM=2.20, SD=0.91) and then Games (WM=2.10, SD=0.74) rather than Cinema (WM=1.91, SD=0.83), Mobile (WM=1.67, SD=1.15), Outdoor (WM=1.50, SD=0.58), Radio (WM=1.50, SD=0.58) and finally Print Media (WM=1.40, SD=0.70).

Examining more closely purchase influences for carbonated soft drinks and energy drinks, participants were asked to rank the five factors of Advertising, Brand Name, Packaging, Price, and Recommendation. In terms of soft drinks, it was found that the 29 participants who indicated that they consumed these appeared to have a clear preference (Friedman:  $\chi^2 = 10.428$ ;  $\rho = 0.034$ ). Conversely, no clear preference was found from the 23 participants who consumed energy drinks (Friedman:  $\chi^2 = 3.861$ ;  $\rho = 0.425$ ). Interestingly, Table 5 highlights that our participants actually indicated Advertising as being the least influential for both (Carbonated Soft Drinks: WM=2.34, SD=1.26; Energy Drinks: WM=2.48, SD=1.27), with Recommendation being the most influential for carbonated soft drinks (WM=3.52, SD=1.40) and Brand Name being considered the most important for those buying energy drinks (WM=3.30, SD=1.52).

Table 5. Purchase Influences

Carbonated Soft Drinks		Energy Drinks	
Recommendation	WM=3.52, SD=1.40	Brand Name	WM=3.30, SD=1.52
Price	WM=3.28, SD=1.44	Price	WM=3.17, SD=1.53
Brand Name	WM=3.17, SD=1.42	Recommendation	WM=3.13, SD=1.42
Packaging	WM=2.69, SD=1.34	Packaging	WM=2.91, SD=1.31
Advertising	WM=2.34, SD=1.26	Advertising	WM=2.48, SD=1.27

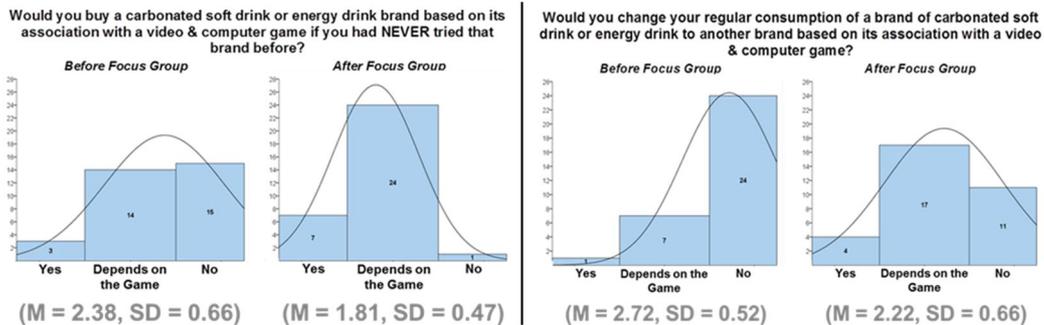
*Participant attitudes towards Game Advertising*

Again using a 5-point likert scale (from 1=Strongly Disagree to 5=Strongly Agree), we gauged participant responses to whether they disagreed or agreed with various statements concerning Game Advertising as outlined in Table 6. Using both descriptive statistical analysis through a series of Mean (M) and Standard Deviations (SD) tests as well basic inferential analysis with a series of Wilcoxon Signed Rank tests (Wilcoxon Test), we found that participants attitudes towards Game Advertising positively changed after exposure to Around-Game Advertising facets, with the changes for each statement found to be significant.

Table 6. Game Advertising Attitude

QUESTION STATEMENT	BEFORE FOCUS GROUP	AFTER FOCUS GROUP	WILCOXON TEST
Advertising of products should never be associated with video & computer games	M = 2.63, SD = 0.97	M = 1.81, SD = 1.12	Z = -3.414, $\rho = 0.001$ (Significant change)
Video & computer game associated advertising is acceptable when the products are of interest to me	M = 3.63, SD = 0.87	M = 4.22, SD = 1.04	Z = -3.273, $\rho = 0.001$ (Significant change)
Video & computer game associated advertising is acceptable when there is a link between the product and the game	M = 3.84, SD = 1.05	M = 4.56, SD = 0.62	Z = -3.389, $\rho = 0.001$ (Significant change)
Video & computer game associated advertising is acceptable when it provides free downloadable content	M = 3.72, SD = .82	M = 4.00, SD = 0.88	Z = -2.714, $\rho = 0.007$ (Significant change)
Video & computer game associated advertising is acceptable when it only utilises game characters to promote products	M = 4.00, SD = 0.88	M = 2.06, SD = 0.72	Z = -2.610, $\rho = 0.009$ (Significant change)

Figure 2. New Product Purchase and Brand Change



Participants were also asked to indicate whether they would buy a drink they had never purchased before as well as whether they would consider changing their regular brand of drink both based on the drinks association with games. Figure 2 highlights that in both cases before the focus group there was generally a

negative attitude towards this (New Purchase: M=2.38, SD=0.66; Brand Change: M=2.72, SD=0.52) but after exposure to the Around-Game Advertising facets this negative attitude change towards being more neutral and dependent upon the game (New Purchase: M=1.81, SD=0.47; Brand Change: M=2.22, SD=0.66). Moreover, in both cases this change was indicated as being significant through a Wilcoxon Test ((New Purchase:  $Z = -2.840$ ,  $\rho = 0.005$ ; Brand Change:  $Z = -3.771$ ,  $\rho = 0.000$ ).

Due to these significant changes in both buying decision and brand changes, it was decided to examine individual factors to ascertain their influence both before and after exposure to Around-Game Advertising products and advertisements. As such, the factors of: (i) gender, (ii) age, (iii) gaming experience, (iv) playing hours per week, (v) video and computer games as a top three advertising medium influencers and (vi) general advertising perception were tested. Using a Kruskal-Wallis test where a clear influence would be if  $X^2 > X^2_{Critical}$ ;  $\alpha < 0.05$ , it was found that none of these factors had significant influence on an individual basis (see Table 7). Consequently, it was decided to use ordinal regression to explore potential links amongst variables to a dependent variable. Other tests such as linear regression, ANCOVA or MANCOVA were not selected due to their strict assumptions about linear relationships or normality distribution (Poole and O'Farrell, 1970; Hoelter, 1983; Keselman, et al., 1998). Within this research, most of variables were ordinal data which were collected through 3-point or 5-point Likert scales. However, tests of normality on dependent variables showed that these were not normally distributed. For example, the normality test on results obtained before focus group participation for purchase decision making (Kolmogorov-Smirnov:  $W = 0.461$ ,  $\rho = 0.000$ ; Shaprio-Wilk:  $W = 0.549$ ,  $\rho = 0.000$ ) and attitudes towards advertising and games (Kolmogorov-Smirnov:  $W = 0.277$ ,  $\rho = 0.000$ ; Shaprio-Wilk:  $W = 0.716$ ,  $\rho = 0.000$ ). Therefore, assumptions associated with ANCOVA or MANCOVA cannot be achieved. As such, due to the ordinal nature of dependent variables within this research, ordinal regression was used. Moreover, this ordinal regression test does not have as many restrictions as the others, except a critical assumption of parallel lines for all variables, and assumptions about this held (Before:  $\rho = 0.999 > 0.05$ ; After:  $\rho = 1.000 > 0.05$ ).

Table 7. Influencing Factors on New Purchase and Brand Choice

FACTOR	QUESTION	BEFORE	AFTER
Gender	Buy Product	No test can be done due to sample size and the number of groups	
	Change Brand		
Age	Buy Product	$X^2=1.225 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=1.225 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
	Change Brand	$X^2=7.520 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=4.440 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
Game experience	Buy Product	No test can be done due to sample size and the number of groups	
	Change Brand		
Playing hours per week	Buy Product	$X^2=5.24 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=7.445 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
	Change Brand	$X^2=5.184 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=1.683 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
Preference to video games as advertising medium	Buy Product	$X^2=6.001 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=2.330 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
	Change Brand	$X^2=2.359 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=1.306 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
Perceptions on advertising influences in general	Buy Product	$X^2=0.729 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=1.051 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)
	Change Brand	$X^2=3.898 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)	$X^2=0.231 < X^2_{Critical}$ $\alpha > 0.05$ (No significant influence)

In terms of ordinal regression, SPSS was found to have used the following model:  $link(\gamma_{ij}) = \theta_j - [\beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip}]$ , where  $link( )$  = the link function;  $\gamma_{ij}$  = the cumulative probability of the  $j^{th}$  category for the  $i^{th}$  case;  $\theta_j$  = the threshold for the  $j^{th}$  category;  $p$  = the number of regression coefficients;  $x_{i1} \dots x_{ip}$  = the values of the predictors for the  $i^{th}$  case and finally,  $\beta_1 \dots \beta_p$  = the regression coefficients. As such,  $\beta$  will have a positive influence on the cumulative probability of participants buying decision where it is negative and a negative influence where it is positive.

Ordinal regression was used to determine if there was any link between responses associated with  $\gamma_{ij}$  (Advertising of products should never be associated with video & computer games) and the four factors of

X<sub>1</sub>: Video & computer games associated advertising is acceptable when the products are of interest to me; X<sub>2</sub>: Video & computer games associated advertising is acceptable when there is a link between the product and the game; X<sub>3</sub>: Video & computer games associated advertising is acceptable when it provides free downloadable content; and X<sub>4</sub>: Video & computer games associated advertising is acceptable when it only utilises game characters to promote products. From the data gathered from responses before taking part in the focus group, the following ordinal regression model of cumulative probabilities of participants buying decision for drinks were estimated through SPSS as outlined below:

$$\begin{aligned} \text{link}(\gamma_{1BE}) &= -14.061 - [(-0.589) * X_{1BE} + (-2.189) * X_{2BE} + (-0.159) * X_{3BE} + (-0.394) * X_{4BE}] \\ \text{link}(\gamma_{2BE}) &= -11.482 - [(-0.589) * X_{1BE} + (-2.189) * X_{2BE} + (-0.159) * X_{3BE} + (-0.394) * X_{4BE}] \\ \text{link}(\gamma_{3BE}) &= -10.600 - [(-0.589) * X_{1BE} + (-2.189) * X_{2BE} + (-0.159) * X_{3BE} + (-0.394) * X_{4BE}] \\ \text{link}(\gamma_{4BE}) &= -9.994 - [(-0.589) * X_{1BE} + (-2.189) * X_{2BE} + (-0.159) * X_{3BE} + (-0.394) * X_{4BE}] \end{aligned}$$

After taking part, the model was presented as outlined below:

$$\begin{aligned} \text{li link}(\gamma_{1AF}) &= -13.937 - [(-1.167) * X_{1AF} + (-0.870) * X_{2AF} + (-0.254) * X_{3AF} + (-0.968) * X_{4AF}] \\ \text{link}(\gamma_{2AF}) &= -11.536 - [(-1.167) * X_{1AF} + (-0.870) * X_{2AF} + (-0.254) * X_{3AF} + (-0.968) * X_{4AF}] \\ \text{link}(\gamma_{3AF}) &= -8.504 - [(-1.167) * X_{1AF} + (-0.870) * X_{2AF} + (-0.254) * X_{3AF} + (-0.968) * X_{4AF}] \\ \text{link}(\gamma_{4AF}) &= -5.819 - [(-1.167) * X_{1AF} + (-0.870) * X_{2AF} + (-0.254) * X_{3AF} + (-0.968) * X_{4AF}] \end{aligned}$$

On closer inspection it can be seen from the ‘before focus group’ model that the estimated  $\beta$  associated with the X<sub>2</sub> factor is the strongest compared to the other three. However, within the ‘after focus group’ model the strongest factor turned out to be X<sub>1</sub>.

Before exposure negative attitudes appeared to be mostly developed from issues pertaining to incongruence between product and game (X<sub>1BE</sub>). However, after exposure negative attitudes were found to develop in relation to the level of interest in the product shown by the participants (X<sub>2AF</sub>).

### Qualitative

When it came to examining participants attitudes towards the four elements of Around-Game Advertising, namely Banners, Interstitials, Sponsorship and Promotion, this was done through a thematic analysis of the focus group transcripts. Overall, it was found that participants held negative attitudes towards the majority but not all of these:

#### *Banners*

When it came to the use of banner advertisements it was found that all participants held strong negative views of their use and although it was indicated that they may be used online, they were not wanted within ‘mainstream gaming (D75: “*Banners don’t work. Their too distracting when playing games online and the last thing we need is for this to happen in mainstream gaming as well. Stick to online free games and give the rest of us peace*”). Question marks were also raised over their effectiveness with more than participant indicate that they had never clicked one (B64: “*I don’t think banners are effective. I don’t think I’ve ever clicked one, other than by accident when trying to get rid of it or when I am forced to so that I get more lives*”).

#### *Interstitials*

Similar negative attitudes emerged in relation to the use or even the potential use of Interstitials with participants holding strong views with the indication being that they were an ineffective and overly intrusive form of advertising. Comparisons were made to how these are used within social media sites (A68: “*I hate these on YouTube so there is no way these should ever be associated with games*”) or on mobile devices as an example of why they should never be employed within conventional gaming. This was particularly true when it was considered that on other mediums these were usually associated with free or cheap games rather than full priced console games (A64: “*I really hate these when they appear in mobile games but at least the cost of those games are either free or relatively cheap. If I’m being asked to pay over £40 for a game then the last thing I want to see is a video clip being played between each level or whilst the game is loading*”).

### *Sponsorship*

In terms of Sponsorship, there was near unanimous agreement that this feature of Around-Game Advertising was not really appropriate for mainstream gaming. The general attitude appeared to be that the problem with sponsorship of game is the perception that there would end up with no link being made between the game and product, with the developer only interested in the money:

D78: *“I know money talks but game developers have to draw the line somewhere and for me, this is the line. Having games sponsored would just [expletive] off the majority of gamers and I think there would be a major backlash against the developer and the company doing the sponsoring”*

A70: *“I’m sorry but no way can you have games being sponsored. Come on, if this happened we all know it would end up with game titles such as...[thinks for a moment]...Tom Clancy’s Ghost Recon: Pizza Hut edition”*

That being said some participants did see beyond this perception with the indication that some games could benefit from this if they ensured that the congruence between the game and product was high (B72: *“I suppose it could work with certain games such as a Porsche edition of Gran Turismo but I don’t think it will be welcome by most gamers”*

### *Promotion*

The only element of Around-Game Advertising which gained strong positive comments was that of Promotion with perception being that this form of advertising was less intrusive, offering additional revenue streams for all gaming genres (D117: *“Advertising in this way means that all game genres can now be used as a vehicle for promoting products to gamers as you cannot really justify Mountain Dew appearing in Halo, so this is the only way”*). In addition, for the products which were used in the focus group, gamers felt that there were strong links between these and the gaming community (C93: *“I like the fact that I play these games, buy these products and now there is a link between them. Makes me feel as though companies recognise the importance of gamers such as myself as consumers”*). However, no that point it was also pointed out that there is a danger of companies over reaching with this form of advertising with one participant providing a cautionary warning for companies wishing to associate their products with games in this manner, indicating that great care has to be taken over what type of product is being promoted to the gamer (C95: *“I like this as I can see the link between the product and gamers. However, I’m worried that companies will just link any old product they feel like to try and get us to buy them. Energy drinks I can understand but if they try this for say washing up liquid, I don’t think so!”*).

### **Conclusion**

In conclusion, the research outlined here represents one of the first examinations of gamer attitudes towards product-game associations through the Around-Game Advertising element of Promotional Merchandise. Although we accept that in terms of quantitative results our sample size is too small to make generalisations to the wider gaming community, for our participants we found that:

- Advertising through games ranks highly when compared to traditional mediums;
- Exposure to Around-Game Advertising softened attitudes towards general advertising;
- Exposure to Around-Game Advertising softened negative attitudes towards the concept of Game Advertising as a whole;
- Promotional merchandise could be an extremely effective way to promote products to gamers (based on findings associated with carbonated soft drinks and energy drinks).

These offer some important insights which require further examination, as it would appear, at least for our participants, that being exposed to an advertising mechanism which is deemed to be less intrusive than other forms of Game Advertising can have a positive impact on attitudes. As our research was only exploratory in nature, we would encourage future examinations into this area to be more in-depth and to look at the use of Around-Game Advertising to promote other product categories.

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