

Taghipour et al., 2017

Volume 3 Issue 2, pp. 2279-2294

Date of Publication: 3rd November, 2017

DOI-<https://dx.doi.org/10.20319/pijss.2017.32.22792294>

This paper can be cited as: Taghipour, A., Ahadi, N., Sornsaruht, P., Deebhijarn, S., Poopichayapongse, P., Saechao, T., & Jalali, A. (2017). Product Placement in Mobile Games and Thai Students Attitude toward the Brand Recalling. *PEOPLE: International Journal of Social Sciences*, 3(2), 2279-2294.

This work is licensed under the Creative Commons Attribution-Non-commercial 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

PRODUCT PLACEMENT IN MOBILE GAMES AND THAI STUDENTS ATTITUDE TOWARD THE BRAND RECALLING

Amirhossein Taghipour

Business School of Assumption University, Bangkok, Thailand

amirtg149@gmail.com

Navidreza Ahadi

Kingmongkut's institute Ladkrabang Technology Ladkrabang, Bangkok, Thailand

navid.bkk@gmail.com

Puris Sornsaruht

Kingmongkut's institute Ladkrabang Technology Ladkrabang, Bangkok, Thailand

Samart Deebhijarn

Kingmongkut's institute Ladkrabang Technology Ladkrabang, Bangkok, Thailand

Preeya Poopichayapongse

International College for Sustainability Studies Srinakharinwirot University, Bangkok, Thailand

Torn Pou Saechao

College of Liberal Arts of Oregon State University, Corvallis, Oregon

Ali Jalali

Management School of Assumption University of Thailand, Bangkok, Thailand

Abstract

Advertising in mobile games have increased significantly in recent years and are likely to be expanded. Nevertheless, the literature suggests that advertisement placement in games are,

from time to time, counterproductive, and is regularly recognized as disturbing and possibly causing evading actions. For the reason of likelihood of evading, it is vital to inspect if players have a tendency toward paying attention to advertised products, even if they don't recall them. The researchers conducted an experiment which measures the high/lowness of advertised product price, and types of advertisement themes such as pop-up message, commercial, and in-game elements and how well those advertised brands are recalled. Results propose that high priced products can lead to higher recalling and pop up message can be more effective than commercial and in-game elements. Moreover, gamers who were expressing higher attraction toward in-game elements believed that if they were the marketing manager, they would choose the in-game element option as product placement advertising theme because of the frequency of exposure and inability to disable it.

Keywords

Mobile Games; Product Placement; Brand Recalling; Thailand; Commercial, Pop-Up Message; Element in Game

1. Introduction

Nowadays, there has been a decline in the demand for video games for consoles and personal computers (PC). This stems from growth of smartphones and tablets (Euromonitor, 2016b) and how it's now seen as a gaming platform. Thailand is likely to have over thirty million mobile users by 2017, which means the mobile-broadband population will increase to 43% (Bangkokpost, 2013). Ronen Mense (Leesa-nguansuk, 2015) said:

“Southeast Asia is an evolving mobile game market due to the large number of population aged under thirty, faster wireless broadband speed because of nationwide 3G and 4G network development, greater availability of reasonable priced smartphones and a deeply in-built gaming culture”.

Moreover, gamers accept the fact that static video game consoles are not needed in their lives while they have smartphones or tablets (Gaudiosi, 2013). The country's rush to gaming importance became significant as Naver Corp's Line messaging service predicts that Thais on average spend 5.7 hours per day on smartphones (Needleman, 2016). About 75% of mobile internet users were aged 35 and under and are using apps for gaming, videos, music and e-commerce. Mobile is critical for viewing but desktop still plays a major role in purchases in Thailand with only five per cent viewing on desktop but 42 percent of all transactions made on desktop (Huang, 2014). Thailand is the second largest smartphone market in the ASEAN

region, and also among the top twenty in app revenue in the world. In Thailand, revenue generation through mobile content and apps reached \$600 million in 2014 (Leesa-nguansuk, 2016a). Advertising revenue will increase faster than mobile game revenue over this period. The duration spent gaming on mobile phones means that it is becoming an increasingly effective way of advertising to Thai consumers (PricewaterhouseCoopers, 2010).

Rungpaka et al. (2006) examined the effects of data, labeled “engagement,” “resistance,” and “objectification” on young consumers’ subjective product placement experience in television in Thailand and UK. They found that young Thai consumers (Generation Y) are resistant to incompatible product placement, but that limited resistance occurred with a general satisfaction and their engagement. At least 60% of apps’ income is coming from advertising (Leesa-nguansuk, 2016b). Thus, advertisers might find it advantageous to emphasize more on the helpfulness of the promoted products/brands when developing their online ads. As consumers are not usually interested in commercial messages unless the messages are relevant and/or related to the consumer’s interests and beliefs. Previous research suggests that variables such as need for cognition (NFC), i.e., “*the need to structure related conditions in expressive, integrated ways*” (Cohen, Stotland, & Wolfe, 1995), and proceeding fluency, in which gamers identify and distinguish a target (Jacoby & Dallas, 1981), impact the way in which consumers perceive advertising messages.

In particular, with the growing worldwide popularity of social gaming such as Mafia Wars (played by more than 25 million social media users each month on Facebook; Leggatt, 2010), marketers have begun weaving brands into the social gaming environment. According to Dash (2010), games on social media or on a mobile interface are popular because it allows numerous people to influence their games and play against friends.

2. Literature

2.1 Price of the Product

In opposition to the conclusion discovered by Line as common, that sales of higher price point items are less successful, luxury brand Kiehl’s sold less volume but profit margins increased, indicating that luxury items and mobile shopping are highly compatible (Erdem, Swait, & Valenzuela, 2006; Rycx, 2014). Recalling the brand, at least in terms of commercials, higher product involvement has been associated with higher recall (Gardner, Mitchell, & Russo, 1985; Hitchon & Thorson, 1995). Moreover, the effects of product price in adverting in-game

and its recall needs to be investigated. Thus, the following hypothesis is offered. Price of the Product is a signal which conveys actionable meaning to consumers.

H1: there is not a significant difference between high and low price products in terms of recalling the brand in mobile games

2.2 Commercial vs Product Placement vs Pop-Up Message

Thailand is one of the leading Asian economies in advertising expenditure (Punyapiroje, Morrison, & Hoy, 2002) and Thailand is sophisticated in both creative advertising strategies and advanced production techniques. A major research question concerns whether advertising or product placements are more effective. With respect to product placements as noted earlier, research by Gupta and Lord (1998) in a television context indicated that outstanding product placements yield more brand recall than non-outstanding placements. They also discovered that ads outperformed refined placements while outstanding placements outperformed advertisements. A variant tactic would suggest that product placed in mobile games will probably be more involving than products placed in TV shows or films because they are more integrated both as part of the game and/or as awards (Gould & Gupta, 2006). Product placement is less effective when players know that something is meant to be commercial and therefore are more resistant to the advertised message (Raney et al., 2003). Furthermore, products placed in games as an element are better recalled than ads in the form of commercials, which are still relatively disturbing and not seen as connected to the game per se.

Based on this latter finding, it is hypothesized that: The effects of product placements in terms of recall and consequently the attitudes toward the advertisement as discussed in this paper are explored in the context of game shows, are themselves comprising a largely under researched medium for marketing communications (Küster, Pardo, & Suemanotham, 2010). The relationship of product placements such as pop up message, commercial message and in-game content and product recall is not investigated yet.

Though, as mentioned earlier, TV and films are discrepant from mobile and video games in that the latter medium is active and allows players to interact with each other and sometimes change the content (Yang et al., 2006). It is this interactive feature of video games that makes them split from passive media, as game players are anticipated to process both game associated information and background sound in the theme of commercial messages, which might divide their attention (Yang et al., 2006) and lead players to have a lower range of brand recall (Liu & Shrum, 2002, 2005; Shapiro & Krishnan, 2001). Moreover, in studies relating to product placements in video games, Nelson et al. (2004) examined the effectiveness of brand placements by asking respondents which brands they recalled directly after game play and after

a five month delay. Players recalled about 25% to 30% of brands placed in a video game in the short term and about 10% to 15% after a five month delay (Nelson et al., 2004). In another experiment, subjects who were exposed to billboards as an element inside the game in a video game recalled seeing billboards in the game but could not recall the names of either the products or the brands after playing (Chaney, Lin, & Chaney 2004).

H2: Does brand recalling differ in product placement as commercial, pop up message, or in-game elements?

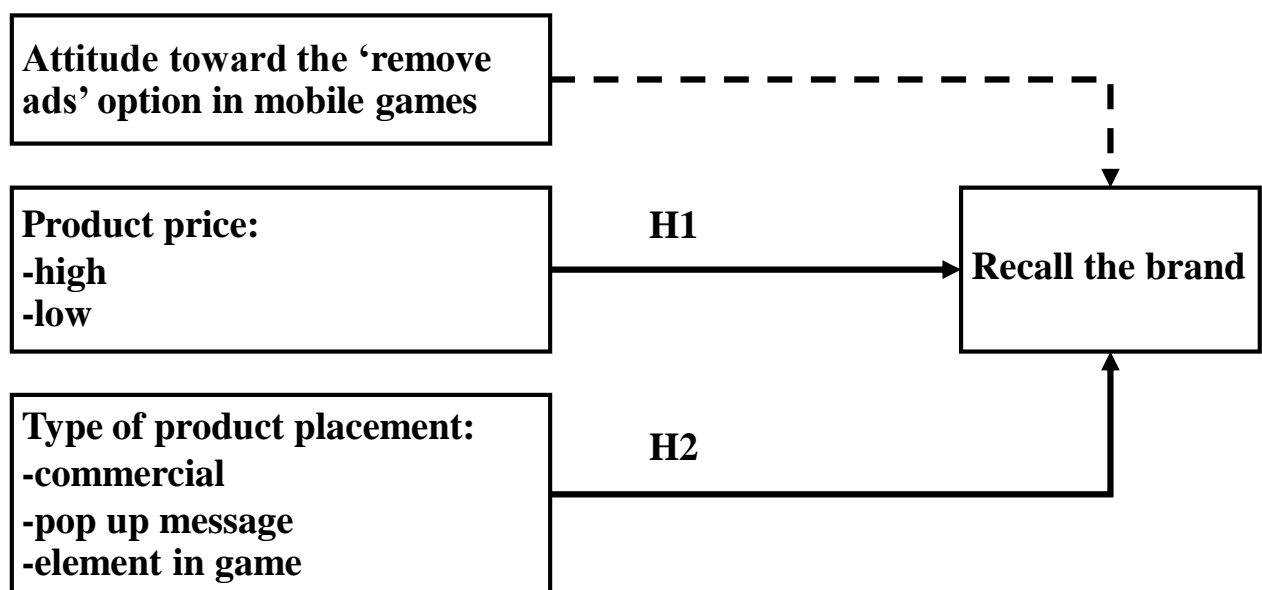


Figure 1: Adapted Conceptual Framework

Adapted from: Minsun Yeu, Hee-Sook Yoon, Charles R. Taylor & Doo-Hee Lee (2013); La Ferle, C., & Edwards, S. M. (2006); and Nelson, M. R., Keum, H., & Yaros, R. A. (2004).

2. Method

This study aims to examine the implicit advertisement or advertisement recall on brand names from participants using a two-independent sample t-test for high and low product price examining and chi-square test for the three ways advertisement was shown (Pop-up message, commercial, and in-game element). The sample data was collected from 150 students from two high schools and one university in Bangkok. Each group contained fifty students and the age range was 15 to 35 years old. Participants completed the experiment one at a time. Participants were randomly assigned to one of the three conditions.

3. Experimental Procedure

The 150 subjects were randomly assigned to the experimental group. The experimental group played popular mobile games consisting of: *Cookie Run: Oven Break*; *Slither.Io*; *Subway Surfers*; *Mobile Legends*; and one mobile game in which a product is placed as an in-game element, *Twist Lick Dunk*. They were then asked to read a page of instructions on how to play the mobile game they were assigned. The experiment was conducted in a computer laboratory while the examinees were using their own smartphones. Each subject sat at a computer station and the subjects were asked to play up to five games over a total of 15 minutes on their mobile phones. Upon completion of the game, the participants were asked to fill out a questionnaire regarding their previous mobile game experiences. Subjects were also asked what they thought the purpose of the study was.

The dependent variable is recalling of advertised products in the aforementioned games. The games are embedded with different types of advertisement themes (pop-up message, commercial, and in-game elements). In order to effectuate the analysis, independent variables must be formed. The independent variables (IV) were formed to signify products in commercials versus pop-up message versus in-game elements, coded 1, 2, and 3 respectively. The data was collected from undergraduate students in a business school of a university in Thailand, along with two high school students. According to Gardyn (2001), such students belong to the target market for game shows and hence, afford a related sample size for investigating these influences.

4. Results

Table 1: Attitude toward Remove Ads Option in Mobile Games

Statistics		I would not pay for removing ads in mobile games.	How much would you pay to remove the ads?
N	Valid	150	150
	Missing	0	0
Mean		1.27	4.47
Median		1.00	5.00
Mode		1	5
Std. Deviation		.501	1.191

Note. In “I would not pay for removing ads in mobile games”, respondents mostly have chosen this answer “because I am not willing to spend money on that” and for “How much would you pay to remove the ads?” the answer was “I am not willing to pay for that”.

Table 2: Attitude toward Remove Ads Option in Mobile Games

How much would you pay to remove the ads?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Baht 35-70	11	7.3	7.3	7.3
	Baht 71-105	7	4.7	4.7	12.0
	Other prices	15	10.0	10.0	22.0
	I am not willing to pay for that	117	78.0	78.0	100.0
	Total	150	100.0	100.0	

Note. Among the respondents 78.0% (117 persons) of them were not willing to pay for removing the ads in games, which indicates a negative attitude toward ads in mobile games interface.

Table 3: High/Low Price Descriptive Statistics

Descriptive Statistics				
	N	Mean	Std. Deviation	Variance
The higher price of advertised product in game, the higher trust I can have to the advertisement.	150	2.91	.929	.864
If the price of advertised product is high, I can recall it easier.	150	3.29	1.045	1.092
Price lowness of the advertised product is positively affecting on recalling the product.	150	2.75	.889	.791
It is acceptable by you If the price of the product shown in the advertisement is low.	150	3.07	1.296	1.679

Note. The highest mean is allocated to “If the price of advertised product is high, I can recall it easier.” with (Mean= 3.29) and lowest mean is allocated to “Price lowness of the advertised product is positively affecting on recalling the product.” With (Mean=2.75).

Table 4: High/Low Price One-Sample Test

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
High price product	48.30	149	.000	3.096	2.97	3.22
Low price product	36.63	149	.000	2.913	2.75	3.07
One-Sample Statistics						
	N	Mean	Std. Deviation	Std. Error Mean		
High price product	150	3.096	.7851	.0641		
Low price product	150	2.913	.9740	.0795		

Note. There is a difference between high and low price advertised products in games, which in this study. High price products indicated a higher mean 3.096 representing the higher brand recall in games. This result is supported by Huang (2014, February 8) about Line application games.

Table 5: Commercial Vs Pop-Up Message Vs Element in Game

The advertisement is more disturbing when placed as ...			
	Observed N	Expected N	Residual
Commercial	74	50.0	24.0
Pop-up message	52	50.0	2.0
Element in game	24	50.0	-26.0
Total	150		
I am more affected when the advertisement is placed as			
	Observed N	Expected N	Residual
Commercial	41	50.0	-9.0
Pop-up message	85	50.0	35.0
Element in game	24	50.0	-26.0
Total	150		
Which one is more effective in recalling the advertised product?			

	Observed N	Expected N	Residual
Commercial	42	50.0	-8.0
Pop-up message	65	50.0	15.0
Element in game	43	50.0	-7.0
Total	150		

Note. In our current study, Commercial message is identified as the most disturbing type of advertising themes with almost 50% voted for it. And pop-up messages are recognized as the most effective way to advertise the product in games according to our respondents' perspective.

Table 6: Chi-Square Test Result

Test Statistics				
		I am more affected when the advertisement is placed as	The advertisement is more disturbing when placed as	Which one is more effective in recalling the advertised product?
Chi-Square		39.640 ^a	25.120 ^a	6.760 ^a
df		2	2	2
Asymp. Sig.		.000	.000	.034
Monte Carlo Sig.	Sig.	.000 ^b	.000 ^b	.027 ^b
	99% Confidence Interval	Lower Bound	.000	.000
		Upper Bound	.030	.030
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.0.				
b. Based on 150 sampled tables with starting seed 2000000.				

Note. Result was significant, the null hypotheses are rejected and there is a difference between commercial, pop-up message, and in-game elements. The most effective theme was pop-up message and most disturbing was recognized as commercial.

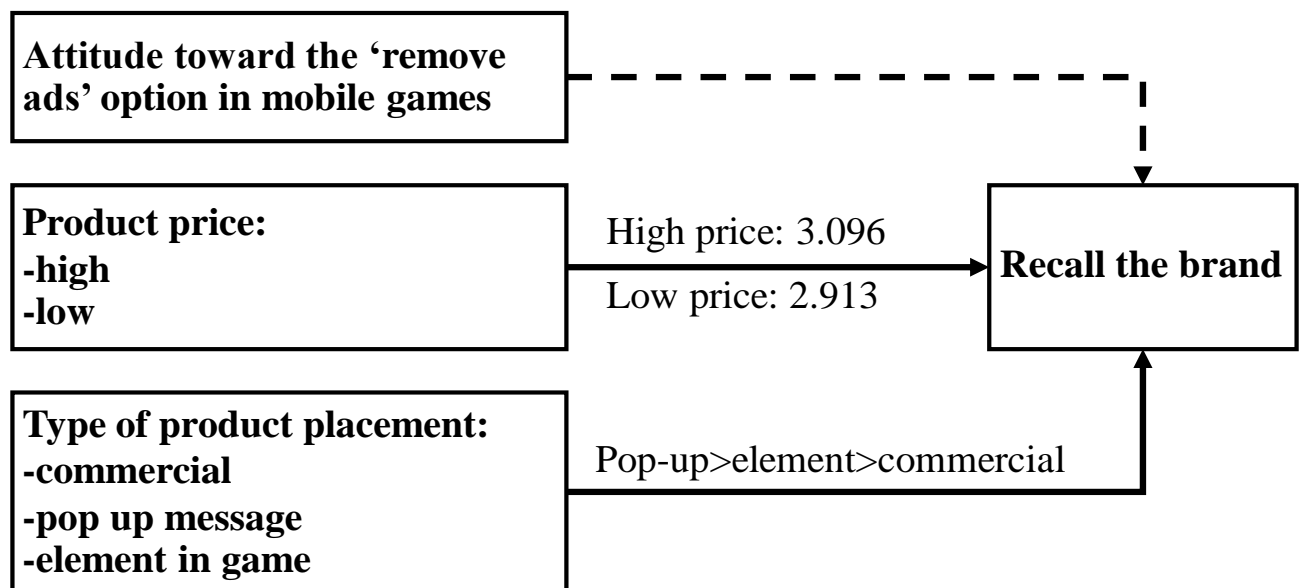


Figure 2: Hypotheses Testing

5. Conclusion

In conclusion, we found the null hypotheses are rejected and consequently, there is a difference in recalling brand between low and high priced products which is supported by Erdem, Swait, & Valenzuela (2006) research; and Rycx (2014). Moreover, higher price leads to higher recall. For the next hypothesis, there was a difference between commercial, element-in-game, and pop-up message which are in line with Küster, Pardo, and Suemanotham (2010); Gould and Gupta (2006) investigations but the discrepancy is that they have not examined pop-up message as a type of advertising in games. In addition, The results showed that pop-up message has the highest effect in recalling the advertised products. Lastly, most of the respondents believed that if they were the marketing manager of a manufacturing company to advertise their products in mobile games, they would go for in-game elements because of the high frequency of compulsory viewing inside the games.

5.1 Further Research

Future research would investigate a larger sample size and demographic, rather than just students in high schools and universities. Future studies should examine how to alleviate the hatred toward the advertisement in games, identify the best productive advertisement theme for better recognition and recalling the brand, such as its placement in games in the beginning, middle or the end of the game. A different type of analysis testing might be helpful to

understand if the recalling brands in games is predicted by culture, purchasing power of the different groups in order to compare their interpretations from product placed in games in Thailand and other countries of South East Asia (Rozendaal, Buijzen, & Valkenburg, 2009; 2011).

Future studies can be conducted on product placement timings. Studies have been done that show product placement appearing at the starting points of games correlates with higher recall (Newell & Wu, 2003) but product placements at the midpoint or endings of games have not been as thoroughly researched.

5.2 Limitations

The current study has several limitations, which affords the chance for future research in this field. Initially, participants in our research were exposed to the brands in the mobile games only once, but in real world mobile game consumption, they would be exposed to the brand numerous times. Psychophysiological measures of multiple types of ad exposures will better explain the exact nature in which peripheral information is processed in video games. Secondly, the study's findings are limited to high school and university students. Although the majority of gamers are from the age group 18 to 24, gaming is rapidly becoming a typical entertainment activity. Therefore, future studies should embrace other age groups for a better understanding of brand placements impact on memory. Thirdly, a number of factors that could theoretically impact memory were not comprised in the current study such as ad size, audio versus visual placements, game acquaintance and contribution, mood, resemblance with plot and game, participants' characteristic differences such as age and gender, product relevancy, product and category involvement.

5.3 Research Implications

Our study proposes some useful paths to regard. In respects to theory development, it seems that more research needs to be conducted for considering the product placement against other variant themes of marketing communications. At this point, it was identified that traditional advertising still has certain advantages. An implication which marketers should reconsider is what themes (pop-up, commercial, or in-game elements) are appropriate for their products. How to creatively place the advertisement should also be seriously considered. These findings will aid marketing managers who are struggling with the clutter of product placements and allow them to better place their advertisement for greater recall of their brands. This study suggests greater recall can be obtained by placement of product as pop-up message and following after that, product as in-game elements can have a significant effect on brand recall.

References

- Chen, H., & Haley, E. (2014). Product placement in social games: Consumer experiences in china. *Journal of Advertising*, 43(3), 286–295.
<https://doi.org/10.1080/00913367.2013.858086>
- Cohen, A. R., Stotland, E., & Wolfe, D. M. (1955). An experimental investigation of need for cognition. *The Journal of Abnormal and Social Psychology*, 51(2), 291–294.
doi:10.1037/h0042761 <https://doi.org/10.1037/h0042761>
- Dardis, F. E., Schmierbach, M., Sherrick, B., Waddell, F., Aviles, J., Kumble, S., & Bailey, E. (2016). Adver-Where? Comparing the effectiveness of banner ads and video ads in online video games. *Journal of Interactive Advertising*.
<https://doi.org/10.1080/15252019.2016.1223572>
- Dash, R. (2010, March 13). Casual vs flash vs social gaming: The differences. Retrieved December 15, 2016, from <http://www.adweek.com/socialtimes/casual-vs-flash-vs-social-gaming-the-differences/4813> <http://www.adweek.com/socialtimes/casual-vs-flash-vs-social-gaming-the-differences/4813>
- Erdem, T., Swait, J., & Valenzuela, A. (2006). Brands as signals: A cross-country validation study. *Journal of Marketing*, 70(1), 34–49. <https://doi.org/10.1509/jmkg.2006.70.1.34>
- Gangadharbatla, H., Bradley, S., & Wise, W. (2013). Psychophysiological responses to background brand placements in video games. *Journal of Advertising*, 42(2-3), 251–263.
<https://doi.org/10.1080/00913367.2013.775800>
- Gardner, M. P., Mitchell, A. A., & Russo, J. E. (1985). Low involvement strategies for processing advertisements. *Journal of Advertising*, 14(2), 4–56.
<https://doi.org/10.1080/00913367.1985.10672941>
- Gaudiosi, J. (2013, June 9). Xbox One and PlayStation 4 could be the end of video game consoles. *Forbes*. Retrieved from <http://www.forbes.com/sites/johngaudiosi/2013/06/09/xbox-one-and-playstation-4-could-be-the-end-of-video-game-consoles/#4bd762384fd4>
- Gaudiosi, J. (2015, January 15). Mobile game revenues set to overtake console games in 2015. Retrieved September 30, 2016, from Tech, <http://fortune.com/2015/01/15/mobile-console-game-revenues-2015/>
- Gupta, P. B., & Gould, S. J. (2007). Recall of products placed as prizes versus commercials in game shows. *Journal of Current Issues & Research in Advertising*, 29(1), 43–53.
<https://doi.org/10.1080/10641734.2007.10505207>

- Gupta, P. B., & Lord, K. R. (1998). Product placement in movies: The effect of prominence and mode on audience recall. *Journal of Current Issues & Research in Advertising*, 20(1), 47-59. <https://doi.org/10.1080/10641734.1998.10505076>
- Hitchon, J. C., & Thorson, E. (1995). Effects of emotion and product involvement on the experience of repeated commercial viewing. *Journal of Broadcasting & Electronic Media*, 39(3), 376–389. <https://doi.org/10.1080/08838159509364313>
- Huang, E. (2014, February 8). Is Thailand a hotbed for m-commerce? LINE's flash sales data says yes. Retrieved October 17, 2016, from e27.co, [e27.co](https://e27.co/is-thailand-a-hotbed-for-m-commerce-lines-flash-sales-data-says-yes/), <https://e27.co/is-thailand-a-hotbed-for-m-commerce-lines-flash-sales-data-says-yes/>
- Jacoby, L. L., & Dallas, M. (1981). On the relationship between autobiographical memory and perceptual learning. *Journal of Experimental Psychology: General*, 110(3), 306–340. <https://doi.org/10.1037//0096-3445.110.3.306>
- Jittapong, K. (2016, February 28). Southeast Asia's white-hot mobile games market to mirror Thai growth slowdown. Retrieved September 30, 2016, from <http://www.reuters.com/article/us-thailand-mobile-game-idUSKCN0W10ZI>
- Küster, I., Pardo, E., & Suemanotham, T. (2010). Product placement in video games as a marketing strategy: an attempt to analysis in Disney company. *Instituto Valenciano de Investigaciones Económicas, S.A.*
- La Ferle, C., & Edwards, S. M. (2006). Product placement: How brands appear on television. *Journal of Advertising*, 35(4), 65-86. <https://doi.org/10.2753/JOA0091-3367350405>
- Leesa-nguansuk, S. (2016a, January 14). Mobile app developers welcome 4G. Retrieved October 16, 2016, from bangkokpost, <http://www.bangkokpost.com/print/825724/>
- Leesa-nguansuk, S. (2016b, April 11). Year of the apps. Retrieved October 16, 2016, from bangkokpost, <http://www.bangkokpost.com/print/929505/>
- Lee, M., & Youn, S. (2008). Leading national advertisers' uses of Advergaming. *Journal of Current Issues & Research in Advertising*, 30(2), 1–13. <https://doi.org/10.1080/10641734.2008.10505243>
- Leggatt, H. (2010). Product Placement in Social Games Proving Fruitful. BizReport, May 18.
- Liu, Y., & Shrum, L. J. (2002). What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness. *Journal of advertising*, 31(4), 53-64. <https://doi.org/10.1080/00913367.2002.10673685>

- Lu, K. (2016, August 23). 7 tips to ace your mobile game launch in Thailand - OneSky. Retrieved September 30, 2016, from Where to go, <http://www.oneskyapp.com/blog/thailand-mobile-game-localization/>
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, 23(2), 130. <https://doi.org/10.2307/3151660>
- Minsun Yeu , Hee-Sook Yoon , Charles R. Taylor & Doo-Hee Lee (2013) Are Banner Advertisements in Online Games Effective?, *Journal of Advertising*, 42:2-3, 241-250, <https://doi.org/10.1080/00913367.2013.774604>
- Needleman, S. E. (2016, April 21). Mobile-game revenue to surpass console and PC, study says. . Retrieved from <http://www.wsj.com/articles/mobile-game-revenue-to-surpass-console-and-pc-study-says-1461265949>
- Nelson, M. R., Keum, H., & Yaros, R. A. (2004). Advertainment or Adcreep game players' attitudes toward advertising and product placements in computer games. *Journal of Interactive Advertising*, 5(1), 3–21. <https://doi.org/10.1080/15252019.2004.10722090>
- Newell, J., Salmon, C. T., & Chang, S. (2006). The hidden history of product placement. *Journal of Broadcasting & Electronic Media*, 50(4), 575–594. https://doi.org/10.1207/s15506878jobem5004_1
- Euromonitor. (2016b, September). Video Games in Thailand. Retrieved October 2016, from euromonitor, <http://www.euromonitor.com/video-games-in-thailand/report>
- Leesa-nguansuk, S. (2015, February). Games critical to growth. Retrieved September 2016, from Bangkokpost, <http://www.bangkokpost.com/print/464661/>
- Bangkokpost. (2013, July). PwC predict media spending surge. Retrieved from Bangkokpost, <http://www.bangkokpost.com/print/359247/>
- PricewaterhouseCoopers. (2010, October 14). Thai entertainment & media spending to reach \$14.8bn in 2017 as Internet, TV ad spend leads rise. Retrieved October 16, 2016, from <http://www.pwc.com/th/en/press-room/press-release/2013/new-release-10-07-2013-outlook.html>
- Related reports and data. (2014). Retrieved September 30, 2016, from <https://www.reportbuyer.com/product/2831050/video-games-in-thailand.html>
- Rungpaka, A., Tiwsakul, R., Holloway, Hackley, C., & Holloway, R. (2006). Young Thai and UK Consumers' Experiences of Television Product Placement- Engagement, Resistance and Objectification. *Association for Consumer Research*, 7, 372–377.

- Rycx, J. (2014, February 5). Mobile commerce: Explosive sales channel in Thailand -. Retrieved October 17, 2016, from Ecommerce News Southeast Asia, <http://www.acommerce.asia/mobile-commerce-explosive-sales-channel-thailand/>
- Suri, R., & Monroe, K. B. (2003). The effects of time constraints on consumers' judgments of prices and products. *Journal of Consumer Research*, 30(1), 92–104. <https://doi.org/10.1086/374696>
- Shapiro, S., & Krishnan, H. S. (2001). Memory-based measures for assessing advertising effects: A comparison of explicit and implicit memory effects. *Journal of advertising*, 30(3), 1-13. <https://doi.org/10.1080/00913367.2001.10673641>
- Yang, M., Roskos-Ewoldsen, D. R., Dinu, L., & Arpan, L. M. (2006). The effectiveness of “in-game” advertising: Comparing college students' explicit and implicit memory for brand names. *Journal of Advertising*, 35(4), 143–152. <https://doi.org/10.2753/JOA0091-3367350410>

APPENDIX: Measurement Scales

Attitude toward remove ads option in mobile games

1. How much would you pay to remove the ads?
 - a. 35-70 baht.
 - b. 71-105 baht.
 - c. 106-140 baht.
 - d. Other prices:
 - e. I am not willing to pay for that.
2. I would not pay for removing ads in mobile games:
 - a. So, that I can play the game more comfortably
 - b. Because I hate the ads in games

Price of advertised products:

- 1= strongly disagree 2= disagree 3= neither agree nor disagree
 4= agree 5= strongly agree

questions	1	2	3	4	5
Q1. The higher price of advertised product in game, the higher trust I can have to the advertisement.					
Q2. If the price of advertised product is high, I can recall it easier.					
Q3. Price of the advertised product is not related to recalling the product					
Q4. It is acceptable by me If the price of the product is shown in the advergams					

Commercial, pop up message, and an element in game

1. I am more affected when the advertisement is placed as
 1. Commercial 2. pop up message 3. An element in game
2. The advertisement is more disturbing when placed as
 1. Commercial 2. pop up message 3. An element in game
3. Which one is more effective in recalling the advertised product?
 1. Commercial 2. pop up message 3. An element in game

If you had a product to advertise, which way you would place your product in games?

.....