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Engaging young consumers with advergames: The effect of presence and flow experience

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ABSTRACT: This study aimed to analyze children's evaluation of advergame, brands integrated in a game and their intention to purchase the advertised products through presence and flow experience. An advergame with its fictional products was specially designed for this study, with 120 children aged 10-12 years old as the participants. Four-point Likert scale with smiley face icon to express respondent's opinion was used in the questionnaire. The results show that flow does not influence the attitude towards advergame and the brand, while other hypotheses are supported.

1 INTRODUCTION

Fast growing internet and technology have made children more familiar with digital media and trigger them to spend a lot of time in multimedia environments (Moore & Rideout 2007, Waiguny et al. 2011). Children are considered as potential customers since they are able to influence purchase decisions made by parents or family (Buckingham 2000, Calvert 2008), causing more and more companies to use techniques that blur the boundaries between advertising, entertainment, and information to get their attention (Raney et al. 2003).

One of the most widely used marketing media is advergame. Advergame or advertising game is a branded entertainment that displays advertising mes-sages, logos, and characters in a game format (Mallinckrodt & Mizerski 2007). In other words, advergame is a game that is designed as a media campaign with an emphasis on aspects of entertainment (Gross 2010, Terlutter & Capella 2013, Youn & Mira 2012). In advergame, the brand or product is a central of the game, thus the message conveyed integrated into gaming experience (Cauberghe & Pelsmacker 2010). In general, the use of advergames for children is intended to make them learn about the products and the companies (Bogost 2007) and the result is expected to form a positive attitude toward the brand and to enhance their intention to purchase the advertised product (Waiguny et al. 2012).

Advergame is a unique medium for marketing products to children because it can provide an immersive experience, moreover, the hidden message can affect their attitudes without them being aware of it (Nuijten et al. 2013, Rosen & Singh 1992, Staiano & Calvert 2012). However, the use of advergame as an advertising medium faces some challenges. According to Limited Capacity Model (LCM) of mediated message processing (Lang 2000), a person's ability to process information is limited. If he/she has focused on the main task, then he/she will tend not to pay attention to the secondary tasks. In advergame, the main task of the player is to finish the game or mission. Their cognitive is used to understand the storyline, to anticipate the events, or to think of the strategies to win the game. This causes them to pay more attention to their main task (i.e. completing the game) and not paying attention to the emergence of the secondary information (i.e. advertising messages) (Herrewijn & Poels 2014, Vashisht & Royne 2016). Additionally, the existing ads or persuasive messages are integrated in an interactive and fun game that can make it difficult for players to understand the advertising messages in the advergame (Terlutter & Capella 2013). Considering that the main purpose of advertising is to influence consumer attitudes, that will lead to consumers' intention to buy, the effectiveness of advergame as a media campaign, especially for children is need to study further.

2 METHOD

2.1 *Procedure*

The explanation about the guideline of how to play the advergame and how to fill out the questionnaire with the "smiley face" scale as well as the meaning of each scale were delivered out first. The link to the game was also provided. The game was played for 15 minutes, continued with filling out the questionnaire assisted by the researcher. In this game, players were required to collect snacks as much as possible

to win the game. The snack displays the product brand on its package and appears during the game. Players can also choose the characters they play.

One hundred and twenty respondents aged 10-12 years old from public and private schools in Surabaya participated in this study. Beforehand, consents from school and parents were required.

Four point Likert scale was designed using an appealing emoticon for children (Hall et al. 2016). The expressions on these icons ranged from happy to unhappy (Reynolds-keefer & Johnson 2011).

2.2 *Measurement*

Presence in entertainment media is a sense of "being there" which can make someone forget that they are actually playing the game and is in front of a TV or PC (Kim & Biocca 1997, Minsky 1980). A person who feels presence will feel as if he is in the game he is playing. The experience of the brands provided in this video game is remembered as if the experience is real, and if the perceived experience is fun, then it can produce a positive evaluation of the advergame and brand in the advergame (Debbabi et al. 2013, Debbabi et al. 2010). In this study, presence was measured using two items adapted from Hyun & O'Keefe (2012).

Game flow is a situation where a person is immersed in the game he is playing. This immersed feeling can make players ignore advertising messages embedded in advergame, thus players can accept advergame as entertainment, but not as an advertis-ing medium (Lang 2000). Furthermore, advertising messages in advergame are not displayed explicitly but integrated with the game. A positive experience when playing a game (e.g. defeating the enemy) is always associated with the brand. Hence, every time a player sees the brand, this experience will always be remembered and positive feelings towards the brand will increase (Nelson & Waiguny 2012). In this study, flow was measured using three items based on Vanwesenbeeck et al. (2016).

Attitude is a person's evaluation of an object (Mitchell & Olson 1981). In marketing communication, attitude is a strong predictors that can shape intention and behavior (Chang et al. 2013, Sicilia et. al 2006). In the advergame context, when a player feels entertained while playing, he will form a positive attitude on the advergame being played (Rifon et al. 2014). This positive experience can also be forwarded or transferred to the inherent brand in the game (Nelson & Waiguny 2012, Waiguny et al. 2011). When playing games, positive feelings about the game are associated with the brand and when players see the brand, the positive feelings will be remembered. Attitude toward advergame (Att_{ad}) was measured using four items adapted from Hernandez (2008), Soebandhi & Andriansyah (2017).

Brand attitude is an evaluation of a brand based on a belief in the attributes of the brand (Mitchell & Olson 1981). Compared to other advertising media, advergame offers an entertainment features to its customers. The experience felt when playing this advergame can form a like or dislike feeling on the brand in the game. This positive attitude is important because it can boost the formation of behavioral intentions (Ajzen 1991). This idea is in line with Baker (1999) who argued that a unified brand in an advertising format can influence brand attitude and behavioral intentions through a person's sub consciousness. Attitude toward brand (Att_b) was measured using three items from Roedder et al. (1983). Finally, the two items measuring purchase intention (PI) were adapted from Rozendaal et al. (2013).

3 RESULT AND DISCUSSION

3.1 *Analysis and finding*

We only processed 120 out of 125 responses because the remaining does not fit the criteria required. Most respondents were 11 years old (66.7%). 53% of the total respondents were girls and the respondents

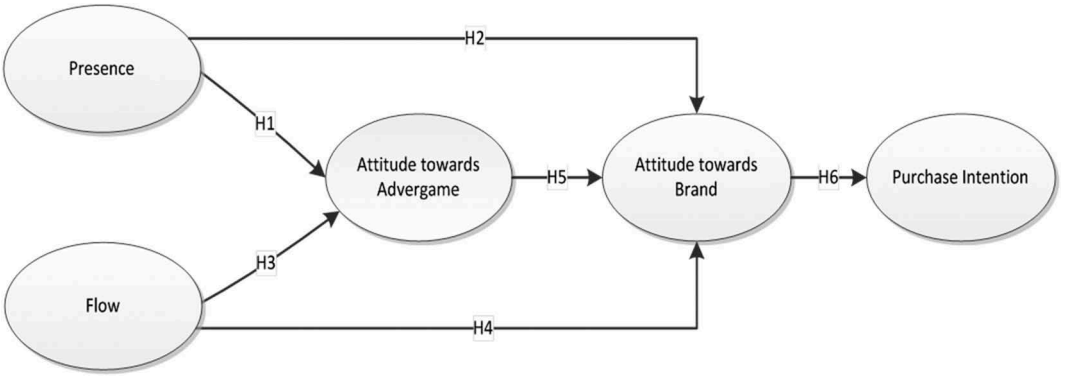

Figure 1. Conceptual framework.

Table 1. Respondents' profile.

		Frequency	Percentage
Age	10	22	18.3%
	11	80	66.7%
	12	18	15.0%
School	Private	63	52.5%
	Public	57	47.5%
Gender	Boy	56	46.7%
	Girl	64	53.3%
Video game play in a week	Almost every day	29	24.2%
	Occasionally	70	58.3%
	Only on school holidays	21	17.5%

from private schools were greater in number at 52.5%. The respondents only occasionally play video games in a week because they have to prioritize their study. Table 1 presents the profile of respondents.

PLS-SEM (Partial Least Square-Structural Equation Modeling) was used to analyze conceptual models in this study. There were five loading indica-tors below the cut-off value recommended, as stated by Hair et al. (2011). However, some authors (i.e. Chen & Tsai 2007, Lin & Filieri 2015) have used the recommended cut-off of 0.5, therefore only one in-dicator is omitted from the model. The convergent and discriminant validity of the model was assessed using the Average Variance Extracted (AVE) and Composite Reliability (CR). The AVE values were higher than the recommended level (0.5), while CR values were above the acceptable values (0.7), which indicated a good internal consistency (Hair et al. 2011). Table 2 indicates that these conditions have been satisfied. The cross loadings of the indicators were then examined to confirm the discriminant va-lidity. The result showed that all loadings of each indicator on its construct were higher than their loadings on other constructs. To measure the model's predictive accuracy of endogenous constructs, coefficient of determination (R square) was as-sessed. The results demonstrated that R square value for Att_{ad}, Att_b, and PI in the structural model

Table 2. PLS estimation measurement model.

	AVE	Composite Reliability	R Square
Presence	0.660	0.795	0.000
Flow	0.622	0.825	0.000
Att_{ad}	0.541	0.778	0.150
Att_b	0.596	0.812	0.235
PI	0.767	0.867	0.298

Table 3. PLS path coefficient and hypothesis result.

Hypothesis	Path	Original Sample (O)	T Statistics (|O/STERR|)	Result
H_1	Presence -> Att_{ad}	0.3877	4.67	Supported
H_2	Presence -> Att_b	0.2496	2.4739	Supported
H_3	Flow -> Att_{ad}	-0.0533	0.5379	Not Supported
H_4	Flow -> Attb	0.1974	1.5104	Not Supported
H_5	Attad -> Attb	0.2732	2.7688	Supported
H_6	Attb -> PI	0.5463	7.6251	Supported

were around or less than 0.25 which described weak level of predictive accuracy.

Hypothesis test was done by comparing t value with critical t-values, with t value should be greater than 1.96 (significance level = 5%), hence the influence between variable was significant (Hair et al. 2011). Thus, from Table 3 we can conclude that hypotheses three and four are not supported.

3.2 *Discussion*

The findings showed that all constructs, excluding flow, had an effect on independent variables despite low R square values, which meant relatively weak impacts. This was contrary to previous studies, which suggested that flow is an important component of the game enjoyment (Csikszentmihalyi 1990, Vanwesenbeeck et al. 2016) and flow is able to influence the attitude towards advergame or the integrated brand (Hernandez 2011, Waiguny 2013). It might happen because the game can be played repetitively during the observation. This repetitive action cause boredom which has negative impact on the stimuli (Cauberghe & Pelsmacker 2010).

4 CONCLUSION

This study aimed to analyze children attitudes and intention towards the brands in advergame by integrating presence and flow experience during gameplay. In contrast with television commercials that is broadcasted with exact duration set due to government policy, there is no limit on advergame exposure, especially in children. Although the impact of advergame on children in this study was relatively weak, policies regarding this new ad format need to be prepared. It is expected that future research can use larger sample size and add other variables to get better analysis of the impact of advergame exposure on children.

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