Gamification: A Practitioner's Case in Building Brands

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Technological advancement and the increasing need for consumer engagement have brought a new trend in advertising and marketing – gamification. The stimulating and interactive nature of mobile games and possible game-style rewards allow marketers to promote their brands innovatively.

This paper aims to contribute to the research on gamification in marketing, focusing on how the in-game presence of branding affects brand recall, brand recognition, and product sales. The data are collected from a practitioner and a real mobile game developed specifically for a grocery retail chain with around 2,000 stores in Thailand. The paired t-test results show that advergame product placement significantly increases brand recognition and recall.

Keywords: gamification, brand recognition, brand recall, product sales

INTRODUCTION

The advance in digital technologies allows marketers to use new innovative methods to build relationships and new ways to engage customers. In addition, in digital media and social media, in-game advertising and gamification are also relatively new promotional tools that are attracting increasing attention among practitioners and academic scholars in advertising and marketing.

"In-game advertising" is very similar to traditional product placement, but instead of appearing in a TV show or a movie, the brand appears in a game (Yang et al., 2006). The major difference from product placement in television shows or movies is the game's interactive nature.

"Gamification" is defined as applying game design and the fun and engaging element to a non-game context, to change people's behavior (Basten, 2017). Previous research studies suggested the exposure enhances gamers' memory for the featured brands (Grigorovici and Constantin, 2004; Lee and Faber, 2007; Terlutter and Capella, 2013).

This paper aims to contribute empirically to the research on gamification in a marketing and advertising context. The data were provided by a game developer and from a real mobile game developed specifically

for a grocery retail chain with around 2,000 stores in Thailand. The relationship between in-game promotion and brand awareness will be examined.

LITERATURE REVIEW

"In-Game Advertising" and "Advergames"

"In-game advertising" (IGA) refers to including a product or brand within a digital game to provide an immersive, engaging and fun experience to the players. This innovative way of marketing can be used by any business across any industry and is an effective and creative way for brands to deliver their product benefits or messages to their customers (Stanley, 2013). Although it is similar to product placements in movies and television shows, the interactive nature of games allows the game developers to present the product or brand in a variety of new ways that help to enhance players' memory over a longer time. The presentation of the product or brand can be subtle (small in size, not being the focus of the game) or prominent (highly visible, being central to the action). Past literature suggests that prominent placement results in a higher brand recall than a subtle one in both movies (Gupta and Lord, 1998) and digital games (Lee and Faber, 2007). Advertising in social network games is also increasing in popularity due to the rising popularity of social networks. In these cases, the brands or products are placed in digital games on major social networks (e.g., Facebook). The reasons that gamers are motivated to engage in social network gaming can be grouped into three major areas: achievement (accumulate in-game rewards, challenge and compete with others), social (supporting other players or meeting new players online) and immersion (role-playing and escape from real-life problems) (Yee, 2006).

The global online gaming market generated approximately 26.14 billion U.S. dollars in revenues, and the number of online gamers worldwide reached 1.1 billion in 2023 (Statista, 2023). The number of mobile devices is expected to reach 18.22 billion by 2025, an increase of 4.2 billion compared to 2020 (Statista, 2021). As the screen resolution quality of smartphones and other mobile devices continues to increase, advergames have moved far beyond something people play at home on their console or desktop computers (Jones & Thom, 2013). Coupled with the wide variety of game designs, players can play the online games anytime and anywhere with high enjoyment. The global COVID-19 outbreak partially contributed to the boost, as many people stayed at home most of the time. Even when COVID-19 ends, the trend is forecast to continue (Statista, 2021). "Advergames" (also known as "advertisement games"), is a form of advertising in video games in which the game is developed by or in close collaboration with a corporate entity for the purpose of advertising a brand-name product (Swanson, 2021). They are usually free of charge, casual games that are fun and easy to play, and offer quick rewards related to the brand (Redondo, 2012). Marketers use them to enhance the effectiveness of their advertising messages (Terlutter and Capella, 2013). Advergames also immerse the players or customers in an interactive, personalized and extended interaction with a brand and its messages (Jones & Thom, 2013). Since players experience a good deal of satisfaction by playing games, the games are usually very addictive and have a high engagement, especially in the case of creative and engaging games (Taylor, 2019). As the games are very entertaining, there is good chance that users will share them (Alcoverro, 2021) and they can go viral easily.

Brand Awareness - Brand Recall and Brand Recognition

Two major types of explicit brand memory are commonly measured in brand awareness research – brand recall and brand recognition. Brand recall is usually assessed by asking the participants to list all the brand names that they know. Brand recognition is usually assessed by presenting a list of brand names or logos to participants and asking them to indicate whether they know this brand (An and Stern, 2011; Gross, 2010; Lee and Faber, 2007).

Overall, as games are mostly creative and entertaining, game players enjoy the experience and therefore spend a lot of time playing (Taylor, 2019). Past literature suggests that the congruity of brand placement and the game is important. Placing brands in games highly related to their product (e.g., a sports brand advertised in a sport game) is considered congruent, whereas placing brands in games that are unrelated to their product (e.g., a snack brand advertised in a sport game) is considered incongruent. Lee and Faber

(2007) defined game-product congruity as the extent to which the featured brand's product category is related to the game content. Their study shows that highly incongruent brands are better recalled than highly congruent brands. The reason is that incongruent information is novel, and therefore captures greater attention and better recall. They also find that focal placement results in better brand recall than peripheral.

Gross (2010) suggests that high game-product congruity results in better explicit memory but more negative attitudes towards the game.

Past studies suggested that the level of recall and recognition in advergames depend on various factors, including game type, game genre, and the brand's prominence. Gupta and Lord (1998) define prominent placements as ones where the brand logo is highly visible on the screen, due to its size (e.g., big) or position (e.g., central). If the brand placement in the game is integrated into the gameplay or game storyline or can be used by players as a tool to achieve the mission, they are considered prominent and have better effects on brand memory (Cauberghe and De Pelsmacker, 2010; Nelson, 2002; Schneider et al., 2005). In general, past studies suggested that advergame and in-game advertising positively impact on both brand recall and brand recognition. Therefore, our initial hypotheses are as follows:

H1: In-game advertising of a brand increases brand recognition.

H2: In-game advertising of a brand increases brand recall.

Previous research analyzing different formats of advergames has shown that they positively influence the intention to purchase (Kuo & Rice, 2015; Lin, 2014). Yang et al. (2006) used word-fragment testing for implicit brand memory and recognition testing for explicit memory in examining the effectiveness of in-game advertising and found a small effect on explicit memory of the brand, but this may sufficiently influence implicit memory and player's decisions. By being sponsors of games, brands are exposed to customers in an interactive way, and the entertainment value will leave a positive impression. Therefore, customers may be more likely to reach out for their products (Vallone, 2021). One important consumer decision is the purchase decision. Therefore, our third hypothesis is as follows:

H3: In-game advertising of a brand increases the sales of the brand.

METHODOLOGY

The data were provided by a game developer called Gamespaceinc.com, which specializes in developing customized mobile games for marketers. Gamespaceinc.com has extensive experience in applying gamification for retail, manufacturing, marketing and acquisition. They work with clients to design and achieve their needs using games as a technology to create high-impact campaigns and solutions. The advergame, in this case, was developed for a large grocery retail chain in Thailand. While the game developer is willing to share information for academic purposes, they requested that their client's name and their own be kept confidential. The grocery retail chain operates across some Asian countries and had nearly 2,000 stores in Thailand in December 2019.

The advergame for the retail chain featured a virtual shopping environment, with players carrying a shopping basket and running to earn scores and hunt jigsaw pieces, which can be used to redeem free products that are sponsored by various brands carried by the grocery retail chain. Depending on the advergame's objective, discount coupons were sometimes offered as prizes as well. The game achieved 184,000 mobile app downloads and 351,000 unique players via URL. 62% of the players kept playing for at least 21 days. The game is addictive as it is simple, and most players just played it frequently (e.g., every day) and on the go to win small prizes, which were products sponsored by the brands. Product brands in various categories were featured in the game during different months for 26 months, and 5 of these brands are covered in the research. As the advergame was designed as a grocery supermarket, it has high game-product congruity with the sponsored brands being advertised in the game.

The marketing director of the retail chain ran the advergame for 26 consecutive months and stated that it is the most cost-effective marketing tool they have ever used. The retail chain collected inventory data consistently and more than 5.8 million prizes were redeemed through the advergame during the 26 months.

The demographic distribution of the game players who redeemed the free products is shown in Table 1.

TABLE 1
THE DEMOGRAPHIC DISTRIBUTION OF THE GAME PLAYERS

Gender		
	Female	67.05%
	Male	32.95%
Age		
	Below 16	0.21%
	17 to 24	2.57%
	25 to 49	69.29%
	Above 50	27.93%
Household Size		
	1	7%
	2	22%
	3	38%
	4	26%
	5 or more	5%

The game developer collected data from two groups of 2,250 game players.

Brand recall was measured by asking the respondents to list the brand names they knew in one particular product category. Brand recognition was measured by providing a list of 10 to 12 brand names in one product category and asking them to circle the ones they recognized from the game. The game developer and their client collected brand recall and recognition one month before and one month after the brand started being featured in the advergame.

The results of brand recognition and brand recall are summarized in Table 2.

TABLE 2
BRAND RECOGNITION AND BRAND RECALL

| Product Type | Brand Recognition | | Brand Recall | |
	Before	After	Before	After
Fabric Softener	78%	83%	33%	52%
Shampoo	84%	89%	47%	68%
Soft Drink	96%	97%	66%	83%
Salty Snack	81%	87%	49%	68%
Face Cream	53%	61%	23%	51%

RESULTS

We used paired sample t-tests to ascertain if there is a significant increase in brand recognition after the brand is featured in the advergame. The result is shown in Table 3.

TABLE 3
PAIRED SAMPLE T-TESTS FOR BRAND RECOGNITION

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Brand recognition	Before	.7840	5	.15758	.07047
	After	.8340	5	.13520	.06046

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Brand recognition	Before - After	-.05000	.02550	.01140	-.08166	-.01834	-4.385	4	.012

The results show a significant difference in brand recognition after the brand is featured in the advergame. Therefore, hypothesis 1 is supported.

Similarly, we used paired sample t-tests to identify if there is a significant increase in brand recall after the brand is featured in the advergame. The result is shown in table 4.

TABLE 4
PAIRED SAMPLE T-TESTS FOR BRAND RECALL

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Brand recall	Before	.4360	5	.16426	.07346
	After	.6440	5	.13278	.05938

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Brand recall	Before - After	-.20800	.04266	.01908	-.26097	-.15503	-10.902	4	.000

The result shows a significant difference in brand recall after the brand is featured in the advergame. Therefore, hypothesis 2 is supported.

The practitioner provided sales change data to us and explained how they measured the change in sales. They compared the actual sales with the expected sales during the time for the featured brands. The retailer's merchandising team calculated the expected sales based on past sales records (same period in the previous year), taking into consideration current sales trends and seasonal factors. The average result for each product category is shown in

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TABLE 5
THE AVERAGE SALES INCREASE FOR EACH PRODUCT CATEGORY

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Product Type	Sales increase (compared with expected sales)
Fabric Softener	7.60%
Shampoo	9.50%
Soft Drink	14.4%
Salty Snack	12.10%
Face Cream	6.90%

The descriptive statistics suggest a general increase in sales after the brands are featured in advergame. Therefore, hypothesis 3 is supported. The snack and drink categories increase more than other product categories such as shampoo and face cream. One possible explanation is that they are low-involvement consumption product categories, and the purchase decisions are more likely influenced by product placement (Srivastava, 2018).

CONCLUSION

These descriptive summaries suggest that the combination of real-life rewards is a strong incentive to attract consumers who are not the typical mobile gamers to devote time to playing the mobile game The major players of advergames are significantly different from the usual players of mobile games. As the main purpose of the advergame is to increase brand awareness and encourage consumers to try new products, the players who redeem the prize (coupons or product samples) in the advergame are the main target of marketers. When the players redeem prizes, the store traffic increases. Also, since the players are usually in a good mood when they redeem prizes (as they are getting rewards), they are more likely to make additional purchases. Therefore, the design of an advergame should keep the target market of the featured products in mind.

The paired t-test results show that being featured in the advergame (for one month) significantly increased both brand recognition and brand recall. Although the practitioner only provided limited information, the impact of being featured in the advergame is more significant on brand recall (17% to 28%) than brand recognition (increased 1% to 8%). Therefore, advergames should be most useful for new or smaller brands that struggle to gain market share because of difficulties getting potential consumers to remember their brand names. During bad economic times, it will also be effective for brands struggling with low marketing budgets but still wanting to maintain their top-of-mind awareness with their target customers.

Among the five product categories, face cream is the one that had the highest increase in brand recall after advergame product placement. One potential reason could be the difference between high-involvement and low-involvement products.

In the market of mobile games, the majority of players are usually male and younger people. According to the China Mobile Game Industry Analysis Report 2020, 56.34% of mobile gamers were male in China, but female players are more likely to make in-app purchases than males. The major age group for mobile game players is below 24 years old (29.3%), followed by 31-35 years old (27.2%), 25-30 years old (23.5%), 26-40 years old, and over 40 years old (6.6%) (Statistics, 2020).

However, from the data provided by the practitioner, the majority of advergame players who redeemed the prizes (coupons or free products) given out in an advergame are female (67.05%), 25-49 years old (69.29%), and with a household size of three (38%). This is because females, middle-aged, with kids, are the ones who usually do grocery shopping in supermarkets for their families, so they are more exposed to the game and see it as more relevant.

This research project is the first attempt to collaborate with practitioners and use real-life data instead of controlled experiment data to test for the effects of advergame product placement on brand recognition and recall. However, there are also limitations. First of all, due to the difference in planning data collection or the need to keep commercial data confidential, the data that the authors could obtain was limited. They were in a summarized form and were not measured according to the needs of this research. Therefore, the analysis methods that can be applied were limited. To conduct additional research studies in the future, it would be preferable if the academic researcher and practitioner can collaborate from the campaign planning stage, so that the data collected can be better tailored to the study objectives. Also, further studies should be done to investigate the demographic effect of an advergame on brand recognition and recall.

According to the game developer, two types of product placement were possible in the advergame: one was making the brand logo into four pieces of a jigsaw puzzle, which players needed to collect while running; the other one was placing the brand as a visual motif along the running path. The first one can be considered as a subtle placement, and the second one can be considered as a prominent placement. Lee and Faber (2007) suggest that prominent placements increase brand recall. However, the first one involves the active participation of the player to search for the brand jigsaw pieces, while the second one only involves the passive appearance of the brand logo. Future research should examine how these factors may affect the attitude toward a brand and redemption rates.

With the advancement of technology and increasing usage of mobile devices, advergames are one of the key ways for marketers to engage customers to meet their changing and growing expectations towards their brand and product. This opens up more research opportunities to examine its effectiveness as a marketing tool.

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