

The Digital Endorser: How Do Virtual Influencers Impact Destination Brand Engagement?

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Abstract

This research investigates the influence of virtual influencers on brand engagement and travel intentions towards Chinese tourism destinations. Utilizing the Partial Least Squares Structural Equation Modelling (PLS-SEM) methodology, we explored the extent to which content credibility and interaction quality of virtual influencers impact destination brand engagement and subsequent tourist intentions, contextualizing these effects within the framework of parasocial relationship theory. Drawing from a sample of 201 Chinese tourism social media enthusiasts, the findings reveal that neither interaction quality nor content credibility exert a direct influence on destination brand engagement. Instead, parasocial relationships emerge as a pivotal mediator in this nexus. This investigation bridges the existing knowledge chasm between the realm of virtual influencers and the theory of parasocial relationships, offering invaluable insights for tourism destination entities aiming to leverage virtual influencers for heightened tourist attraction and brand engagement. Additionally, the insights derived from this study bear profound implications for the refinement of digital marketing strategies and the evolution of future tourism market dynamics.

Keywords:

Virtual Influencer, Destination Brand Engagement, Parasocial Relationship, Content Credibility, Interaction Quality

1 Introduction

Over the past few years, the pandemic has prompted people to rely more on social media platforms to explore, plan, and share their travel experiences (Pachucki et al., 2022; Rather, 2021). After the pandemic, the tourism industry has recovered, and people are eager to return to the fun and experience of travel. At the same time, the rapid development of artificial intelligence technology has also brought new changes and opportunities to the field of tourism marketing (Filiari et al., 2021).

Tourists have more options to choose from when it comes to knowledge and inspiration about destinations due to social media platforms. Virtual influencers have gradually emerged as digital endorsers, attracting many attentions and fans on social media platforms. In the evolving landscape of Chinese tourism, an increasing number of destinations and urban centers are embracing the concept of virtual endorsers. The digitally rendered persona "*Ban Zhao*," for instance, has lent her endorsement to a multitude of museums, with a notable emphasis on the History and Culture Museum. Beyond endorsement, she serves as an electronic tour guide, offering tourists a wealth of pertinent information and insights. Similarly, "*Liu Sanjie*" is associated with promoting Guilin's landscapes and actively engages with the tourism community through social media engagements. Meanwhile, "*Tian Yu*" is crafted in the likeness of deities from ancient Chinese frescoes and symbolizes the historic Mogao Caves in Dunhuang.

These virtual endorsers are active on social media platforms as virtual influencers, interact with audiences, and bring more exposure to tourist destination brands (Franke et al., 2023; Kozinets et al., 2023; Kim & Park, 2023). This trend's growth presents a number of new challenges in addition to new marketing opportunities. Can virtual influencers surpass real influencers in terms of brand involvement, for instance? How travelers' perception of vacation destination brands and propensity to travel are influenced by the legitimacy of the material created by virtual influencers?

Previous research has extensively explored how human influencers interact with users and how they endorse travel destination brands (Xu (Rinka) & Pratt, 2018). Studies reveal that the actions of real-life social media influencers can have significant effects on the travel decisions of their followers. This influence extends to tourists' preferences for travel, their choice of destination, how they obtain travel information, and aspects that are interactive (Pop et al., 2022). Furthermore, prior research has emphasized the significance of user-generated content (UGC) on social media platforms. In addition to offering real tourist experiences, UGC broadens brand engagement for tourist destinations and fosters deeper user interaction (Zhang et al., 2021).

Previous studies on virtual influencers are scarce. Virtual influencers are growing more influential in the digital age, but we don't know how they connect with tourists, affect tourism destination brand engagement, or influence tourists' knowing visit intentions in depth. Based on this gap in the research field, this study examines how virtual influencers affect tourism destination brand engagement on social media and visitors' travel decisions. Virtual influencers' content credibility, interaction quality, and virtual relationships will be examined to see how they affect tourists' travel intentions.

We aim to bridge research gaps and assist tourism destination managers and marketers with more complete recommendations by investigating these challenges. We will also examine the role of virtual influencers in the future tourism market to inform academic and business investigations.

2 Literature Review and Hypothesis Development

2.1 Virtual influencer

Virtual influencers are digital avatars that provide lifelike human face reproductions with the use of computer graphics and machine learning techniques. Digital characters that gain traction on social media platforms are known as virtual influencers. They have human-like personalities and are virtual entities created by a collective of individuals. Virtual influencers are similar to real influencers in that they are active on social media, have their own accounts, and have a sizable following (Xie-Carson et al, 2023; Hughes, Lim & Lee, 2023; Ozdemir et al., 2023).

With the development of AI technology, virtual influencers are no longer regarded as avatars or some kind of service-based conversational agents. Virtual influencers are typically presented as real human influencers with personas, independent personalities and backstories, and exhibit human-like emotions and interact with people (Arsenyan & Mirowska, 2021; Xie-Carson et al, 2023; Lee & Yuan, 2023).

Many previous studies have compared the impact of endorsements by virtual influencers and traditional human influencers. Some studies suggest that virtual influencers have unique advantages over human influencers in terms of visual appeal and innovativeness because they can easily achieve idealized looks and images (Ameen et al., 2023; Li et al., 2023). Virtual influencers are gaining a lot of attention in the travel industry. They have evolved into digital brand ambassadors for well-known tourist destinations and organizations, influencing tourists' choices by giving them travel advice and sharing about their experiences on social media (Sands et al., 2022). Some research suggests that virtual influencers promoting destinations increase their popularity, attract more tourists, and create electronic word-of-mouth (eWOM). Links to the virtual influencer's personality affect brand engagement and destination brand image (Kim & Park, 2023; Lou et al., 2023). Second, virtual influencers' content may improve UGC, destination engagement and positive eWOM. Virtual influencers also respond to comments and inquiries on social media, improving user stickiness (Muda & Hamzah, 2021).

Virtual influencers' attributes affect users' behavior. Previous studies have believed that virtual influencers include personification, interactivity and realism (Arsenyan & Mirowska, 2021; Stein et al., 2022). Based on prior studies, this study seeks to examine virtual influencers' content credibility and interaction quality, which may affect tourism destination brand engagement and visitors' trip intention. This study seeks to help tourism destination managers better use virtual influencers to boost brand image and

engagement by understanding how they interact with audiences on social media and convey authenticity and credibility.

2.2 Content Credibility

For social media platforms, the quality and credibility of the source of the information or comments are crucial. Content credibility is affected by information source, content quality and user trust (Dedeoglu, 2019; Kang & Namkung, 2019). In the Web 2.0 time, social media platforms promote user-generated content (UGC) and can check its credibility and source. (Pasi et al., 2019). Source credibility indirectly influences purchase intention and eWOM through UGC attitudes (Muda & Hamzah, 2021). Traditional influencer marketing builds credibility for such content through para-social relationships (Jin & Ryu, 2020). But with the development of Artificial Intelligence (AI) technology, the content generated by virtual influencers is actually generated by AIGC (Cao et al., 2023; Yu et al., 2024). Traditional Internet celebrities become virtual influencers. We can assume that virtual influencer' AIGC will likewise form a quasi-social interaction with users. From the above discussion, we may make the following assumptions:

H1: Virtual influencers' content credibility is positively related to parasocial relationship.

2.3 Interaction Quality

Interaction quality between humans and AI communication are essential to our social existence (Pelau et al., 2021). Interaction quality is the level and quality of user-content creator or digital endorser interactions on social media and digital platforms (Onofrei et al., 2022; Wan et al., 2017). User experience is frequently affected by interaction quality. Higher interaction quality increases anthropomorphism and social presence (Rhim et al., 2022). Previous study has highlighted interaction quality in social media and digital marketing. High interaction quality increases user, brand, and engagement (Samarah et al., 2022). It is also easier for influencers to establish parasocial relationships with users through high-quality interactions (M. T. Liu et al., 2019). Thus, AI-driven virtual influencers will connect with consumers intelligently and have high-quality interaction, creating a parasocial relationship. The following hypothesis is proposed:

H2: Virtual influencers' interaction quality is positively related to parasocial relationship.

2.4 Parasocial Interaction

Social media users build parasocial interaction (PSI) with virtual influencers, an artificial two-way relationship. Followers build PSI with virtual influencers like human influencers (Lim & Lee, 2023; Stein et al., 2022). This relationship, which is thought to be an intense emotional one between a user and a virtual character, is essential for raising audience brand loyalty and engagement (Zhong et al., 2021). In tourism destination marketing, the PSI established by the destination image endorser and

tourists will affect the destination's image and brand engagement (Bi et al., 2021; Haobin Ye et al., 2021). To engage emotionally with potential tourists, tourist destinations might create virtual influencers as digital ambassadors (Chen et al., 2022; Shan et al., 2020). Virtual leaders benefit from this. We can therefore assume that when users build PSI with a travel destination or brand, it becomes easier for them to build an emotional link with that destination or brand, which leads to more engagement and intentions to make decisions. As a result, we suggest the following hypothesis:

H3: Parasocial relationships is positively related to Destination Brand engagement.

2.5 Destination Brand engagement

Destination brand engagement is tourists' emotional connection and involvement with the brand. This includes tourists' emotional attachment, engagement, and brand loyalty (Huerta-Álvarez et al., 2020; Y. Liu et al., 2020). Destination brand engagement reflects the strong connection between tourists and the destination brand. Many studies in brand marketing believe brand interaction affects brand engagement, especially on social media. User activities, social media engagements, and timely feedback boost destination brand engagement (Samarah et al., 2022). The quality and authenticity of user-generated content and comments affect brand engagement on social media (Naeem & Ozuem, 2021).

Celebrity endorsements influence tourists' brand responses and interaction, which is essential for brand engagement and destination loyalty (Chen et al., 2021). Tourists' recommendation and revisit intentions are affected by destination brand engagement. Brand consistency is also crucial (Chen et al., 2020; Kumar & Kaushik, 2020). Thus, when virtual influencers promote destination brand engagement, they must also retain user participation by building parasocial ties with tourists. The following hypothesis is proposed:

H4: Virtual influencers' Content credibility is positively related to Destination Brand engagement.

H5: Virtual influencers' interaction quality is positively related to Destination Brand engagement.

H6: Destination Brand engagement is positively related to intention to visit.

2.6 Research Framework

Drawing upon the parasocial interaction theory and its associated hypotheses, the present study employs a research model to comprehensively examine tourists' perceptions connected to the credibility of content generated through virtual influencers, the quality of interaction experienced, and the subsequent impact on engagement with destination brands. Ultimately, this investigation aims to shed light on the influence of these factors on individuals' intention to visit indicated destinations (see Figure 1).

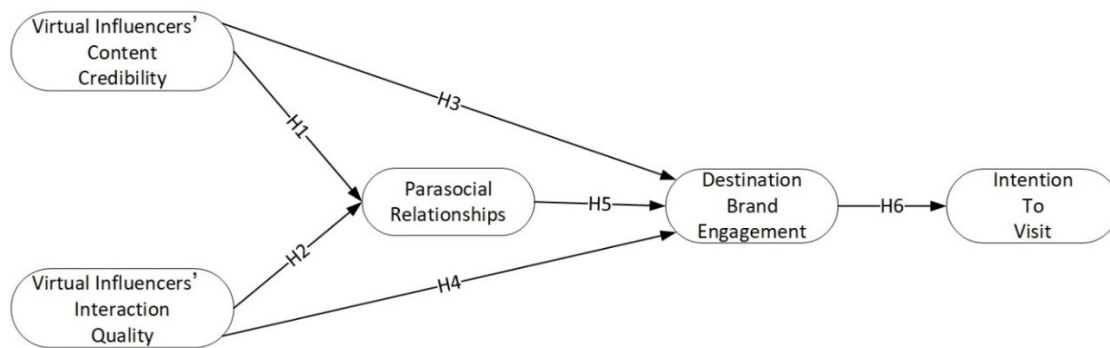


Figure 1: Research Model

3 Methodology

3.1 Data Collection and Respondent Profile

This research adopts the Partial Least Squares Structural Equation Modelling (PLS-SEM) as its predictive tool, a method frequently applied across various fields, including the business sector. PLS-SEM not only offers theoretical testing but is also valuable for predictive purposes, as outlined by Hair et al. (2013). Especially for exploratory research endeavours, the use of PLS-SEM becomes particularly advantageous when dealing with challenges such as small sample sizes, discrepancies between data and distribution premises, or intricate models, as noted by Ali et al. (2018). In this study, we utilize the PLS-SEM approach as delineated by Hair et al. (2013).

When selecting samples for research, the target population needs to be determined based on the purpose of the research. The target population for this study is identified as active users of tourism-related social media platforms in China. To ascertain the engagement of respondents with virtual influencers, the survey incorporates screening queries designed to filter individuals based on their awareness of, and interaction with, these digital figures. It is vital to confirm respondents' familiarity with the virtual influencers and their endorsements of tourist sites. Survey questions will probe whether respondents engage with any virtual influencers on social media platforms, if these influencers have advocated for tourism destinations, and solicit the names of the respondents' preferred virtual endorsers. Further investigation will extend to social media networks known for their substantial virtual influencer followings, which may include, but are not limited to, platforms like Weibo, TikTok, and WeChat.

Respondents are mainly from Jiangxi Province, China, who have engaged with tourism-oriented social media platforms to gain insights into virtual influencers and the activities of tourist companies. Out of the 238 questionnaires distributed, 201 of them were successfully retrieved and deemed valid. The questionnaire was divided into two parts. The first part includes the responders' demographic information, covering information such as age, gender, income, occupation, and their basic understanding of virtual influencers. The second part includes items generated based on well-established scales to measure various study variables. All items are on a five-point Likert scale, and

participants are asked to rate each item based on their opinions from 1 (strongly disagree) to 5 (strongly agree) (Allen & Seaman, 2007).

This study had several experts evaluate the questionnaire and answering ways to verify that the questions were clear, unified, and unambiguous (Hair et al., 2012). We invited several experts to review the questionnaire and answering methods to ensure that there was no ambiguity in the questionnaire, that the questions were clearly stated, and that the questions were coherent. Questionnaires were administered online, distributed via email, social media platforms, or other online survey tools. Respondents can fill out the questionnaire via an electronic device, such as a computer or smartphone. After the data collection was completed, we cleaned and organized the collected questionnaires. This includes checking data integrity, handling missing values, removing duplicate or invalid data, and ensuring data accuracy and consistency.

3.2 Data Analysis

In accordance with the statistical analysis of the data presented in Table 1, it was observed that most of the survey respondents were women (56.32%), individuals who were married (56.72%), and employed (51.74%). The main survey participants were categorized into three age groups: 25-29 years old (31.84%), 18-24 years old (27.86%), and 30-34 years old (24.38%). Majority of respondents reported a monthly salary ranging from RMB 5,001-8,000, while the highest proportion of educational attainment was a bachelor's degree (52.74%).

The study further scrutinized participants' propensities for engaging with social media and their patterns of following virtual influencers. TikTok emerged as the most favored platform, with 53 respondents indicating a preference for it. Redbook and Mafengwo followed, garnering the attention of 38 and 31 individuals, respectively, with Mafengwo being likened to TripAdvisor for its travel-centric content dissemination. Weibo, akin to platforms like Instagram and Twitter, was chosen by 30 respondents, while a smaller segment of 24 participants, representing 11.9%, opted for alternative social media channels.

Regarding virtual influencers in the tourism sector, the survey factored out those respondents unfamiliar with such digital entities. Participants were asked to identify the virtual influencers they were aware of. The subsequent analysis revealed that 37 respondents were inclined to follow 'Tianyu', a digital avatar representing Dunhuang's heritage, whereas 'Liu Sanjie', embodying the scenic vistas of Guilin, was favored by 26 individuals. Additionally, 'Li Weike', the virtual ambassador for the city of Dali, had 25 followers. Given the diverse array of virtual influencers and their followers, a comprehensive listing within this context is impractical. These insights into social media and influencer preferences among respondents serve to enrich the understanding of digital engagement trends, offering valuable data for advancing research and formulating marketing strategies.

Table 1: Demographic Profile

Characteristics	Description	Count	Percentage
Gender	Male	88	43.78
	Female	113	56.22
Age	18-24 years old	56	27.86
	25-29 years old	64	31.84
	30-34 years old	49	24.38
	35-39 years old	25	12.44
	40-44 years old	4	1.99
	45-49 years old	2	1.00
	50 years old and above	1	0.50
Personal Total Income (per month)	Under RMB 1500	8	3.98
	RMB 1,501- RMB 3,000	27	13.43
	RMB 3,001- RMB 5,000	41	20.4
	RMB 5,001- RMB 8,000	69	34.33
	RMB 8,001- RMB 12,000	32	15.92
	RMB 12,001- RMB 15,000 RMB 15,000 and above	18 6	8.96 2.99
Professions	Employed	104	51.74
	Student	55	27.36
	Freelance	30	14.93
	Unemployed	9	4.48
	Others	3	1.49
Marital Status	Single	87	43.28
	Married	114	56.72
Education Background	Primary/Middle School	5	2.49
	High School	19	9.45
	College degree	46	22.89
	Bachelor's	106	52.74
	Master / PhD	25	12.44
Social media platforms to follow	TikTok	53	26.37
	Redbook	38	18.91
	Mafengwo	31	15.42
	Weibo	30	14.93
	Wechat	25	12.44
	Others	24	11.9
	Tianyu	37	18.4
Virtual influencer to follow	Liu Sanjie	26	12.9
	Weike	25	12.4
	Banzhao	22	10.9
	Mo xiaoxie	20	9.9
	Hu Beier	18	8.9
	Others	53	26.4

3.3 Measurement Model Assessment

To ascertain the connections between latent factors and measured items in our study, we used either confirmatory or exploratory factor analyses. Typically, factor loadings range in value from -1 to 1. A stronger link between the measured item and the underlying factor is indicated by higher factor loadings, whilst a weaker association is shown by lower factor loadings. (Hair et al., 2019).

Internal consistency reliability metrics, such as Cronbach's alpha, are frequently used in research to evaluate the dependability of measurement instruments. A greater dependability rating denotes a higher degree of consistency in the measurement tool's outcomes over various time and condition intervals, hence augmenting the research results' reliability (Tavakol & Dennick, 2011). Furthermore, to evaluate convergent validity, we employed factor loadings, construct internal consistency reliability, and average variance extraction (AVE). The measurement tool's convergent validity is supported by higher factor loadings and AVE values, which show a stronger link between the measurement items and the underlying variables (Urbach & Ahlemann, 2010).

In Table 2, all constructs possess Cronbach α values ahead of 0.7, with only a few a bit lower, indicating strong internal consistency (Bonett & Wright, 2015). Table 2 displays all factor loadings between 0.655 and 0.867. Convergent validity is established because most extracted average variance values are more than 0.5 (Urbach & Ahlemann, 2010).

Table 2: Factor Loading, Reliability and Convergent Validity

Construct	Measurement Item	Factor Loading	Cronbach's Alpha	CR	AVE
Content Credibility	CC1	0.756	0.925	0.833	0.556
	CC2	0.703			
	CC3	0.750			
	CC4	0.771			
Interaction Quality	IQ1	0.719	0.890	0.816	0.571
	IQ2	0.742			
	IQ3	0.714			
	IQ4	0.655			
	IQ5	0.689			
Parasocial Relationships	PR1	0.704	0.875	0.872	0.531
	PR2	0.763			
	PR3	0.668			
	PR4	0.728			
	PR5	0.711			
	PR6	0.725			
	PR7	0.724			
	PR8	0.725			
	PR9	0.683			
Destination	BE1	0.762	0.844	0.854	0.594

Construct	Measurement Item	Factor Loading	Cronbach's Alpha	CR	AVE
Brand Engagement	BE2	0.696	0.905	0.875	0.701
	BE3	0.684			
	BE4	0.747			
	BE5	0.721			
Intention to Visit	IV1	0.859			
	IV2	0.782			
	IV3	0.867			

To assess each possible factor's discriminant validity in a measurement model, the Fornell-Larcker criterion is employed. The link between the variance explained by each latent variable and the collinear variance among latent factors is the main emphasis of this criterion. The Fornell-Larcker criterion was utilized in our investigation to verify the measurement model's discriminant validity. We can conclude that the measurement model is valid in terms of discriminant validity if the AVE of each latent variable is greater than its collinear variance with other latent variables (Hair et al., 2019; Hair Jr et al., 2021). Table 3 shows that there is good discriminant validity between the variable indicators; however, the discriminant validity between IQ and PR is only slightly lower. This could be because the samples are similar in some way, such as age, occupation, or cultural background, which could decrease the discriminant validity between different latent variables (Hair Jr et al., 2021).

Table 3: Displays Discriminant Validity of Each Latent Variable.

Construct	CC	BE	IV	IQ	PR
CC	0.746				
BE	0.405	0.703			
IV	0.417	0.642	0.837		
IQ	0.451	0.463	0.528	0.686	
PR	0.542	0.651	0.645	0.680	0.656

Notes: CC = Content credibility, IQ= Interaction quality, PR= Parasocial relationships, BE= Destination brand engagement, IV = Intention to visit

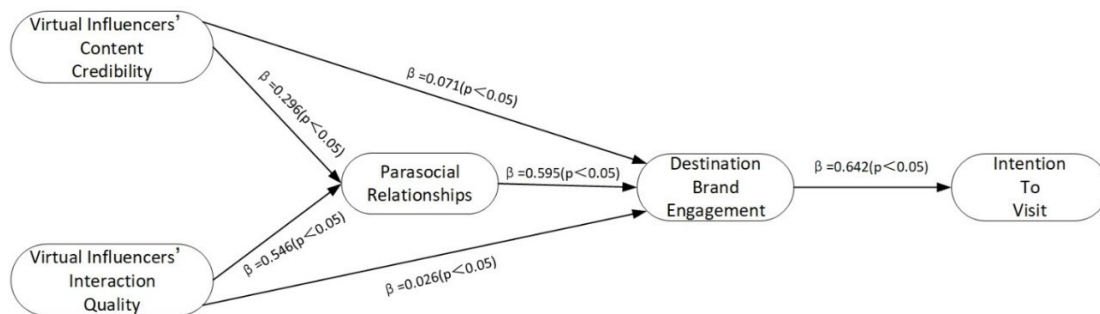


Figure 2: Structural model

3.4 Structural Model Assessment

The bootstrapping approach was employed in the study to examine the proposed hypotheses. The findings of the study (see Table 4) indicate that there is a substantial positive link between content credibility ($\beta = 0.296$; $p < 0.05$) and interaction quality ($\beta = 0.546$; $p < 0.05$) and parasocial interactions. Nevertheless, the influence of content credibility ($\beta = 0.071$; $p > 0.05$) and interaction quality ($\beta = 0.026$; $p > 0.05$) on destination brand engagement was shown to be statistically negligible.

In addition, it was shown that parasocial ties ($\beta = 0.595$, $p < 0.05$) had a beneficial and statistically significant impact on engagement with the destination brand. Furthermore, it was shown that engagement with the destination brand ($\beta = 0.642$, $p < 0.05$) had a positively significant impact on the intention to visit. In brief, the findings of the study provided support for all hypotheses except for H3 and H4.

Table 4: Hypotheses Testing

Hypotheses	Relationship	Path Coefficient	T-Value	P-Value	Remark
H1	CC→PR	0.296	6.585	0.000**	Supported
H2	IQ →PR	0.546	11.033	0.000**	Supported
H3	CC→BE	0.071	1.054	0.292 ^{n.s}	Unsupported
H4	IQ→BE	0.026	0.320	0.749 ^{n.s}	Unsupported
H5	PR→BE	0.595	7.040	0.000**	Supported
H6	BE→IV	0.642	9.242	0.000**	Supported

Notes: * $p < 0.05$, ** $p < 0.01$, *n.s.* = not significant. CC = Content credibility, IQ= Interaction quality
PR= Parasocial relationships, BE= Destination brand engagement, IV = Intention to visit

3.5 Mediating Effect Analysis

The mediating effect that content credibility and interaction quality have on destination brand engagement through parasocial relationship is also investigated in this study. We assume that there is complementary partial mediation between them, and one method is to calculate the ratio of the indirect effect to the overall effect. The ratio is also known as the variance accounted for (VAF) value. VAF is an indicator used to measure the mediating effect. It represents the variance of the mediating variable (parasocial relationship) to the dependent variable (destination brand involvement). degree of explanation.

Table 5: Mediating Effect Testing

Path	Standard Deviation	T-value	P-value	Total Effects	Indirect Effects	VAF	Result
CC -> BE	0.066	1.054	0.292	0.247			Partial
CC -> PR -> BE	0.035	5.029	0.000		0.177	71.7%	Mediation Effect

Path	Standard Deviation	T-value	P-value	Total Effects	Indirect Effects	VAF	Result
IQ -> BE	0.076	0.320	0.749	0.352			Full
IQ -> PR -> BE	0.062	5.246	0.000		0.325	92.3%	Mediation Effect

Notes: CC = Content Credibility, IQ= Interaction Quality, PR= Parasocial Relationships, DBE= Destination Brand Engagement.

According to Hair(Hair Jr et al., 2021), VAF > 80% indicates full mediation. If 20% < VAF < 80%, it will show partial mediation. If VAF < 20%, we believe that indications no mediation. The results show that Parasocial relationships have a Partial mediation effect (VAF=71.3%) between Content credibility and Destination Brand engagement, while Parasocial relationships have a Full mediation effect (VAF=92.6%) between interaction quality and Destination Brand engagement.

4 Findings

The importance of virtual influencers in tourism destination marketing is steadily growing. The finding of this study shows that the level of content credibility and interactivity quality of virtual influencers has impact on the development of parasocial interactions among tourism consumers. However, the impact on destination brand engagement is statistically insignificant. Therefore, we can believe that the two previous hypotheses about the impact of virtual influencers on tourism destination brand participation cannot be established.

However, this does not mean that the content credibility and interaction quality of virtual influencers cannot have a positive impact on tourism destination brand participation. After testing the mediating effect, we can find that virtual influencers and tourism destination brand participation There is an indirect effect between them, and the indirect effect is established through parasocial relationship. Therefore, we must pay attention to the impact of this parasocial relationship on destination brand participation. Establishing parasocial interaction can successfully promote the interaction between customers and destination companies, thereby positively affecting the desire to travel to the destination.

5 Conclusion

This study explores how virtual influencers affect tourism destination brand participation and tourist intentions. After collecting and analyzing data, we arrive at the following conclusions: First, we found that the content credibility and interaction quality of virtual influencers cannot have a direct positive impact on destination brand engagement. This also reflects that travel decision-making is usually a complex process, and users need to consider many factors. The credibility of a virtual influencer's content and quality of interactions can spark tourists' interest but are often not enough to directly change their destination brand engagement and behavioral intentions. Users

prefer to build trust and emotional connections through parasocial relationships, and these emotional connections may be key drivers of user decision-making. At the same time, virtual influencers often have large followings on social media, but this does not necessarily translate into direct engagement with the destination brand.

Second, the study found that virtual influencers have a mediating effect on users' participation in tourist destination brands through parasocial relationships. This suggests that parasocial relationships play an important mediating role between content credibility and interaction quality of virtual influencers and destination brand engagement. Users feel the influence of virtual influencers through parasocial relationships, which enhances their cognitive and emotional connections to the destination brand, thereby influencing their behavioral intentions. Parasocial relationships can build trust through the emotional connection between users and virtual influencers, making users more willing to accept suggestions and recommendations from virtual influencers, and then become interested in destination brands.

Furthermore, special connections between tourists and virtual influencers are known as parasocial relationships. The survey's findings indicate that people view virtual influencers as close friends or confidants. Because of this emotional connection, users are more likely to actively participate and interact with the suggestions made by virtual influencers. When considered together, the influence of virtual influencers resides in their capacity to create parasocial relationships, which subsequently influences users' participation in destination brands and travel choices. This research offers a thorough understanding of the function of destination brand marketing and virtual influencers. Subsequent investigations could further explore the role of parasocial relationships in virtual influencer marketing and how to maximize their impact.

Although some findings were obtained, certain limitations inherent in the research must be accepted. Since this study uses an online questionnaire for data collection, and the respondents are mainly from tourism social media platform users in Jiangxi Province, China, the results may lack certain generalizability, and the questionnaire data may contain subjective tendencies of the respondents. will affect the accuracy of the results. In addition, this study only focused on the impact of virtual influencers on destination brand engagement, and did not consider other factors that may affect destination brand engagement, such as destination image perception, tourists' own preferences, etc.

Future research direction on virtual influencers needs to explore the differences in the impact of virtual influencers on destination brand engagement under different cultural backgrounds. In addition to the questionnaire survey method, future research can combine in-depth interviews, online comment mining and other data collection methods to obtain more comprehensive research results. In addition to content credibility and interaction quality, future research can consider more influencing factors, such as the degree of anthropomorphism of virtual influencers, brand image, etc., to deeply explore its impact mechanism on destination brand engagement. In addition, with the continuous development of artificial intelligence technology, future research

needs to explore the new impact and new trends of virtual influencers on tourism destination marketing with the support of artificial intelligence technology.

6 About the Authors

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