

FROM SCREENS TO MINDS: BRAND RECALL'S EFFECT ON VIRTUAL INFLUENCER INSTAGRAM CONTENT

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Submitted: 04-09-2024, Revised: 21-10-2024, Accepted: 11-11-2024

ABSTRACT

This study aims to examine the effect of product placement on virtual influencer Instagram content towards brand recall of Gucci and Nike. Convenience sampling technique is used to take samples and a total of 308 Tarumanagara University students from 8 faculties were participated as an experiment subjects. The experiment design used in this study is pre-test and post-test without control group. The treatment in this study is virtual influencer Instagram content which conceives product placement. Data collection was carried out in the form of a field experiment, using questionnaires administered directly in the field, and processed using SPSS. The results of hypothesis testing proved significant where product placement on virtual influencers had a positive effect on Gucci brand recall. However, for Nike, the hypothesis did not yield significance. Based on this result, it can be concluded that product placement on virtual influencers does not increase but reinforce Nike brand recall. This study provides theoretical insights that the practice of product placement in virtual influencer Instagram content is successful, which can be practically applied by business owners to integrate product placement and virtual influencers into promotional activities.

Keywords: *Product Placement, Virtual Influencer, Brand Recall*

1. INTRODUCTION

The internet's presence signifies technological innovation that has brought changes within society (Appel et al., 2020). These changes are marked by the acceleration of information exchange processes, facilitating connections through the use of social media (Hennig-Thurau et al., 2010). In Indonesia, social media users have reached approximately 167 million people, accounting for around 60.4% of the total population with an average use of 3 hours and 18 minutes (We Are Social, 2023). This substantial engagement highlights the significant presence and influence of social media in establishing connections and communicating with customers (Wang and Chen, 2020). To maintain connections with customers, marketers leverage social media platforms such as Instagram, TikTok, and Twitter to promote their products and services (Ghosh, 2021). One form of social media marketing practice is influencer marketing (Dencheva, 2023).

Influencer marketing is a strategy that implicates using influencers to promote products from specific brands, usually involves product placement (Gamage and Ashill, 2022). According to research conducted by Markplus, it is revealed that 87.8% of marketers engage in influencer marketing as part of their marketing activities. This statistic underscores the prevalent adoption of influencer marketing strategies in the business landscape. However, with the advancement of technology, there has been a shift from the traditional approach of using human influencers to the modern approach of utilizing virtual influencers (Rodgers, 2021).

Virtual influencers are the result of using artificial intelligence technology, resembling human-like figures and actively engaging on social media as influential figures (Robinson, 2020). According to Thomas and Fowler (2021), the presence of virtual influencers has the potential to capture public attention due to their uniqueness and ability to offer new experiences to followers. Virtual influencers have actually existed since 2018 (Moustakas et al., 2020), yet studies conducted in the last three years have only focused on comparing virtual influencers and human influencers in the context of social media based on posting behavior, follower reactions, intention to follow, trust, parasocial interaction and source credibility (Jhawar et al., 2023; Sands et al., 2022; Arsenyan and Mirowska, 2021).

Gucci, a luxury fashion brand from Italy, and Nike, an American sportswear brand, utilize Instagram by collaborating and combining both real and virtual influencers to promote their products. They creatively integrate various fashion items like bags, clothing, and shoes into the content shared by the influencers. This marketing technique is known as product placement, involving the indirect insertion of promotional material into specific media platforms (Balasubramanian, 1994). This strategy unconsciously fills a space in an individual's mind, influencing their preferences and perceptions toward specific brands (Liu et al., 2015).

One measure used to gauge the effectiveness of product placement is brand recall (Gupta and Lord, 1998; Karrh, 1998; Russell, 1998). Brand recall objectively evaluate the extent of memory that can be remembered from a product placement (Bressoud et al., 2010). Previous research has also elucidated that product placement can affect brand recall (Bressoud et al., 2010; Bagozzi and Silk, 1983; Mackay et al., 2009; Davtyan et al., 2016; Coker and Altobello, 2018; Chan, 2020; Cokki et al., 2023). However, studies exploring the precise impact of product placement on brand recall are still underexplored in developing countries (Srivastava, 2016). Similarly, in studies addressing virtual influencers, although testing was conducted, research focusing on the effect of virtual influencers on product placement is relatively scarce and uncommon.

In the context of media used, prior research has focused on films, television programs, advertisements, games, and music videos, yet limited studies have examined on social media platforms like Instagram, particularly those indicating personal photo content (Guo et al., 2019; Jin and Muqqadam, 2019). Furthermore, there has been no specific studies examining the influence of product placement on virtual influencer Instagram content in Indonesia. Therefore, this study aims to further excavate the impact of product placement on virtual influencer Instagram content towards brand recall of Gucci and Nike.

Product Placement

Product placement defined as a paid inclusion to exert influence on audiences without disclosing the sponsor, making it seem like a part of the deliberate message (Balasubramanian, 2014). Product placement involves the strategic promotion of branded products through audio, visual, or programmatic means in mass media (Karrh, 1998). Essentially, product placement is a marketing technique of integrating brand or product information discreetly into specific media content (Song et al., 2019). This technique is typically known as embedded marketing, where seamlessly involve integration of brands or products into the context of a program (Liu et al., 2015).

Product placement is categorized into three distinct dimensions, there are visual, auditory, and plot connection, which is referred to as the Tripartite Typology (Russell, 1998). Visual,

associated with the brand's appearance on screen, also known as screen placement. Auditory, which pertains to brand mentions within dialogue, termed script placement. Plot connection, where the brand is seamlessly integrated into the storyline. These dimensions provide a comprehensive framework for understanding how products are strategically placed within various media contexts (Rusell, 1998).

Product placement represents the application of Balasubramanian's hybrid message concept. Product placement has advantages in both advertising and publicity through sponsor's control to manage the content without disclosing its identity, which considered as credible promotional tools (Balasubramanian, 2014). In essence, product placement is a marketing strategy that convey commercial message by placing promotional materials within a medium, integrated in visual or audio constituent, or incorporated into the storyline. This strategy effectual as promotional medium to engage audience, supported by an impactful yet non-intrusive approach.

Virtual Influencer

Advancements in technology integration and computerization allow unprecedented interactions between real and digital humans (Arsenyan and Mirowska, 2021). The evident is in today's influencers, where they can be digitally created using artificial intelligence (AI) to resemble humans, known as virtual influencers (Sands et al., 2022). Essentially, virtual influencer is the outcome of technological advancements derived from human influencers, created with artificial intelligence (AI) or computer-generated imagery (CGI) (Xie-Carson et al., 2023).

A thorough definition implies virtual influencers as an artificial entity generated with algorithms that capable of performing tasks like human to gain popularity on the internet (Thomas and Fowler, 2021). For instance, Lil Miquela, Shudu Gram, and Lentari Pagi with substantial followers on Instagram. These digital personas are designed to look and behave like humans to attract millions of people worldwide (Rodgers, 2021; Jhavar et al., 2023). In conclusion, virtual influencer is a digital character resembling human and actively engaged on Instagram as figures playing a pivotal role in digital marketing.

Brand Recall

Brand recall is part of the brand awareness pyramid concept, encompassing four levels that consist of unaware of the brand, brand recognition, brand recall, and top of mind (Aaker, 1991). Brand recall, as described by Babin and Carder (1996) is a form of memory retrieval that requires stimulation in specific conditions and situations. In this context, it can be external stimuli like logos, slogans, or questions (Alba and Chattopadhyay, 1986). Therefore, according to Cokki et al. (2023) brand recall essentially represents an individual's attempt to remember a brand within a specific product category due to prior awareness of the associated brand.

Another definition of brand recall explains it as the result of an individual's prior experience or knowledge about a brand (Bagozzi and Silk, 1983). In this instance, brand recall refers to the cognitive process when stimuli reactivate memories in the individual's brain (Vashist, 2018). Aligned with the findings of (Davtyan et al., 2016), who delineate brand recall into two processes retrieval and knowledge or familiarity with a product. In summary, brand recall is an individual's capability to remember a specific brand or product.

Product placement aims to enhance awareness of the product's presence in the market. Therefore, it's essential to ascertain the effectiveness of product placement as a promotional medium. In this particular case, we need an accurate metric as a measurement, namely brand recall.

Literature reviews regarding product placement in films, television programs, games, advertisements, and music videos indicate a positive influence on brand recall (Gupta and Lord, 1998; Bressoud et al., 2010; Bagozzi and Silk, 1983; Mackay et al., 2009; Davtyan et al., 2016; Coker and Altobello, 2018; Chan, 2020; Cokki et al., 2023). In line with previous research, prominent product placement fosters a stronger brand recall (Gupta and Lord, 1998) with visibly clear and visually distinctive product displays (Bressoud et al., 2010). Furthermore, the conditions and duration along with consistent exposure over multiple instances even play important role to enhance brand recall (Coker and Altobello, 2018; Cokki et al., 2023).

Another finding by Mackay et al. (2009) signifies that product placement not only prompt spontaneous brand recall but also influences consumers perspectives who previously unaware of the associated brand. Consequently, Bagozzi and Silk (1983) stated that product placement holds future potential due to its significant impact on consumers' memory processes regarding to a brand or product. From these insights, product placement is considered successful when there's a positive response. Positive responses increase the likelihood of recalling the brand of the featured product.

Therefore, this research formulates the following hypotheses:

H1 : Product placement on virtual influencer has a positive effect on brand recall

H1a : Product placement of Gucci on virtual influencer has a positive effect on brand recall of

Gucci

H1a : Product placement of Nike on virtual influencer has a positive effect on brand recall of

Nike

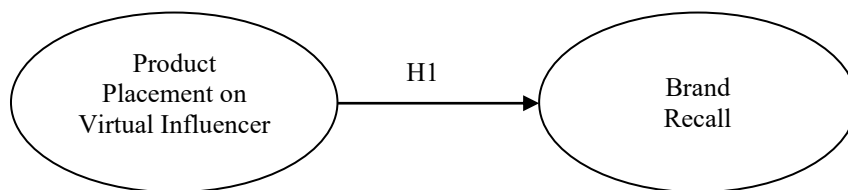


Figure 1. Research Model

2. RESEARCH METHOD

This study used a one-group pretest-post-test experimental design, specifically pretests and post-test without control groups. The selected experimental design aligns with the measurement of the variables used in this study. Measurements were conducted twice, before and after the treatment, to strengthen data-driven arguments. This design included two manipulation tests and four screening questions.

Data collection was conducted from October 16th to 20th 2023 with direct fieldwork that involved students from Tarumanagara University as participants. Participants were recruited through a three-stage process involving searching, approaching, and referring. Participants

who are willing to be the experimental subjects were instructed to complete an online survey using Google forms during the data collection process. A total of 308 responses were successfully gathered utilizing convenience sampling techniques.

Table 1. Participant

Date	Participant
16/10/23	62
17/10/23	65
18/10/23	68
19/10/23	59
20/10/23	54
Total	308

Thirty-three responses were excluded due to not passing the screening question and manipulation test, while 68 responses were disregarded because some participants only provided information for one or two brands, resulting inconsistencies between the pre-test and post-test. A total of 207 responses were used for the final data. The majority of participants were females between 18-20 years old, who had been using Instagram for 5-8 years, spending 1-2 hours per day on the platform primarily to stay updated on latest information.

The treatment in this study is the virtual influencer @allysagladys Instagram content, featuring product placements of Gucci and Nike (Figure 1 and 2). The Instagram content was created by the researcher over a five until six months period. Gucci and Nike were selected as the two brands used in the content due to their familiarity and recognition in Indonesia, considering that the participants were students from Tarumanagara University in Jakarta. Each participant was exposed to the treatment and given approximately five minutes to observe the content. Upon completion, participants were instructed to complete the post-test questionnaire and were prohibited to re-exposure the content.



Figure 2. Product Placement of Gucci
Source: Instagram @allysagladys



Figure 3. Product Placement of Nike
Source: Instagram @allysagladys

Data collection occurred at Universitas Tarumanagara campus. The process begins with an introduction and explanation of the experiment's process. Participants were provided a barcode linked to the research questionnaire. The questionnaire was divided into three sections: consent form, respondent characteristics questions, and research-related inquiries.

After completing the first two sections, participants were instructed to fill the pre-test questions and confirm completion to the researcher. Subsequently, the researcher proceeded to the next section, the treatment. Participants were given 5 minutes to receive the treatment through devices provided by the researcher. Then, participants were required to answer two questions regarding the virtual influencer's gender and whether they noticed specific brand placements as a manipulation test.

Participants would automatically proceed to the post-test questions if they successfully passed the manipulation test. After completing the questionnaire, the researcher expressed gratitude for the participants willingness to contribute in the experiment and give a keychain as an incentive. The entire experimental process took approximately 10 minutes for each participant.

Brand recall was measured using two assessments: before and after the treatment. Brand recall was evaluated by asking participants to mention three luxury fashion brand and sportswear brands they remembered after viewing the virtual influencer Instagram content. Brand recall was assessed using a nominal scale with zero (0) and one (1) score (Gupta and Lord, 1998; Russell, 1998; Bressoud et al., 2010; Bagozzi and Silk, 1983; Mackay et al., 2009). Participants were assigned with 1 score if they successfully recalled Gucci in the luxury fashion category and Nike in the sportswear category, conversely, a 0 score if they did not recall these brands.

The data analysis tools employed in this study was Statistical Product and Service Solution (SPSS) version 29. Hypothesis testing utilized the paired t-test, to measure brand recall by examining the differences in outcomes before and after the treatment. In the paired t-test, the Cohen's D value was computed to determine the magnitude of the improvement effect in each category (Lakens, 2013). Effect sizes based on Cohen's D values are classified as small ($d = 0.20$), medium ($d = 0.50$), and large ($d = 0.80$) (Cohen, 1998).

3. RESULTS AND DISCUSSIONS

Table 2. Result of Brand Recall Data Analysis

Brand	BR Before	BR After	Mean Before	Mean After	Cohen's D
Overall	305	355	0.737	0.858	0.375*
Gucci	109	155	0.527	0.749	0.461*
Nike	196	200	0.947	0.966	0.220*

BR: *Brand Recall*; *small effect value of 0,20

The data analysis results indicate an increase both before and after exposure. Overall, based on the collected data, there was an increase in brand recall after viewing product placements in virtual influencer Instagram content (BR Before: 305, BR After: 355, Mean before: 0.737, Mean after: 0.858). For Gucci, brand recall showed a significant increase after exposure (BR Before: 109, BR After: 155, Mean Before: 0.527, Mean After: 0.749). Conversely, for Nike, brand recall exhibited a small increase (BR Before: 196, BR After: 200, Mean before: 0.947, Mean after: 0.966). The difference in the increment between Gucci and Nike signifies that the majority of participants were already familiar with Nike compared to Gucci, considering

most participants were university students, supporting the notion that Nike is more recognized and commonly used compared to luxury fashion brands like Gucci.

Overall, the effect sizes for both brands are small. However, for Gucci, the obtained value exceeds 0.20 (Cohen's D: 0.461), signifying a comparatively larger effect compared to Nike (Cohen's D: 0.220). Therefore, when both brands are combined together, the Cohen's D value still indicates a small effect (Cohen's D: 0.375). This occurs due to the significant increase in Gucci brand recall, while the increase in Nike brand recall is less pronounced.

Table 3. Hypothesis Testing Results

Hypothesis	Mean Diff (Before – After)	t-value	p-value
PPL on Virtual Influencer → Brand recall	-0.121	-6.560	0,001
PPL Gucci on Virtual Influencer → Brand recall	-0.222	-6.936	0,001
PPL Nike on Virtual Influencer → Brand recall	-0.019	-1,267	0,103

The first hypothesis testing indicates that brand recall after viewing virtual influencer Instagram content increased (Mean diff: -0.121) compared to before exposure. A p-value of 0.001 signifies that first hypothesis has a positive influence on overall brand recall (p-value < 0.05). Likewise with the first sub-hypothesis test results show an increase in brand recall both before and after exposure (Mean diff: -0.222) with a p-value of 0.001, supporting the first-sub hypothesis (p-value < 0.05). The findings of first hypothesis and first-sub hypothesis align with prior research indicating that product placement influences brand recall (Gupta and Lord, 1998; Mackay et al., 2009; Davtyan et al., 2016; Coker and Altobello, 2018; Chan, 2020).

The results of the second sub-hypothesis show an insignificant increase in brand recall both before and after (Mean diff: -0.019). These findings are not supported by the obtained p-value of 0.103 (p-value > 0.05). Thus, the Nike product placement is not statistically significant on Nike brand recall even though it is positive. These results are supported by data indicating Nike's dominance in the sportswear market, being acclaimed as the most popular sportswear brand globally during 2022-2023 (Brand Directory, 2023). Similarly, in Indonesia, Nike holds the second position as the best sportswear brand, with a market share percentage of 17.10% (Top Brand, 2023).

Looking at the brand's trait, Nike offers products that suitable for daily needs at affordable prices. Meanwhile, Gucci's products are not for everyday use and are relatively high-priced. Considering that the participants in this study are students aged between 18-20, Gucci is not the right target market, whereas Nike is. Therefore, additional treatment isn't necessary to prompt participant recall of Nike because it is already well known and commonly used among students compared to Gucci.

The findings of this study also indicate an improvement when the data for Gucci and Nike brands are combined. However, when separated, notable differences emerge, with Gucci showing significance and Nike exhibiting non-significance. The significance for Gucci is attributed to its status as a luxury fashion brand, less commonly used by participants. In contrast, Nike, being a well-established and powerful brand, is already deeply embedded in participants' top-of-mind awareness. Therefore, when the data is combined, it inaccurately portrays the real conditions of both brands, creating an illusion as if Gucci contributes significantly to Nike. However, when analyzed separately, Nike's significance diminishes, accurately reflecting the actual condition.

4. CONCLUSIONS AND SUGGESTIONS

This study aims to examine the impact of product placement in increasing brand recall in digital marketing using virtual influencers. The results of this research indicate that product placement significantly influences and even strengthens brand recall. In luxury fashion brands, product placement affects brand recall, showing an increase both before and after the treatment. However, for sportswear brands like Nike, which are already popular, product placement doesn't increase but reinforces brand recall. The variation in outcomes between the two demonstrates that the influence of product placement is determined by the nature and type of the offered brands.

Through this research, it has been revealed that the impact of product placement is not confined solely to real individuals but also extends to artificial entities. This signifies that technological advancement by utilizing virtual influencers, have proven successful in increasing brand recall. Consequently, virtual influencers play a pivotal role in supporting the success of product placement strategies.

Using virtual influencers in marketing activities has its advantages, considering that virtual influencers are not real and do not exist offline, thus minimizing ethical issues and the emergence of scandals (Jhawar et al., 2023; Thomas and Fowler, 2021). Images can also be created according to preferences and are fully under control, therefore maintaining consistency in every content (Jhawar et al., 2023; Miao et al., 2022). Virtual influencers also offer a unique appeal that distinguishes them, particularly appealing to younger generations (Sands et al., 2022; Moustakas et al., 2020). However, virtual influencers also have disadvantages due to their fake presence, which makes them less trustworthy (Lou et al., 2022). In terms of creation, although the process is faster, obtaining good, realistic, and trustworthy images is not as easy, consistent, or flexible in body movements.

This research also provides overview of the importance of establishing and strengthening brand recall. A strong brand recall offers advantages to marketers as it signifies that the associated brand is remembered and resides at the forefront of an individual's mind when considering a product. This statement is supported by the findings of this study, which indicate that participants recall Gucci as a luxury fashion brand and Nike as a sportswear brand.

The implications of this research for business owners are to employ product placement methods, particularly within the Instagram content featuring virtual influencers, to build and enhance brand recall. The limitations in terms of time, resources, and costs serve as reasons why this research remains underexplored. Therefore, for future researchers, it is recommended to explore other related variables such as brand prominence, brand recognition, and attitude towards the brand. The addition of brand categories with different conceptual variations can also be conducted to examine whether there are any comparisons with previous results. Other types of experimental design, such as pre-test and post-test with a control group, can also be employed to obtain more diverse results.

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