

## **Users' Personality Traits How to Affect Parasocial Interaction and Influence on Purchase Intention and eWOM on Social Media**

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### **Abstract**

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*This study constructed the personality traits of celebrities and audiences through parasocial interaction to affect consumers' purchase intention and word of mouth on social media. 252 participants in Mongolia with online questionnaires were collected. A structural equation model (SEM) was used to test the hypothesized model. The results showed that: On the social media platform, 1. the celebrity's attractiveness and trustworthiness positively affected parasocial interaction, 2. audiences' empathy and low self-esteem positively affected parasocial interaction, 3. parasocial interaction positively affected consumer purchase intention and eWOM. Therefore, matching the traits of celebrities and audiences would enhance parasocial interaction and the performance of marketing activities on social media.*

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**Keywords:** parasocial interaction, celebrity endorsement, social media, purchase intention, eWOM.

### **Introduction**

Social media had a significant impact on today's society, and it plays a crucial role in communication and marketing approaches. In a social media environment, influencers can be explained as a form of local marketing, there is a paid relationship between sponsored brands and a separate poster, but the recipient may often be unclear (Kirvesmies, 2018).

In the decade, researchers also stated six stages before deciding to buy the product, such as awareness, knowledge, interest, preference, persuasion, and purchase (Mirabi et al., 2015). Meanwhile, social media provides the opportunity for consumers to interact with their peers and make their buying decisions (Hudson & Thal, 2013). As previously mentioned Mirabi et al. (2015) drew influencing factors of purchase intention including brand name, product, quality, price, packaging and advertising and the result showed brand name and advertising had positive relationship with purchase intention. In addition, consumers' who have an intention to buy a product, also have an interest to share their intention with others.

Thus, social media provides a place for consumers to interact with peer-to-peer communities (Yuksel & Labrecque, 2016). Furthermore, through the Internet, consumers can collect information by including other consumers' reviews and participating in eWOM (El-Sherbiny & Usmonova, 2017).

Moreover, a previous study by Hwang & Zhang (2018) examined para-social relationships as a moderating effect on purchase intention and eWOM. The study recruited China Weibo platform followers of digital celebrities and the result showed parasocial relationships had a significant relationship with purchase intention and eWOM. Regarding marketing analysis, influence marketing is currently the most effective social media marketing strategy. There is much evidence showed parasocial interaction could affect consumers' purchase intention and electronic word-of-mouth (eWOM) and these enhance consumers' buying decisions and enhances sales (Morwitz et al., 2007). Therefore, marketing managers must need to know how to perform parasocial interaction for future sales.

Previous studies examined antecedents of parasocial interaction by either celebrity or audience factors, in this study combines celebrity and audience factors to test influencing parasocial interaction and through this relationship impact on purchase intention and eWOM. Furthermore, from this perspective also possible to compare two different factors' differences with parasocial interaction. Therefore is, this study's purpose: 1. testing the constructed model that a celebrity's attractiveness and trustworthiness and audience's empathy and low self-esteem impact para-social interaction and 2. parasocial interactions impact purchase intention and eWOM 2. What are the most powerful factors in parasocial interaction between a celebrity's credibility and the audience's empathy and low self-esteem?

## Literature Review

### *Parasocial interaction and psychology*

The parasocial interaction (PSI) defines the relationship between audiences and media figures (Horton & Richard Wohl, 1956). As one of the most central attributes of mass media consumption, such a relationship allows one-sided because just a persona's action can reach the media user (Klimmt et al., 2006). Meanwhile, people believe they are engaged in a direct two-way conversation, feeling like a mediated other is talking directly to them (Labrecque, 2014). According to Dibble et al. (2016), parasocial interaction is the audience's mutual understanding, attention, and adaptation to media performers during the viewing process, and it is distinguished from the more lasting parasocial relationship (PSR).

The antecedent of the parasocial interaction most focused on mass communication and especially the viewer's relationship with the persona in broadcast media. Parasocial interaction's important function was as a source of alternative companionship, resulting from "deficiencies" in social life and dependency on TV. TV addiction and the amount of time spent viewing television positively correlate with parasocial interaction (Giles, 2002). Recently, parasocial interaction has mostly focused on mass media including online social networks (such as youtube, Facebook, and Instagram). For instance, parasocial interaction represents the extent of interpersonal involvement of the user with a Web site, and to which users perceive themselves as interacting with a stable personality (Goldberg & Allen, 2008). Furthermore, today's concept of parasocial interaction differs from the traditional notion. In detail, formal interaction between celebrity and audience can be through television and radio, however, the rise of social media and technology development help marketers can manage these interactions (Labrecque, 2014).

Parasocial interaction is likely to have numerous psychological outcomes, such as an accelerated enjoyment mechanism (Yuksel & Labrecque, 2016), which can explain the relationship between media personalities and media figures. In this relationship, personalities seek media figures as a friend and imagine being part of the social world (Lee & Watkins, 2016). There are a couple of studies stating that parasocial interaction is linked with the psychology field. For instance, in the past 25 years of personality and social psychology research, situational variables such as models of Internet communication interact with individual differences or "person" variables to produce outcomes (McKenna & Bargh, 2000). More early research indicates sociological antecedents (potential for the amount of actual interaction) and psychological antecedents (neurosis, introversion, and loneliness) to the development of parasocial interaction (Perse & Rubin, 1989). Furthermore, parasocial interaction can affect not only self-perception (Annese, 2004) but also impact behavior (A. M. Rubin & Step, 2000). For example, the behavior of individuals exposed to parasocial interaction (Gardner & Knowles, 2008). This study would investigate parasocial interaction on social media predicted by some human traits. *Influential factors of celebrity endorsement*

In recent years, traditional celebrities have genuinely reformed because of the prevalence of social media. On the other hand, digital celebrities such as influencers, bloggers, and vloggers have attracted numerous followers (Van Norel et al., 2014). Ledbetter & Redd (2016) showed that the interest in PSI predicts the credibility of the celebrity. Dai et al. (2016) proposed that the PSI leads to higher perceived credibility.

### ***Attractiveness of credibility and Parasocial Interaction***

Rubin & McHugh (1987) draw uses and gratification theory to understand PSI between audience and celebrity; consequently, their results showed that social and physical attraction are important factors in the pseudo-relationship. Likewise, Perse & Rubin (1989) conducted attraction as a more powerful factor in developing PSR than physical attraction. In the literature, the conception of social attractiveness is distinct from source credibility, social attractiveness along with one dimension of source credibility. This study would examine attractiveness as a credibility dimension.

Lee & Watkins (2016) found that socially attractive media personalities, including social and work partners, provide an exceptional environment for parasocial interaction. The author discussed between a YouTube influencer and luxury brand user between social attractiveness and parasocial interaction. The result showed celebrities who are considered similar to the audience would lead PSI, also their result suggested that marketers looking to incorporate celebrities need to recognize the target audience its values and desires. Sokolova & Kefi (2020) showed that attractiveness strongly influences PSI, but there are no positive effects with attractiveness and parasocial relationship with Generation Z. Therefore, the following is proposed:

Hypothesis 1: The celebrity's attractiveness is positively related to PSI between the audiences and the celebrity.

### ***Trustworthiness of credibility and Parasocial Interaction***

Erdogan (1999) defines trustworthiness as a source's honesty, credibility, and integrity. Evaluating a person's trustworthiness requires a substantial amount of information about the person, this can be gained and reinforced through repeated communication and interaction (Chung & Cho, 2017). According to Nur Izzati Mohamad Anuar (2020) trustworthy influencers it was more persuasive and considered when social media platform users perceive them as dependable, honest, reliable, sincere, and trustworthy. In addition, another study (Yilmazdoğan et al., 2021) proved that a celebrity's trustworthiness and expertise of credibility are sub-dimension of parasocial interaction and travel intention. As a consequence, the following is proposed:

Hypothesis 2: The celebrity's trustworthiness is positively related to PSI between the audiences and the celebrity.

### ***Audience trait as a dimension of Parasocial Interaction***

The people often use interpersonal communication channels to meet their needs, and likewise mediated communication can be used for those needs (Wang et al., 2008). To meet their needs, social media provides audiences to comment, like and share celebrities' videos. Moreover, audiences can like and reply to other audiences' comments, therefore it can increase the interactivity between audiences. An early study conducted on audiences' personality traits as an antecedent of parasocial interaction. There are studies that prove that lonely people tend to instinctively communicate with these fictional characters, as if communication is mutual. (Sun, 2010)

### ***Empathy and Parasocial Interaction***

Empathy is defined as the ability to experience and understand the other's feelings (Preston & de Waal, 2002), the theory of empathy focuses on emotional or cognitive processes and differentiating between emotional contagion and sympathy. For example, as people experience a high degree of empathy, can understand another's thoughts and there are polite relationships, they also build stronger friendships (Chow et al., 2013). Even though empathy plays a critical role in individuals' social functioning and ability to perform social interaction Hwang & Zhang (2018). Through social interaction, people create more emotional representations, and it would be more accessible, which can increase people's natural tendency, which is called trait empathy (Vossen & Valkenburg, 2016).

Empathy is an emotional response to another person's emotion, especially a consistent response, hence, empathy is a crucial determined predictor of parasocial relationships (Derrick, 2008). Cummins & Cui (2014) examined empathy through the addressing style, such as a verbal address, no address, and body address impact on parasocial interaction and their study results showed bodily address and verbal address found weaker significantly, instance viewers reported a stronger sense of interacting with characters on the screen, and this relationship was much stronger when the performer on the screen sees and hears through the physical address.

Hwang & Zhang (2018) examined followers' empathy for parasocial relationships with celebrities. The study used a Chinese social networking service (SNS) with celebrities and followers' parasocial relationships. Their results showed that followers' empathy with celebrities is positively related to parasocial relationships. Thus, we hypothesized as following:

Hypothesis 3: The audiences' empathy is positively related to PSI between the audiences and celebrity.

#### ***Low Self-Esteem and Parasocial Interaction***

Tukachinsky (2020) indicated low self-esteem among people with poor social life and significantly related to parasocial relationships. they tend to put little value on their own opinion and there is evidence that parasocial relationships are associated with unsatisfying social life. Derrick et al. (2008) found that low self-esteem people are more attracted to people who are like their ideal selves than those with high self-esteem. From this perspective, we all build these one-sided relationships and develop shared experiences. It can develop strong relationships of this type with specific celebrities with whom they identify. In addition, in these relationships, there is no risk and that allows people who are typically afraid of rejection to comfortably connect with others. These parasocial relationships can help put audiences at ease, particularly for those with low self-esteem, calming their fears of social rejection. Hwang & Zhang (2018) demonstrated between followers' low self-esteem toward celebrities positively related to parasocial relationships. Hence, the hypothesis was proposed as follows:

Hypothesis 4: The audiences' low self-esteem is positively related to PSI between the audiences and celebrities.

#### ***Consequences of Parasocial Interaction***

Parasocial interaction helps to understand multimedia content better and can change the attitude of users and enhance their cognitive and emotional participation in the content and messages conveyed by media entities (Liebers & Schramm, 2019). In addition, Hartmann & Goldhoorn (2011) indicated that parasocial interaction influences two basic possible outcomes, such as audiences' commitment to the norm and their enjoyment of the exposure situation.

#### ***Purchase and Electronic Word-of-Mouth Intention***

Frambach et al. (2007) found that many consumers search for product reviews on the Internet throughout the pre-purchase stage; they also share their product experiences positively or negatively in the post-purchase stage. This shows that they are inspired by the online environment, which has a significant impact on consumers' purchasing decisions(Hui, 2017).

Rasmussen (2018) examined the credibility of social media celebrities by predicting PSI and moderated by popularity, study results showed audiences perceived the social media celebrities as a credible source, notwithstanding favored figures. Sokolova & Kefi (2020) examined that PSI between the influencer and followers is a positive relationship with user intent to purchase, the result suggested credibility with bloggers particularly affects followers' purchase intention. Hence, the hypothesis was proposed as follows:

Hypothesis 5: PSI between the audiences and celebrities is positively related to audiences' purchase intention.

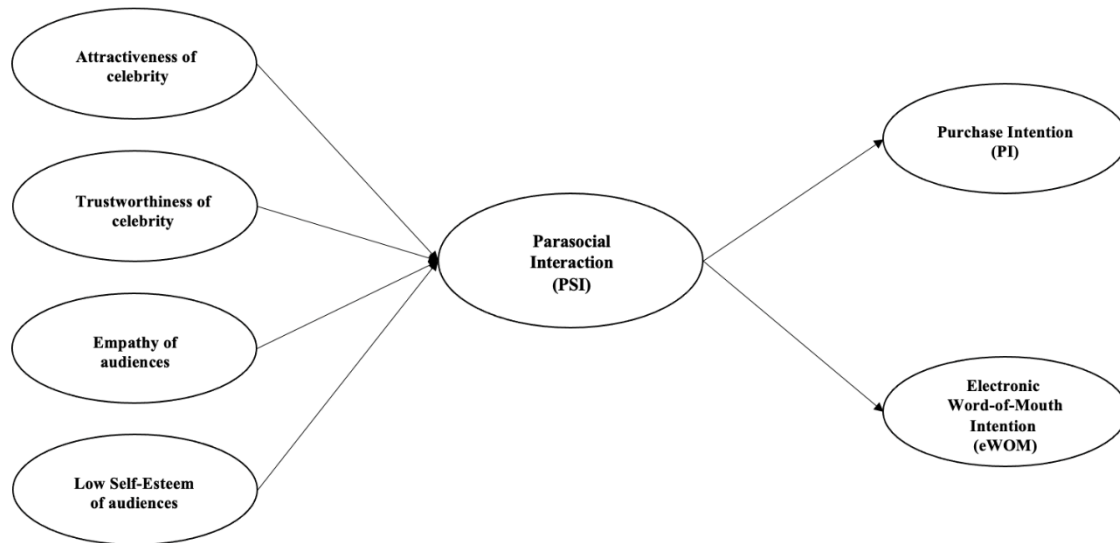
Throughout the years, the information technology era transformed traditional WOM constraints through the emerging social network sites, also WOM (Hui, 2017) is no longer a private connection of face-to-face settings, including one source and one recipient. To date, eWOM is defined as "any positive or negative statement made by potential, actual or previous consumers about a product or company, provided to many people and organizations via the Internet" (Hennig-Thurau et al., 2004). There are many studies indicating that eWOM plays a crucial role in the customers' online purchasing process and it is conceptualized as peer-to-peer communication (Thorson & Rodgers, 2006). Besides product marketing research studies, the relationship between eWOM and PSI, but also political campaigns predicted voter-and-candidate interaction. For instance, the author also examined attitudes toward the website, and parasocial interaction with political candidate blogs. The more knowledge a consumer has about a product and the more likely it will spread that knowledge to others. It will affect PSI and satisfaction, and then affect the purpose of joining and exchanging eWOM information (Lawry, 2013). Hence, the hypothesis was proposed as follows:

Hypothesis 6: PSI between the audiences and celebrities is positively related to audiences eWOM

**Method**

**Research Design**

This study's independent variables include attractiveness, trustworthiness, empathy, low self-esteem, and parasocial interaction. Dependent variables include purchase intention, electronic word-of-mouth parasocial interaction, and credibility, as well. This relationship is also mediated by parasocial interaction. The framework of this study is shown in Figure 1.



**Figure 1. The framework of this study**

**Sampling and Data Collection**

The online surveys build on the Survey cake and include two-part, such as demographic and research questionnaires. The 271 participants were recruited from a social network platform (Facebook and Instagram) in Mongolia. After data screening 19 responses were deleted because these respondents indicated that they did not follow celebrities and did not watch YouTube vlogs. In the end, 252 remaining responses were used for data analysis. Male respondents constituted 36.9% (n=93) and female respondents constituted 63.1% (n=159) of the sample, and more than half of the respondents 71.2% were in the age group of 25-40 years, 16.7% were in 18-25 years. In terms of education level, most of the respondents are highly educated, as 61.1% (n=154) possess an academic bachelor's degree, and 30.5% (n=77) are in master's degree.

**Questionnaire Design and Reliability**

All questionnaire items were developed initially in English and then translated into Mongolian with a five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. Celebrities' attraction and trustworthiness used every three-question item in Lou & Kim's (2019) research, and Cronbach's alpha for attractiveness was .814 and trustworthiness was .884. Every three-question item was modified from Hwang & Zhang's study (2018) used to measure audiences' Empathy and low self-esteem, and Cronbach's alpha for attractiveness was .859 and trustworthiness was .782. Used Rubin et al. (1985) developed a three-item scale to measure audiences' relationships with celebrities, and Cronbach's alpha for PSI was .844. Finally, purchase intention adopted two items scale from Sokolova & Kefi (2020) and Cronbach's alpha was .893. Developed A two-item scale from the study of Su et al. (2016) to measure eWOM and Cronbach's alpha was .894. Since all Cronbach's alpha of constructs was higher than 0.7, the questionnaire has good reliability.

## ANALYSIS AND RESULTS

*Descriptive Statistics*

Table 2 showed the descriptive statistics of all variables, and among all 20 items, the means ranged between 2.29 to 3.38.

**Table 2. Descriptive statistics analysis**

Variable	Item	N	Mean	S.D.
Attractiveness	[Ider-Od] is very attractive.	233	3.12	.965
	[Ider-Od] is good looking.	233	3.44	.941
	[Ider-Od] is stylish.	233	3.01	.978
Trustworthiness	I feel [Ider-Od] is honest.	233	3.49	.865
	I consider [Ider-Od] trustworthy.	233	3.48	.835
	I feel [Ider-Od] truthful.	233	3.31	.788
Empathy	I can often understand how [Ider-Od] are feeling even before they tell me.	233	2.51	1.008
	I can tell when a [Ider-Od] is angry even if he tries to hide it.	233	2.57	1.029
	When [Ider-Od] is sad, I become sad too.	233	2.06	1.030
Low Self-Esteem	I feel displeased with myself.	233	2.76	1.178
	I feel inferior to others at this moment.	233	2.66	1.116
	I am worried about what other people think of me.	233	2.68	1.261
Parasocial interaction	I look forward to watching the [Ider-Od] on Social media platform.	233	2.75	1.153
	If the [Ider-Od] appeared on another platform, I would watch that video.	233	3.39	1.051
	When I am watching [Ider-Od], I feel as if I am part of his group.	233	2.57	1.085
Purchase intention	I would purchase the products promoted by [Ider-Od] in the future.	233	2.80	1.042
	“I would encourage people close to me to buy the products promoted by the [Ider-Od].”	233	2.74	1.139
eWOM	I’m likely to say positive things about this product to others.	233	2.98	1.084
	I would recommend this product to my friends and relatives.	233	2.80	1.132
	If my friends were looking for products of this type, I would recommend this product to them.	233	3.26	1.057

**The Test of Variables and Structural Model**

Table 3 tested all measurement variables to the latent variables, and every measurement variable was significantly related to the latent variable (p-values < .001).

**Table 3. Results of the Measurement Model**

			Estimate	SE	CR	p-values
AT3	<---	AT	1.000			
AT2	<---	AT	1.231	.122	10.050	***
AT1	<---	AT	1.184	.118	10.053	***
TR3	<---	TR	1.000			
TR2	<---	TR	1.150	.082	13.971	***
TR1	<---	TR	1.186	.085	13.922	***
EM3	<---	EM	1.000			
EM2	<---	EM	1.087	.077	14.137	***
EM1	<---	EM	.992	.075	13.289	***
SE3	<---	SE	1.000			
SE2	<---	SE	1.405	.175	8.039	***
SE1	<---	SE	1.292	.153	8.465	***
PSI1	<---	PSI	1.000			
PSI2	<---	PSI	.877	.086	10.233	***
PSI3	<---	PSI	.944	.088	10.747	***
PI1	<---	PI	1.000			
PI2	<---	PI	1.096	.066	16.513	***
eW1	<---	eW	1.000			
eW2	<---	eW	1.147	.070	16.366	***
eW3	<---	eW	.881	.073	12.030	***

\*\*\* p< .001

**The Result of Structural Model**

The results in Table 4 illustrates that the ratio of chi-square to degree of freedom for the structural equation model (SEM) was within acceptable model fit to the data (chi-square=628.484, degrees of freedom=164, CMIN/DF = 3.832, IFI = 8.871, CFI = 0.869, RMSEA = 0.106). Table 4 summarizes the overall fit indices of the research model acquired by SPSS AMOS 26.

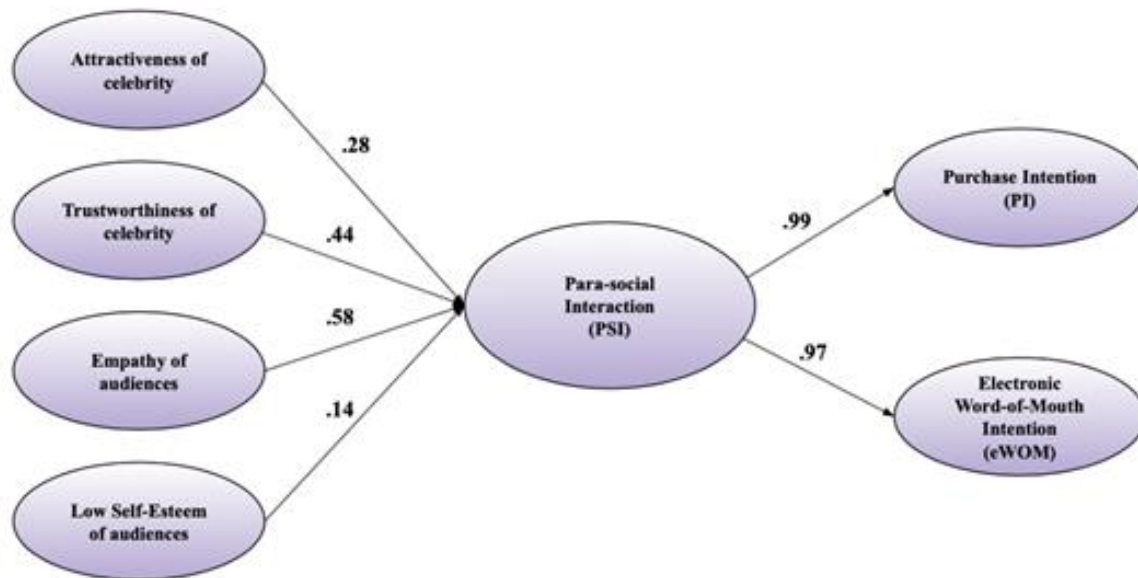
Regarding to the result from the CFA, the goodness of fit indices (GFI) was  $\chi^2(86) = 322.237, p = 0.000$ , normed-fit index = 0.889, non-normed fit index = 0.897, incremental fit index = 0.916, comparative fit index = 0.916, goodness of fit index = 0.843, standardized root of mean square residual = 0.069, and root of square error of approximation (RMSEA) = 0.107. Results indicated an acceptable value as recommended by (Bagozzi & Yi, 1988). Results of CFA supported the significance of factors on the parasocial interaction, moreover celebrity’s credibility played a crucial role in enhancing parasocial interaction.

As for the hypotheses of this study, H1: a celebrity’s attractiveness is positively related to PSI (AT->PSI), and H1 was supported ( $\beta=.279, p<.001$ ). H2: a celebrity’s trustworthiness is positively related to PSI (TR->PSI), and H2 was supported ( $\beta=.439, p<.001$ ). H3: audiences’ empathy is positively related to PSI (EM->PSI), and H3 was supported ( $\beta=.585, p<.001$ ). H4: audiences’ low self-esteem is positively related to PSI (LSE->PSI), and H4 was supported ( $\beta=.144, p=.007, p<.01$ ). Another path from parasocial interaction to purchase intention and eWOM. H5 and H6: parasocial interaction positively affects audiences’ purchase intention (PSI->PI) ( $\beta=.990, p<.001$ ) and eWOM (PSI->eWOM)( $\beta=.969, p<.001$ ), H5 and H6 were supported. Overall, all six hypotheses of this study were supported.

**Table 4. Results of the Structural Model**

			Estimate	S.E.	C.R.	P
PSI	<---	AT	.279	.063	4.449	***
PSI	<---	TR	.439	.067	6.511	***
PSI	<---	EM	.585	.064	9.140	***
PSI	<---	LSE	.144	.054	2.678	.007
PI	<---	PSI	.990	.083	12.002	***
eW	<---	PSI	.969	.087	11.183	***

\*\*\* p<.001, Chi-square = 624.484, df = 164, p-value <.001



**Figure 2. Structural Equation Model**

**CONCLUSION AND SUGGESTION**

As Ahmed (2020) revealed, social media ads need to create in a way that considers all the crucial factors that focus on consumers' attention. Additionally, digital celebrities' advertising power plays a role as parasocial interaction affects consumers' WOM and purchase intention. To consider this issue, the purpose of the current study identified between Mongolian consumers' and celebrities' interaction impact on celebrity endorsement. Overall, this study tested and showed the effects of celebrities' credibility (attractiveness and trustworthiness), audiences' empathy, and low self-esteem affect parasocial interaction, consequently affecting purchase intention and eWOM.

***Parasocial interaction has a powerful effect on social media transactions***

Results showed that the PSI highly affects purchase intention ( $\beta=.990$ ) and eWOM ( $\beta=.969$ ). This result indicates that parasocial interaction in online marketing has a very good effect.

The analysis of celebrities' credibility is positively related to the PSI for one of the Mongolian influencers: Ideree. Ideree's YouTube channel provides various lifestyle vlogs, and his Instagram features a mobile app (Hippo card). He also publishes learning language paid apps and other fashion-related content like outfits.

This study's results showed the trustworthiness ( $\beta=.44$ ) and attractiveness ( $\beta=.28$ ) of celebrities affect parasocial interaction. In addition, the audiences' empathy highly affects parasocial interaction ( $\beta=.590$ ). This implies that audiences are likely to perceive that celebrity to be a more credible source as opposed to the audience's own trait. Zhuang (2018) indicated celebrity and users' factors affecting parasocial interaction.



Previous research on parasocial interaction is not only based on the credibility of the influencer, or it is based on the personal characteristics of the audiences. This study provides a new model constructed from these two aspects at the same time, which also means that parasocial interaction must be based on an Online influencer interaction with readers.

## RESEARCH SUGGESTIONS AND LIMITATIONS

Notwithstanding research contributions, this study has limitations and proposes future research suggestions. Firstly, the study was based on a single celebrity from YouTube and Instagram. Hence, its result may have limited generalizability. As in any study, future research is needed to extend different platforms (such as Tik Tok, Facebook, etc.). Besides that, for one single celebrity, future studies could consider different male and female celebrities and consider audiences' gender differences. Secondly, the participants were recruited from one selected country, in that point cross-culture might play an important role in responses. Lastly, the current study found the significance between audiences' low self-esteem and parasocial interaction seems weak effect, future studies may investigate audience-based factors such as loneliness, identification, and gregariousness.

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