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On behalf of all EBES officers, I sincerely thank you for all your support in the past. We look forward to seeing you at our forthcoming conferences. We very much welcome your comments and suggestions in order to improve our future events. Our success is only possible with your valuable feedback and support!

I hope you enjoy the conference!

With my very best wishes,

Klaus F. ZIMMERMANN
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Welcome to the 54th EBES Conference



We are excited to organize our *54th EBES Conference*, to be held on January 8th, 9th, and 10th, 2026, in Paris, France. The conference is hosted by IESEG School of Management with the support of the Istanbul Economic Research Association. The conference will be hybrid (with two days in person), allowing participants to join the conference in person or virtually.

We are honored to have received top-tier papers from distinguished scholars worldwide. We regret that we were unable to accept more papers. 230 papers will be presented, and 473 colleagues from 58 countries will attend the conference. We are pleased to announce that distinguished colleagues **Sabri Boubaker** from EM Normandie Business School, France; **Peter Szilagyi** from EDHEC Business School, France; **Oskar Kowalewski** from IÉSEG School of Management, France and **Amine Tarazi** from University of Limoges & Institut Universitaire de France (IUF), France will join the conference as invited speakers.

Throughout the years, EBES conferences have been an intellectual hub for academic discussion. Participants have found it an excellent opportunity to present new research, exchange information, and discuss current issues. We believe our future conferences will further improve knowledge development in our fields. In addition, based on the paper's contribution to the field, the *EBES Award Committee* has selected one of the papers for the *John P. Rust Best Paper Award* sponsored by *Springer Nature*. The *Best Paper Award* winner will be announced during the conference.

On behalf of EBES, I would like to thank all presenters, participants, board members, and keynote speakers. I am looking forward to meeting you at the conference and seeing you all again at the upcoming EBES conferences.

Best regards,

Ender Demir, PhD
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THE POWER OF VIRTUAL INFLUENCERS: THE IMPACT OF BRAND AWARENESS AND GENDER ON BRAND ATTITUDE AND WOM INTENTION

Refik Erdem KOÇ
Kocaeli University, Faculty of Business, TÜRKİYE, ORCID: 0000-0002-9863-7012, refikerdem.koc@kocaeli.edu.tr
Fatih KOÇ
Kocaeli University, Faculty of Business, TÜRKİYE, ORCID**:** 0000-0003-1305-9557, fatih.koc@kocaeli.edu.tr
Burcu ÇAM
Kocaeli University, Faculty of Business, TÜRKIYE, ORCID: 0000-0003-4913-9065, bcandan@kocaeli.edu.tr
Duygu FIRAT
Kocaeli University, Faculty of Business TÜRKİYE, ORCID**:** 0000-0003-0770-760X, dfirat@@kocaeli.edu.tr
Hidayet KARAMUK
Kocaeli University, Faculty of Business, TÜRKİYE, ORCID: 0000-0002-7654-9337, hidayet.karamuk@kocaeli.edu.tr

Abstract

This study investigates the impact of virtual influencers on consumer responses in the sports shoe brand. Specifically, it examines how brand awareness (well-known vs. unknown) and influencer gender (female vs. male) affect brand attitude and word-of-mouth (Intention to share and comment on social media) intention. By controlling the level of anthropomorphism, the research isolates the effects of these factors on brand-related evaluations. The research framework is built upon consumer reactions to social media posts featuring virtual influencers promoting both well-known and unknown brands. A 2×2 experimental design was employed, manipulating brand awareness (a well-known brand vs. an unknown brand) and influencer gender (female vs. male). Four virtual influencers were developed to represent each condition. Data were collected through an online survey with 290 valid responses via YouReply, an online research platform, and analyses were conducted using GLM MANCOVA. The interaction between gender and brand awareness was found to be significant for WOM intention this indicates that male participants were more inclined to engage in WOM for the unknown brand, whereas female participants demonstrated higher WOM intention for the well-known brand. Brand awareness significantly affected brand attitude, but it did not have a significant effect on WOM intention. The analysis confirmed that anthropomorphism is a strong predictor of both brand attitude and WOM intention. These findings offer strategic insights for marketers designing virtual influencer campaigns.

Keywords: Virtual Influencer, Brand Awareness, Gender, Brand Attitude, WOM, Anthropomorphism

Jel Codes: M31, M37

1. Introduction

Influencer marketing has become a central component of contemporary digital marketing strategies, as brands increasingly rely on social media influencers to shape consumer perceptions, attitudes, and behavioral intentions. Traditionally, this form of marketing has been dominated by human influencers who leverage personal authenticity, relatability, and social capital to promote products and brands. However, rapid technological advancements and the growing professionalization of social media have fundamentally altered the influencer landscape, leading to the emergence of virtual influencers computer-generated characters designed to resemble humans and interact with audiences on social media platforms.

Recent years have witnessed a marked increase in both academic (Pujadas-Gomez et al., 2025) and practical interest in virtual influencers. As of 2025, the global virtual influencer market is estimated to range between USD 8 and 13 billion (Amra & Elma, 2024; Market.us, 2024; Market Research Future, 2024). This market is projected to reach approximately USD 46 billion by 2030 (Grand View Research, 2024) and to expand further to between USD 170 and 308 billion during the 2034–2035 period (Market.us, 2024; Market Research Future, 2024), positioning virtual influencers as one of the fastest-growing segments within the digital marketing ecosystem. This rapid growth can be attributed to brands' increasing adoption of digital avatars as strategic communication tools, driven by their advantages in terms of perceived authenticity, message consistency, and enhanced risk management.

Researchers have found that virtual influencers engage consumers just as effectively as human influencers (Stein et al., 2022). While existing studies have examined the impact of virtual influencers on brand-related evaluations (Zheng and Lin, 2025; Shen, 2024; Ozdemir et al, 2023; De Cicco;), no academic research has addressed these effects in relation to brand awareness levels (i.e., well-known versus unknown brands). Specifically, the strategic differences between employing virtual influencers for well-established brands and for new or lesser-known brands with limited awareness remain unclear. Despite the innovation and control advantages offered by virtual influencers, the absence of established brand assurance may complicate the credibility of messages for lesser-known brands. Examining this distinction is critical for marketing managers seeking to align virtual influencer investments with overall brand objectives.

The gender presentations of virtual influencers and gender congruence significantly influence consumer responses; when congruence is present, trust, identification, and purchase intentions are stronger (Miyake, 2023; Lee and Yuan, 2023; Tao et al, 2026; Liu, 2026; Diwanji, 2026). However, these effects have not been systematically examined in relation to brand awareness levels. Motivated by these considerations, this study experimentally investigates the role of brand awareness (well-known vs. unknown) and influencer gender in determining the effectiveness of virtual influencer campaigns. A critical aspect of the research lies in its focus on gender matching, whereby female participants are exposed to stimuli featuring female virtual influencers and male participants are exposed to stimuli featuring male virtual influencers, in

order to capture potential gender-based differences in influencer evaluations. Within this framework, the study examines the effects of brand awareness and influencer gender on both word-of-mouth (WOM) intentions and brand attitude. The central premise of the research is that if such congruence and brand conditions—particularly in the case of lesser-known brands—can foster more favorable brand attitudes alongside stronger WOM intentions, they may offer a viable mechanism for accelerating brand equity development and overcoming market entry barriers. The primary contribution of this study lies in isolating the pure effects of brand awareness and gender by treating anthropomorphism, defined as the perceived human-likeness of virtual characters, as a covariate and holding it constant in the analysis. Conducted within the highly competitive and trend-driven context of the sports shoe industry, this research aims to address a significant gap in the marketing literature while providing actionable insights for lesser-known brands seeking digital growth strategies.

2. Literature Review and Hypotheses Development

2.1. Brand Awareness, Brand Attitude, and Word-of-Mouth Intention

Brand awareness is acknowledged as a fundamental aspect of consumer-based brand equity, referring to consumers' ability to recognize and recall a brand in diverse purchasing and consumption situations (Aaker, 1991; Keller, 1993). In branding literature, awareness is defined not just as brand recognition but also as a cognitive threshold that influences whether a brand is included in the consumer's consideration set and subjected to evaluation (Hoyer & Brown, 1990; Nedungadi, 1990).

In addition to cognitive fluency, signaling theory offers another explanatory framework for the influence of brand awareness on brand attitude. Erdem and Swait (1998) define brands as indicators that communicate information on product quality, reliability, and consistency, especially in marketplaces marked by uncertainty and information asymmetry. Increased brand knowledge improves signal clarity and credibility, allowing consumers to comprehend brand-related information with greater confidence and reduced perceived risk (Kirmani & Rao, 2000; Erdem, Swait, & Valenzuela, 2006). Consequently, reputable companies typically elicit more positive brand perceptions due to their perceived safety, reliability, and ease of assessment.

The theoretical connection between brand awareness and brand attitude is strong; however, the association between brand awareness and word-of-mouth (WOM) intention is more intricate and indirect. Word of Mouth (WOM) signifies a socially integrated and expressive manifestation of consumer behavior that transcends individual cognitive assessment (Arndt, 1967; Westbrook, 1987). Previous studies highlight that word-of-mouth (WOM) is frequently driven by emotional arousal, social identity signaling, self-enhancement, and relational objectives, rather than simply brand familiarity (Hennig-Thurau et al., 2004; Berger, 2014).

Research undertaken in digital and social media environments further corroborates this differentiation. Schivinski and Dabrowski (2016) assert that brand-related communication predominantly affects brand attitudes, while engagement actions, such as sharing and commenting, are more significantly influenced by experience and relational variables. The literature indicates that brand awareness significantly influences brand attitudes but demonstrates a weaker and more conditional association with word-of-mouth intention. Consequently, the subsequent hypothesis is posited:

***H_1**: Brand awareness has a significant effect on (a) brand attitude and (b) word-of-mouth intention.*

2.2. The Relationship Between Gender, Brand Attitude, and WOM

Gender differences in digital advertising environments are also well documented in the literature. Wolin and Korgaonkar (2003) showed that women evaluate online advertising based on emotional, relational, and social criteria, whereas men adopt a goal-oriented and utilitarian perspective. These findings indicate that gender serves as a moderating variable influencing brand evaluations and WOM intentions in digital contexts.

Such differences become even more evident in the context of virtual influencers. The gender presentation and identity cues of virtual influencers are important elements shaping consumer responses. Lee and Yuan (2023) demonstrated that gender presentation in virtual influencers significantly affects perceived attractiveness, authenticity, and persuasiveness. Sabie (2025) argued that virtual influencer content reproduces gender norms, which in turn shapes how male and female consumers interpret such content. Diwanji (2026) further showed that gender congruence between the consumer and the influencer has a significant impact on trust, brand evaluations, and WOM behavior.

There is also evidence that gender differences influence behavioral intentions in digital marketing communication. Perju-Mitran and Budacia (2015) found that online marketing communication operates through different mechanisms for male and female consumers, indicating that gender serves as a moderating variable for behavioral intentions. This suggests that gender shapes not only brand attitude but also WOM intentions.

Taken together, these theoretical and empirical findings clearly show that gender influences how brand messages are processed, how brand attitudes are formed, and how these attitudes translate into WOM intentions. Because virtual influencer content includes emotional visuals, anthropomorphic cues, and multilayered short-form messages, gender-based processing differences are highly likely to emerge in this context. Therefore, this study proposes the following hypothesis:

***H2:** Gender has a significant effect on (a) brand attitude and (b) word-of-mouth intentions.*

2.3. Brand Attitude, WOM and Anthropomorphism

Anthropomorphism is a fundamental element of virtual influencer design and a significant factor shaping how audiences perceive and respond to them (Chao et al., 2026). Anthropomorphism refers to the attribution of human form, characteristics, and behaviors to non-human entities (Dabiran et al, 2024). Anthropomorphism can evoke diverse reactions from audiences or users, both favorable and unfavorable (Yin et al., 2025). Research consistently shows that incorporating humanlike attributes into nonhuman digital or technological entities fosters interaction, encourages responses resembling those in human–human exchanges, and strengthens emotional connections (Dabiran et al, 2024; Blut et al 2021). The literature emphasizes that anthropomorphism entails not only positive but also negative

effects. Excessive human likeness may generate perceptions of eeriness or alienation (Liu & Wang, 2025). Therefore, anthropomorphism should be regarded as a multidimensional construct, encompassing both positive aspects such as attractiveness and trust, and negative aspects such as eeriness and estrangement (Yin et al., 2025).

Research demonstrates that anthropomorphism plays a critical role in shaping brand attitudes and WOM behaviors. Humanlike attributes facilitate the development of brand perceptions aligned with consumers' self-image and strengthen brand attitudes through identification (Mehta et al., 2024). The perceived social attractiveness and credibility of anthropomorphic VIs not only enhance consumers' positive evaluations of brands but also encourage imitation and sharing behaviors (Lee & Kim, 2025). At this point, the level and type of anthropomorphism (e.g., anime-like versus human-like) may generate different effects on WOM and brand attitude (Barari, 2025). Thus, the literature suggests that anthropomorphism is a crucial design element that reinforces brand attitudes and stimulates WOM behaviors, though its impact varies depending on context and the degree of anthropomorphism.
In our study, although anthropomorphism is primarily treated as a covariate to control for its potential confounding influence, we also aim to empirically examine its direct effects on WOM and brand attitude. testing its direct impact allows us to capture whether anthropomorphism itself functions as a driver of WOM and brand attitude, beyond its role as a background factor. This dual approach strengthens the robustness of our model and provides deeper insights into how anthropomorphic cues embedded in virtual influencer design shape consumer evaluations and behavioral intentions

H3: *Anthropomorphism has a significant effect on (a) brand attitude, and (b) word-of-mouth intentions.*

2.4. The Interaction of Gender and Brand Awareness on Brand Attitude and WOM

In the consumer behavior literature, gender is regarded as a key demographic variable that shapes individuals' information-processing styles, evaluative criteria, and communication motivations (Meyers-Levy and Maheswaran, 1991; Çabuk and Köksal Araç, 2013). Prior research demonstrates that female and male consumers process marketing stimuli using different cognitive and affective strategies, and that these differences significantly influence evaluative outcomes such as brand attitude and word-of-mouth (WOM) intention (Darley and Smith, 1995; Eisend, 2010).

Brand awareness, on the other hand, refers to consumers' ability to recognize and recall a brand and is widely acknowledged as one of the strongest antecedents of both brand attitude and WOM intention in the literature (Keller, 1993; Yoo and Donthu, 2001). High levels of brand awareness create mental accessibility in consumers' minds, facilitating the inclusion of the brand in evaluative processes and thereby fostering more favorable brand attitudes and stronger WOM intentions (Aaker, 1996; Macdonald and Sharp, 2000; Chevalier and Mayzlin, 2006).

However, the effects of brand awareness do not operate uniformly across all consumers. Rather, evaluation processes may vary depending on individual characteristics, particularly gender. According to Meyers-Levy and Maheswaran's (1991) information-processing framework, female consumers tend to process marketing messages in a more detailed and holistic manner, whereas male consumers are more inclined toward selective, cue-based, and functional evaluations. Consequently, the associations evoked by brand awareness (e.g., trust, social approval, or brand image) may translate into brand attitude and WOM intention differently across genders.

Similarly, the WOM literature highlights gender-based differences in sharing motivations. Female consumers are generally more inclined toward WOM behaviors driven by social bonding, experiential sharing, and emotional expression, whereas male consumers tend to engage in WOM primarily for information transmission and functional benefit-sharing purposes (Sun et al., 2006; Harrison-Walker, 2001). This suggests that the influence of brand awareness on WOM intention may vary not only in magnitude but also in qualitative form depending on gender.

Moreover, drawing on Congruence Theory, individuals are argued to seek consistency between the message source, brand characteristics, and their own identities, with higher levels of congruence strengthening attitudinal and behavioral responses. In this context, the trust and familiarity generated by brand awareness are expected to interact with gender-based evaluative styles, thereby exerting a differentiated impact on both brand attitude and WOM intention (Hudders and De Jans, 2022).

Taken together, these theoretical and empirical insights suggest that gender functions as an interaction variable that conditions the effects of brand awareness on brand attitude and WOM intention. Accordingly, examining gender and brand awareness jointly provides a more comprehensive understanding of consumer responses. Based on this rationale, the following hypothesis is proposed:

H4: *The interaction between gender and brand awareness has a significant effect on (a) brand attitude and (b) word-of-mouth (WOM) intention.*

3. Research Method

Research Design and Questionnaire

This study investigates the influence of virtual influencers on consumer reactions toward sport shoes brands. Specifically, it examines how brand awareness (well-known vs. unknown) and influencer gender (female vs. male) affect brand attitude and word-of-mouth (Intention to share and comment on social media) intention. The research framework is built upon consumer reactions to social media posts featuring virtual influencers who promote both well-known and unknown brands.

To this end, the initial phase of the study's experimental design process focused on determining the specific sports shoe brands (well-known vs. unknown)) that the virtual influencers would promote. A preliminary research process was established to determine brand names. Within this scope, approximately 11 non-existent brand names were generated by the research team to identify unknown brand names. For the well-known brand names, approximately ten existing brand names that are highly preferred by consumers in the market, such as Nike and Adidas, were identified. Following the determination of the brand names, a survey instrument was developed. In this survey, participants were presented with the question: "Which of the following brands would you prefer to be promoted by a virtual influencer? According to the results obtained from a total of 72 participants, Skechers was the most preferred brand name among well-known brands, and Pantera was the most preferred brand name among unknown brands. Based on these results, it was decided that Pantera is the unknown sports shoe brand and Skechers is the well-known sports shoe brand.

The second phase of the research's experimental design process began with the creation of facial and body features of female and male virtual influencers. The creation process of the virtual influencers was carried out using artificial intelligence (AI) technologies. In this context, numerous different virtual influencer models were generated on various AI platforms to create a design consistent with the research objectives. Among these trials, the most successful results for the designed female and male virtual influencer models were obtained from the Microsoft Copilot application. Following the process of creating the facial and body features of the female and male virtual influencers, sports shoes designs were created for men and women to serve the promotional purposes of the virtual influencers. Subsequently, various pose variations featuring virtual influencers in different positions were generated using artificial intelligence for these designs. Since the product being promoted in this study is sports shoes, the common point in all the photo poses created for both male and female virtual influencers is the use of the same poses and the highlighting and display of the designed sports shoe. In the final stage of the design process, various pose variations featuring virtual influencers in different positions were animated using artificial intelligence and transformed into product promotional videos to be shared by the influencer. The process of transforming the photographs into animated videos utilized the AI application Hedra. In this way, a total of four videos, each averaging 30 seconds in length, were produced, featuring male and female virtual influencers promoting both well-known and unknown branded sports shoes. Following the completion of the design process and the preparation of the photo and video content, Instagram pages were created for the female (username: Dora) and male (username: Bora) virtual influencers, and the prepared content was added to these pages. All virtual influencers' Instagram pages were given equal numbers of posts, likes, followers, and following. These statistical values were entered based on the average statistics of influencers in Türkiye. Accordingly, the research framework is based on consumer reactions to social media posts in which virtual influencers promote both well-known and unknown brands. A 2x2 experimental design was used, where brand awareness (well-known and unknown brand) and influencer gender (female and male) were manipulated. Four virtual influencers were developed to represent each condition (Appendix 1). Images and videos from the Instagram pages of female and male virtual influencers are shown in Appendix 1.

The survey study was used to test the theoretical model. The survey form consists of three sections. The first section includes questions about participants' demographic information, their purposes for using social media, and their influencer following status. Based on the gender and year of birth information collected in the first section, participants were divided into female and male subject groups and directed to the survey sections in the second part, which included the promotion of well-known and unknown brands. In the second part, participants are asked to view the content on the influencer's Instagram profile. First, the influencer's Instagram homepage screenshot is shared with the participants, then, an advertisement/promotional post for a sports shoes brand, shared by the same influencer (Appendix 1), is presented to the participants. The third section consists of questions that test the theoretical framework of the research and measure consumer responses. Five items measuring Brand Anthropomorphism were adapted from the studies of Kim and McGill (2011), Ho and MacDorman (2017), and Moussawi and Koufaris (2019). Five items including sharing, commenting, and liking, as used by Wang and Weng (2024), were used to measure Word of Mouth (WOM). Five items measuring attitude towards the brand were adapted from the studies of Spears and Singh (2004), Freberg, Graham, McGaughey, and Freberg (2011), Dhanesh and Duthler (2019), and Nafees et al. (2021). Brand awareness was used as a manipulation variable in experimental design. Each item corresponding to the constructs was measured using a 7-point Likert scale, with response options ranging from strongly disagree (1) to strongly agree (7).

Research Population and Sample

The research population consists of Instagram users in Türkiye who follow influencers who promote products on social media. Since there is no defined sampling framework for the population, convenience sampling was preferred in the study. Data collection was supported by YouReply, an online research platform. YouReply, a research platform that aims to connect researchers, businesses, and organizations with the right target audience for data collection, pays participants for each survey form they complete, utilizes AI-based smart algorithms to collect highly reliable data, and employs a filtering mechanism to identify the appropriate target audience. This allows for the most accurate identification of individuals from the target audience who will participate in the research. Data was collected through an online survey containing 290 valid responses, conducted via the online research platform YouReply in November 2025. Structural Equation Modeling (SEM) was used in the study, and MANCOVA analyses were performed. All analyses were carried out using AMOS software for structural equation modeling.

4. Results

4.1. Participants

The average age of the participants was 31.56 years, and their average monthly income was 56,413.84 TL. Among the participants, 42.4% held a bachelor’s degree, 17.9% a master’s degree, 14.1% a high school diploma, 12.8% an associate degree, and 11.4% a doctoral degree. Of the participants, 51.0% were married (n = 148), while 49.0% were single (n = 142). Of the 290 participants, 71.4% identified as female (n = 207) and 28.6% as male (n = 83).

4.2. Validity and Reliability

Table1: CFA

Items			Factor Loadings	CR
ANTH1	<---	ANTH	,808	19,315***
ANTH2	<---	ANTH	,919	
ANTH3	<---	ANTH	,953	28,095***
ANTH4	<---	ANTH	,746	16,533***
ANTH5	<---	ANTH	,736	16,135***
ATT1	<---	ATT	,916	
ATT2	<---	ATT	,945	29,725***
ATT3	<---	ATT	,960	31,543***
ATT5	<---	ATT	,941	29,939***
WOM1	<---	WOM	,975	
WOM2	<---	WOM	,949	35,587***

ANTH: Anthropomorphism; ATT: Attitude toward The Brand; WOM: Word of Mouth
***= Significant at the 0.001 level
Model fits: CMIN/DF= 2,385; GFI= 0,948; CFI= ,987; RMSEA= 0,069; RMR= 0,069

Confirmatory Factor Analysis (CFA) was conducted using AMOS. All factor loadings exceeded the recommended threshold of .70, indicating strong item–construct relationships (Aurbuckle, 2014). The model fit indices (CMIN/DF = 2.385; GFI = 0.948; CFI = 0.987; RMSEA = 0.069; RMR = 0.069) indicate a good overall fit, confirming that the measurement model is statistically sound and appropriate for subsequent structural analyses (Byrne, 2010).

At this stage, reliability and validity analyses were subsequently examined. All analyses were performed with the AMOS software for structural equation modeling. The results of the analyses are presented in Table 2 and Table 3.

Table 2: Validity Analysis

Variables	**Alfa**	**CR**	**AVE**	**MSV**	**MaxR(H)**	**ANTH**	**ATT**	**WOM**
ANTH	0,938	0,921	0,701	0,509	0,952	**0,837**		
ATT	0,968	0,968	0,885	0,695	0,971	0,704***	**0,941**	
WOM	0,961	0,961	0,926	0,695	0,966	0,713***	0,833***	**0,962**

***= Significant at the 0.001 level

All constructs demonstrated high internal consistency, with Cronbach's alpha and composite reliability (CR) values exceeding the recommended threshold of .70 (Arbuckle, 2014). Convergent validity was supported by AVE values above .50 for all constructs. Discriminant

validity was confirmed as the square root of AVE (bold diagonal values) exceeded inter-construct correlations (Fornell & Larcker, 1981). Additionally, MSV values remained below AVE values, further supporting discriminant validity. These results indicate that the measurement model is both reliable and valid for structural analysis.

Table 3: HTMT Analysis

Variables	**ANTH**	**ATT**	**WOM**
ANTH			
ATT	0,678		
WOM	0,705	0,834	

All HTMT values remained below the conservative threshold of 0.85 (Henseler et al., 2015), indicating satisfactory discriminant validity among the constructs. These results confirm that the constructs are empirically distinct and suitable for structural modeling.

4.3. Hypothesis Testing

Anthropomorphism was included as a covariate, while brand attitude and WOM were treated as dependent variables. Brand awareness and gender were used as the independent variables. o test the proposed hypotheses, a General Linear Model (GLM) multivariate analysis was employed. Specifically, a Multivariate Analysis of Covariance (MANCOVA) was conducted to examine the effects while controlling for relevant covariates.

Box's Test of Equality of Covariance Matrices was not statistically significant (Box's M = 15.411, p = .086), indicating that the assumption of homogeneity of covariance matrices was met. This supports the appropriateness of proceeding with the MANCOVA analysis.

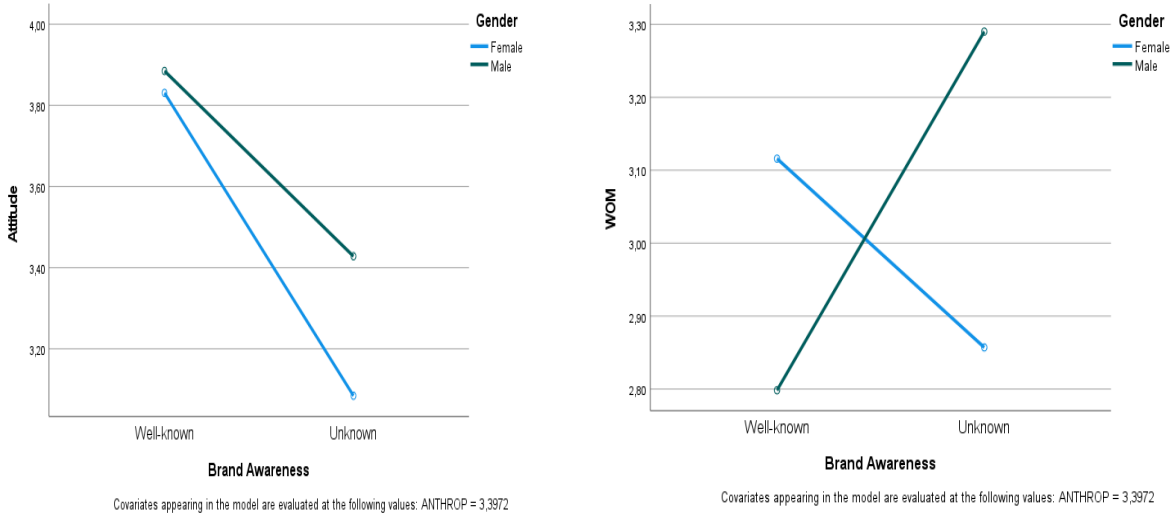
The results revealed that the variable anthropomorphism had a statistically significant effect on the dependent variables (Wilks' $\Lambda = .510$, $F= 136.571$, $p < .001$, $\eta^2 = .490$). In contrast, gender did not yield a significant multivariate effect (Wilks' $\Lambda = .995$, $F= .771$, $p = .464$, $\eta^2 = .005$). However, brand awareness significantly influenced the dependent variables (Wilks' $\Lambda = .913$, $F= 13.498$, $p < .001$), with a moderate effect size ($\eta^2 = .087$). Lastly, the interaction between gender and brand awareness approached significance (Wilks' $\Lambda = .981$, $F= 2.782$, $p = .064$), with a small effect size ($\eta^2 = .019$), indicating limited interactive influence.

Table 4: Mancova Analysis Results

Source	Dependent Variables	F	Sig.	Partial Eta Squared
Anthropomorphism	**ATT**	**221,013**	**,000**	**,437**
	WOM	**236,643**	**,000**	**,454**
Gender	ATT	1,239	,267	,004
	WOM	,113	,736	,000
Brand Awareness	**ATT**	**11,335**	**,001**	**,038**
	WOM	,462	,497	,002
Gender * Brand Awareness	ATT	,657	,418	,002
	WOM	**4,791**	**,029**	**,017**

The univariate results of the MANCOVA analysis revealed that anthropomorphism had a statistically significant effect on both dependent variables—ATT ($F = 221.013$, $p < .001$, $\eta^2 = .437$) and WOM ($F = 236.643$, $p < .001$, $\eta^2 = .454$)—with large effect sizes, indicating its strong predictive power. Gender, however, did not significantly influence ATT ($F = 1.239$, $p = .267$, $\eta^2 = .004$) or WOM ($F = .113$, $p = .736$, $\eta^2 = .000$), suggesting negligible impact. While brand awareness significantly affected ATT ($F = 11.335$, $p = .001$, $\eta^2 = .038$), it did not yield a significant effect on WOM ($F = .462$, $p = .497$, $\eta^2 = .002$). Lastly, the interaction between gender and brand awareness was not significant for ATT ($F = .657$, $p = .418$, $\eta^2 = .002$), but showed a statistically significant effect on WOM ($F = 4.791$, $p = .029$, $\eta^2 = .017$), albeit with a small effect size.

Graphic 1: Interaction Effects



The first graph illustrates the interaction between gender and brand awareness on attitude toward the brand. Both male and female participants reported higher attitude scores for well-

known brands, indicating a general positive bias toward familiar names. The second graph presents the interaction effect of gender and brand awareness on word-of-mouth intentions. While female participants showed higher WOM scores for well-known brands, male participants exhibited a reverse trend—reporting slightly higher WOM scores for unknown brands. This suggests that men may be more inclined to talk about unfamiliar or novel brands, whereas women are more likely to engage in WOM when the brand is already familiar and trusted. The results indicate that hypotheses H1a, H3a, H3b, and H4b, are supported, whereas hypotheses H1b, H2a, H2b, and H4a are not supported.

5. Conclusion

This study illustrates that brand awareness is essential in influencing customers' brand attitudes inside virtual influencer situations, confirming its importance as a fundamental cognitive mechanism in brand evaluation. Nonetheless, brand awareness does not directly correlate with an increased intention for word-of-mouth communication. The results indicate that although familiarity and recognition enhance favorable brand assessments, they do not inherently provoke socially ingrained actions like sharing or endorsing a brand. WOM seems to necessitate supplementary affective and social motivators in addition to cognitive accessibility. This study enhances the understanding of brand awareness in digital and influencer marketing by differentiating between evaluative and communicative outcomes. The conclusions derived from H1 are further substantiated by previous studies in branding and digital marketing. In accordance with existing brand equity frameworks, brand awareness serves as a fundamental mechanism influencing customers' brand perceptions via familiarity, cognitive accessibility, and diminished uncertainty (Keller, 1993; Macdonald & Sharp, 2000). The lack of a direct impact of brand awareness on word-of-mouth intention corresponds with studies emphasizing the socially embedded and motivational characteristics of word-of-mouth behaviors, which are shaped by emotional engagement and social significance rather than mere recognition (Ha & Perks, 2005; Berger & Milkman, 2012). Research in social media contexts suggests that whereas awareness enhances positive brand impressions, communicative engagement relies on relational and sensory elements beyond simple familiarity (Schivinski & Dabrowski, 2016). Collectively, these viewpoints contextualize the current findings within a cohesive theoretical framework, highlighting the distinct functions of brand awareness in evaluative and communicative results. In summary, brand awareness provides a sufficient cognitive basis for developing positive attitudes toward a brand and evaluating it. However, merely knowing the brand is not enough, by itself, to generate the intention to actively engage in word-of-mouth (WOM) communication. To trigger communicative actions like WOM, additional factors are required beyond cognitive familiarity, such as emotional engagement, social significance, and motivational factors.

The current study hypothesized that gender would significantly influence consumers' brand attitudes and word-of-mouth (WOM) intentions. However, the findings did not support this hypothesis. The statistical analysis showed that gender did not have a significant main effect on either brand attitude or WOM intention. These results diverge from a substantial portion of the existing literature, which has frequently documented gender-based differences in

information processing, emotional responsiveness, and advertising evaluations. Much of the prior research grounded in the selectivity model indicates that women typically engage in more comprehensive and elaborative processing, while men rely more heavily on selective, heuristic cues (Meyers-Levy & Maheswaran, 1991; Meyers-Levy & Loken, 2015). These cognitive differences are often reflected in divergent brand attitudes, especially under emotionally rich or message-intensive advertising conditions. Similarly, Garaus and Wolfsteiner (2023) found significant gender differences, showing that women's brand attitudes were more negatively affected by media multitasking and more positively influenced by emotional advertising appeals. Furthermore, Amin et al. (2023) demonstrated that slogan familiarity influences women's brand attitudes more strongly than men's, suggesting a gender-based divergence in how message-level cues shape evaluations. In contrast, the current study's results reveal no significant gender-based differences in brand attitude formation, which suggests that the context of virtual influencers may operate differently from traditional advertising contexts. Virtual influencer posts—despite containing emotional visuals and identity cues—may not have produced sufficiently strong or differentiated message processing demands to activate the gender differences documented in prior literature. It is also possible that the standardized nature of the stimuli (controlled anthropomorphism, similar visual style across conditions) reduced the emotional or relational variability that typically heightens gender effects. In short, the experimental design may have equalized the cues in a way that minimized gendered processing differences. Similarly, the absence of a gender effect on WOM intention contrasts with earlier studies indicating that women tend to share brand-related information more frequently when emotional or relational content is present, while men's WOM tends to be driven by functional relevance or novelty. In this study, however, gender did not significantly influence WOM intention. This again may be attributed to the uniformity of the virtual influencer content, which may not have provided the type of affective differentiation that triggers stronger gendered WOM responses. Moreover, WOM intentions in virtual influencer contexts may be shaped more by perceived anthropomorphism—a factor that was highly significant in your results—rather than gendered processing tendencies, which could have overshadowed gender effects. Interestingly, while gender alone did not predict WOM intention, the study did uncover a significant interaction between gender and brand awareness. This finding partially aligns with the broader literature by suggesting that gender differences may emerge context-dependent, rather than universally. Male participants exhibited higher WOM intentions for the unknown brand, while female participants showed higher WOM intentions for the well-known brand. This pattern suggests that women may rely more on brand familiarity and trust when engaging in WOM—consistent with their tendency toward comprehensive and relational processing—whereas men may exhibit greater curiosity or responsiveness toward novel or unfamiliar brands. This nuanced interaction indicates that gender differences cannot be fully dismissed; rather, they may depend on specific situational cues such as brand familiarity. In contrast to traditional advertising findings, virtual influencer contexts may moderate the influence of gender, making its effect more conditional than direct. Overall, the results suggest that while the theoretical framework and prior research strongly support gender effects in brand evaluations and WOM behavior, gender did not emerge as a standalone predictor in this virtual influencer experiment. Instead, gender appears to exert influence only in interaction with contextual variables (e.g.,

brand awareness), indicating that gendered processing tendencies may be more subtle and situational within digital influencer environments.

The other important findings of this study indicate that anthropomorphism exerts significant and robust effects on both brand attitude and word-of-mouth (WOM) intentions. These results are consistent with prior research highlighting the positive role of anthropomorphism in consumer–brand interactions. Specifically, previous studies have shown that embedding human-like characteristics into digital or technological entities enhances engagement, elicits responses similar to human–human interactions, and strengthens emotional bonds (Dabiran et al., 2024; Blut et al., 2021). Moreover, the findings align with research demonstrating that anthropomorphism facilitates the development of brand perceptions congruent with consumers' self-images, thereby strengthening brand attitudes (Mehta et al., 2024). In addition, prior evidence suggesting that the social attractiveness and perceived credibility of anthropomorphic virtual influencers enhance positive brand evaluations and stimulate imitation and sharing behaviors (Lee & Kim, 2025) is further supported. Collectively, these results demonstrate that anthropomorphism is not merely a background variable to be controlled for, but a critical element that directly shapes brand attitude and WOM intentions. Accordingly, anthropomorphic cues embedded in virtual influencer design function as active drivers of consumer evaluation and behavioral intention rather than as purely aesthetic features. These findings underscore the strategic importance of deliberately calibrating human-like attributes in virtual influencers to enhance brand perception and stimulate organic consumer engagement.

In this study, a significant interaction effect between gender and brand awareness on word-of-mouth (WOM) intention was identified. Although the interaction was not significant with respect to brand attitude, the interaction effect observed for WOM intention indicates that consumer behavior differs according to gender. Graphical results reveal that female participants exhibit higher WOM intentions for well-known brands, whereas male participants display relatively higher WOM intentions for lesser-known brands. The analysis results are consistent with prior research suggesting that male consumers engage in WOM behavior primarily driven by information transmission and the sharing of functional benefits (Sun et al., 2006; Harrison-Walker, 2001). Lesser-known brands may trigger WOM behavior among men by offering opportunities for exploration, evaluation, and information sharing. In this context, male consumers tend to use WOM as a means of "initial evaluation" or "experience sharing," whereas female consumers are more likely to engage in WOM based on motivations related to trust, social approval, and emotional bonding (Meyers-Levy & Maheswaran, 1991; Hudders & De Jans, 2022). Because lesser-known brands do not provide sufficient cues of trust and social connectedness for female consumers, their WOM intentions remain relatively low. This pattern suggests, in line with Congruence Theory, that the search for consistency between the message source, brand characteristics, and individual identity is more salient among female consumers (Hudders & De Jans, 2022). Well-known brands, to the extent that they provide such congruence and social reassurance, are therefore more effective in stimulating WOM behavior among women.

Furthermore, it should be considered that this difference may partly stem from the product category examined in the study, namely sports footwear. Sports products—particularly athletic

shoes—may be more appealing to male consumers in terms of performance, technical features, and the sharing of innovations. Sunderji et al. (2024) demonstrate that sport is more strongly associated with male identity and that this perception influences attitudes toward sports-related products. In this regard, men may perceive discussing lesser-known athletic footwear brands as an opportunity for discovery and information exchange. Female consumers, by contrast, place greater emphasis on reliability, social approval, and brand image when evaluating sports footwear; accordingly, well-known brands more strongly trigger WOM behavior among women. In addition, Asada and Ko (2019) show that women are more influenced by WOM recommendations, whereas men are more likely to initiate WOM. This finding further supports men's greater propensity to discuss lesser-known sports brands.

These findings offer important implications for both academic research and managerial practice. Academically, the interaction demonstrating that the effects of brand awareness vary by gender highlights the need for more fine-grained segmentation models within the consumer behavior literature. From a managerial perspective, the results suggest that WOM strategies should be designed in a gender-sensitive manner. Lesser-known or new brands should be presented to male consumers using information-based and exploration-oriented content, whereas female consumers should be targeted with messages emphasizing trust, social approval, and emotional connection.

Despite the contributions offered by this study, the findings point to several new research areas for future studies. Firstly, the lack of support for a direct influence of brand awareness on word-of-mouth (WOM) suggests that this relationship may arise through more complex mechanisms. In this context, future studies should investigate whether variables such as brand attitude, brand loyalty, brand affection, perceived brand authenticity, and consumer-brand identification play a mediating role in this relationship. Secondly, the lack of significant direct effects of gender on brand attitude and word-of-mouth intention suggests that demographic variables, when considered alone, may have limited explanatory power. Future research is recommended to move beyond treating gender as a binary variable and instead consider it in conjunction with gender roles, individual differences, and psychographic characteristics.Furthermore, examining gender in interaction with contextual variables can more clearly reveal the conditions under which consumer responses differ. Given the significant impact of anthropomorphism on both brand attitude and word-of-mouth intention, it is important for future studies to address this concept in more detail. Examining visual, linguistic, and behavioral anthropomorphism separately will allow for a comparison of the relative impacts of these dimensions on consumer evaluations. How anthropomorphism is perceived in the context of different product categories and levels of consumer engagement should also be investigated. Furhermore, Future research may further investigate how different forms and intensities of anthropomorphism interact with consumer characteristics and platform contexts to shape brand-related outcomes.

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Appendix. 1. Screenshots from product promotion videos of well-known and unknown branded products by virtual influencers.







