

## THE INFLUENCE OF VIRTUAL INFLUENCER ATTRIBUTES ON CUSTOMER ENGAGEMENT IN THE SRI LANKAN FASHION INDUSTRY

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### Abstract

The research examines how the three most significant features of virtual influencers (VIs) in the guise of anthropomorphism, aesthetic value, and entertainment value initiate consumer engagement within the context of Sri Lankan fashion. A quantitative research design was used, with a methodical online survey to collect data from 300 digitally active Sri Lankan fashion consumers. The data was analysed using multiple regression analysis to understand the predictive significance of each independent variable in relation to consumer involvement. The findings validate that VIs are most likely to interact with individuals who are human-like and handsome. The implications of the findings are profound for online fashion brands and digital marketers, as virtual influencers' personalities and appearances need to lean towards realism and aesthetics to garner maximum consumer engagement and interaction. This is particularly important in emerging economies where the uptake of digital technology is becoming increasingly rapid. This study contributes to the digital marketing literature by extending the Stimulus-Organism-Response (S-O-R) framework to virtual influencers in an emerging market context, providing practical guidance for fashion brands in Sri Lanka. Future studies would benefit from using larger population samples, such as those from rural and elderly populations, and employing longitudinal or mixed methods designs to track changes over time. Further studies could also examine the ethical implications, such as trust and authenticity, in the use of virtual influencers.

**Keywords:** Aesthetic value, anthropomorphism, consumer engagement, fashion industry, virtual influencers

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## **Introduction**

The current global business landscape is deeply rooted in uncharted digital transformation, profoundly redefining industries, communication models, and customer habits worldwide (Brodie et al., 2011). Such widespread digitalisation has transformed the shift from traditional advertising to embracing new paradigms within the ever-evolving digital landscape. Among these emergent tactics, the most notable is the leveraging of influencer marketing, which capitalises on the power of people to create genuine connections between consumers and brands (Lou & Yuan, 2019). In a digital environment, activating high-strength customer engagement (CE) has been on the priority lists of organisations looking to establish brand loyalty, influence purchases, and achieve sustainable commercial profitability (Hollebeek et al., 2014). CE is a multifaceted construct encompassing various exposures of consumers to brand communications beyond mere exposure. It comprises cognitive engagement, as supported by active attention and information processing, and by the interaction among brands and consumers' mental engagement with brand content; affective engagement, as indicated by attachment feelings and positive affect towards emotional attachment to brands; and behavioural engagement, as indicated by overt behaviours such as liking, commenting, posting, actively searching for brand information, and following on social media (Brodie et al., 2011; Hollebeek et al., 2014; Lou & Yuan, 2019).

The nation is experiencing a fierce digital adoption wave, reflected in ever-rising internet penetration levels and widespread utilisation of mobile phones, which has anchored social media in position as a hub for communication, information acquisition, and increasingly, a business platform (Wijerathna & Wijesundara, 2022). Empirical research confirms that social media marketing certainly improves Sri Lankan consumers' buying behaviour in the apparel sector (Francis et al., 2024). Although influencer marketing is a relatively underdeveloped yet fast-growing sector in the country, it is increasingly being seen as a crucial strategic requirement for local and international brands seeking to create effective consumer experiences (Samaradiwakara, 2023; Wijerathna & Wijesundara, 2022). Sri Lankan consumers, particularly urban Generation Z youth who are well-versed in technology, heavily rely on individuals who possess apparent fashion awareness when making informed purchasing decisions and are inclined to adopt their examples (Samaradiwakara, 2023; Wijerathna & Wijesundara, 2022).

Existing research on influencer marketing in Sri Lanka has focused on celebrity endorsement through humans and micro-influencers, experimentally testing their traditional attributes of influencing consumer behaviour (Samaradiwakara, 2023; Wijerathna & Wijesundara, 2022). Still, the function, efficacy, and nuance of consumer reactions to virtual influencers (VIs) - a facet of a qualitatively distinct form of endorser with no physical presence and lived experience - are over explored in this context (Francis et al., 2024). There is technology available for high-end digital aid in a culture that is highly devoted to authenticity, verifiable expertise, and impartial judgments by opinion leaders (Samaradiwakara, 2023; Wijerathna & Wijesundara, 2022). While global studies have extensively examined the impact of human influencers on consumer engagement, there is a noticeable lack of research on virtual influencers, particularly within the Sri Lankan fashion industry. Prior research on influencer marketing has largely centered on human influencers, emphasising factors such as attractiveness, credibility, and authenticity in shaping consumer behaviour (Brodie et al., 2011; Kim & Sundar, 2012). Although recent studies have begun to explore virtual influencers, they have primarily focused on global or Western markets, offering limited insights into emerging contexts (Goyal & Bhardwaj, 2025). However, little is known about how attributes like anthropomorphism, aesthetic appeal, and entertainment value of VIs influence consumer perceptions and behavioural intentions in emerging economies. This gap is particularly relevant to Sri Lanka, where digital adoption in the fashion industry is growing rapidly, yet consumers remain cautious about authenticity and trust in virtual environments. Addressing this gap extends the S-O-R framework to a new cultural and technological setting, contributing both to academic literature and providing practical guidance for Sri Lankan fashion brands aiming to leverage VIs effectively. This gap is significant as the growing presence of virtual influencers presents new opportunities and challenges for brands in shaping consumer perceptions and engagement in the local context. The entire virtual platform of VIs necessarily limits how much they can offer tangible product experiences or share 'real-world' information, which may be contrary to local consumers' desires for genuine endorsements (Seo & Jin, 2023). To address this specific gap, the following research objectives are considered,

RO1: To examine the influence of virtual influencer anthropomorphism on customer engagement with fashion brands in the Sri Lankan fashion industry.

RO2: To investigate the influence of virtual influencer aesthetic value on customer engagement with virtual influencer content in the Sri Lankan fashion industry.

RO3: To identify the influence of virtual influencer entertainment value on customer engagement toward fashion-related content in the Sri Lankan fashion industry.

## Literature Review

### Virtual influencers in digital marketing

Virtual influencers are digital characters designed to mimic human behaviour, managed by brands, designers, or content creators (Donda Pati, 2025; Mouritzen et al., 2024). These VIs frequently promote fashion products on platforms like Instagram, YouTube, and TikTok through carefully curated visuals and narratives (Varghese, 2025; Yang, 2025). Prominent examples, such as Lil Miquela and Shudu Gram, demonstrate that audiences can form connections with these virtual personas, like those formed with human influencers (Goyal & Bhardwaj, 2025; Nasr et al., 2025; Seyedzadeh, 2024).

### Customer engagement in digital fashion marketing

Customer engagement is a multifaceted concept encompassing the emotional, cognitive, and behavioural interactions consumers have with brands (Brodie et al., 2011). Within the realm of social media, this translates into tangible actions such as likes, comments, and shares, as well as sustained following, brand loyalty, and active advocacy. According to Hollebeek et al. (2014), engagement extends beyond a simple reaction to content; it represents an evolving and ongoing relationship between the consumer and the brand. Social media influencers, including their virtual counterparts, play a pivotal role in nurturing this relationship.

### Anthropomorphism and customer engagement

Anthropomorphism is the attribution of human characteristics, emotions, and intentions to non-human entities (Epley et al., 2007). In marketing, this often leads to increased emotional attachment and trustworthiness with brands or characters (Aggarwal & McGill, 2007). When virtual influencers are designed with human-like features such as expressive facial gestures, a distinct fashion sense, or personal life narratives, they can foster a sense of social presence and perceived realism (Kim & Sundar, 2012; Li & Sung, 2021). Accordingly, the first hypothesis is developed as follows:

*H1: The anthropomorphism positively affects the consumer engagement in the Sri Lankan fashion industry.*

### Aesthetic value of virtual influencers

Aesthetic value refers to the perceived visual attractiveness or artistic appeal of an object, which, in the context of this discussion, applies directly to the virtual influencer and their content (Bloch, 1995). In the realm of digital marketing, particularly within the fashion industry, visuals are paramount in shaping consumer perceptions, defining brand identity, and influencing consumer responses (Pham & Avnet, 2009). In accordance with that, the second hypothesis is developed as follows:

*H2: The aesthetic value positively affects consumer engagement in the Sri Lankan fashion industry.*

### Entertainment value in virtual influencer content

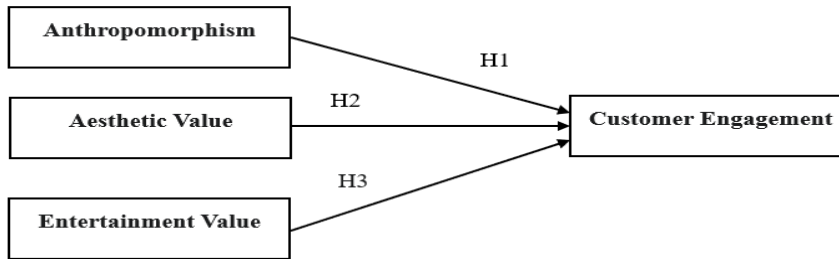
Entertainment value refers to the degree of amusement, enjoyment, and emotional stimulation that the content provides (Ducoffe, 1996). In the world of influencer marketing, entertainment is a major force driving engagement. It elicits positive emotional responses and encourages users to spend more time engaging with the content. Ashley and Tuten (2015) highlighted that entertaining content, especially when it includes humour, compelling narratives, or novelty, helps create emotional connections with followers. For virtual influencers, their ability to craft creative storylines, join popular trends, or offer unique, personality-driven humour significantly boosts their appeal. Accordingly, the third hypothesis is developed as follows:

*H3: The entertainment value positively affects the consumer engagement in the Sri Lankan fashion industry.*

### Theoretical underpinning

This study is theoretically grounded in the Stimulus-Organism-Response (S-O-R) framework, originally proposed by Mehrabian and Russell (1974). This framework posits that environmental stimuli (S) influence an individual's internal states or 'organism' (O), which subsequently leads to a behavioural response (R). In the context of this research, the characteristics of virtual influencers serve as the stimuli (S). Specifically, anthropomorphism, aesthetic value, and entertainment value are considered the key stimuli emanating from the virtual influencer. These stimuli are hypothesised to affect the internal states of consumers, forming the organism (O). This 'organism' encompasses consumers' cognitive and emotional responses, including their perceptions and attitudes towards the virtual influencer and the fashion content they consume. Finally, these internal states are expected to influence consumers' observable responses (R), which, in this study, are measured through various dimensions of customer engagement (e.g., likes, comments, shares, brand loyalty).

**Figure 1**  
Conceptual framework



(Source: Authors' compilation)

## Methodology

This study adopts a positivist research philosophy (Saunders et al., 2020). A deductive quantitative approach was employed, and a cross-sectional time horizon survey was conducted. The study focuses on urban adolescents aged 18-35 years old, as they are the most technologically engaged and fashion-conscious generation in Sri Lanka; nevertheless, the lack of inclusion of rural and elderly demographics is acknowledged as a methodological limitation.

The study was conducted primarily in urban and semi-urban areas, focusing on digitally active consumers in Colombo and other urban cities where influencer culture is more popular. Primary data was collected via a self-completed, standardised web questionnaire, distributed through WhatsApp, Facebook, and Instagram platforms. Items were adapted from existing, validated instruments and scored on a 5-point Likert scale. Due to the absence of a comprehensive sampling framework, purposive sampling was deemed the most suitable sampling method for this study. The sample consisted of 400 participants selected through purposive sampling based on their salience, and only those who had previously been exposed to virtual fashion influencers were included. Screening questions were used to check compliance. SPSS was used to analyse data, beginning with descriptive statistics to detail demographic and behavioural profiles and to test hypotheses. Multiple linear regression was performed. The operationalisation table clearly presents each variable along with its respective dimensions, indicators, and measurement scales adapted from established sources. Specifically, anthropomorphism includes 5 indicators, aesthetic value has 5 indicators, entertainment value comprises 5 indicators, and customer engagement consists of 15 indicators across three dimensions: cognitive engagement (5), affective engagement (5), and behavioural engagement (5), all measured using a five-point Likert scale to ensure reliability and consistency.

## Validity and Reliability

All criteria for validity and reliability were satisfactorily met. Factor loading values for each of the four indicators consistently surpassed the threshold of 0.7. Cronbach's alpha values for all significant variables exceeded the standard threshold of 0.7, thereby confirming the reliability of all variables in the questionnaire. Furthermore, each of the Kaiser–Meyer–Olkin (KMO) values and Average Variance Extracted (AVE) values exceeded 0.5, and all significance values for Bartlett's Test were below 0.05. The square root of the AVE for each variable also surpassed the corresponding inter-construct correlations, providing additional confirmation of construct validity.

## Results and Analysis

Demographic information, including gender, age, occupation status, and monthly income of the respondent, was collected to enhance the value of the final research outcomes. Frequency analysis was conducted for each demographic variable in the current research, namely gender, age, occupational status, and monthly income. There are 148 male respondents out of the total number of respondents (300), whereas there are 152 female respondents. A larger group of respondents (268) falls in the 18–29 years age group, which accounts for 89.33%. A total of 185 respondents, or 68.8%, are working respondents. Most of the respondents have a monthly income of Rs. 41,000 to Rs. 60,001, and it is 95 in number.

**Table 1**  
Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.964 <sup>a</sup>	.930	.929	.57765

a. Predictors: (Constant), A, AV, EV, CE

(Source: Survey data)

The model summary indicates a very strong correlation between the independent variables anthropomorphism (A), aesthetic value (AV), entertainment value (EV), and customer engagement (CE) and the dependent variable as seen from a high multiple correlation coefficient (R = 0.964). The R Square value of 0.930 indicates that 93% of the variation in the dependent variable is explained by the combined effect of these predictors, which reflects an excellent model fit. The Adjusted R square of 0.929 confirms that the model is still stable after being adjusted for the number of predictors, and there is minimal overfitting. Furthermore, the standard error of the estimate is relatively low (0.57765), indicating that the model's predictions are highly like the actual observed values.

**Table 2**  
ANOVA table

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	863.715	4	215.929	647.117	.000 <sup>b</sup>
	Residual	65.067	195	334		
	Total	928.782	199			

a. Dependent Variable: CE

b. Predictors: (Constant), A, AV, EV

(Source: Survey data)

Table 2 indicates that the regression model is significant. The F-statistic value of 647.117 with a p-value (Sig.) of .000 indicates that the combined effect of the predictors anthropomorphism (A), aesthetic value (AV), and entertainment value (EV) significantly predicts the variation in the dependent variable, cognitive engagement (CE). The large sum of squares for the regression (863.715) compared to the residual (65.067) also clearly demonstrates that the model accounts for a significant portion of the variation in CE. The model, therefore, provides a valid and relevant explanation for the effect of the virtual influencer attributes examined on cognitive engagement.

**Table 3**  
Coefficients table

Model	Unstandardised Coefficients		Standardised Coefficients		t	Sig.
	B	Std. Error	Beta			
1	(Constant)	-.397	.327		-1.217	.225
	A	1.027	.120	1.261	8.559	.000
	AV	1.076	.055	1.107	19.481	.000
	EV	.038	.064	.028	.592	.024

a. Dependent Variable: CE

(Source: Survey data)

The regression coefficients indicate that aesthetic value (AV) and anthropomorphism (A) exert a statistically significant and strong positive effect on cognitive engagement (CE), with beta values of 1.261 and 1.107, respectively, and p-values of 0.000. This suggests that increases in these variables are positively related to high cognitive engagement. Although entertainment value (EV) has a very low standardised beta (0.028), its p-value of 0.024 indicates that EV is statistically significant at the 5% level, though not practically significant. The constant is not statistically significant (p = 0.225) and doesn't contribute much to the model. Although standardised coefficients theoretically range between -1 and +1, the beta values for anthropomorphism and aesthetic value exceed 1, likely due to multicollinearity or strong intercorrelations among predictors. This indicates that these variables share overlapping explanatory power regarding cognitive engagement, and their effects should be interpreted in conjunction rather than in isolation. Overall, all three independent variables significantly impact cognitive engagement, but anthropomorphism and aesthetic value are the most effective.

**Table 4**  
Hypotheses after testing

H1: The anthropomorphism positively affects the consumer engagement in the Sri Lankan fashion industry.	Accepted
H2: The aesthetic value positively affects the consumer engagement in the Sri Lankan fashion industry.	Accepted
H3: The entertainment value positively affects the consumer engagement in the Sri Lankan fashion industry.	Accepted

(Source: Authors' compilation)

## Discussion

The findings revealed that anthropomorphism had a significant and positive influence on consumer engagement from all three perspectives. Consumers responded more cognitively, emotionally, and behaviourally to virtual influencers that were more human-like in their facial expressions, gestures, and emotionally intelligent utterances. This result aligns with the theoretical position that anthropomorphic cues make people perceive non-human agents as social beings (Kim & Sundar, 2012). In the Sri Lankan context, where social cues and interpersonal warmth are culturally valued, the realistic characteristics of virtual influencers create familiarity and trust, and therefore, users are more likely to actively interact, follow, and engage with these virtual characters. Aesthetic value also emerged as a prominent driver of affective and behavioural engagement (Pham & Avnet, 2009). Visually appealing virtual influencers generated more engagement and resulted in more intense behavioural activities such as liking, sharing, or following. These findings suggest that aesthetic consistency, fashion sense, and visual branding are accountable for the degree of emotional attachment users have towards virtual influencers. Entertainment value proved to be an important predictor of cognitive and behavioural engagement. Entertaining content, whether humorous, dramatic, or creatively presented, engages users and encourages them to reflect on the content as well as react through actions such as commenting or sharing (Ashley & Tuten, 2015). In an environment where stimuli are abundant, the virtual influencer's ability to surprise or entertain becomes a key point of differentiation, particularly for younger consumers accustomed to emotionally engaging, fast-paced media content.

## Conclusion

The empirical contribution of this study is the proof that the attributes of virtual influencers, including anthropomorphism, aesthetic value, and entertainment value, influence consumers' engagement in the context of Sri Lanka's fashion industry. Aesthetic value is found to facilitate emotional connection and behavioural participation, especially in the visually responsive fashion industry, while entertainment value, although less pragmatically efficient, remains statistically significant in enabling cognitive participation and web activities. The results not only prove the efficacy of VIs in enabling consumer behaviour but also highlight the strategic importance of integrating human-like, visually engaging, and creatively evocative components in virtual persona design. Second, the study employed a cross-sectional survey design, which takes a snapshot at a single point in time. Third, while focusing on cognitive engagement as the dependent variable allows for close examination, a larger model incorporating effective and behavioural engagement as separate dependent constructs may yield greater understanding.

## Future Research Directions

Future studies can expand the sample to include different age groups and rural areas to ensure generalisability. A longitudinal study is also possible to track trends in consumer engagement in the long run. Qualitative methods, such as interviews, can also provide more nuanced insights into how users perceive them. Future research may employ structural equation modelling (SEM) to provide a more comprehensive and rigorous examination of the interactions between factors, extending beyond the direct impacts assessed by regression analysis in the current study. Examining ethical concerns, trust, and transparency regarding virtual influencer promotion, particularly in culturally sensitive environments such as Sri Lanka, would also be beneficial. Finally, comparative studies between virtual and human influences can suggest differences in performance and popularity.

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