

# Exploring the Influence of CGI Virtual Spokesperson Characteristics on Advertising Effectiveness——The Moderating Role of Consumer's Age and Gender

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**Abstract:** Along with the development of the artificial intelligence era, more and more brands and companies are adopting CGI avatars with superb realism for advertising endorsements. This paper takes Candy, the CGI virtual spokesperson for Prada perfume, as the research object to explore the moderating effects of consumer age and gender on advertising effectiveness. The study shows that the characteristics (attractiveness and relevance) of the CGI virtual spokesperson have a significant positive effect on the advertising effectiveness (advertising attitude, brand attitude, purchase intention), while the gender of the consumer does not have a moderating effect on the relationship between the characteristics of the virtual spokesperson and advertising effectiveness.

**Keywords:** CGI Virtual Spokesperson; Advertising Effectiveness; Age; Gender

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## 1. Introduction

With the advent of global intelligence and the maturation of Computer-Generated Image (CGI) technology, the virtual spokesperson is no longer confined to two-dimensional planes but is increasingly appearing in the public eye. In the context of the digital revolution, a new model of virtual spokesperson has emerged - the CGI virtual spokesperson. This research paper aims to achieve the following objectives.<sup>[1]</sup>

(i) This paper introduces the age and gender of consumers as moderating variables between the characteristics of CGI virtual spokesperson and consumers' purchase intentions, to address real-life issues in the marketing environment and provide companies with the opportunity to select or shape suitable CGI virtual spokesperson to improve advertising effectiveness and further increase consumers' purchase intentions.

## 2. Literature Review

### 2.1 Characteristics of CGI Virtual Spokesperson

Nowak et al. (2005) found that anthropomorphic images influence consumers' perceptions of avatars and that images with a higher degree of anthropomorphism are more attractive and credible to consumers, who are more likely to choose to use them to represent themselves, thus creating a deeper emotional connection, while most consumers prefer attractive images.<sup>[2]</sup> Liu Chao (2020) argues that The CGI virtual spokesperson has the typical characteristics of persona implantation, authenticity, attractiveness, and social interaction, where persona implantation means that the CGI virtual spokesperson has a certain degree of compatibility with the brand.<sup>[3]</sup>

The digital technology gives the CGI virtual spokesperson a high level of realism, the sci-fi appearance makes it more attractive to consumers, and the personality traits of the spokesperson fit with the brand's characteristics also have an important impact on advertising. Therefore, the attractiveness and relevance of CGI virtual spokesperson were selected for this study.

## 2.2 Related Research on Advertising Effectiveness Evaluation

Lafferty & Goldsmith (2000), Nysveen et al. (2005), and Ling Zhuo (2008), based on the three stages of the advertising effectiveness hierarchy model, point out that advertising effectiveness can be segmented in terms of the audience's perception, attitude, and behavior towards advertising, i.e., advertising attitude, brand attitude, and purchase intention are used to assess advertising effectiveness. In addition, Brown & Stayman (1992) empirically found a positive relationship between advertising attitude, brand attitude, and purchase intention and formed a hierarchical effect, arguing that the process of advertising effect is composed of multiple stages and is not a unidimensional variable. Therefore, in this study, three indicators, namely advertising attitude, brand attitude, and purchase intention, were also used to assess advertising effectiveness.<sup>[4]</sup>

## 2.3 Age and gender of consumers

(i) Lin & Wang (2012) found that there are significant differences in responses to questions such as "Would you choose the product with a virtual spokesperson?" for consumers of different age groups. Younger consumers' purchasing behavior is more likely to be influenced by their liking of virtual endorsers than older consumers.<sup>[5]</sup> Thus, I propose hypothesis 2:

H1a: The attractiveness of the CGI virtual spokesperson had a more significant positive effect on advertising effectiveness (advertising attitude, brand attitude, purchase intention) for younger people than for older people.

H1b: The relevance of the CGI virtual spokesperson had a more significant positive effect on the advertising effectiveness (advertising attitude, brand attitude, purchase intention) for younger people than for older people.

(ii) In Mc Daniel & Kinney's (1998) study of products, women scored higher than men on brand attitudes and purchase intentions for two-thirds of the products. Bendall-Lyon & Powers (2002) found that consumer satisfaction and loyalty were also affected by gender over time. Through interviews, Lin & Wang (that female consumers' attitudes towards products and brands are more likely to be influenced by the virtual spokesperson. Thus, I propose hypothesis 3:

H2a: The attractiveness of the virtual spokesperson has a more significant positive effect on advertising effectiveness (advertising attitudes, brand attitudes, purchase intentions) for females than for males.

H2b: The relevance of the virtual spokesperson has a more significant positive effect on advertising effectiveness (advertising attitude, brand attitude, purchase intention) for females than for males.

## 3. Research methods

### 3.1 Questionnaire design

This study aimed to measure the role of consumer's different ages and genders in the relationship between CGI virtual endorser characteristics and advertising effectiveness.

The questionnaire is divided into four parts. The first part is the preface, which mainly introduces the investigation's content and purpose and explains the CGI virtual spokesperson's concept; the second part is the survey scale of the characteristics of CGI virtual spokesperson. The third part is the advertising effect survey scale, which is investigated from the three dimensions of advertising attitude, brand attitude, and purchase intention; the fourth part is the statistical variables of personal characteristics, including gender, age, education, industry, income, etc. The questionnaire uses the five-point Likert scale.<sup>[6]</sup>

### 3.2 Data collection and sample analysis

#### (i) Data collection

Questionnaires were mainly distributed on personal social platforms such as WeChat.

#### (ii) Description of the basic characteristics of the sample

The survey received a total of 120 questionnaires. There are 85 valid questionnaires in the end. Since this survey is mainly conducted on the WeChat platform, the distribution of the samples has a clear tendency. Among the valid questionnaires, there were 23

males, accounting for 27.05% of the total sample, and 62 females, accounting for 72.94% of the total sample; the average age of the sample was 21.45 years, and the standard deviation was 0.658.

## 4. Results

### 4.1 Reliability and validity tests of the data

By using SPSS to test the reliability and validity of the variables. The validation results showed that Cronbach's value for each dimension of advertising effectiveness (advertising attitude, brand attitude, and purchase intention) were 0.864, 0.913, and 0.920, respectively, all of which exceeded the threshold of 0.70, indicating that the scale has high reliability.

The validity of each dimensional scale of advertising effectiveness was verified using KMO and Bartlett's test. The KMO value was 0.815, and the variance explained values of the three factors were 43.502%, 18.712%, and 16.000%, respectively, and the cumulative variance explained after rotation was 78.214% > 50%. Implying that the information content of the research items can be effectively extracted.

### 4.2. Correlation analysis

The Person correlation coefficient analysis results on the characteristics of CGI virtual spokespersons and advertising effectiveness were used to determine whether the variables were significantly correlated with each other, as detailed in Table 1.

**Table 1.** Pearson Correlation

	Mean	Std. Deviation	attractiveness	relevance	Advertising attitude	Brand attitude	Purchase intention
Attractiveness	3.615	0.939	1				
Relevance	3.486	0.886	0.538**	1			
Advertising attitude	3.515	0.896	0.678**	0.697**	1		
Brand attitude	2.859	1.041	0.551**	0.582**	0.695**	1	
Purchase intention	2.688	1.034	0.590**	0.527**	0.646**	0.871**	1

\* p<0.05 \*\* p<0.01

### 4.3 Moderating effects of consumer's age

Taking the attractiveness and relevance of the virtual spokesperson as the independent variables, respectively, age as the moderating variable, and advertising attitude, brand attitude, and purchase intention were used as the dependent variables for analysis. The results showed that age did not moderate the relationship between the attractiveness and relevance of the virtual spokesperson and the advertising attitude ( $t=-1.770$ ,  $p>0.1$ ;  $t=0.308$ ,  $p>0.1$ ) and brand attitude ( $t=-1.817$ ,  $p<0.1$ ;  $t=-1.749$ ,  $p>0.1$ ), indicating that the moderating effect was not significant. However, there was a significant moderating effect of age on the relationship between the attractiveness and relevance of the virtual spokesperson and purchase intention ( $t=-2.328$ ,  $p<0.1$ ;  $t=-2.246$ ,  $p<0.1$ ). Therefore, hypotheses H1a and H1b are partially valid.

### 4.4 Moderating effects of consumer's gender

Taking the attractiveness and relevance of the virtual spokesperson as the independent variables, gender is the moderating variable, and advertising attitude, brand attitude, and purchase intention as the dependent variables. The results showed that age did not moderate the relationship between the attractiveness and relevance of the virtual spokesperson and advertising attitude ( $t=1.690$ ,  $p>0.1$ ;

$t=-0.199$ ,  $p>0.1$ ), brand attitude ( $t=0.487$ ,  $p>0.1$ ;  $t=-0.623$ ,  $p>0.1$ ) and purchase intention ( $t=0.544$ ,  $p>0.1$ ;  $t=-0.033$ ,  $p>0.1$ ), indicating that the moderating effect was not significant.

Therefore, H2a and H2b are not valid.

## 5. Discussion

### 5.1 Research conclusions

(i) Age of the consumer affects the partial relationship between the characteristics of the CGI virtual spokesperson and the advertising effectiveness

The study results show that younger consumers are more motivated to buy when faced with a CGI virtual spokesperson, while older consumers are less likely to perceive this.

(ii) Gender of the consumer has no significant effect on the relationship between the characteristics of the CGI virtual spokesperson and the advertising effectiveness

The traditional view is that women are more likely to be influenced by virtual spokespersons than men. However, the study results show that consumer gender does not moderate the relationship between the characteristics of virtual spokesperson and advertising effectiveness.

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