Impact of digital celebrities on their followers' purchase intention: Roles of wishful identification, parasocial relationship, and behavioral loyalty[★]

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Abstract. Digital social networking platforms become the mechanism for fans and celebrities to have digital communication and interation. Marketers and celebrities may take advantage of this opportunity to promote merchandise to consumers and fans by leveraging the wishful identification and parasocial relationship between digital celebrities and their followers. This study investigates the effect of wishful identification on parasocial relationships, which then enhance behavioral loyalty and purchase intentions sequentially. An online survey was administered to 300 Vietnamese social network sites (SNS) users, who were following digital celebrities. The statistical results indicate that higher levels of wishful identification positively associated with higher levels of parasocial relationship, which then trigger higher levels of behavioral loyalty and purchase intention sequentially. This study therefore sheds light on fans' behavioral loyalty with digital celebrities through their purchase identification during Covid-19 time.

Keywords: Digital celebrity; Parasocial relationship between digital celebrities and their followers; Behavioral loyalty; Purchase intention.

1   Introduction

Digital celebrities are distinctive influencers who become well-known through online blogging, vlogging, or social network sites (SNS) [12] and have a huge number of

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supporters [13]. Although digital celebrities may be called fake influencers or fake celebrities, over the past years, they have infiltrated our social media feeds, twitch streams, advertising campaigns, and even fashion [4]. The online relationship shaped between digital celebrities and followers in a computer-generated environment which is concepted as parasocial relationship [15]. Parasocial relationships between a fan and his idols may start from his wish to do the things the idols do, or to be the person like his idols, which is called wishful identification [9, 10]. As fans' intimate relationship with digital celebrities are formed, they tend to regard digital celebrities as a dependable and informative source [20] and are influenced by the latter's advertisements on SNS [26]. Marketers and retailer may employ digital celebrities to post their daily use and evaluations of advertised products on SNS to promote the followers to purchase products [12].

During the Covid-19, almost all celebrities choose video social networking platforms to connect with their fans. According to Music Business Worldwide, the TikTok app's downloads increased by 18% in the week of March 16th (with 2 million downloads) compared to the previous week; increased by 7% in the first 23 days of March (with 6.2 million downloads), compared to February. A series of digital celebrities have taken advantage of opportunities from social distancing regulations during Covid-19 time to promote widely to the public, including virtual singer Hatsune Miku, Miquela, or K/DA - the female idol group from the famous League of Legends game. Like other countries, Vietnam has applied social distancing regulations many times, due to the Covid-19 pandemic. Our study argues that fans' parasocial relationships with digital celebrities may be significantly affected by followers' wishful identification and at the same time affect their behavioral loyalty and purchase intention during the Covid-19 pandemic. Our research aims to: (i) provide a correlation between wishful identification (WI), parasocial relationships (PR), behavioral loyalty (BL), and purchase intention (PI); and (ii) discuss the purchase intention of fans towards digital celebrities' merchandises during COVID-19 time.

2   Literature Review

The parasocial relationship is refered as a unilateral and longstanding intimate connection that an individual perceives of a media character or celebrity via celebrity's repetitive performance [5, 11]. Some recent studies have examined the parasocial relationships between fans and digital celebritites, as streamers [12, 25] or YouTubers [22]. Celebrity worshiping, the most severe type of parasocial interactions, has also been linked to maladaptive social conduct and detrimental effects on an individual's well-being [16-18].

Digital superstars, such as influencers and bloggers, act as influential opinion leaders [1], assisting businesses in monitoring new consumer trends and, as a result, enabling them to meet the requirements of their consumers [2]. Given that companies are aware of the effectiveness of celebrities in social media marketing, such as Twitter, many utilize celebrity-endorsed Twitter tweets to promote their brands [23]. When comparing traditional advertising and advertising through digital idols, many firms

prefer advertising through digital idols. In Covid 19 context, people are forced to isolate from real social relationships and the time for using SNS skyrocketed. The use of social networks nowadays is no longer merely for entertainment, but has become a mandatory requirement so that people can work from home during the time of isolation.

3   Hypothesis development

The psychological desire of a fan to be like his idol is known as wishful identification [6]. This ambition may lead to the celebrity and users sharing a same viewpoint [9]. Wishful identification is more than just liking a personality; it's the psychosocial bond between a fan and a celebrity that leads to the self-imagining as the celebrity. Wishful identification, in other words, denotes a desire to imitate a star. A fan whose wishful identification with digital celebrities is high often spends much time on social media to follow his digital celebrities [9], which is a precursor to have strong parasocial relationships with digital celebrities [22]. Thus, we hypothesize:

Hypothesis 1a: Followers' wishful identification has a positive impact on their parasocial relationship with digital celebrities.

Hypothesis 1b: Followers' wishful identification has a positive impact on their behavioral loyalty to digital celebrities.

Recently, many studies have shown a positive relationship between parasocial relationships and followers' loyalty to idols. Fans with intimate relationships tend to regard digital celebrities as a dependent source [21] so believe and support their idols through different forms [25], which is called loyalty. Loyalty, in marketing research, has four phases: The customer becomes loyal in a cognitive sense first, then in an affective sense, after that in a conative manner, and finally in a behavioral manner - behavioral loyalty [19]. Consumers' brand awareness is boosted by followers' behavioral devotion to digital celebrities, which increases their desire to own luxury products based on comparisons of their belongings to those of celebrities, influencing their buying intentions [15]. Followers that are behaviorally loyal continue to purchase and use goods recommended by digital celebrities for a long time. Repurchasing and recommending others are two aspects of this loyalty. Based on previous studies, the following hypotheses are proposed:

Hypothesis 2a: Parasocial relationships has a positive effect on behavioral loyalty

Hypothesis 2b: Parasocial relationships has a positive effect on purchase intention

Hypothesis 3: Followers' behavioral loyalty with digital celebrities have a positive impact on their purchase intention.

4   Research Model

4.1   Data collection and measurement

This study uses primary data collected by an online survey. The questionnaire is distributed to young Vietnamese SNS users, who are from different high schools/universities. These questionnaire sections were adapted from relevant literature to ensure the content validity of the constructs. We carried out the survey during four months from December, 2020 to March, 2021 through personal Facebook, MSTeams classrooms and other social networks. A total of 300 responses were obtained and there are no discarded responses.

The demographic characteristics of respondent are illustrated by table 1.

Table 1. Demographic characteristics of respondent (N=300).

Demographic characteristic	N	%
Gender		
Male	87	29
Female	208	69.3
Others	5	1.6
Age		
18-20	118	39.3
21-23	154	51.3
24-25	9	3
Others	19	6.6
Education Level		
High school	25	8.3
Undergraduate	260	86.6
Graduate	15	5

Four constructs, including wishful identification, parasocial relationships, behavior loyalty and purchase intention, were used in this study. The scale applied to measure each item has 7 points (1 = strongly disagree to 7 = strongly agree).

Survey questions were adapted from the instruments of previous research. We use Wishful identification (WI) with 4 items from previous studies [9, 10]. Parasocial relationships (PR) is measured with four items applied [21] and [14]. Behavioral loyalty (BL) with four items is adopted from Bandura [3]. The scale is adopted from current sports management effective and behavioral loyalty measures by [8]. Purchase intention (PI), which illustrates the desire how the product recommended by the idol affects the purchase intention of the fan [24].

4.2 Data analysis

We tested our hypotheses employing a structural equation modeling (SEM) by using SMART PLS3. A confirmatory factor analysis (CFA) is employed to test the measurement model (Appendix 1). The factor loadings and Cronbach's alpha indicate the evidence of convergent validity among all measures of PR, WI, PI and BL. All indicators loaded significantly on the latent variables that they were intended to represent. For the internal consistency of measures, the reliability coefficients confirmed inter-item consistencies among items, ranging from a minimum of 0.84 to a maximum of 0.94. The

discriminant validity was tested by average variance extracted (AVE). The AVE of each latent variable exceeded a 0.50 benchmark [7].

Table 2. Discriminant Validity Fornell-Larcker Criterion

Variables	Cronbach α	WI	PR	BL	PI
Wishful identification (WI)	0.86	(0.838)			
Parasocial relationships (PR)	0.846	0.548	(0.752)		
Behavior loyalty (BL)	0.858	0.545	0.705	(0.837)	
Purchase intention (PI)	0.912	0.484	0.696	0.740	(0.890)

Note: A diagonal Average Variance Extracted (AVE) value should be greater than all its horizontal and vertical values. In this table, these indicators are satisfactory.

The reliability discriminant validity of the constructs is presented in Table 2. Table 3 reveals that there is a statistically significant positive relationship between wishful identification and PR. PR shows a significant positive effect on behavior loyalty. There is a statistically significant positive elationship between behavior loyalty and purchase intention. Therefore, H1a, b, H2a, b and H3 are supported.

Table 3. Smart PLS Path Coefficients

Paths	Coefficients	SD	t-value	p-value	VIF
WI → PR	0.547	0.050	11.008	0.000	1.000
WI → BL	0.166	0.046	3.632	0.000	1.423
PR → BL	0.696	0.039	17.595	0.000	1.423
PR → PI	0.304	0.070	4.418	0.000	2.586
BL → PI	0.502	0.067	7.460	0.000	2.586

5　Conclusions and Implications

The interaction and connection between idols and fans have changed significantly in the era of digital social media. Especially, during Covid-19 pandemic, parasocial relationships between digital celebrities and viewers has risen drammatically. Some digital celebrities have turn out to be key opinion leaders. They post product reviews or commercials on social media sites and incorporate them into their everyday lives. Since a customer's substantial behavioral loyalty serves as a trusted source of information to drive buying intent and decision-making, consumers consider celebrity ads or claims to be credible trustworthy information when loyal relationships with digital celebrities are

formed. By examining the relationships among wishful identification (WI), parasocial relationships (PR), behavioral loyalty (BL) and purchase intention (PI) between digital celebrities and their followers, our study shows that parasocial relationship are good predictors of behavioral loyalty; then social loyalty between digital celebrities and their followers positively affects the buying intent of the followers. This work confirms that the relevant variables have good impacts and support for purchase intention meanwhile previous studies have not clearly indicated this issue. Using a SEM method, the research proves that celebrities have a great influence on the purchase intention of fans. When followers approach digital celebrities for comprehensive information on promoted goods or items, marketers must support such parasocial connections by giving valuable information on advertised brands or products. Efficient communication process between digital celebrities and their viewers may promote parasocial connections, and when digital celebrities give detailed and valuable information about companies or items, followers will view them as reliable sources of news. Despite of the fact that this study contains important scientific observations, it has a number of limitations. The survey is only restricted to Hanoi and Ho Chi Minh City (major cities in Vietnam) so that the results are unlikely to be representative of the whole population. Moreover, the time for the survey was rather short (from December 2020 to March 2021) and the survey was conducted primarily via email and social media, therefore a number of young people were not able to approach to the sample. Future research can include the cultural factors and larger respondents.

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