Advergames Aiming Children in Turkey: A Content Analysis of 65 Advergames[1]

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Abstract: *The purpose of this study is to examine advergame practices of top performing companies targeting children and operating in Turkey. Top 500 leading companies operating in Turkey was determined. Among them, websites of the companies targeting children were analysed and the prevalence of advergames integrated in the Websites of these companies was evaluated by conducting content analysis according to the determined features from an extensive literature review. Among top 500 leading companies, only 10 companies, which are all operating in the food-beverage industry, integrated a total of 84 advergames on their Web sites. However, only 65 advergames of 8 companies were reached in the coding process. The results demonstrated that the companies operating in Turkey do not use advergames extensively and these games are lack of many features of advergames. A content analysis of advergames has not yet been conducted in Turkey. By introducing Persuasion Knowledge Model and the model of Processing of Commercial Media Content, the present paper provided a different approach for evaluating the effects of various features of advergames on children.*

Keywords: Advergames, Content Analysis, Food Industry and Turkey, Persuasion Knowledge Model, Processing of Commercial Media Content

JEL Classification: M31, M37

1. Introduction

In recent years, the effectiveness of traditional advertising formats has decreased and companies prefer to use branded entertainment to promote their products. Thus, there has been an increase in interactive marketing practices in the last decade (Cauberghe and De Pelsmacker, 2010; Reijmersdal *et al.*, 2012). Many studies explored that many companies have spent most of the advertising budget on non-traditional advertising practices, particularly on digital media advertising. Advergames- one of the digital media advertisements, have been extensively used as an alternative way to reach the target customers by the companies. For instance, advergame industry in USA, which is the most developed one in the world, was estimated to have increased from $300 million in 2009 to $500 million in 2012 (Peters and Leshner, 2013: 113). Furthermore, the most valuable 9 global brands out of 10 have used advergames as an advertising tool (Steffen *et al.*, 2013: 183).

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Advergames are the one of the newest practices of advertisers to target children (Lee *et al.*, 2009). Children seem to be willing consumers of advergames (Moore and Rideout, 2007). According to U.S. Census Bureau (2013), 60.2 % of the children between ages 3-17 accesses internet. Pew Internet and American Life Project reported that 97 % of the adolescents between ages 12-17 play digital games (Terlutter and Capella, 2013: 95). Similarly, in Turkey, 60.5 % of the children between ages 6-15 use computer, 50.8% of them have an access to Internet, and 79.5% of these children use internet to play games (Turkish Statistical Institute, 2013). The companies that realized the importance of internet and computers in the lives of the children have started to deliver their advertisements or messages to children by the advergames because the children spend most of their time in playing online games (Evans *et al.*, 2013: 228).

Companies promote products to children via advergames. According to the frequency of the studies, it is inferred that these companies that target children generally operate in the food industry (Cheyne, Dorfman, Bukofzer, & Harris, 2013; Cicchirillo & Lin, 2011; Lee, Choi, Quilliam, & Cole, 2009; Moore & Rideout, 2007). However, other than food industry, as Lee and Youn (2008) concluded that top 100 leading national advertisers using advergames to prome their products operate mostly in the industries of communication, automobile, personal care, drug and entertainment.

Although advergames are so popular among the companies in the world and many children in Turkey use internet to play digital games, the numbers of advergames studies exhibiting the prevalence of advergames are limited. For instance, Aktaş et al. (2010) used experimental design to explore the effects of advergames on elementary school students. The study was held by 65 students and results revealed that 87.7% of them played game on internet. The most popular game genre was found to be adventure games, action and sports games followed respectively. Another study compared the different advergames designed for men and women. They analyzed these games according to the criteria as difficulty level, competition level, viral dissemination feature, integration level of brand into advergame, psychological attractiveness element, and objective feeling that the game aims to give to the player. Kiraci and Yurdakul (2014) also studied advergames by examining the effects of brand congruity level on attitudes towards advergames by conducting their study with 406 young consumers. In the study four advergames in Turkey were analyzed.

These studies conducted in Turkey concentrated on the few features of advergames and did not give the results about the prevalence of the advergames of the companies aiming children in Turkey. They also did not provide a holistic view about the advergame practices in Turkey. Therefore, this study is the first to show the prevalence and the various features of advergames of the companies aiming children in Turkey. The objective of this study is (a) to identify and analyse the advergames on the web sites of top leading companies in Turkey targeting children; and (b) to evaluate various features of these advergames by conducting a content analysis. In line with the objectives of this study, the authors examine top leading companies of Turkey and determine the ones that used advergames for promoting their products to children. In addition, by conducting an extensive literature review, the authors present all attributes of advergames and provide a useful framework to analyse advergames which is first in the literature and will be helpful for future research.

The paper is organized as follows: First, theoretical background of the subject is reviewed and then, the literature review on advergames is provided by discussing different features of advergames. Second, the content analysis of advergames is conducted. Third, results are provided and finally, discussion of the results is presented.

2. Literature Review

2.1. Theoretical Background

Many of the studies investigating the effects of advertisements deal with the issue by explaining how people develop knowledge about advertisements and persuasion. The most widely known theoretical model which defines this knowledge development process is Persuasion Knowledge Model (PKM) by Friestad & Wright (1994). In general manner, PKM demonstrates how people's personal knowledge about persuasion

affects their response to the persuasion attempts of companies. PKM stresses the content, structure, and usage of everyday persuasion knowledge which focused on the context of advertising and marketing messages. Besides, different types of knowledge and abilities that people develop gradually to cope with marketers' strategic attempts are also discussed in the model (Wright *et al.*, 2005: 226). PKM does not merely focus on persuasion knowledge of definite age groups; instead it provides a broad picture for children, youth, and adults. Subsequently, both the authors of the PKM and others tried to explain PKM considering children's cognitive levels. While doing this, they suggested that individuals develop two knowledge types related to persuasion from their childhood to youth. First one is to cope with other's persuasion attempts effectively and the other one is to fulfil his/her own persuasion attempt effectively. Since the children's persuasion knowledge mature, they understand the temporal nature of the persuasion knowledge better and they can examine the convenience and effectiveness of the advertisement tactics (Wright *et al.*, 2005). As children get older, they start to understand the intent of advertising and they use persuasion knowledge while processing these messages. In other words, persuasion knowledge is a defence mechanism which children use when they come across with a persuasive message. This cognitive defence mechanism leads to numerous abilities and all of these abilities are developed during childhood (Panic *et al.*, 2013: 265). Various studies benefitted from Piaget's study in which children's cognitive development model was arranged according to the age stages, and the studies demonstrate that children start to understand the persuasive intent of the advertisement by the age 8, children under the age 7 cannot use acquired knowledge, and children over the age 12 have high levels of persuasion knowledge and ability to assess and use this knowledge (An and Stern, 2011: 44-45).

Another model is called as young people's Processing of Commercial Media Content(PCMC) which was developed to explain the children and youth's processing of commercial content (Buijzen *et al.*, 2010). This model has mainly benefited from Lang's (2000) limited capacity information processing approach. Limited Capacity Model (LCM) has two assumptions. First one states that main task of people is the processing of information such as perceiving stimuli, turning them into mental representations, doing mental work on these representations, and reproducing them in the same form. Second one notes that people's ability to process knowledge is limited (Lang, 2000). LCM has three sub-processes: Initially, information in the environment is gathered, information is translated into mental representation, and it is coded into short-term memory. Next, this mental representation is associated with a newly encoded message and information is stored. Lastly, this stored mental representation or message is reactivated; this sub-process is called as retrieval (Cicchirillo and Lin, 2011: 487). LCM deals with television as a media and investigates the effects of television messages on knowledge processing. Then, as a result of comparing traditional advertising formats with new advertising practices, it has been pointed that content and consequence of new commercial media environment should be studied for children. Therefore, a model- PCMC, which can fill this gap, is presented by Buijzen *et al.* (2010: 430). They have initially presented the triple level model of young people's processing of persuasive messages. These levels are shaped by levels of cognitive elaboration in response to the message.

First level is systematic persuasion processing. This level relies on intense cognitive elaboration which requires more effort. For systematic processing to happen, recipient needs to pay intense attention to the message and should be motivated to process all the available information. Second level is heuristic persuasion processing. There is moderate cognitive elaboration at this level. In comparison to systematic processing, recipient's motivation and ability to process the information are low. Recipients search for easy ways to make overall evaluation about the brand or product. Third level is automatic persuasion processing which requires the minimal cognitive elaboration. In this level, advertising exposure can lead to a change in attitude without awareness of persuasion message obviously. Recipients do not need the ability to process the message. Embedded marketing forms, brand positioning in films, games, or web sites are all rely on this type of processing (Buijzen *et al.*, 2010: 430-431).

All these levels are also assessed considering the cognitive improvements of children. According to the results; children up to the 5-year-old exhibit difficulties in distinguishing advertisements, and perceive them as an entertainment programs without realizing the persuasion intention (Reijmersdal *et al.*, 2012: 36).

The ability to process information among this age group is low. Children in this age group develop attitude toward brands through characters, bright colours, music, etc. Therefore, this age group is affected by the commercial messages via the automatic processing (Buijzen *et al.*, 2010). When children come to the age range of 6-9, they have a basic understanding of realizing the selling intent of the advertisements. However, they are still vulnerable to the commercialized message and want all advertised products (Buijzen *et al.*, 2010; Mallinckrodt and Mizerski, 2007). This age group is characterized by heuristic processing. Between the ages 10 and 12, children become to understand the abstract concepts. Although children between this age group have the ability and motivation required by systematic processing, they cannot practice it. Peer influence is very important in this age group. They are more sensitive to the heuristic signs such as the popularity between friends, appearance, etc. Only after the age 13, children have abilities to perform systematic processing (Buijzen *et al.*, 2010: 432).

Later, Buijzen *et al.* (2010) include the associations between resource allocated to persuasive message (RAPM) and resource required by persuasive message (RRPM) to their explanations. Accordingly, if both RAPM and RRPM are low, message elaboration is also low and this causes automatic processing or no processing at all. If resource required is low and resource allocated is high, this leads to the heuristic processing. Another case occurs when both RAPM and RRPM are high. In this case, persuasion message is processed at the high levels of systematic processing. Lastly, in case if RAPM is low and RRPM is high, it results in cognitive overload and receiver stops collecting more resources for message (Buijzen *et al.*, 2010: 436).

Besides the theories mentioned above, another explanation which was used to demonstrate the psychological ground of advergames is "state of flow" (Călin, 2010: 727). Waiguny *et al.* (2012: 73) describe flow as leisure activities and the state which is felt during playing the game. Flow appears when a person focuses on the action that causes flow. This action causes waste of time and the player feels like s/he is going to be rewarded at the end of the action. It is affirmed that state of flow is activated especially in computer games because the player receives direct messages in a controlled environment and improves his/her ability level within a challenge situation (Steffen *et al.*, 2013: 187). For flow to occur, game should be at certain difficulty level. When player becomes absorbed in a compelling task, optimum experience occurs. To sum, perceived difficulty level is the main component of the flow (Jin, 2011: 117).

2.2. Advergames

Advergames are the games which are specially designed to promote a brand, product, service or idea (Terlutter and Capella, 2013: 96). Unlike the traditional media, advergames integrate the persuasive message into an entertaining game. Furthermore, advergames provide interactive content rather than passive to include consumers into the game. These games enable consumers to establish strong emotional relations with the brand or the product (Evans *et al.*, 2013: 228). In addition, these games are user-friendly and they can be delivered to the consumers in various platforms (Cauberghe and De Pelsmacker, 2010: 5).

Companies usually prefer to use advergames while promoting their product because advergames create brand awareness and positive brand attitude towards brand or product (Faber *et al.*, 2004: 453), and help to constitute customer database (Lee and Youn, 2008: 3). The companies operating in USA promote their products via advergames intensively. For example, it is seen from the study of Lee and Youn (2008: 6) that out of 100 companies which have the highest advertisement spending in USA, 26 of them have advergames in their websites with a total of 294 advergames. Similarly, Lee *et al.* (2009: 141) presented that out of 150 largest companies operating in the food-beverage industry of USA, 47 of them use advergames as a promotion tool and there is a total of 632 advergames on their websites. According to Cicchirillo and Lin (2011: 490) out of 100 non-profit food companies, 21 of them use advergames with a total of 86 games, besides profit-seeking companies. Given that use of advergames as a promotional tool has become widespread in the world, the authors propose the following research question:

RQ1: How prevalent are advergames among the companies targeting children in Turkey?

2.2.1. Brand Identifier in Advergames

An advergame must include at least one type of brand identifier within the game or around the game frame in order to be identified as an advergame (Lee *et al.*, 2009: 141). The studies analysing contents of advergames often determine that whether there is a logo, product, product package, or brand spokescharacter within the game or around the game frame as a brand identifier (Cheyne *et al.*, 2013; Cicchirillo and Lin, 2011; Lee *et al.*, 2009).

Quilliam *et al.* (2011: 234), as distinct from the studies above, examined brand name instead of logo within the game or around the game frame. The study of Moore and Rideout (2007: 215) evaluated only brand, logo, or brand spokescharacter as a brand identifier in an advergame. Lee and Youn (2008) determined that whether there is a brand name, logo, or product in an advergame as a brand identifier. Culp *et al.* (2010) analysed that whether there is a product package, brand name, logo, or product in the advergame. By conducting content analysis of advergames in Hungary, Hofmeister-Tóth and Nagy (2011: 296) also determined the colouring which helps players to remember the brand as a brand identifier. Similar to above studies, this study also aims to determine types of brand identifiers placed on advergames in Turkey. Therefore, the second research question is put forth:

RQ2: What types of brand identifiers are used in the advergames of the companies targeting children in Turkey?

How a brand identifier is integrated into an advergame is important because brand prominence affects the effectiveness of brand in the memory. Therefore, the researchers have examined integration of brand identifiers in various positions into advergames. Product or logo should be emphasized visually for brand recognition, and repetition of this emphasis is essential for brand recall (Clow and Baack, 2012: 224). Therefore, positive effects of brand identifier on brand attitude, brand recognition, and brand recall were demonstrated in various studies (Peters and Leshner, 2013; Cauberghe and De Pelsmacker, 2010; Reijmersdal *et al.*, 2012).

Brand identifier is integrated into an advergame in two ways: active and passive. Integration of brand identifier into an advergame actively means that a brand, logo, brand spokescharacter, product, etc. is part of the game and used as a tool in an advergame (Cauberghe and De Pelsmacker, 2010; Cicchirillo and Lin, 2011; Hofmeister-Tóth and Nagy, 2011; Lee and Youn, 2008; Lee *et al.*, 2009; Peters and Leshner, 2013). Passive integration is defined as the integration of brand into an advergame either around the game frame (Hofmeister-Tóth and Nagy, 2011; Peters and Leshner, 2013) or in the background (Cauberghe and De Pelsmacker, 2010; Cicchirillo and Lin, 2011; Lee and Youn, 2008; Lee *et al.*, 2009). Considering the importance of brand integration on brand recall, attitude, and recognition, the following research question is asked:

RQ3: What types of brand integration strategies are used in the advergames of the companies targeting children in Turkey and to what extent do they use them?

2.2.2. Functions of Advergames

There are some functions of advergames for companies and children. One of the functions of advergames for the companies can be educating the children about the product while playing with it (Cicchirillo and Lin, 2011; Lee and Youn, 2008; Lee *et al.*, 2009; Moore and Rideout, 2007). Therefore, advergames capture the children's attention on the brand in a way that 30 seconds TV advertisements cannot (Evans *et al.*, 2013: 228). The beneficial functions of advergames in terms of children can be giving advices to children about healthy diet (Cicchirillo and Lin, 2011; Culp *et al.*, 2010; Lee *et al.*, 2009; Quilliam *et al.*, 2011) and educating them about history, science, and art (Moore and Rideout, 2007; Lee *et al.*, 2009). There is no research that investigates the functions of advergames in Turkey. Thus, fourth research question is put forth:

RQ4: Which functions of advergames do the companies targeting children in Turkey use?

2.2.3. Strategic Features of Advergames

Since target market of advergames is composed of children most of the time, these games should be simple and clear. Therefore, these games should include few buttons to play. Furthermore, the aim of advergames is to expose children to the brand and reach many players at the same time, so these games are designed in a way that children can play again and again, be fascinated with the game, and connect to other players. Thus, the strategic features of advergames are game genre, viral marketing, and features to entice children.

Advergame Genre

Advergames have different contents in line with their types which affect brand attitude. Waiguny *et al.* (2013: 165) illustrated that there are direct effects of game contents, which are including positive or negative elements on the brand attitude. Since the advergames including fight or violence lead to negative brand attitude, advergames should include moderate elements like racing games. Considering the effects of game genre on brand attitude, it is important for companies to use the appropriate game types. Thus, the following research question is proposed:

RQ5: What types of games are prevalent among the advergames of the companies targeting children in Turkey?

Viral Marketing in Advergames

One of the advantages of advergames for marketers is to provide viral marketing (Lee and Youn, 2008: 3). Viral marketing in advergames can be in different forms. For example, players can invite their friends by using 'tell-a-friend tool' to reach many people (Cheyne *et al.*, 2013; Hofmeister-Tóth and Nagy, 2011; Lee and Youn, 2008; Moore and Rideout, 2007). Similarly, there are opportunities for players to connect to the advergames via social networks such as Facebook and so players are allowed to publish their scores online (Hofmeister-Tóth and Nagy, 2011: 290). Given that viral marketing is a big asset for companies to reach many people in a short time, the following research question is proposed:

RQ6: To what extent are viral marketing features used in advergames of the companies targeting children in Turkey?

Features to Entice Children

In order to entice children and make them play games for many hours, advergames offer multiple options to them. These options are as below:

Customization

According to Moore and Rideout (2007: 209), there can be three types of customization in advergames. First, the player can select the character in the game and customize it. Second, the player can customize the game content. Third, the player can customize his/her opponent. Similarly, Lee and Youn (2008) noted that the customization can be in play, spokescharacter, as well as product. The authors in this study are curious about how customization in the advergames of Turkey is. Thus, this study poses the following research question:

RQ7: What aspects of advergames of the companies targeting children are customized in Turkey?

Feedback and Encouragements

Feedback and encouragements can be given in two ways: (1) during the game (2) at the end of the game. Feedbacks given during the game can be in terms of verb or sound. For example, if a player plays a level well, "good job" or "good work" can be seen from the screen. The player can also gain reward by collecting points and achieving the target, and as a result, can reach a higher level. In doing so positive reinforcement is actualized, in other words, the player enjoys the game and the time he/she spent by playing

increases. Reinforcement can also be in an opposite way, like negative reinforcement by moving the player to a lower level (Cicchirillo and Lin, 2011: 494).

Feedback at the end of the game is given to the player by publishing the game score (Cheyne *et al.*, 2013; Lee and Youn, 2008). It is important to publish the game score because different scores of the games affect brand attitude. In their study, Steffen *et al.* (2013) showed that whilst game losers have no change in their attitudes toward advergames or brands, winners experience flow and constitute positive attitude toward brands. In other words, the winners concentrate on the play, lose track of the time, and spend many hours.

In addition to these feedbacks, incentive to try the products, printable results (Cicchirillo and Lin, 2011) and prizes to the successful players are encouragements given in advergames (Culp *et al.*, 2010; Hofmeister-Tóth and Nagy, 2011; Lee and Youn, 2008). To identify the extent to which advergames placed on the web sites of the companies operating in Turkey provide with game feedback and encouragements, the following research questions are put forth:

RQ8: To what extent do the advergames of the companies targeting children in Turkey provide game players with game feedback during the game?

RQ9: To what extent do the advergames of the companies targeting children in Turkey provide game players with game feedback and/or encouragements at the end of the game?

Engagement Techniques

'Play again' option at the end of the game affects the time that player spends on advergame directly (Cheyne *et al.*, 2013; Culp *et al.*, 2010; Moore and Rideout, 2007). Another way to entice players is to provide 'free download' option available for the players. Thus, without internet connection, the player can play advergames many times (Culp *et al.*, 2010: 197). Moore and Rideout (2007: 209) noted that option for 'setting the time limit' also has profound impacts on the time that players spend on playing the games. To indicate which of these techniques are prevalent to engage players in the advergames in Turkey, the following research question is put forth:

RQ10: Which engagement techniques are used in the advergames of the companies targeting children in Turkey?

Furthermore, players should be challenged to a certain level to concentrate on the play entirely and lose track of time according to the theory of flow (Steffen *et al.*, 2013: 184). Waiguny *et al.* (2012) examined the impacts of different levels of game challenge on the brand attitude of children. Their results illustrated that children experienced flow when the game is not too challenging or underchallenged, and they evaluated brands positively when they played medium challenged advergames. Since the challenge level of an advergame has an impact on the time that players spend in the advergames, the following research question is posed:

RQ11: To what extent are the advergames of the companies targeting children in Turkey challenging?

2.2.4. Privacy in Advergames

Concerns about privacy and security issues in the internet have become prevalent among the parents because today children can easily access whatever content in internet. Besides the studies about the advantages of advergames for companies and children, there are studies taking attention to the children's online privacy issues (Moore and Rideout, 2007; Cheyne *et al.*, 2013). Companies want to know their customers' profiles. In other words, companies can force the children to register their advergames before they play the game and therefore, they can reach the demographic information of the parents as well as children. Thus, they can tailor their advertising messages according to consumers' profiles. However, companies can abuse this situation easily. By conducting content analysis, Quilliam *et al*. (2011) showed that whether advergames include ad-break reminders (warning to show that you are viewing a commercial message designed to sell you something) or not. Therefore, this study also examines the extent to which

advergames can create a threat or protect the online privacy of children in Turkey. Thus, the final research question is put forth:

RQ12: To what extent do the advergames of the companies targeting children in Turkey create a threat or protect children's online privacy?

3. Methodology

To explain the research questions above and demonstrate the current advergame practices of the firms operating in Turkey, various features of advergames need to be summarized. Therefore, this study follows up content analysis of advergames that are available in the web sites of leading companies in Turkey.

3.1. Sampling

To systematically assess the content of advergames of companies aiming children, first the companies were determined. The companies were obtained from Capital which is a monthly business and economics magazine. Capital ranked the companies in Turkey according to their revenues and published the list of 500 companies with the highest revenues. Therefore, authors firstly reached the list of 500 leading companies of Turkey in 2012 from Capital. Since this study analyses the advergame practices of the companies targeting children, first, the websites of all these companies were visited, their target market was inspected, and then, the companies which are selling products for children are determined from the list. As a result, only 10 companies are obtained from the list. When these 10 companies targeting children are analysed, it is observed that all these companies are operating in food-beverage industry. Since a company usually offers more than one brands, this study analysed the web sites of the all brands that belong the parent companies. The unit of analysis was an advergame, so the advergames belong to these brands were analysed.

There are 84 advergames located on the 10 web sites of the firms which target children. Therefore, the sample of the study was comprised of 84 advergames. As companies constantly update their advergames, the advergames which were available during the research were included in the sample and 19 advergames of 2 companies could not be reached in the coding process. As a result, to accomplish research objectives a systematical content analysis of 65 advergames belonging to 10 companies was conducted to identify their features.

3.2. Content Analysis

Among the qualitative research methods content analysis is the most widely used one (Hsieh & Shannon, 2005). Stemler (2001: 137) defined content analysis as "a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding". Content analysis is used in a variety of studies (Kotabe and Swan, 1995: 627). Many studies conducted a content analysis to provide a valuable and reliable assessment of websites and advergames (Cheyne et al., 2013; Cicchirillo and Lin, 2011; Culp et al., 2010; Lee and Youn, 2008; Lee et al., 2009; Lin et al., 2011; Hofmeister-Tóth and Nagy, 2011).

3.2.1. Coding Procedure

Coding criteria were created by examining the advergames literature extensively. Before applying content analysis to the sample, randomly selected 10 advergames were played by authors and additional coding criteria were defined. As a result, the coding sheet was obtained as follows (Table 1).

Table 1. Coding sheet

Brand Identifier

Brand Identifier:

brand name, company name, logo, spokescharacter, food item, product package, colour, min. two of the above

Brand Identifier Integration:

part of the game, background only, displayed around the game frame, min. two of the above

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Functions of Advergames

Functions of Advergames:

to have fun for fun's sake

to educate customers about product

to educate children about some fields such as history, science, art, and alphabet

to have fun by "playing with" products

to give information to children about healthy eating habits

min. two of the above

Strategic Features of Advergames

Game Genre:

adventure, puzzle, colouring, strategy, racing, memory, education, logical, ability, others

Viral Marketing:

tell a friend device, connected to online social community, multi-player option, min. two of the above, not available

Features to Entice Children:

Customization: of game, of character, of product, of avatar, selecting the opponent, min. two of the above, not available

Feedback and Encouragement:

Types of feedback at the end of the game: game score, prizes, incentive to try the product, printable result, min. two of the above, not available

Types of feedback during the game: text type feedback during game, sound type feedback during game, reward (reaching a higher level), punishment (moving to a lower level), min. two of the above, not available

Engagement Techniques: free downloads, play again option, recommendation to play other games, setting the time limit, min. two of the above, not available, and challenging levels

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Online Privacy

Online Privacy:

ad-break, parental notification, no registration, optional registration, required registration, min. two of the above

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As seen from the Table 1, 10 variables including both main and sub categories, were analysed. Coder sheet enables coders to select more than one option for criteria having multiple characteristics. For instance, if an advergame contains more than one brand identifier, a coder can code all the identifiers in detail to the sheet.

After creating the coder sheet, 2 independent graduate coders were trained about the coding system. Coders were taught what each of the analysed features mean, and then pilot coding was conducted to prevent the misunderstandings.

Content analysis of this study was conducted between May and June 2014. Next, authors obtain the intercoder reliability by Scott's pi test because this test is used when variables are nominal and there are two coders (Lombard *et al.*, 2002: 591). In this study intercoder reliability for all variables was between 0.82 and 0.97. The values exceed the acceptable level-0.70 in literature (Lombard *et al.*, 2002: 593). Disagreements were reconciled after revisiting the advergames and discussion between two coders.

4. Results

4.1. Prevalence of Advergames

The first research question address the extent to which the companies targeting children among the top 500 leading companies in Turkey used advergames. The results showed that among these 500 companies, only 10 companies were found to use a total of 84 advergames to target children. However, only 65 advergames of 8 companies were available during the content analysis. As seen from the results, advergames of companies aiming children are not prevalent in Turkey.

The results of this study showed that all the companies aiming children providing advergames operate in the food-beverage industry. This finding is similar to the results of Lee & Youn (2008) who conducted their study with the advergames of leading national advertisers in USA. The authors found that most of the advergames (52%) promoted food products.

4.2. Brand Identifier

Regarding the second research question, the types of brand identifiers integrated in the game were analysed. 56 advergames (86.15) utilized more than one brand identifiers. Among these advergames, nearly half (32 advergames, 49.23%) integrated both logo and spokescharacter as brand identifier. 7 advergames (10.78%) included only brand name and 5 advergames (7.69%) included both brand name and spokescharacter. Similarly, 5 advergames (7.69%) included not only brand name and spokescharacter but also company name as brand identifier. None of the advergames used colour as a brand identifier (Table 2). These results showed that the companies aiming children do not prefer to use one of the brand identifier alone. Instead, they use combination of brand identifiers to affect the children.

The third research question inquired what types of and the extent to which brand integration strategies companies aiming children in Turkey use in the advergames. The results illustrated that brands were integrated by only displaying around the game frame in about half of advergames (32 advergames, 49.23%). In 19 advergames (29.23%), brands were integrated to the game both as being part of game and displaying around the game frame. Similarly, only in one advergame (1.54%), brand was integrated to the game both as being the part of game and displaying in the background of the game. In 8 advergames, brands were integrated both as displaying around the game frame and background. 3 advergames (4.62%) used brands in the background only and 2 advergames (3.08%) used brands as part of the game. 32 advergames (49.23%) included brand identifier as only displaying it around the game frame.

Table 2. Brand Identifiers in Advergames

Brand Identifiers	Frequency (%)
Logo and Spokescharacter	32 (49.23%)
Brand name	7 (10.78%)
Brand name and spokescharacter	5 (7.69%)
Brand name, company name, and spokescharacter	5 (7.69%)
Brand name and company name	4 (6.15%)
Brand name, spokescharacter, and food item	4 (6.15%)
Spokescharacter and product package	2 (3.08%)
Brand name, company name, and product package	2 (3.08%)
Spokescharacter	1 (1.54%)
Food Item	1 (1.54%)
Brand name, company name, and food item	1 (1.54%)
Company name, logo, and spokescharacter	1 (1.54%)
Total	65

4.3. Functions of Advergames

Similar to advertisements, advergames also served several functions. This study investigated the functions of advergames that companies use for children in Turkey. The results showed that 34 advergames (52.31%) served to make children have fun for fun's sake. Children can have fun by "playing with" products in 26 advergames (40.00%). However, 1 advergame (1.54%) informed children about healthy food habits and 2 advergames (3.08%) served to educate children about history, art or alphabets. Additionally, 2 advergames (3.08%) had more than one function. One of them educated children about the company's product while making them have fun for fun's sake. The other advergame educated children about history, art or alphabets while making them have fun for fun's sake.

The results of this study showed that the companies aiming children in Turkey do not inform children about health. Instead they make children have fun for fun's sake or have fun by "playing with" product. Since these companies are for-profit companies, it is unsurprising that they promote their products instead of informing children about health (Cicchirillo & Lin, 2011).

4.4. Strategic Features of Advergames

4.4.1. Advergame Genre

Since the game genre affects the attitude toward the brand, the genres that do not include violence or negative patterns should be preferred by companies. Accordingly, advergames of companies aiming children in Turkey avoided the genres which would lead to adverse effects to the brand or company. Results demonstrated that out of 65 advergames, 19 of them (29.23%) were logic games, and 17 of them (26.15 %) were adventure games. Subsequently, skill (8 advergames, 12.31%), colouring (4 advergames, 61.5%), puzzle (3 advergames, 4.62%), memory (3 advergames, 4.62%), education (3 advergames, 4.62%) and racing (1 advergame, 1.54%) were the advergame genres which were available in Turkey. 7 advergames (10.77%) did not fit to these categories. Therefore, they were grouped under "others" title.

4.4.2. Viral Marketing

As seen from the results, companies inspected in this study did not spend special effort to reach so many players. Results displayed only 2 advergames (3.08%) presented an opportunity to connect game via Facebook account. Other 63 advergames utilized none of viral marketing devices. Multiplayer option provides potential to reach a large number of children and allow them to interact with one another. However, all advergames in Turkey were single-player games. This result shows similarity to the finding of Lee & Youn

(2008) who demonstrated that 99% of advergames of national leading advertisers in USA is single player games.

4.4.3. Features to Entice Children

Customization

Another research question of this study was whether there were any features for customization in advergames of companies aiming children in Turkey. The results showed that about half of the advergames (32 advergames, 49.23%) enabled children to customize the avatar in advergames. 4 advergames (3.15%) allowed children to customize the main character and 2 advergames (3.08%) allowed children to tailor the game content. 27 advergames (41.54%) gave children no possibility of customizing advergames.

Feedback and Encouragements

In the light of literature, four feedback types during the game were attained. However, most of the feedbacks in Turkey (26 advergames, 40.00%) were found to be reward type feedback (reaching a higher level). Additional, only 1 advergame (1.54%) presented sound type feedback during the game played. In 8 advergames (12.31%), more than one type of feedback was presented. 30 advergames (46.15%) did not include any type of feedbacks.

The most frequent feedback type at the end of the game was publishing the game score. 27 advergames (41.54%) showed written game score at the end of the game. 15 advergames (23.08%) rewarded successful players with prizes. 3 advergames (4.62%) had "provide printable results to the players" option at the end of the game. While 12 advergames (18.46%) presented no feedback or encouragement, 8 advergames (12.31%) served more than one feedback types or encouragements (e.g., both game score and prize) (See Table 3).

Table 3. Types of Feedbacks and Their Frequencies During and at the End of the Game

Feedback during the game	Frequency (%)	Feedback at the end of the game	Frequency (%)
text type	0 (0.00%)	game score	27 (41.54%)
sound type	1 (1.54%)	prizes	15 (23.08%)
reward	26 (40.00%)	incentive to try the product	0 (0.00%)
punishment	0 (0.00%)	printable result	3 (4.62%)
more than one	8 (12.31%)	more than one	8 (12.31%)
none	30 (46.15%)	none	12 (18.46%)

Engagement Techniques

Advergames of companies aiming children used some engagement techniques that increase the length of time player spend on game. However, 25 advergames (38.46%) in Turkey did not contain any engagement techniques. The most frequent engagement technique was seen to be 'play again' option (24 advergames, 36.92%). There was free download option only in 2 games (3.08%). In only 1 advergame (1.54%), there was a time limit in the game. 13 advergames (20.00%) used more than one engagement techniques and all of these advergames had 'play again' option with another engagement.

It was seen from the results that most of the advergames of companies aiming children in Turkey were at moderate level of difficulty. 35 advergames (53.85%) were at moderate difficulty, 22 advergames (33.85%) were easy, and 8 advergames (12.31%) were hard.

4.5. Online Privacy in Advergames

Results revealed that none of advergames of companies aiming children in Turkey had "ad-break" notification. This meant that children were not given any information about the advertising purpose of advergames. 15 advergames (23.08%) did not require registration, 12 advergames (18.46%) provided optional registration. 6 advergames (9.23%) required registration but these advergames did not send an informative e-mail to the parents. 32 advergames (49.23%) also required registration, and these advergames sent e-mails to parents to inform them about their children's registration to the game. It should be noted that all these advergames which sent notification to the parents belonged to the foreign companies operating in Turkey. Although the most of the companies do not require registration for playing games in USA, approximately 57% of advergames of companies aiming children in Turkey required registration for playing (Lee & Youn, 2008).

5. Discussion

The aim of this study is to analyse advergames of the companies aiming children in Turkey. The major contribution of this study is to show what extent and how companies aiming children use advergames to promote their products. Therefore, this study is the first to show the prevalence and the various features of advergames of the companies aiming children in Turkey.

It was observed that the companies aiming children do not use advergames extensively while promoting their products to the children. Out of 500 leading companies in Turkey, only 10 companies which are all operating in the food industry, used advergames as an alternative promotion tool when targeting children. However, advergames are used extensively in USA by the firms (Cicchirillo & Lin, 2011; Lee & Youn, 2008). In order to be profitable and competitive in Turkey market, the companies operating in Turkey should use advergames more common as an alternative promotional tool.

The results of this study presented that half of the advergames of companies aiming children in Turkey used the most prominent brand identifiers, the spokescharacter and logo, together. Furthermore, 19 advergames (29.23%) used the spokescharacter and logo as the part of the game. These results are important for PCMC because companies are involved in prominent brand placement by using brand identifier as a part of the game. In other words, RAPM is evoked, which means that it becomes possible to use RRPM less by taking attention of children. There is no need for RRPM to be high because spokescharacter and logo are the elements in advergames which are easy to recognize. Companies favour this situation because it provides moderate elaboration and explicit brand recall.

However, in 23 advergames (35.38%), spokescharacter or logo was identified in the background or around the game frame. Since logo and spokescharacter can be easily recognized by children, RRPM becomes low; and since these elements are unnoticeable by appearing in the background or around the game frame, RAPM also becomes low. Therefore, there is no or low elaboration; and automatic processing of persuasive message is ensured. Thus, subtle brand placements do not impact explicit recall of the brand, but affect implicit brand recognition, attitude, and choice (Buijzen *et al.*, 2010).

The results also illustrated that brand identifiers appeared as part of the game in 22 advergames (33.85%) in total. This means that there is not subtle brand placement; brand identifier is placed prominently in the advergame. According to LCM, the message in an advergame is coded into the short-term memory (encoding), and this mental representation is associated with a new message and stored (storage). Finally, this stored information or message is called back (retrieval) and used again (Cicchirillo and Lin, 2011). Therefore, prominently placed brand identifiers in advergames facilitate encoding and retrieval. Thus, prominent placements help children to recall the placed brand (Mallinckrodt and Mizerski, 2007).

However, it was found that the companies aiming children did not use viral marketing effectively in games. Although there is an emphasis on the importance of word-of-mouth and peer-effect for children (Buijzen *et al.*, 2010), there were only 2 advergames (3.08%) that enabled to connect the game via Facebook. This situation demonstrated that viral marketing tools are not used prevalently among companies operating in Turkey.

Another noteworthy issue is that companies want children to spend more and more time on games. According to theory of flow if a game is at a sufficient level of difficulty, player can spend more time on game without realizing (Steffen *et al.*, 2013). In this study, 35 advergames (53.85%) analysed are at moderate level, 22 advergames (33.85%) are at easy level of difficulty. Moderate level is "sufficient" as stated in theory of flow; because when the player is not overchallenged or underchallanged, s/he can easily recognize the commercial content of the game (Waiguny *et al.*, 2012). Besides, when a child is underchallenged, s/he acquires the persuasion knowledge of the advertisement message and so s/he may pose a sceptical attitude. Persuasion knowledge is a defence mechanism that a child develops while experiencing persuasive message (Wright *et al.*, 2005).

As stated in PCMC, when a child exposes to the advertisement for a long time, persuasion message can generate positive attitude toward brand without explicitly expressing the persuasion message. In this state, children between ages 0-5 use automatic persuasion process which requires minimum cognitive elaboration, and they do not realize the persuasive intent of the advertisement, therefore, they are more easily and heavily affected by the commercial messages.

In the sample, 53 advergames (81.54%) out of 65 provided encouragements such as score, prize, etc. to keep children playing the game again and again. During the game, 35 advergames (53.85%) provided feedback to the player. On the other hand, 30 advergames (46.15%) presented no feedback during the game. The most frequent engagement technique is 'play again' option. This option is considered to be important to make the player play the game again. However, still in 25 advergames (38.46%), no engagement techniques are used.

Another very important issue about advergames that should be considered is online privacy. Even though required registration is crucial for companies to create consumer profile; protecting privacy of children should not be ignored. Advergames are generally designed for children and this situation brings about the parent notification issue more and more important. Companies are obligated to send notifications to parents when their children register to play an advergame.

Some limitations concerning the present study must be expressed. One of the limitations is due to the methodology used. Since content analysis is utilized in this study, a snapshot of the advergames of companies aiming children is showed. However, the results are useful to compare the advergame practices of the companies aiming children and operating in other countries during the same time period. Second limitation is that companies constantly update their advergames and the advergames which were available during the research were included in the analysis. Further research is required to track evolving marketing practices of companies operating in Turkey. Besides, to understand the effects of advergames on children more deeply, an experimental research can be conducted. Furthermore, because different age groups will have different cognitive capacities, future studies should consider the differences between the age groups. Finally, since advergame practices were not so prevalent in Turkey, sample size was relatively small in this study.

End Notes

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