ISSN 2616-5783 Vol.7, Issue 5: 113-122, DOI: 10.25236/AJHSS.2024.070519

The Interaction of Influencer Types, Advertising Appeals and Product Types on Consumer Purchase Intention from the Perspective of HSM Theory

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Abstract: *Artificial intelligence-enabled virtual person appeared and participated in advertising endorsements like real human. This study aims to compare the effects of virtual influencers and human influencers on consumers' purchase intention in advertising, and to examine the interaction effects of different influencer types, advertising appeals, and product types using heuristic and systematic models (HSM). Specifically, influencer types and emotional appeals refer to heuristic cues, while product type and rational appeals are regarded as systematic cues. A 2 (influencer type: human influencers vs. virtual influencers) × 2 (advertising appeals: rational appeals vs. emotional appeals) × 2 (product type: utilitarian products vs. heuristic products) experiment was designed and 414 valid statistics were collected in this study. The results revealed that human influencers exert more positive influence on consumers' purchase intention than virtual influencers; Rational appeals perform more positive than emotional appeals on influencing consumers' purchase intentions; And there is an interaction between influencer types and product types, as virtual influencers are better suited to endorse hedonic products while real influencers more suitable for endorsing utilitarian products.*

Keywords: *virtual influencer, endorsement advertisements, heuristic and systematic information processing theory, purchase intention*

1. Introduction

Advances in computer technologies and artificial intelligence have created virtual influencers who embody digital personalities, human physical characteristics, and behaviors. The number of their followers are exploding (Miyake, 2023)[1] and the global virtual influencer industry is growing rapidly. In China, virtual influencers also have broad market prospects which is anticipated to reach 48.06 billion yuan by 2025[3]. More and more brands are embracing virtual spokesmen in their advertisements. The rising number of virtual influencers (such as Emma, AYAYI, etc.) in brand advertisements has influenced the previous model of only human endorsed. Therefore, exploring the different impact in advertising persuasion between virtual and human influencers and analyzing how virtual influencers can be used to improve brand awareness and purchase intention is necessary.

In terms of the endorsement effects of human and virtual influencers, some scholars believe that virtual influencers have better abilities of logical analysis and information integration, so they can trigger positive brand attitudes and higher purchase intentions (Belanche, Casaló & Flavián, 2024)[4], while some scholars argue that highly personified virtual people may arouse weird and uncomfortable emotions among consumers (Arsenyan & Mirowska, 2021)[2], which lead to a negative impact on endorsed brands. Therefore, it is of interest to compare the different effectiveness between human and virtual influencers in persuading consumers to initiate purchase intentions.

Moreover, in addition to the effect of influencer types (information source), information content (product types and advertising appeals) can also have an impact on purchase intention. It has been found that virtual influencers promoting utilitarian products can elicit higher purchase intentions, while human influencers are suitable for both utilitarian and hedonic products (Belanche, Casaló & Flavián, 2024)[4]. Additionally, virtual spokespersons who persuade consumers through rational appeals elicit better consumers' attitudes toward advertising, while human spokespersons are better suited to emotional appeals (Yong-Hui Chen, 2022)[5].

Some scholars have used the HSM model to study the differences in endorsements between human

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and virtual influencers (Yong-Hui Chen, 2022)[5]. According to HSM theory, information receivers generally have two ways to process information: systematic processing and heuristic processing. Information contents belong to systematic cues that require detailed processing, while information source (source identity) belongs to heuristic cues that allow quick judgment (Chaiken, 1980)[6]. Systematic cues and heuristic cues take different mechanisms for information processing, so they can be well adapted to examine persuasive effects in advertising.

There are some limitations in the above studies, as the advertising messages include both the message source (influencer types) and the message content (product types), while the narrative approach adopted by the message (advertising appeals) also affects the final persuasive effect. Therefore, based on HSM theory, this study aims to examine how the persuasive effect varies with the combination of different sources, message narrative styles and product types by setting influence types, advertising appeals and product types as independent variables and consumers' purchase intention as the dependent variable.

2. Literature review

2.1. Virtual influencers and Human influencers

The emergence of virtual influencers has blurred the boundaries between human influencers and virtual influencers (Arsenyan & Mirowska, 2021)[2]. They seem to be sufficient to generate similar social concerns as real influencers (Sands et al, 2022; Stein, Breves & Anders, 2022)[7][8]. Virtual influencers have reached such a high level of humanization that more than 50% of people can't even distinguish between avatars and real humans (Hofeditz et al, 2022)[9]. In this study, "human influencers" are used to describe real celebrities appearing in advertising endorsements and "virtual influencers" are the AI-generated computer-generated (avatar) influencers with highly humanized characteristics.

In the perspective of brands, human influencers may dirted due to scandals or inappropriate comments that are detrimental to the endorsing brand's reputation. While virtual influencers, which are tightly controlled by agendas and algorithms, do not suffer from this "human flaw" (Arsenyan & Mirowska, 2021)[2]. Besides, virtual influencers do not age and wear out, which can be reused indefinitely at low cost and are highly malleable in generating creative content and peripheral product output.

In terms of consumers' purchase intention, AI technology empowers virtual influencers with stronger logical analysis and information integration abilities, which plays a greater perceived usefulness in persuading consumers (Belanche, Casaló & Flavián, 2024)[4] .However, due to the lack of authentic emotions, experiences, and social backgrounds, it is difficult for them to create emotional connections with consumers. Even worse, they may draw hostile and repulsive attitudes from consumers (Sands et al, 2022)[8], which may stem from the excessively human resemblance, which creates a sense of panic among people.

Therefore, it is a worthy question for advertisers to explore which of two different influencers - one with high risk but are more familiar to consumers, and the other with low risk but are unfamiliar to consumers - will produce better endorsement effects and higher purchase intentions.

2.2. The Theory of Heuristic-Systematic Model

The HSM model (systematic and heuristic model of information processing) is an information processing model proposed by Shelly Chaiken to explain how people receive and process persuasive messages. The theory suggests that people process messages in two ways: a relatively easy heuristic model and a more laborious systematic model.

In the systematic model, receivers are required to deliberate on the content and make informed judgements to ascertain its validity. Message characteristics (message quantity, intelligibility of content, validity of arguments) have a greater influence on persuasion in the systematic message processing model (Bohner, Moskowitz & Chaiken, 1995)[11]. In the heuristic model, receivers avoid the detailed processing of information content. Instead, they usually make judgments quickly based on the available external cues or existing regularities, such as "Experts' recommendations are reliable"[6], "Length of information connotes strength of information" and "The person I like usually means correct".

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In celebrity-endorsed advertisements, the message contents can be divided into two parts: celebrity information (influencer types) and product information (product types). Besides, the narrative styles of the message (advertising appeals) also contribute to the consumers' decision-making process.

Influencer types are divided into human influencers and AI-generated virtual influencers, which are consistent with "expert recommendation" and "information source" in HSM theory, belonging to heuristic cues (Chaiken, 1980)[6]. People sometimes conform to the "principle of least effort" by declining their cognitive effort and simply relying on information sources or expert recommendations to make judgments, aiming to achieve maximum effect by conserving their limited ability[11]. The effect of influencer types (heuristic cues) on consumer attitudes is direct, with quick judgments about the information validity directly through the source identity.

Product types are categorized into utilitarian products and hedonic products, which belong to "information arguments" in HSM theory, requiring precise cognitive processing and detailed elaboration. Receivers have to rely on the existing knowledge structure to process the information content thoroughly to deduce the information validity. Stafford (2002) revealed that avatars are more suitable for endorsing hedonic services, while human are both suitable for utilitarian and hedonic services[12]. Jun-Han Mao (2023) discovered that it is better for virtual spokesman to promote hedonic products than utilitarian products[13]. However, Daniel, Luis V and Marta (2024) in their study came to the opposite conclusion that virtual influencers are more suitable for utilitarian products rather than hedonic products[4].

Advertising appeals are the explicit benefit, stimulus, or justification that consumers will receive from purchasing the products. It can generally be classified as rational appeal and emotional appeal (Chu, 1996)[14]. Rational appeal highlights the products' functions, interests, and advantages (Kotler, 2003)[15], which entails greater cognitive efforts to process the message. So, it is classified as a systematic cue. Emotional appeal focuses on fulfilling the emotional needs. Receivers do not need to engage in systematic and rigorous processing, but to make direct judgments based on external information cues. So, it belongs to the heuristic cue. For the matching relationship between advertising appeals and product types (or influencer types), scholars have found that utilitarian products are well-suited for rational appeal, and hedonic products are well-suited for emotional appeal (Drolet, Williams & Lau-Gesk, 2007)[16]. Virtual influencers are better equipped to use rational appeal, while human influencers are better with emotional appeal (Yong-Hui Chen, 2022)[5].

Regarding the research on the effects of human influencers and virtual influencers on consumers, most of the academics have designed 2×2 experiments such as influencer types × advertising appeals (Yong-Hui Chen, 2022) or influencer types × product types (Jun-Han Mao, 2023; Belanche, Casaló & Flavián, 2024). But there is a blank to study the persuasive effect by combining the three factors——the influencer types, advertising appeals and product types. Therefore, based on HSM theory, this study considers product types and rational appeal as systematic cues while influencer types and emotional appeal as heuristic cues, investigating the effects of these factors on consumers' purchase intention by designing a 2 × 2 × 2 experiment to provide a suggestion for brands on choosing the proper type of endorsers.

H1: Virtual influencer will exert a more positive influence on consumer purchase intentions than human influencer.

H2: Rational appeal will exert a more positive influence on consumer purchase intentions than emotional appeal.

H3: Utilitarian product will exert a more positive influence on consumer purchase intentions than hedonic product.

Q1: How do influencer types, product types, and advertising appeals influence consumers' purchase intention interactively?

3. Materials and Methods

3.1. Methods

This study designed a 2 (influencer types: human influencer vs. virtual influencer) x 2 (advertising appeals: rational appeal vs. emotional appeal) x 2 (product types: utilitarian product vs. hedonic product) experiment. Based on the questionnaire platform, eight different advertising scenarios were

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designed to test the effects of different combinations of advertising messages on consumers' purchase intention through online questionnaires. 414 participants were randomly assigned to different scenarios and the eight scenarios appeared 52 to 53 times respectively. Except for the different scenarios, the questions in each questionnaire were designed identically to control the single variable.

3.2. Experimental Design and Stimulus Material

A Bluetooth stereo was selected as the hedonic product and a laptop computer was chosen as the utilitarian product. We designed rational slogans and emotional slogans for both products. For the influencers, based on a picture of the real actor Hu Ge, we generated a picture of a virtual person with the same gestures, expressions, and clothes as the real person on the OpenFlow software. The manipulation of product types, ad appeals and influencer types was successful enough to be used in the subsequent experiment.

We generated pictures of products and influencers through AI software and created fictional brands, which eliminated the possibility of participants responding based on brand preferences rather than manipulation. As shown in figure 1, eight ad posters with the same layout were created through Adobe Photoshop CC version 2023, with the slogan (rational or emotional) indicated by the tagline at the top, the endorser (virtual or human influencer) on the left side, the product (hedonic or utilitarian product) on the right side, and specific product's descriptions at the bottom.

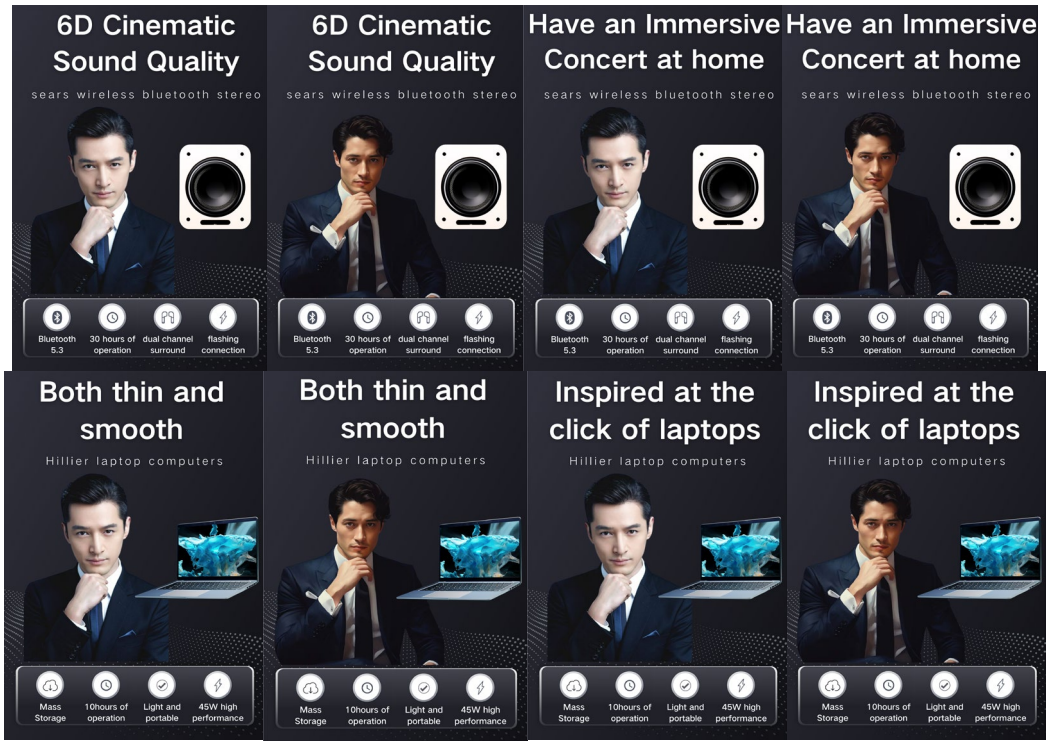

Figure 1: Eight endorsement advertisement poster materials design

3.3. Participants and procedures

Participants were recruited using snowball sampling by sharing a link to the questionnaire on social media and they were randomly assigned to one of eight conditions. They were instructed to imagine that they had seen the poster in a shopping center. After viewing the poster, participants submitted information about their purchase intentions, as well as personal information, including gender, education level, and age. The questionnaire was fully completed by 422 participants, with 414 valid questionnaires after excluding invalid ones.

3.4. Measures

We used Spears and Singh's (2004) scale to measure consumers' purchase intention based on the question "What is your intention to purchase the product you just saw on the poster?". Participants

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responded on a seven-point scale (1=strongly disagree, 7=strongly agree) to five items ("never/definitely"; "definitely don't intend to buy/definitely intend to"; "very low/high interest in buying "; "definitely don't buy/ definitely buy"; "probably buy/ probably don't buy"). The scale had high reliability (α= 0.91) and purchase intention was calculated as a variable that contained the mean score of all five items (M = 4.60, SD = 1.68).

4. Results

We coded the variables, including influencer types (virtual = 0, human = 1), product types (utilitarian = 0, hedonic = 1), and advertising appeal (rational = 0, emotional = 1). The data were then analyzed with descriptive statistics and multifactor ANOVA through IBM SPSS Statistics 27 data editor.

Table 1: The descriptive statistics of purchase intentions

Dependent variable: purchase intention

Influencer types (virtual=0; human=1)	Advertising appeals (rational=0; emotional=1)	Product Types (utilitarian=0; hedonic=1)	Mean (M)	standard deviation (SD)	Numbers of cases (N)
0	0	0	3.3577	1.34621	52
0	0	1	3.8717	1.65115	53
0	1	0	3.3176	1.26565	51
0	1	1	3.4080	1.40609	50
0	0		3.6717	1.52268	105
0	1		3.3624	1.33108	101
0		0	3.3379	1.30069	103
0		1	3.6466	1.54722	103
0			3.4922	1.43416	206
1	0	0	5.9462	0.76606	52
1	0	1	5.6231	1.06543	52
1	1	0	5.7373	0.98913	51
1	1	1	5.4755	1.33833	53
1	0		5.7846	0.93754	104
1	1		5.6038	1.18173	104
1		0	5.8427	0.88546	103
1		1	5.5486	1.20736	105
1			5.6942	1.06792	208
	0	0	4.6519	1.69683	104
	0	1	4.7390	1.64132	105
	0		4.6957	1.66573	209
	1	0	4.5275	1.65996	102
	1	1	4.4718	1.71495	103
	1		4.4995	1.68391	205
		0	4.5903	1.67574	206
		1	4.6067	1.67947	208

As shown in Table 1, when there is a human influencer (M=5.6942, SD=1.06792) rather than a virtual influencer (M=3.4922, SD=1.43416), consumers generate higher purchase intentions. The highest purchase intention elicited of the virtuals (M=3.8717, SD=1.65115) was lower than the lowest purchase intention of the human (M=5.4755, SD=1.33833). As shown in Figures 2 and 3, both rational appeals (M virtual=3.6717, SD virtual=1.52268, M human=5.7846, SD human=0.93754) and emotional appeals (M virtual=3.3624, SD virtual=1.33108, M human=5.6038, SD human=1.18173) for either utilitarian products (M virtual=3.3379, SD virtual=1.30069, M human=5.8427, SD human=0.88546) or hedonic products (M virtual=3.6466, SD virtual=1.54722, M human=5.5486, SD human=1.20736), human influencers always elicited higher purchase intentions than virtual influencers. Therefore, H1 does not hold.

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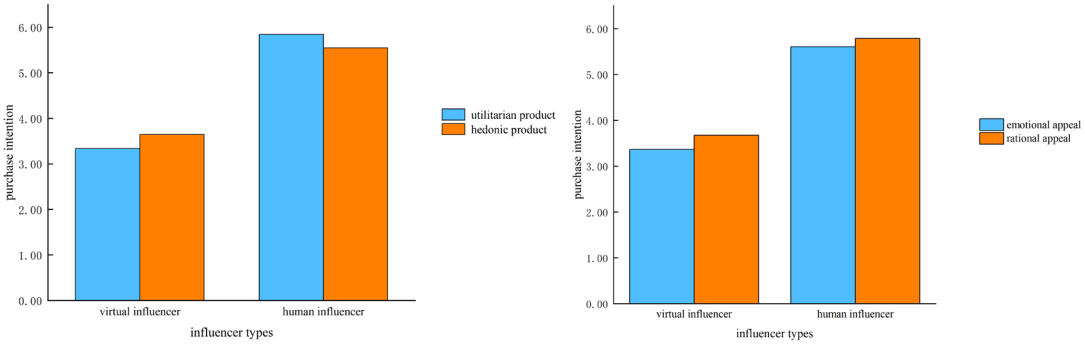

Figure 2: The impact of influencer types and product types on purchase intention (Left)

Figure 3: The impact of influencer types and advertising appeals on purchase intention (Right)

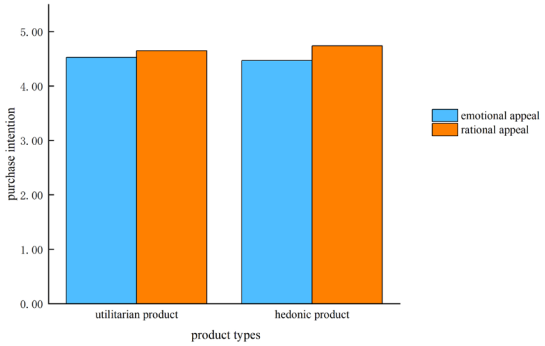

Figure 4: The impact of product types and advertising appeals on purchase intention

When rational appeals were used, consumers' average purchase intention was higher (M=4.6957, SD=1.66573) than that triggered by emotional appeals (M=4.4995, SD=1.68391). As shown in Figures 3 and 4, both virtual influencers (M rational= 3.6717, SD rational=1.52268, M emotional=3.3624, SD emotional=1.33108) and human (M rational=5.7846, SD rational=0.93754, M emotional=5.6038, SD emotional=1.18173) for either the utilitarian product (M rational=4.6519, SD rational=1.69683, M emotional=4.5275, SD emotional=1.65996) or hedonic products (M rational=4.7390, SD rational=1.64132, M emotional=4.4718, SD emotional= 1.71495), the rational appeals triggered a higher purchase willingness than the emotional appeals. Therefore, rational appeals have more positive influence on consumers' purchase intention than emotional appeals, so H2 holds.

When comparing hedonic and utilitarian products, as shown in Figure 2, hedonic products have higher purchase intention than utilitarian products when endorsed by virtuals (M hedonic=3.6466, SD hedonic=1.54722, M utilitarian=3.3379, SD utilitarian=1.30069). However, when it is endorsed by human (M hedonic=5.5486, SD hedonic=1.20736, M utilitarian=5.8427, SD utilitarian= 0.88546), the purchase intention of utilitarian products is higher than hedonic products. As shown in Figure 4, when rational appeals are used (M utilitarian=4.6519, SD utilitarian=1.69683, M hedonic=4.7390, SD hedonic=1.64132), hedonic products elicited higher purchase intention than utilitarian products. But when emotional appeals are used (M utilitarian=4.5275, SD utilitarian=1.65996, M hedonic=4.4718, SD hedonic=1.71495), utilitarian items did better than hedonic items. Not all scenarios have utilitarian products eliciting more purchase intention than hedonic products, so H3 is not valid.

To answer Q1, a three-way ANOVA was conducted, and it further examined whether there was a significant effect on purchase intention through multivariate and between-subjects effects tests.

As can be seen from Table 2, the F-statistic corresponding to influencer types is 319.098, a P-statistic 0.001 less than the level of significance 0.05, while advertising appeals and product types' P-statistic is higher than 0.05, so only influencer types have a significant difference. Among the interaction terms, only the interaction terms of influencer types and product types have an F-statistic of 5.792, with a P-statistic of 0.17 less than the significance level of 0.05, which suggests the significant interaction effect, while the other interaction terms do not have a significant difference. After identifying the main effect (influencer types) and interaction effects (influencer types and product types), we conducted a simple effects analysis of the interaction effects.

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Table 2: Tests of between-subjects effects

Dependent variable: purchase intention

Source	Type III Sum of squares	df	Mean Square	F	Sig.
Corrected model	518.515a	7	74.074	46.914	<.001
Intercept	8727.194	1	8727.194	5527.295	<.001
Influencer types	503.832	1	503.832	319.098	<.001
Advertising appeals	4.785	1	4.785	3.031	.082
Product types	.002	1	.002	.002	.969
Influencer types*advertising appeals	.140	1	.140	.089	.766
Influencer types*product types	9.145	1	9.145	5.792	0.17
Advertising appeals*product types	.849	1	.849	.538	.464
Influencer types*advertising appeals*product types	1.521	1	1.521	.963	.327
Error	641.044	406	1.579		
Total	9914.280	414			
Corrected total	1159.559	413			

a. R Squared = .447(Adjusted R Squared = .438)

Table 3: The estimated marginal means of product types (utilitarian and hedonic)

Dependent variable: purchase intention

Product types	Influencer types	Mean	Std.Error	Lower Bound	Upper Bound
utilitarian	virtual	3.337	.124	3.094	3.580
utilitarian	human	5.842	.124	5.599	6.085
hedonic	virtual	3.643	.124	3.400	3.886
hedonic	human	5.550	.122	5.309	5.790

Table 4: The pairwise comparison between product types and influencer types

Dependent variable: purchase intention

Product types	(I)influencer types	(J)influencer types	Mean difference (I-J)	Std.Error	Sig [b]	Lower Bound	Upper Bound
utilitarian	virtual	human	-2.505*	.175	.000	-2.848	-2.161
utilitarian	human	virtual	2.505*	.175	.000	2.161	2.848
hedonic	virtual	human	-1.906*	.174	.000	-2.248	-1.564
hedonic	human	virtual	1.906*	.174	.000	1.564	2.248

Table 5: The univariable tests of product types

Dependent variable: purchase intention						
Product types		Sum of Squares	df	Mean Square	F	Sig.
utilitarian	contrast	323.126	1	323.126	205.361	.00
	error	643.544	409	1.573		
hedonic	contrast	188.878	1	188.878	120.040	.00
	error	643.544	409	1.573		

Table 6: The estimated marginal means of influencer types (virtual and human)

Dependent variable: purchase intention

influencer types	(I)product types	(J)product types	Mean difference (I-J)	Std.Error	Sig [b]	Lower Bound	Upper Bound
virtual	utilitarian	hedonic	-.307	.175	.080	-.650	.037
virtual	hedonic	utilitarian	.307	.175	.080	-.037	.650
human	utilitarian	hedonic	.292	.174	.094	-.050	.634
human	hedonic	utilitarian	-.292	.174	.094	-.634	.050

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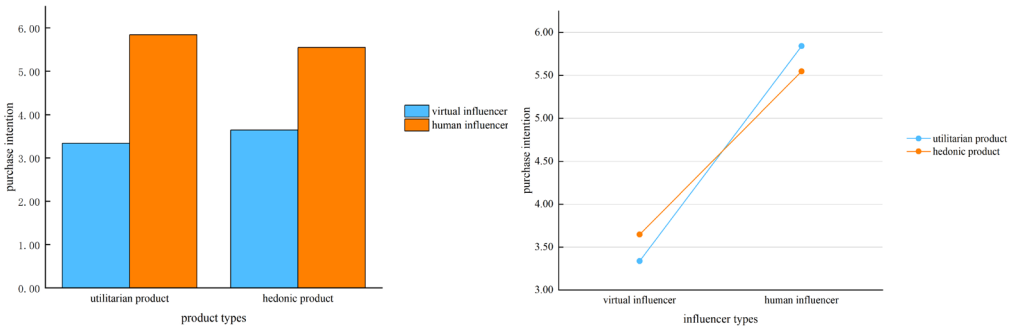
Table 7: The univariable tests of influencer types

Dependent variable: purchase intention						
ıfluencer types		Sum of Squares	df	Mean Square	F	Sig.
virtual	contrast	4.843	1	4.843	3.087	.080
	error	643.544	409	1.573		
human	contrast	4.436	1	4.436	2.819	.094
	error	643.544	409	1.573		

As can be seen from Table 3 to table 7, only the univariable of product types (utilitarian or hedonic) has a significant difference with p-value of 0.00 less than significance level of 0.05, whereas the variable of influencer type does not have a significant difference.

Accordingly, we fixed the product types to compare different influencer types and then generated two figures. As shown in Figure 5, although human influencers will stimulate higher consumers' purchase intention than virtual influencers regardless of whether they promote utilitarian or hedonic products, virtual influencers will be more likely to elicit higher consumers' purchase intention when endorsing hedonic products (M=3.6466, SD=1.5472) than utilitarian products (M= 3.3379, SD=1.30069), while human influencers will generate higher purchase intention of consumers when promoting utilitarian products (M=5.8427, SD=0.88546) than hedonic products (M=5.5486, SD=1.20736). So virtual influencers are more suitable for promoting hedonic products and real influencers are better suited for utilitarian products.



(a) *(b)*

Figure 5: The impact of influencer types and product types on purchase intention

To summarize, H1 and H2 are valid, H3 is not valid, and the answer to Q1 is that influencer types is the main effect that affects consumers' purchase intentions, and that there is an interaction effect is influencer types and product types, and the rest do not have an interaction effect.

5. Discussions

Virtual influencers as a new type of "persona" have great potential in brand endorsement. In this study, we attempted to interpret how different influencer types, ad appeals, and product types affect consumers' purchase intentions by designing a 2 × 2 × 2 experiment. Our findings can help brands decide whether to use virtual or human characters in ads and make proper endorsement strategies. The results revealed that whether promoting utilitarian products or hedonic products, and whether using rational or emotional appeals, consumers awalys prefer the advertisements of human rather than virtual, which is consistent with previous research of virtual (Stafford, Stafford & Day, 2002; Wing-Hui Chen, 2022; Jun-Han Mao, 2023; Belanche, Casaló & Flavián, 2024).

The processing of influencers information follows the heuristic processing. In this model, people do not need to think deeply about the content, but to make quick judgments based on the source identity directly. Consumers tend to take advice from influencers who share their interests, values, or traits (Kelman, 2006)[17]. They prefer to interact with people who are perceived as similar and familiar rather than those different or unfamiliar. Human influencers who are more familiar with consumers and have authentic experiences and social backgrounds, so they are seen as more reliable and authoritative than virtual influencers (Sands et al, 2022)[8]. According to the heuristic processing, if the information source is perceived as credible and authoritative, people are more likely to accept this information without analyzing its content in depth (Bohner, Moskowitz & Chaiken, 1995)[11]. So, human influencers

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are more likely to stimulate consumers' purchase intentions than virtual influencers in heuristic model.

Although human influencers are more persuasive than virtual influencers whether for utilitarian products or hedonic products, we found that human are more suitable for utilitarian products while virtual characters are better suited for hedonic products, which are in line with the findings of Stafford et al (2002) and Jun-Han Mao (2023) but inconsistent with the findings of Daniel, Luis V and Marta (2024). We speculate that since utilitarian products address practical needs, consumers would pay more attention to endorsers' professionalism and trustworthiness. It is the humans' benefits that they have real personal characters and experiences, while virtual influencers are lacking in social bonds, close connections, and identities (Stein et al, 2022)[7]. As a result, human is more likely to make consumers feel trustworthy, so they are more effective to promote utilitarian products than virtual people.

Hedonic products fulfill emotional enjoyment, so consumers may take the endorsers' characteristics into consideration when making decisions, such as whether the endorser shares the same preferences, values, or lifestyles as they do (Filieri et al, 2023)[18]. According to the cognitive schema theory, when people encounter some new information, the preexisting cognitive structure of the relevant information in their mind is activated and involved in decision making process (Axelrod, 1973)[19]. The schema of human is affected by their experience and preference. By contrast, virtual influencers who do not have any social relationships and experiences do not have potential drawbacks that endorsers' experiences and preferences do not match with audiences', and their blank backgrounds may provide the audience with imagination freedom and even stimulate their curiosity about the endorsing products. Therefore, for promoting hedonic products, virtual influencers hold more advantages than human influencers.

From the perspective of HSM, product types are filed under systematic cues that requires greater cognitive effort, while influencer types belong to heuristic cues that enables quick decision-making based on external cues. The interaction between influencer types and product types is the combined effect of systematic and heuristic cues. In the "virtual influencer" heuristic cues' condition, the "hedonic product" as a systematic cue produced higher purchase intentions than the "utilitarian product". And in the "human influencer" heuristic cues' condition, the "utilitarian product" as a systematic cue behaved better than the "hedonic product". This can be explained that in the case of the co-occurrence of the heuristic and systematic cues, people pay more attention on systematic cues because it provide more relevant information which assists people to make more reliable and trustworthy judgments (Bohner, Moskowitz & Chaiken, 1995)[11]. This is consistent with the "sufficiency principle" of HSM theory, which states that people will seek to balance between exerting the least amount of effort and having enough confidence in their decision judgments (Maheswaran and Chaiken, 1991)[20]. When heuristic processing fails to provide sufficient decision-making confidence, individuals will adopt the systematic mode of processing to increase the level of decision-making confidence (Chang, 2004)[21]. Therefore, due to the interaction of heuristic and systematic cues, different influencer types promoting different types of products developed completely different effects.

Rational appeals always elicit consumers' purchase intention more than emotional appeals, which is inconsistent with the results of a previous study by Yong-Hui Chen (2022). This may because beside the two factors of advertising appeals and influencer types, the factor of product types was added in and the interaction between product types and influencer types produced a significantly strong influence on the results. Rational appeals, as "information arguments", belong to systematic cues. And emotional appeals, as external cues, belong to heuristic cues. Rational appeals are more likely to elicit consumers' purchasing intentions than emotional appeals, which means that systematic cues have a better persuasive effect than heuristic cues in the era of advertising appeal. This is consistent with the adequacy principle of HSM theory which advocates that while heuristic treatments more fully satisfy the principle of least effort, systematic processing generally contribute to greater levels of confidence (Bohner, Moskowitz & Chaiken, 1995)[11].

6. Conclusion

In advertising endorsements where consumers are heuristically analyzed based on the identity of the source, human influencers elicit higher purchase intentions than virtual influencers. However, different endorsement selection strategies should be adopted for different advertised products (utilitarian and hedonic) because systematic cues and heuristic cues interact to influence consumers' purchasing decisions. It is more effective for brands to choose human influencers for endorsement when promoting utilitarian products. Besides, when utilizing virtual influencers to promoting products, it is better to promote hedonic products than utilitarian products.

ISSN 2616-5783 Vol.7, Issue 5: 113-122, DOI: 10.25236/AJHSS.2024.070519

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