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ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT

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Virtual Influencers as Celebrity Endorsers

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Abstract

Human-like virtual influencers frequently appeared on various online platforms in recent years because of the rapid development of information technology and artificial intelligence. It is of interest to find out customers attitude and effectiveness of using virtual celebrity in advertising, and the preferred form of virtual celebrity. Celebrity model which comprises of attractiveness, trustworthiness and expertise has been adopted in this study to assess whether virtual celebrity has similar characteristics of real-person celebrity. An online survey has been conducted to examine whether customers have positive views on virtual celebrities and their opinions on virtual celebrity's attractiveness, trustworthiness and expertise. Survey findings do not show favourable views on virtual celebrity and cartoon character celebrity is found to be more preferred to human-like celebrity.

Keywords: virtual celebrity, attractiveness, trustworthiness, expertise

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Introduction

In recent years, thanks to development of information technology and artificial intelligence, human-like virtual influencers have appeared on various online platforms. For example, the top virtual influencers are able to attract millions of Instagram followers (Influencer Marketing Hub, 2021). The virtual influencers are competing with real person celebrities on promoting brands as well as products (Insider, 2019).

One major advantage for a brand to adopt a virtual celebrity as endorser is that the brand can have controls on usage of the virtual influencer. The risk of negative behaviours of a real-person celebrity can be avoided (Influencer News, 2020). Thus many brands are cooperating with virtual celebrities and extend the promotion to mainstream media (Kolsquare, 2019). As a new trend of development, it is still not sure whether virtual celebrities can develop as popular real-person celebrities and whether a virtual celebrity can replace real person celebrities for promoting a brand or product. This paper aims to assess customers attitude and effectiveness of using virtual celebrity in advertising, and the preferred form of virtual celebrity. Celebrity model which comprises of attractiveness, trustworthiness and expertise will be used to examine whether a virtual celebrity has similar characteristics as a real-person celebrity.

Literature Review

One of the most widely acceptable model on the effectiveness of celebrity endorsement is based on Kelman's (1961) model which includes three source attributes: credibility, attractiveness and power, and three receiver processing modes respectively: internalization, identification and compliance. Andrews and Shimp (2018) interpreted the models that credibility consists of two dimensions: expertise and trustworthiness while attractiveness consists of three dimensions: similarity, familiarity and liking. Credibility refers to the extent a receiver trusts and believes in the source. Expertise refers to the receiver's consideration of knowledge, experience or skills owned by the source; trustworthiness refers to whether the receiver perceives the source honest, having integrity and believability. When the receiver accepts the source's position as his or her own, it is internalized. Attractiveness refers to virtuous characteristics of the source which the receiver has self-concept that he or she has association with the source (i.e. identification). Similarity refers to the receiver's affect that the he or she is similar to the source; familiarity refers to the receiver's affect that the source is well-known to him or her; liking refer to the extent the receivers like the source. Power refers to the source which the receivers considers to offer rewards or punishments, through which the receiver will have compliance, i.e. the receiver is persuaded by the source such that the receiver can have favourable reaction from the source. Through internalization, identification and compliance, the receiver's attitudes toward the brand will be changed.

Most of other literature have been based on the similar approach on studying the effectiveness of celebrity endorsement. Erdogan (1999) summarized the literature on celebrity endorsement and pointed out three source credibility scale following Ohanian (1990): attractiveness, trustworthiness and expertise. Amos et al. (2008) identified 9 indicators for celebrities effectiveness from celebrity endorsement literature: (1) celebrity performance, (2) negative information, (3) celebrity credibility, (4) celebrity expertise, (5) celebrity trustworthiness, (6) celebrity attractiveness, (7) celebrity familiarity, (8) celebrity likeability, and (9) celebrity/product fit. The indicators were confirmed by the authors' studies. DeSarbo & Harshman (1985) tried to match celebrities and car brands based on different characteristics regardless of modelling.

There have been studies focusing on attractiveness. For example, Kahle and Homer (1985) studied the effects of attractiveness of celebrities on attitudes, purchase intention as well as memory toward Edge razors. The results confirmed that physical attractiveness of celebrities has strong positive effects on the three variables. Burgess and Blackwell (2001) studied the effectiveness of non-celebrities on advertisements and found that attractiveness and similarities were important factors for positive evaluations. Um (2018) found out that when the celebrity has higher congruence (i.e., relevancy and expectancy) with the brand, there is more positive on brand attitude; moreover, when the identification with the celebrity is higher, there is also more positive on brand attitude. Wang and Scheinbaum (2018) supported the positive effects of trustworthy and attractiveness on brand attitudes and the positive effects of expertise on trustworthy. Wei and Lu (2013) combined AIDMA (Attention, Interest, Desire, Memory, and Action) model and AISAS (Attention, Interest, Search, Action and Share) model to study the credibility effects of celebrity endorsement and online search on a search good (shoes) and experience good (toner). The results suggested that celebrity endorsement was more effective on search goods.

Regarding trustworthiness, apart from Wang and Scheinbaum (2018), there are also many examples. Speck et al. (1988) suggested there were four types of schema: scripts, role schema, individual person schema, and object schema which affect the effectiveness of celebrity endorsement. The results found that expert cues might not increase effectiveness while irrelevant celebrities might be as effective as product-relevant celebrities. Kamins et al. (1989) studied two-sided advertisements, i.e., including both positive and negative attributes and found that two-sided ads were more effective on adopting celebrity. Jin and Phua (2014) studied the effects of number of a celebrity's followers in Twitters on the effectiveness of that celebrity on advertisements. The results supported that larger number of followers would increase the respondents' evaluation of the celebrity's physically attractive, trustworthy, and competent.

There have been relatively fewer studies on power. Winterich et al. (2018) introduced the importance of power distance on effects of celebrity. For target customers who have higher power distance, the trustworthy and expertise of celebrity will be enhanced. Regarding virtual celebrity, Thomasa and Fowler (2021) focused on the transgression of virtual celebrities and comparing the effectiveness of replacing other virtual celebrities or real person celebrities. The results suggested that replacing by real person celebrities would be more effective.

Methods

As virtual celebrities serve similarly to real-person celebrities, we conducted an online survey on the respondents' opinions of various characteristics of celebrities related to attractiveness, trustworthiness and expertise. The characteristics are mostly based on the basic framework of Ohanian (1990). In the study, a human-like virtual celebrity is compared with a cartoon character celebrity. Lil Miquela was the chosen human-like virtual celebrity as she is one of the top virtual influencers in many rankings. Hatsune Miku was the chosen cartoon character as she is one of the top endorsers in her kind. Pictures of the two celebrities were shown in Appendix 1. The questionnaire includes three parts. Part one invited respondents to watch a video ad and answer questions on Lil Miquela as endorser for Samsung Galaxy. Part two invited respondents to watch a video ad and answer questions on Hatsune Miku as endorser for Glico Pocky. Part three measures respondents' overall impressions on virtual celebrities. The respondents were asked to provide evaluations on various statements. The statements are based on 7-point Likert scale: strongly agree, agree, slightly agree, neutral, slightly disagree, disagree and strongly disagree; 1 refers to "strongly agree" while 7 refers to "strongly disagree" (4 is "neutral").

For easy comparison, in either video ad, the virtual celebrity is the only character endorsing the product and appeared from the beginning till the end of the video. Video links of the two advertisements are attached in Appendix 2. Undergraduate students were invited from City University of Hong Kong and Chu Hai College of Higher Education were invited to participate in the survey through Questioner. Students were chosen for the survey because students represent a very sizeable target market with substantial disposable income and their views are important to advertisers in strategy formulation.

Findings

Up to 31 Mar 2021, 105 respondents participated successfully in the online survey with 26.7% male and 73.3% female. 85.7% of the respondents were within 18-22 age while 14.3% were within

23-27 age. Table 1 shows the means of various statements on the effects of Lil Miquela on the Samsung ad and whether the respondent is willing to interact with her. Except one statement, all means are significantly larger than 4 (i.e., tend to “disagree”) or insignificantly different from neutral. The only exception is the statement “Lil Miquela’s image matches with Samsung Galaxy”.

Table 1. Mean Scores on Statements Related the Lil Miquela Samsung Galaxy Ad

Statement	Mean [#]
I think this ad can catch my attention because Lil Miquela is in.	3.76 (1.49)
I feel an interest in Samsung Galaxy products because of Lil Miquela.	4.49*** (1.39)
I can recall Samsung Galaxy products because of Lil Miquela in the ad.	4.24 (1.51)
I will search for more information about Samsung Galaxy products because of Lil Miquela in the ad.	4.68*** (1.39)
I have the desire to own Samsung Galaxy products because of Lil Miquela in the ad.	5.01*** (1.28)
I will share the ad with my friends because of Lil Miquela.	4.44*** (1.48)
Lil Miquela’s image matches with Samsung Galaxy.	3.71** (1.37)
Lil Miquela makes me like Samsung Galaxy products more than before.	4.35** (1.43)
I find it easy to associate Lil Miquela with Samsung Galaxy products.	4.15 (1.53)
I am willing to follow Lil Miquela.	4.78*** (1.45)
I hope to interact with Lil Miquela through social media.	4.64*** (1.55)

Notes. The value within parenthesis is standard deviation. * 10% significant, ** 5% significant, *** 1% significant

In contrast, Table 2 shows the means for Hatsune Miku. Three statements are significantly smaller than 4 (i.e. tend to “agree”): “I think this ad can catch my attention because Hatsune Miku is in”; “I feel an interest in Pocky products because of Hatsune Miku”; “I can recall Pocky products because of Hatsune Miku in the ad”.

Table 2. Mean Scores on Statements Related the Hatsune Miku Pocky Ad

Statement	Mean [#]
I think this ad can catch my attention because Hatsune Miku is in.	2.93*** (1.72)
I feel an interest in Pocky products because of Hatsune Miku.	3.51*** (1.64)
I can recall Pocky products because of Hatsune Miku in the ad.	3.39*** (1.46)
I will search for more information about Pocky products because of Hatsune Miku in the ad.	4.09 (1.53)
I have the desire to own Pocky products because of Hatsune Miku in the ad.	4.08 (1.52)
I will share the ad with my friends mainly because of Hatsune Miku.	3.87 (1.63)
Hatsune Miku’s image matches with Pocky.	3.78 (1.45)
Hatsune Miku makes me like Pocky products more than before.	3.95 (1.45)
I find it easy to associate Hatsune Miku with Pocky products.	3.83 (1.50)
I am willing to follow Hatsune Miku.	3.98 (1.61)
I hope to interact with Hatsune Miku through social media.	4.13 (1.68)

Notes. The value within parenthesis is standard deviation. * 10% significant, ** 5% significant, *** 1% significant

Regarding the characteristics of the virtual celebrities, Table 3 shows the differences between the two virtual celebrities on the 17 characteristics listed in the questionnaire. The mean difference is value of Lil Miquela minus value of Hatsune Miku. 10 characteristics are significantly different from no difference and all are larger than zero. As a larger value refers to disagreeable, it means that the respondents tend to have higher evaluation on Hatsune Miku. The significant differences are attractive, beautiful, likable, familiar, recognizable, similar, dependable, honest, sincere and trustworthy. These characteristics are dimensions of attractiveness and credibility. For the characteristics related to expertise, the answers tend to be neutral and there are no significant differences between the two virtual celebrities.

Table 3. Differences of Opinions on Characteristics of Lil Milquela and Hatsune Miku

	Mean for Lil Miquela [#]	Mean for Hatsune Miku [#]	Difference of mean [#] (Lil Miquela – Hatsune Miku)
Attractive	3.48*** (1.41)	2.87*** (1.39)	0.61*** (1.44)
Beautiful	3.72** (1.49)	2.94*** (1.37)	0.78*** (1.54)
Classy	3.81 (1.34)	3.71** (1.36)	0.10 (1.28)
Likable	3.65** (1.36)	3.04*** (1.26)	0.62*** (1.42)
Familiar	4.30** (1.30)	3.08*** (1.33)	1.22*** (1.73)
Dependable	4.24** (1.18)	3.71** (1.22)	0.52*** (1.32)
Honest	4.27** (1.19)	3.80 (1.33)	0.47*** (1.26)
Reliable	4.22* (1.28)	4.00 (1.26)	0.22 (1.39)
Sincere	4.04 (1.26)	3.75* (1.42)	0.29** (1.36)
Trustworthy	4.10 (1.28)	3.82 (1.34)	0.28** (1.27)
Expert	4.30** (1.47)	4.19 (1.35)	0.11 (1.61)
Experienced	4.14 (1.24)	4.09 (1.47)	0.06 (1.47)
Knowledgeable	4.16 (1.37)	4.14 (1.42)	0.02 (1.64)
Qualified	4.02 (1.41)	3.82 (1.47)	0.20 (1.54)
Skilled	3.94 (1.39)	3.96 (1.43)	-0.02 (1.64)
Recognizable	3.29*** (1.49)	2.56*** (1.32)	0.73*** (1.73)
Similar	3.81 (1.33)	3.50*** (1.30)	0.31** (1.42)

Notes. The value within parenthesis is standard deviation. * 10% significant, ** 5% significant, *** 1% significant

For the questions on general views on virtual celebrity, all are not significantly different from 4: “In general, I consider virtual celebrity trustworthiness”; “In general, I find virtual celebrity appealing”; “In general, I like the product being endorsed by virtual celebrity”; “In general, I prefer a virtual celebrity to a real person celebrity”.

Conclusions

Much of the research were on the impact of human celebrity endorser. This study is one of the few studies focus on effectiveness of virtual celebrities. Survey findings do not show favourable views on virtual influencers and cartoon character celebrity is found to be more preferred to human-like

celebrity. Lil Miquela is among the top virtual influencer in the world; however, the results show that respondents do not have positive views on her. The respondents had much more favourable attitude towards the cartoon character, Hatsune Miku. The respondents considered Hatsune Miku more attractive and credible than Lil Miquela. The respondents in general were neutral on expertise of both celebrities. This finding was interpreted by the authors as it may not be easy for students (as human being) to comprehend the skills of non-human being. The future development of human-like virtual celebrity seem not optimistic. Regarding respondents' overall impressions on virtual celebrities which was measured by the question "I like virtual celebrities". Only 34.3% of the respondents answered "yes", 38.1% answered "no" and 6.7% answered "not sure". All the respondents are young people (between 18-27 years old) who supposed to be more receptive to innovative ideas and products endorsed by virtual celebrities. The results put a warning on the development of virtual celebrities to advertisers.

The results of this study are far from conclusive. There are several limitations. First, human-like virtual influencers have only appeared in Asia for a short period of time, respondents may not have great impression on them yet. Second, in assessing respondents' preference between the cartoon character and human-like virtual celebrity, the advertisements chosen, Samsung Galaxy and Glico Pocky, are not from the same product category which may distract the focus of analysis. Third, the sample size is relatively small and college students are not fully representative. Thus, future research should focus on deeper analysis of the phenomenon using more representative samples. More studies are needed before more conclusive results are produced.

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Appendices

Appendix 1. Pictures of Lil Miquela and Hatsune Miku

Image 1. Lil Miquela



Image 2. Hatsune Miku



Appendix 2. Advertisement Links

- Lil Miquela Samsung Galaxy Advertisement: <https://www.youtube.com/watch?v=X24XhJ1zWH8>
- Hatsune Miku Pocky Advertisement: <https://www.youtube.com/watch?v=QFHsVh5jHoE>