

A Study on Parasocial Interaction and Brand Preference to Use Video Application Among Students in Universities in Old City Area of Chengdu, China

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Abstract

Purpose: This study examines the factors impacting university students' parasocial interaction and brand preference for video applications in Chengdu, China. Seven variables were suggested, including parasocial interaction, entertainment motive, perceived interactivity, self-disclosure, task attraction, physical attraction, and brand preference, and six hypotheses among their casual relationships. **Research Design, Data, and Methodology:** The quantitative method was used in the study via a distribution questionnaire. The survey participants are 500 students from 2 universities in Chengdu's Old City Area who are avid users of the Bilibili application. The method of Analysis utilized Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) to validate the goodness of fit and confirm the hypotheses testing. **Results:** The hypotheses regarding the impact of perceived interactivity, self-disclosure, task attraction, and parasocial interaction on brand preference were all supported, influencing brand preference. However, Old City did not support the impact of entertainment motive and physical attraction on parasocial interaction. This suggests that in Old City, these factors may not significantly influence parasocial interaction and subsequent brand preference. **Conclusions:** This research may offer advice and guidance to developers of video platforms, video creators of Bilibili, and university students majoring in related fields.

Keywords: Perceived Interactivity, Self-Disclosure, Task Attraction, Physical Attraction, Brand Preference

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Until June 2023, the figures of Chinese online video users had become 1.044 billion; there was an enhancement of 13.8 million compared with December 2022, accounting for 96.8% of the total Chinese Internet users (CNNIC, 2023). That number has risen steadily in recent years, and it has been a very large scale for online video users in China; almost everyone has experienced online video and unitized its related features.

The short video platform has the feature of having no homepage or start button and playing videos automatically and directly when opened. Viewers can accept the content rapidly curated by the recommendation algorithms without

making any choice (Zhao & Wagner, 2023). The length of the short videos is generally less than 30 seconds. Thus, the fast rhythm or direct audio-visual stimulation causes immediate, suitable for audiences viewing in fragmented time.

Bilibili is a video creation platform founded on June 26th, 2009. Early on, the Bilibili existed as a website to offer content about ACGN+ (animation, comics, games, novels, etc.) (Wang, 2022), which aimed to build an online community for young people with relevant niche hobbies to communicate and share ideas, and it was rare in China at that time. Now, it has developed into a video and cultural community characterized by a significant demographic of

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young individuals (Lee et al., 2023).

From pan-higher education and social responsibility, online videos have covered Chinese society. The current nature of online video, especially Vlog and short videos, is developing rapidly. According to data from CNNIC (2023), living in a world without new media has been difficult. As a general trend, university students are usually willing to watch and interact on video social platforms, and many of them are also willing to self-disclose and self-present online. It is a normal way for modern university students to grow up, and an important part of social education to help them self-construct and build self-confidence through activities on online video platforms. University students account for many avid users of the Bilibili application.

China expressed a very supportive attitude toward the new media industry and the production and dissemination of vlog content domestically, promoted it, and launched a series of activities and preferential policies (Lin & de Kloet, 2019). In this context, there is ample opportunity for everyone to engage with platforms and video content like Bilibili and even create their own works. It has become an unchangeable Internet trend. Three perspectives and issues need to be seen and addressed. This research is based on the landscape of the popularization of video creation in China. It aims to research the factors impacting parasocial interaction and brand preference of Bilibili as a video platform or application.

2. Literature Review

2.1 Entertainment Motive

Motivation is central to communication, but different kinds of motivations will generate various selections and behaviors of communication (Rubin & Step, 2000). Rubin and Step (2000) thought people are inclined to concentrate more on the stimuli satisfying their motivations, and the main stimuli are sensory and mental entertainment stimuli. Therefore, the motive to satisfy recreational stimuli is widely used in the media. Haridakis and Hanson (2009) showed that people might use platforms to share videos for entertainment.

According to Alhabash et al. (2012) and Zhang and Pentina (2012), motivations for using SNS (like Facebook and Weibo) consist of social links, investigation of information, entertainment-seeking, and relationship-establishing. This study aims at video applications that combine the characteristics of traditional media (in video playback) and social networks (in the form of online interactivity). Thus, this study has drawn the first hypothesis: **H1:** Entertainment motive has significant impact on parasocial interaction.

2.2 Perceived Interactivity

Interactivity was built up by some marketing literature and defined as a crucial characteristic of the online environment (Yadav & Rajan, 2005). Stewart and Pavlou (2002) believe that the potential for interactivity is the characteristic that differentiates the Internet from traditional media. However, unfortunately, although it is a term that has become the subject of extensive research, there is no consensus on its general definition (Johnson et al., 2006). Interactivity is defined in various ways (Song & Zinkhan, 2008).

Stewart and Pavlou (2002) suggested that for understanding responses to communications, it is critical that consumers seek, self-select, process, use, and respond to information. In advertising and marketing science, people tend to examine consumers' behavior and its important determinants, like self-selection of sources, information searching, and the way to process information (MacInnis & Jaworski, 1989; Stewart et al., 2002), but few scholars paid attention to the in interactivity among marketers, consumers, and advertising messages (Oh et al., 1999). Based on these previous studies, this research concludes a hypothesis:

H2: Perceived interactivity has significant impact on parasocial interaction.

2.3 Self-Disclosure

Chung and Cho (2017) divided self-disclosure into breadth and depth. Breadth means the number of themes about self-disclosure, and depth means how private and intimate the information revealed is. Marwick and Boyd (2011) pay attention to the self-disclosure of public figures on social media; they often engage in a high degree of self-disclosure to make social media interactions with fans feel personal, private, intimate and inviting, though these disclosures and expressions, like emotion, highly opinionated statements, selfies, and inside information, only seem to be honest.

Ferchaud et al. (2018) stated that presenting more self-disclosure in the relationship will lead to more investigation of the emotion involved. A meta-analysis conducted by Collins and Miller (1994) reported a result of self-disclosure; it showed that others' self-disclosure can predict interest, and people always disclose more to someone they like. Therefore, the importance of self-disclosure in developing parasocial relationships has been proved; we posit the hypothesis that the perception of self-disclosure from vloggers can be the driver of parasocial interaction:

H3: Self-disclosure has significant impact on parasocial interaction.

2.4 Task Attraction

Research about interpersonal attraction constitutes a long-standing issue in social relationships (Kim, 2018). What attracts people's hearts is an important factor influencing social relationships (Singh et al., 2017). McCroskey et al. (2006) reported two dimensions of interpersonal attractiveness: social and task. The empirical study conducted by Lee and Kwon (2013) demonstrated that task attraction significantly impacted user satisfaction with mobile devices. Yi and Gong (2008) refer to task attraction as a critical factor in determining the quality of interactivity during the service encounter.

Lee and Kwon (2013) suggested that when people perceive developing trust or relying on objects while a situation arises (such as an emergency or situations under pressure), task attraction could increase the PSR. Task attraction was considered more relevant than social and physical attraction in the source of influence (Wheless & Reichel, 1990). Therefore, this research posts the fourth hypothesis:

H4: Task attraction has significant impact on parasocial interaction.

2.5 Physical Attraction

Han and Yang (2018) added one more physical attraction into the system, attributed to perceived physical appearance. Keh et al. (2013) also agree with that. Physical attraction means people's appearance is aesthetically pleasing (Liu et al., 2019). The allure lies in the facial appearance and physical attributes. Relationships in life such as marital relationships (McNulty et al., 2008; Poulsen et al., 2013), parentage relationships (Lanoë et al., 2017), teacher-student relationships (Määttä et al., 2014), interviewer-candidate relationships (Aminoff & Tanskanen, 2013; James, 2000) even criminal jury relationships (Walker & Panfil, 2017) are positively affected by physical attraction.

Liu and Brock (2011) state that physical attraction will lead to higher parasocial interaction. According to literature in advertising marketing, endorsers' physical attraction is joint with customers' more favorable attitudes toward advertising and brands and stronger purchase intentions (Petroshius & Crocker, 1989). On the one hand, physical attraction was regarded as a dimension of quality, and goods with high quality were appreciated by consumers (Argo et al., 2008). Therefore, the researcher proposes the following hypothesis:

H5: Physical attraction has significant impact on parasocial interaction.

2.6 Parasocial Interaction

Liebers and Schramm (2022) thought the form is mediated and one-sided. Xu et al. (2023) included parasocial interaction as a part of social gratification. Giles (2002) indicated it as an "extension of normal social activity." Parasocial interaction (parasocial behavior) is also a form of quasi-interpersonal behavior that develops bonds between audience members and media personalities (Powell et al., 2012). It can resemble real interpersonal social interaction. Media personalities usually include traditional fiction TV or movie characters, new hosts, and, in the context of the Internet age, streamers, bloggers, influencers, Internet celebrities, video creators, and so on. Yuksel and Labrecque (2016) applied it to research users' mediated relationships with personalities in the context of virtual associations.

Colliander and Dahlen (2011) researched the relationship between users and bloggers and reported that it mediated the brand blog communications on purchase intentions and brand attitudes. Liu et al. (2019) have argued the influence and relationship between parasocial interaction and other aspects: Media personas' attractiveness (including social, task, and physical attraction) and viewers' motivation and behavior will increase it. Then, in return, the parasocial interaction will increase perceived brand quality, brand effect, and brand preference. Parasocial interaction is generally a mediating effect among them (Tingchi Liu et al., 2014). Therefore, this study proposes the following hypothesis:

H6: Parasocial interaction has significant impact on brand preference.

2.7 Brand Preference

Brand preference refers to an extent in specific consideration sets, which are about customers' favor of the designated brand compared to other brands (Hellier et al., 2003). It is always a part of behavior intention and has opportunities to increase customers' likelihood of continuance intention (Chang & Liu, 2009; Chaudhuri & Holbrook, 2001; Kim et al., 2011; Tolba & Hassan, 2009). Kao (2019) attempted to examine if the style of brand storytelling could moderate brand preference by applying cases of psychological distance to consumers. Kayaman and Arasli (2007) reported the result that brand preference could be increased by perceived brand quality, which means the perception of brands' overall excellence and superiority (Zeithaml, 1988).

3. Research Methods and Materials

3.1 Research Framework

Five independent variables are entertainment motive (EM), perceived interactivity (PI), self-disclosure (SD), task attraction (TA), and physical attraction (PA). One mediating variable is parasocial interaction (PSI), and one dependent variable is brand preference (BP). Among these, the first theoretical framework provides one independent variable, entertainment motive, and the dependent variable, brand preference (Liu et al., 2019). The second theoretical framework offers two independent variables: Perceived interactivity and self-disclosure (Fazli-Salehi et al., 2022). The third theoretical framework also draws on two variables: Task attraction and physical attraction. Moreover, the commonality of the three theoretical frameworks is that they all use parasocial interaction as the mediating variable, which is also adopted in this study (Han & Yang, 2018). Building upon the theoretical frameworks of previous studies, this research develops the conceptual framework in Figure 1.

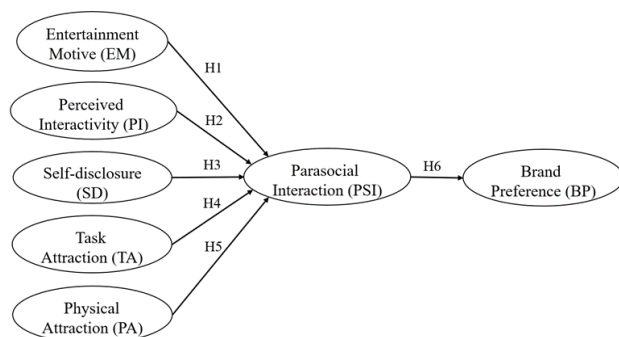


Figure 1: Conceptual Framework

H1: Entertainment motive has significant impact on parasocial interaction.

H2: Perceived interactivity has significant impact on parasocial interaction.

H3: Self-disclosure has significant impact on parasocial interaction.

H4: Task attraction has significant impact on parasocial interaction.

H5: Physical attraction has significant impact on parasocial interaction.

H6: Parasocial interaction has significant impact on brand preference.

3.2 Research Methodology

This study utilizes quantitative methods and empirical analysis, collecting sample data via a questionnaire survey to

explore the factors impacting parasocial interaction and brand preference among universities. The target population is students from two universities in the old city of Chengdu, China, including the Chengdu University of Technology and Sichuan Conservatory of Music. The questionnaire encompassed three sections: a screening question, demographic information, and items rated on a five-point Likert scale for the examined variables. The researcher adopts Confirmatory Factor Analysis (CFA) and Structural Equation Model (SEM) to structure and test this research.

The method evaluates the questions on a scale of +1, 0, and -1 (Hambleton, 1978; Turner & Carlson, 2003). The items with acceptable values between 0.5 and 1.00 are supposed to be retained (Turner et al., 2002). On the contrary, it should be modified or deleted. As a result of three experts, it evaluates all scale items were passed at 0.67.

The result of internal consistency reliability in the pilot test is listed. The CA score on parasocial interaction (PSI) is 0.915, entertainment motive (EM) is 0.937, perceived interactivity (PI) is 0.897, self-disclosure (DS) is 0.939, task Attraction (TA) is 0.848, physical attraction (PA) is 0.833, and brand preference (BP) is 0.926. All the results of each scale item are at least very good (exceeding 0.8) at reliability and eligible to be adopted as the investigation instrument for this research (Hair et al., 2003).

3.3 Population and Sample Size

The target population of this research is university students from two selected universities in Chengdu, China, who are avid users of the Bilibili applications, including the Chengdu University of Technology and Sichuan Conservatory of Music. The minimum sample size for this research was calculated to be 425 (Soper, n.d.). Based on the previous, 500 is the most appropriate sample size for this study for better statistical results. Therefore, the participants of the survey are 500 students from 2 universities in Chengdu's Old City Area who are avid users of the Bilibili application.

3.4 Sampling Technique

The researcher adopted multi-stage sampling, combining a combination of probability and non-probability sampling techniques, to realize the survey sampling exercise. The sampling techniques selected were judgmental or purposive sampling applied for the first step, stratified random sampling applied for the second step, and convenience sampling applied for the third step. Judgmental sampling is to select 500 students from 2 universities in Chengdu's Old City Area who are avid users of the Bilibili application. Stratified random sampling selects data from subgroups within the target population while ensuring that the sample reflects the

proportional representation of each stratum, as shown in Table 1. Convenience sampling is when target respondents are reached based on any of the following three criteria: specific criteria of ease in accessibility, time availability, and willingness to participate.

Table 1: Sample Units and Sample Size

University	Population Size	Proportional Sample Size
Chengdu University of Technology	38373	353
Sichuan Conservatory of Music	16000	147
Total	54373	500

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

In examining demographic and general data from a sample size of 500 individuals, it emerged regarding gender distribution, age demographics, academic pursuits, familiarity with the Bilibili application, and duration of its usage. Females represent the majority, constituting 53.2% of the sample, while males comprise 46.8%. Examining age demographics reveals nuanced differences, in which individuals aged 20 years or below constitutes the largest segment, with 39.2%. Bachelor's programs are the most prevalent, comprising 45.0%, Master's programs are 40.6%, while doctoral programs represent the smallest. Regarding adopting the Bilibili application, usage spans various durations, with approximately 40.8% and 39.2% utilizing the application for 1 and 2 years, respectively. Awareness of the Bilibili application's existence varies in its sources. Friend's recommendations emerge as the primary source of knowledge, with a percentage of 32.8%.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Old City Area	
		Frequency	Percentage
Gender	Male	234	46.8%
	Female	266	53.2%
Age	20 Years Old or below	196	39.2%
	21-30 Years Old	125	25.0%
	31-40 Years Old	134	26.8%
	41 Years Old or Over	45	9.0%
Academic Program	Bachelor's Program	225	45.0%
	Master's Program	203	40.6%
	Doctoral Program	72	14.4%
Bilibili Application Use	1 year	204	40.8%
	2 years	196	39.2%
	More than 3 years	100	20.0%
Know About Bilibili Application	Social Media	131	26.2%
	Friend's Recommendation	164	32.8%
	Media Advertisement	105	21.0%
	Others	100	20.0%

4.2 Confirmatory Factor Analysis (CFA)

Stevens (1992) established criteria for satisfactory items in CFA, suggesting that factor loadings surpassing 0.40 with a significance level below 0.05 indicate acceptable performance. Furthermore, to gauge the measurement model's quality, recommendations from Fornell and Larcker (1981) were taken into account. They suggested that for convergent validity to be satisfactory, the Average Variance Extracted (AVE) should ideally exceed 0.5. However, if the AVE falls below this threshold, the Composite Reliability (CR) can compensate if it exceeds 0.6. Moreover, the assessment of convergent validity aligned with Fornell and Larcker's (1981) criteria, indicating that even if the AVE is below 0.5, the construct's reliability remains adequate due to a high Composite Reliability (CR).

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Entertainment Motive (EM)	Liu et al. (2019)	7	0.899	0.663-0.814	0.900	0.564
Perceived Interactivity (PI)	Fazli-Salehi et al. (2022)	4	0.760	0.629-0.693	0.761	0.444
Self-disclosure (SD)	Fazli-Salehi et al. (2022)	3	0.882	0.821-0.883	0.882	0.713
Task Attraction (TA)	Han and Yang (2018)	3	0.884	0.816-0.879	0.884	0.717
Physical Attraction (PA)	Han and Yang (2018)	3	0.787	0.648-0.800	0.795	0.566
Parasocial Interaction (PSI)	Liu et al. (2019)	7	0.845	0.604-0.717	0.847	0.444
Brand Preference (BP)	Liu et al. (2019)	4	0.784	0.674-0.722	0.785	0.478

The primary purpose of assessing goodness of fit in the measurement model is to determine whether the hypothesized model accurately represents the relationships between observed variables and latent constructs. A good fit indicates that the proposed model adequately explains the observed data, while a poor fit suggests that the model may

need revision to better capture the underlying structure of the constructs (Kline, 2015). Table 4 presents results that confirm the suitability of the confirmatory factor analysis model proposed in this study.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/DF	≤ 5.00 (Marsh et al., 2004)	664.140/413 = 1.608
GFI	> 0.80 (Nayir, 2013)	0.920
AGFI	≥ 0.80 (Nayir, 2013)	0.903
NFI	≥ 0.80 (Wu & Wang, 2006)	0.916
CFI	≥ 0.80 (Nayir, 2013)	0.966
TLI	≥ 0.80 (Sharma et al., 2005)	0.962
RMSEA	≤ 0.08 (Pedroso et al., 2016)	0.035
Model Summary		Acceptable Model Fit

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index and RMSEA = Root mean square error of approximation

The findings presented in Table 5, following the criteria outlined by Fornell and Larcker (1981) for discriminant validity testing, coupled with the confirmation of convergent validity, offer ample evidence to substantiate the construct validity of the measurement model. These results significantly bolster confidence in the precision and dependability of the measurement instrument within the study's framework.

Table 5: Discriminant Validity

	PSI	EM	PI	SD	TA	PA	BP
PSI	0.666						
EM	0.221	0.751					
PI	0.645	0.223	0.666				
SD	0.634	0.298	0.640	0.844			
TA	0.596	0.280	0.628	0.748	0.847		
PA	0.629	0.168	0.573	0.486	0.485	0.752	
BP	0.612	0.227	0.540	0.526	0.550	0.514	0.691

Note: The diagonally listed value is the AVE square roots of the variables

Source: Created by the author.

4.3 Structural Equation Model (SEM)

Based on the results provided, the goodness of fit of the model was assessed using various statistical indices before and after model modification. The acceptability of each index was compared against established thresholds cited in the literature. The ratio of the chi-square statistic to degrees of freedom. Both before and after model modification, the values (3.473 and 3.394, respectively) fall below the recommended threshold of 5.00, indicating an acceptable fit to the data. The GFI values improved from 0.826 to 0.830 after model modification, exceeding the acceptable threshold of 0.80, suggesting a good fit to the data. Similarly, the AGFI values increased from 0.798 to 0.801 after model modification, surpassing the acceptable threshold of 0.80, indicating an improved fit to the data. The NFI values also improved from 0.813 to 0.819 after model modification, meeting the acceptable threshold of 0.80, indicating a

satisfactory fit to the data. Both before and after model modification, the CFI values (0.858 and 0.864, respectively) exceeded the acceptable threshold of 0.80, indicating a good fit to the data. The TLI values improved from 0.846 to 0.851 after model modification, meeting the acceptable threshold of 0.80, suggesting a satisfactory fit to the data. Both before and after model modification, the RMSEA values (0.070 and 0.069, respectively) were below the recommended threshold of 0.08, indicating a good fit to the data.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable Values	Statistical Values	
		Before Model Modification	After Model Modification
CMIN/DF	≤ 5.00 (Marsh et al., 2004)	1486.386/428 = 3.473	1439.208/424 = 3.394
GFI	≥ 0.80 (Nayir, 2013)	0.826	0.830
AGFI	≥ 0.80 (Nayir, 2013)	0.798	0.801
NFI	≥ 0.80 (Wu & Wang, 2006)	0.813	0.819
CFI	≥ 0.80 (Nayir, 2013)	0.858	0.864
TLI	≥ 0.80 (Sharma et al., 2005)	0.846	0.851
RMSEA	≤ 0.08 (Pedroso et al., 2016)	0.070	0.069
Model summary		Not in harmony with empirical data	In harmony with empirical data

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index and RMSEA = Root mean square error of approximation

4.4 Research Hypothesis Testing Result

In this study, we investigated the relationships specified in the research hypotheses between the independent and dependent variables. This investigation entailed evaluating standardized path coefficients and their corresponding t-values. The comprehensive outcomes of this analysis are delineated in Table 7, where statistical significance is established by p-values below the conventional threshold of 0.05. Consequently, all hypotheses postulated in this study received affirmation, with the research results providing strong and statistically significant evidence in support of each.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-value	Result
H1: EM→PSI	0.041	0.919	Not Supported
H2: PI→PSI	0.300	5.348*	Supported
H3: SD→PSI	0.321	6.234*	Supported
H4: TA→PSI	0.214	4.433*	Supported
H5: PA→PSI	0.422	6.861*	Supported
H6: PSI→BP	0.583	8.109*	Supported

Note: * $p < 0.05$

Source: Created by the author

The hypotheses regarding the impact of perceived interactivity, self-disclosure, task attraction, and parasocial interaction on brand preference were all supported. Specifically, standardized path coefficients for perceived interactivity ($\beta = 0.300$), self-disclosure ($\beta = 0.321$), task attraction ($\beta = 0.214$), and parasocial interaction ($\beta = 0.583$) were all statistically significant, with t-values ranging from 4.433* to 8.109*. These findings indicate that in Old City, factors such as perceived interactivity, self-disclosure, and task attraction have significant positive effects on parasocial interaction, which in turn influences brand preference. However, the impact of entertainment motive and physical attraction on parasocial interaction was not supported in Old City, as their respective standardized path coefficients ($\beta = 0.041$ and $\beta = 0.422$) did not yield statistically significant t-values. This suggests that in Old City, these factors may not play a significant role in influencing parasocial interaction and subsequent brand preference.

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This study aimed to investigate the factors influencing university students' parasocial interaction and brand preference towards video applications in Chengdu, China. Seven variables were examined, including parasocial interaction, entertainment motive, perceived interactivity, self-disclosure, task attraction, physical attraction, and brand preference, with six hypotheses proposed to explore their causal relationships.

Quantitative methods were employed through the distribution of questionnaires to 500 students from two universities in Chengdu's Old City Area, known for their frequent usage of the Bilibili application. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were utilized for data analysis to validate goodness of fit and confirm the hypotheses.

Results indicated that perceived interactivity, self-disclosure, task attraction, and parasocial interaction significantly impacted brand preference, thereby supporting the corresponding hypotheses. However, the influence of entertainment motive and physical attraction on parasocial interaction was not supported within the Old City area. This suggests that in this specific context, these factors may not play a substantial role in influencing parasocial interaction and subsequent brand preference.

The findings of this study provide valuable insights for developers of video platforms, video creators on Bilibili, and

university students majoring in related fields. Understanding the factors that drive parasocial interaction and brand preference among university students can inform the development of more engaging and appealing video content and platforms.

The supported hypotheses highlight the importance of perceived interactivity, self-disclosure, and task attraction in fostering parasocial interaction, which ultimately influences brand preference. Developers and creators can focus on enhancing these aspects to build stronger connections with users and increase brand loyalty.

The lack of significant impact from entertainment motive and physical attraction in the Old City area suggests a nuanced understanding of regional preferences and behaviors. Further research could explore cultural and contextual factors that may influence these relationships in different geographical settings.

Overall, this study contributes to the growing body of literature on parasocial interaction and brand preference in the context of video applications, providing practical implications for industry practitioners and academic researchers alike.

5.2 Recommendation

Developers and creators should tailor video content to enhance perceived interactivity, self-disclosure, and task attraction, which have been identified as significant factors in fostering parasocial interaction and influencing brand preference. This could involve incorporating interactive elements, encouraging user engagement, and creating content that resonates with the interests and preferences of the target audience.

Given the observed differences in the impact of entertainment motive and physical attraction on parasocial interaction in the Old City area, it is essential to conduct further research to understand regional preferences and behaviors. This understanding can help developers and creators customize content and strategies to better meet the needs and expectations of users in different geographical settings.

Continuous evaluation of user preferences, behaviors, and satisfaction is crucial for the ongoing success of video platforms and content creators. Regular feedback mechanisms, surveys, and analytics tools can help identify areas for improvement and guide strategic decision-making to enhance user experiences and strengthen brand loyalty.

Investing in strategies to increase user engagement and foster a sense of community among users can contribute to building stronger parasocial relationships and increasing brand preference. This could involve hosting interactive events, facilitating user-generated content, and providing opportunities for users to connect with each other and with

content creators.

Collaborating with influencers, brands, and other stakeholders can help expand reach, increase visibility, and enhance the overall user experience. Strategic partnerships can provide opportunities for cross-promotion, co-creation of content, and access to new audiences, ultimately driving engagement and brand loyalty.

Providing education and training for university students majoring in related fields can help equip them with the knowledge and skills needed to succeed in the rapidly evolving digital media landscape. This could involve offering courses, workshops, and internships focused on video production, content creation, and digital marketing strategies.

By implementing these recommendations, developers of video platforms, video creators on Bilibili, and university students majoring in related fields can enhance user experiences, strengthen brand loyalty, and drive long-term success in the competitive digital media industry.

5.3 Limitation and Further Study

The study focused specifically on university students in Chengdu's Old City area, which may limit the generalizability of the findings to other regions or demographic groups. Future studies could explore a broader geographical scope to assess variations in parasocial interaction and brand preference across different cultural contexts and geographic regions.

The study's sample comprised students from two universities who were avid users of the Bilibili application. While this allowed for a focused examination of a specific user group, it may not fully represent the diversity of video application users. Future research could include a more diverse sample to ensure broader applicability of the findings.

The study utilized self-reported measures to assess variables such as perceived interactivity, self-disclosure, and brand preference. While common in survey-based research, self-report measures are susceptible to biases and may not fully capture participants' true behaviors and perceptions. Future studies could employ a combination of self-report measures and behavioral observations to enhance measurement validity.

References

- Alhabash, S., Park, H., Kononova, A., Chiang, Y., & Wise, K. (2012). Exploring the motivations of Facebook use in Taiwan. *Cyberpsychology, Behavior and Social Networking*, 15(6), 304-311.
- Aminoff, A., & Tanskanen, K. (2013). Exploration of congruence in perceptions of buyer-supplier attraction: a dyadic multiple case study. *Journal of Purchasing and Supply Management*, 19(3), 165-184.
- Argo, J. J., Dahl, D. W., & Morales, A. C. (2008). Positive consumer contagion: responses to attractive others in a retail context. *Journal of Marketing Research*, 45(6), 690-701.
- Chang, H. H., & Liu, Y. M. (2009). The impact of brand equity on brand preference and purchase intentions in the service industries. *Service Industries Journal*, 29(12), 1687-1706.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*, 65(4), 81-93.
- Chung, S., & Cho, H. (2017). Fostering parasocial relationships with celebrities on social media: implications for celebrity endorsement. *Psychology & Marketing*, 34(4), 481-495.
- CNNIC. (2023). *The 52nd Statistical Report on China's Internet Development*. China Internet Network Information Center.
- Colliander, J., & Dahlen, M. (2011). Following the fashionable friend: the power of social media: weighing publicity effectiveness of blogs versus online magazines. *Journal of Advertising Research*, 51(1), 313-320.
- Collins, N. L., & Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116, 457-475.
- Fazli-Salehi, R., Jahangard, M., Torres, I. M., Madadi, R., & Zúñiga, M. Á. (2022). Social media reviewing channels: the role of channel interactivity and vloggers' self-disclosure in consumers' parasocial interaction. *Journal of Consumer Marketing*, 39(2), 242-253.
- Ferchaud, A., Grzeslo, J., Orme, S., & LaGroue, J. (2018). Parasocial attributes and YouTube personalities: exploring content trends across the most subscribed YouTube channels. *Computers in Human Behavior*, 80, 88-96.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Giles, D. C. (2002). Parasocial interaction: a review of the literature and a model for future research. *Media Psychology*, 4(3), 279-305.
- Hair, J. F., Babin, A., Money, A., & Samouel, P. (2003). *Essentials of business research methods*. John Wiley & Sons.
- Hambleton, R. K. (1978). On the use of cut-off scores with criterion-referenced tests in instructional settings. *Journal of Educational Measurement*, 15(4), 277-290.
- Han, S., & Yang, H. (2018). Understanding adoption of intelligent personal assistants: A parasocial relationship perspective. *Industrial Management & Data Systems*, 118(3), 618-636.
- Haridakis, P., & Hanson, G. (2009). Social interaction and co-viewing with YouTube: blending mass communication reception and social connection. *Journal of Broadcasting and Electronic Media*, 53(2), 317-335.
- Hellier, P. K., Geursen, G. M., Carr, R. A., & Rickard, J. A. (2003). Customer repurchase intention: a general structural equation model. *European Journal of Marketing*, 37(11/12), 1762-1800.
- James, P. T. F. (2000). Attractiveness and outcome of job interview. *Management Research News*, 23(1), 11-18.

- Johnson, G. J., Bruner, G. C., & Kumar, A. (2006). Interactivity and Its Facets Revisited: Theory and Empirical Test. *Journal of Advertising*, 35(4), 35-52.
<https://doi.org/10.2753/JOA0091-3367350403>
- Kao, D. T. (2019). The impact of envy on brand preference: brand storytelling and psychological distance as moderators. *Journal of Product & Brand Management*, 28(4), 515-528.
- Kayaman, R., & Arasli, H. (2007). Customer based brand equity: evidence from the hotel industry. *Managing Service Quality*, 17(1), 92-109.
- Keh, H. T., Ren, R., Hill, S. R., & Li, X. (2013). The beautiful, the cheerful, and the helpful: the effects of service employee attributes on customer satisfaction. *Psychology & Marketing*, 30(3), 211-226.
- Kim, D., Magnini, V. P., & Singal, M. (2011). The effects of customers' perceptions of brand personality in causal theme restaurants. *International Journal of Hospitality Management*, 30(2), 448-458.
- Kim, K.-S. (2018). The effects of interpersonal attraction on service justice. *Journal of Services Marketing*, 32(6), 728-738.
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford Press.
- Lanoë, C., Lubin, A., Houdé, O., Borst, G., & De Neys, W. (2017). Grammatical attraction error detection in children and adolescents. *Cognitive Development*, 44, 127-138.
- Lee, N., & Kwon, O. (2013). Para-social relationships and continuous use of mobile devices. *International Journal of Mobile Communications*, 11(5), 465-484.
- Lee, Y., Jiang, W., & Peng, Z. (2023). Study on audience sharing behavior and influencing factors of health knowledge videos in Bilibili. *Science and technology communication. Public Communication of Science & Technology*, 11, 112-117.
- Liebers, N., & Schramm, H. (2022). Intimacy despite distance: The dark triad and romantic parasocial interactions. *Journal of Social and Personal Relationships*, 39(2), 435-456.
- Lin, J., & de Kloet, J. (2019). Platformization of the Unlikely Creative Class: Kuaishou and Chinese Digital Cultural Production. *Social Media + Society*, 5(4), 1-5.
- Liu, M. T., & Brock, J. L. (2011). Selecting a female athlete endorser in China: the effect of attractiveness, match-up, and consumer gender difference. *European Journal of Marketing*, 45(7/8), 1214-1235.
- Liu, M. T., Liu, Y., & Zhang, L. L. (2019). Vlog and brand evaluations: the influence of parasocial interaction. *Asia Pacific Journal of Marketing and Logistics*, 31(2), 419-436.
- Määttä, S., Ray, C., & Roos, E. (2014). Associations of parental influence and 10-11-year-old children's physical activity: are they mediated by children's perceived competence and attraction to physical activity?. *Scandinavian Journal of Public Health*, 42(1), 45-51.
- MacInnis, D. J., & Jaworski, B. J. (1989). Information Processing From Advertisements: Toward an Integrative Framework. *Journal of Marketing*, 53(4), 1-23.
- Marsh, H. W., Hau, K.-T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling: A Multidisciplinary Journal*, 11(3), 320-341.
https://doi.org/10.1207/s15328007sem1103_2
- Marwick, A., & Boyd, D. (2011). To see and be seen: Celebrity practice on Twitter. *Convergence: The International Journal of Research into New Media Technologies*, 17, 139-158.
- McCroskey, L. L., McCroskey, J. C., & Richmond, V. P. (2006). Analysis and improvement of the measurement of interpersonal attraction and homophily. *Communication Quarterly*, 54(1), 1-31.
- McNulty, J. K., Neff, L. A., & Karney, B. R. (2008). Beyond initial attraction: physical attractiveness in newlywed marriage. *Journal of Family Psychology*, 22(1), 135-142.
- Nayir, F. (2013). "Algılanan örgütsel destek ölçeğinin" kısa form geçerlik güvenirlik çalışması ["Perceived Organizational Support Scale"- Short Form Validity-Reliability Study]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 28, 89-106.
- Oh, K. W., Cho, C. H., & Leckenby, J. D. (1999). *A Comparative Analysis of Korean and U.S. Web Advertising* [Paper Presentation]. The American Academy of Advertising Conference, March, Albuquerque.
- Pedroso, R., Zanetello, L., Guimarães, L., Pettenon, M., Gonçalves, V., Scherer, J., & Pechansky, F. (2016). Confirmatory factor analysis (CFA) of the crack use relapse scale (CURS). *Archives of Clinical Psychiatry (São Paulo)*, 43, 37-40.
- Petroschius, S. M., & Crocker, K. E. (1989). An empirical analysis of spokesperson characteristics on advertisement and product evaluations. *Journal of the Academy of Marketing Science*, 17(3), 217-225.
- Poulsen, F. O., Holman, T. B., Busby, D. M., & Carroll, J. S. (2013). Physical attraction, attachment styles, and dating development. *Journal of Social & Personal Relationships*, 30(3), 301-319.
- Powell, L., Richmond, V. P., & Cantrell-Williams, G. (2012). The "Drinking-Buddy" Scale as a Measure of Para-Social Behavior. *Psychological Reports*, 110(3), 1029-1037.
- Rubin, A. M., & Step, M. M. (2000). Impact of motivation, attraction, and parasocial interaction on talk radio listening. *Journal of Broadcasting and Electronic Media*, 44(4), 635-654.
- Sharma, G. P., Verma, R. C., & Pathare, P. (2005). Mathematical modeling of infrared radiation thin layer drying of onion slices. *Journal of Food Engineering*, 71(3), 282-286.
- Singh, R., Tay, Y. Y., & Sankaran, K. (2017). Causal role of trust in interpersonal attraction from attitude similarity. *Journal of Social & Personal Relationships*, 34(5), 717-731.
- Song, J. H., & Zinkhan, G. M. (2008). Determinants of Perceived Web Site Interactivity. *Journal of Marketing*, 72(2), 99-113. <https://doi.org/10.1509/jmkg.72.2.99>
- Soper, D. (n.d.). *Calculator: A-priori Sample Size for Structural Equation Models*. Daniel Soper.
<https://www.danielsoper.com/statcalc/calculator.aspx?id=89>
- Stevens, J. P. (1992). *Applied multivariate statistics for the social sciences* (2nd ed.). Erlbaum.
- Stewart, D. W., & Pavlou, P. A. (2002). From Consumer Response to Active Consumer: Measuring the Effectiveness of Interactive Media. *Journal of the Academy of Marketing Science*, 30(4), 376-96.
- Stewart, D. W., Pavlou, P. A., & Ward, S. (2002). Media Influences on Marketing Communications. In J. Bryant & D. Zillmann (Eds.), *Media Effects: Advances in Theory and Research* (pp. 353-396). Lawrence Erlbaum.

- Tingchi Liu, M., Anthony Wong, I., Shi, G., Chu, R., & L. Brock, J. (2014). The impact of corporate social responsibility (CSR) performance and perceived brand quality on customer-based brand preference. *Journal of Services Marketing*, 28(3), 181-194.
- Tolba, A. H., & Hassan, S. S. (2009). Linking customer-based brand equity with brand market performance: a managerial approach. *Journal of Product and Brand Management*, 18(5), 356-366.
- Turner, R., Mulvenon, S., Thomas, S. P., & Balkin, R. (2002). Computing indices of item congruence for test development validity assessments. *Proceedings of the SAS Users' Group International Conference*, 1-5.
- Turner, R. C., & Carlson, L. (2003). Indexes of Item-Objective Congruence for Multidimensional Items. *International Journal of Testing*, 3(2), 163-171.
- Walker, A., & Panfil, V. R. (2017). Minor attraction: a queer criminological issue. *Critical Criminology*, 25(1), 37-53.
- Wang, X. (2022). Popularising Vlogging in China: Bilibili's Institutional Promotion of Vlogging Culture. *Global Media and China*, 7(4), 441-462.
- Wheelless, L. R., & Reichel, L. S. (1990). A reinforcement model of the relationships of supervisors' general communication styles and conflict management styles to task attraction. *Communication Quarterly*, 38, 372-387.
- Wu, J. H., & Wang, Y. M. (2006). Measuring KMS success: A respecification of the DeLone and McLean's model. *Information and Management*, 43(6), 728-739.
- Xu, X.-Y., Tayyab, S. M. U., Jia, Q., & Huang, A. H. (2023). *A multi-model approach for the extension of the use and gratification theory in video game streaming*. Information Technology & People.
- Yadav, M. S., & Rajan, V. (2005). Interactivity in the Electronic Marketplace: An Exposition of the Concept and Implications for Research. *Journal of the Academy of Marketing Science*, 33(4), 585-603.
- Yi, Y., & Gong, T. (2008). If employees "go the extra mile", do customers reciprocate with similar behavior? *Psychology and Marketing*, 25(10), 961-986.
- Yuksel, M., & Labrecque, L. I. (2016). "Digital buddies": parasocial interactions in social media. *Journal of Research in Interactive Marketing*, 10(4), 305-320.
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality and value: a means-end model synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.
- Zhang, L., & Pentina, I. (2012). Motivations and usage patterns of Weibo. *Cyberpsychology, Behavior and Social Networking*, 15(6), 312-317.
- Zhao, H., & Wagner, C. (2023). How TikTok leads users to flow experience: investigating the effects of technology affordances with user experience level and video length as moderators. *Internet Research*, 33(2), 820-849.