



Article

How Social Presence Influences Engagement in Short Video-Embedded Advertisements: The Serial Mediation Effect of Flow Experience and Advertising Avoidance

Can Zheng ^{1,*}, Shuai Ling ^{1,*} , Dongmin Cho ² and Yonggu Kim ²

¹ Department of Design and Manufacturing Engineering, Jeonbuk National University, Jeonju 54896, Republic of Korea; canzheng@jbnu.ac.kr

² Department of Industrial Design, Jeonbuk National University, Jeonju 54896, Republic of Korea; mellgipson@jbnu.ac.kr (D.C.); nine221@jbnu.ac.kr (Y.K.)

* Correspondence: shuailing@jbnu.ac.kr

Abstract: Short video platforms have problems with increased competition and low advertising conversion rates. Although social presence is closely related to consumer engagement, research regarding the impact of social presence on consumer engagement in short video-embedded advertisements is sparse. We developed a theoretical model, namely a social presence–flow experience–advertising avoidance–advertising engagement model, and explored the mechanism underlying advertising engagement from a psychological and behavioral perspective. The analysis of 563 short video users revealed that the model exhibited excellent explanatory power for advertising engagement ($R^2 = 41.3\%$). Social presence can increase consumers' advertising engagement by enhancing flow experience and reducing advertising avoidance. Meanwhile, the flow experience, by diminishing advertising avoidance, generates a serial mediation effect between social presence and advertising engagement. This study emphasizes social presence's applicability and influence mechanism in short video-embedded advertisements, a unidirectional information delivery. It provides new theoretical perspectives and practical advice for relevant practitioners.



Citation: Zheng, C.; Ling, S.; Cho, D.; Kim, Y. How Social Presence Influences Engagement in Short Video-Embedded Advertisements: The Serial Mediation Effect of Flow Experience and Advertising Avoidance. *J. Theor. Appl. Electron. Commer. Res.* **2024**, *19*, 705–724. <https://doi.org/10.3390/jtaer19020038>

Academic Editor: Luis F. Martinez

Received: 20 December 2023

Revised: 22 March 2024

Accepted: 24 March 2024

Published: 26 March 2024



Copyright: © 2024 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: short video; embedded advertisements; social presence; flow experience; advertising avoidance; advertising engagement

1. Introduction

Due to the swift advancement of mobile devices and the Internet, short videos have become crucial to the general public's daily existence [1]. As of June 2023, China had 1.044 billion online video (including short video) users, an increase of 13.8 million people as of December 2022, and the Internet user utilization rate was 96.8% [2]. Simultaneously, out of total network use time, the proportion of short video engagement was in the lead (28%), and the monthly per capita time hit 64.2 h [3]. In 2020, one-fourth of internet users in the United States spent an average of 32 min daily on TikTok [4]. The inclusion of short videos on social media platforms improves the speed and efficiency of information dissemination, providing more possibilities for advertising and marketing [5]. Therefore, short videos have the characteristics of e-commerce and media entertainment. Short video-embedded advertisements (SVEAs) are characterized by low cost and wide coverage; thus, advertisers are gradually inclining their marketing budgets toward short video platforms [6]. Therefore, China's short video marketing revenue scale has been continuously growing and has been expected to reach 360 billion yuan in 2022 [7]. Meanwhile, 56.2% of short video users have purchased goods and services through short video platforms, and 40.9% have a positive attitude and varying degrees of attention toward SVEAs [8]. Therefore, short video marketing has become a new windfall for content creators and a breakthrough point for promoting economic growth [9].

However, two main problems arise from the rapid development of short video marketing. First, the industry pattern of short videos is stabilizing, the user dividend is fading, and the stock competition situation is intensifying [10]. Second, short videos have a low advertising conversion rate, significantly weaker than the traditional e-commerce platform in market shares [11]. Therefore, short video platforms have to compete with similar platforms and encounter the capture of market shares by other models of e-commerce platforms. Currently, engaging consumers through social media content is one of the biggest challenges in online marketing [12]. Amidst such competition, advertising engagement should be highlighted as an important indicator of advertising effectiveness [13]. Therefore, short video platform developers and content creators must understand the influence mechanism of consumer advertising engagement in short videos to enhance market competitiveness.

There has been extensive academic research on advertising and engagement. For example, Northcott et al.'s study contends that picture advertising has the most cost-effective and attractive advertising format and appeal. Additionally, advertising formats that emphasize benefits, rather than attributes, are more likely to increase consumer engagement [14]. Through a study of Facebook data, Lee et al. found that advertising content such as humor and emotion, which symbolizes a brand's personality, results in higher consumer engagement [15]. According to Lou et al., although brand-promoting advertisements positively influence consumer interest in advertised products, consumers show more appreciation for influencer-promoting advertisements and engage more with the advertised product [16]. Regarding short video advertising characteristics, Xiao et al. analyzed TikTok data and found the important role of product type in influencing consumer engagement [17].

Although scholars have conducted similar research, most have focused on types and characteristics of advertising; research on SVEAs, however, is scanty. The theory of social presence has been extensively applied to social media research, and scholars have argued that social presence theory is closely related to consumer engagement [18,19]. Therefore, social presence is one focus of this study. Social presence is the extent to which one is perceived as a "real person" or the perceived level of connection during communication with other media users [20]. Social presence contributes to the emergence of a strong seller–consumer relationship [21]. Existing research has overlooked the influence of, and interaction between, the flow experience and advertising avoidance in advertising engagement. Flow experience is a state of oblivion achieved by an individual's mental energy when fully engaged in an activity [22]. Several studies have shown that this flow state affects consumers' attitudes and behaviors [23,24]. Thus, the flow experience was included in this study of the social presence–advertising engagement framework. Advertising avoidance encompasses media users' behaviors which diminish the quantity of advertising content they encounter [25]. It is difficult for advertisements to impact media users who engage in advertising avoidance behavior [26]. Therefore, advertising avoidance, one of the biggest challenges advertisers face [27], is also included in this study. Advertising avoidance and the flow experience affects consumers' attitudes and behaviors equally. However, the flow experience primarily manifests consumers' psychological dimension, whereas advertising avoidance predominantly reflects the behavioral dimension. No relevant research addresses the interrelationships between social presence, flow experience, advertising avoidance, and advertising engagement. Based on this discussion, this study modeled the effect of SVEAs on consumer engagement from both psychological and behavioral perspectives. Furthermore, this study formulated the subsequent research inquiries:

1. What are the effects of social presence on flow experience, advertising avoidance, and advertising engagement?
2. What are the effects of flow experience and advertising avoidance on advertising engagement?
3. Do flow experience and advertising avoidance mediate the impact of social presence on advertising engagement?

This study developed a theoretical model of social presence–flow experience–advertising avoidance–advertising engagement. An analysis of the data by SPSS 26 and SmartPLS 4

verified the impact of social presence on flow experience, advertising avoidance, consumer advertising engagement, and the mediating effects of flow experience and advertising avoidance. This study addresses a research gap concerning the impact of SVEAs on consumer advertising engagement based on social presence. The findings provide content creators and advertisers with new perspectives to improve consumer advertising engagement and offer theoretical and practical guidance to improve market competitiveness.

2. Literature Review and Hypothesis Development

2.1. Social Presence and Advertising Engagement

Social presence in marketing refers to alternative forms of face-to-face communication [28]. It describes the extent to which individuals perceive others as sociable, warm, sensitive, personal, or intimate during their interactions through a specific medium [29]. Social presence, derived from the realm of communication, refers to interactions between individuals within a certain medium [30]. In earlier studies, scholars argued that such mediated interactions lacked audio and visual cues and failed to trigger a high level of social presence [31]. As research has advanced, scholars have contended that integrating personal characteristics can evoke a heightened sense of social presence. This perception primarily hinges on the extent to which individuals are perceived as “real people” and holds significance in interpersonal interactions [32,33]. This concept has also been applied to the study of humans and non-humans (e.g., game characters, artificial intelligence, etc.) [34]. Based on these studies, academics have realized the great potential of social presence and have studied and applied related concepts in various contexts. For example, Hang et al. validated the influence of social presence in live e-commerce on consumer purchase intention. The study also elucidated the collaborative role of immersive experiences and positive emotions in social presence [35]. Tsai et al. substantiated the influence of a chatbot’s social presence on consumer engagement, exploring the mediating role of parasocial interaction and dialogue [18]. These studies’ limitations stem from their sole focus on investigating the influence of social presence from a singular dimension. In actuality, social presence represents a multi-dimensional variable [36]. For example, the study by Biocca et al. argued that social presence should encompass three dimensions: co-presence, psychological involvement, and behavioral engagement [37]. On the other hand, Kathy et al. divided social presence into consciousness, affect, and cognition [38]. Kim et al. believe that although people understand social presence differently, as a psychological state, co-presence and psychological involvement consistently emerge [39]. The actual contextual analysis of SVEAs contends that the main components that influence consumers include the people and the overall ambiance in advertisements. This corresponds to the two research phases of social presence, namely “person-to-person” and “mediating environment”, and the dimensional division between co-presence and psychological involvement. Therefore, this study divides social presence in SVEAs into co-presence and psychological involvement. Referring to previous studies, co-presence is the feeling of closeness to the characters in a short video advertisement. Co-presence occurs when individuals perceive sufficient proximity—accessibility, availability, and engagement—in interaction [40]. Psychological involvement is the deep immersion that SVEAs bring to consumers [37], and some scholars label it as emotional connection [41].

In psychology, engagement is positive feedback to something external and generally consists of hedonic and motivational experiences [42]. According to some scholars, engagement is the degree of involvement in communication when the audience receives information or content [43]. In advertising, however, engagement is a state variable indicating the audience’s level of interest or motivation triggered by an advertisement or the interlocking psychological experience of immersion and presence felt in the advertisement [13,44]. Thus, advertising engagement is considered the best predictor of the effectiveness of video advertisements [45]. Advertising engagement is one of the most common concepts in advertising and has been incorporated into fields such as marketing [13]. Advertising engagement usually contains two important dimensions, psychological and

behavioral [46,47], with the psychological dimension focusing on the audience's attention and emotion, and the behavioral dimension focusing on the audience's external responses to advertisements, such as clicking, evaluating, and sharing [48]. Because of the different carriers of advertisements, advertising engagement targets consumers, audiences, or media users [49]. Therefore, the engagement experiences of different vehicles should be considered in examining advertising engagement [13]. Short video platforms belong to social media, and cognition, emotion, and behavior are key components in activating consumers' advertising engagement on social platforms [50]. Therefore, based on the discussion above and in conjunction with people's actual engagement experience of short videos, this study defines advertising engagement as the positive cognitive and affective response to SVEAs by short video platform users.

Social presence is an effective means of enhancing non-face-to-face communication [51]. Existing research suggests that the greater the degree of interpersonal interaction and social connectivity (i.e., social presence) embodied by the medium, the greater the warmth and intimacy experienced by the user [52]. This increased emotion affects their readiness for participation [53]. Social presence accelerates human interaction and contact [54], and this social interaction is the basis of human communication [55], which plays an important role in enhancing the user's sense of engagement [56]. Social presence also enhances emotional appeal and consumer trust in the medium [57], while consumer trust positively influences consumer engagement [58]. Some scholars have conducted similar studies related to social presence and consumer engagement. Osei-Frimpong et al. posited that consumers' social presence generated through social media can enhance consumers' brand engagement [53]. Therefore, this study contends that social presence in SVEAs leads consumers to perceive positive cognitions and emotions, which enhances their advertising engagement. Hence, this study anticipates that social presence in SVEAs will positively affect advertising engagement. The hypothesis is as follows:

Hypothesis 1a (H1a). *Co-presence positively influences advertising engagement.*

Hypothesis 1b (H1b). *Psychological involvement positively influences advertising engagement.*

2.2. Social Presence and Flow Experience

Flow experience refers to individuals' holistic perception while fully immersed in an activity, a notion established by psychologist Csikszentmihalyi after interviewing individuals from various professions [22]. The scholar asserts that it is a psychological state that makes people feel excited and satisfied. People in this state lose their sense of self, focusing only on the moment's activity and losing an accurate sense of time [59,60]. Academics' research focus regarding flow experience varies. For example, Skadberg et al. define flow experience as enjoyment and time distortion [61]. Hoffman et al. describe it as intrinsic enjoyment and the loss of self-consciousness. They suggest that the characteristic feature of the online flow experience is the response formed as individuals interact with the medium and self-reinforce [62]. The flow experience is often viewed in advertising as a sense of control, focus, and time distortion and is considered a key factor in advertising marketing [63]. As research on flow experience has deepened, scholars have categorized flow experience as one-dimensional and multidimensional [64–66]. The dimensions vary because of research contexts and the conceptual overlap between them. Flow experience is too broad and imprecise [67]. In this study, it is as an exhilarating, enjoyable experience that refers to the feelings of an individual fully immersed in an SVEA.

Social presence refers to the degree to which a medium allows individuals to interact psychologically with others [68]. Consumers' perceived interactions subsequently positively influence the flow experience [69,70]. This phenomenon occurs because interactions provide timely and understandable feedback [71], which is an integral part of the flow experience [72,73]. Consumers can adjust their behavior promptly through feedback by

meeting external demands, thus facilitating the generation of flow experience [74]; thus, interaction helps consumers to maintain their focus [71]. Meanwhile, existing research suggests that social presence can provide psychological intimacy, which leads to consumer flow experience [75]. Social presence can stimulate and maintain the consumers' sense of trust [76]. Consumers' trust reduces their uncertainty and complex psychological mechanisms, enabling them to be more focused, which facilitates their flow experience [77]. This has also been explored by scholars in studies related to advertising. For example, Martins et al. contend that consumers' trust in advertisements can positively influence the flow experience and ultimately influence consumers' purchase intention [63]. This was also confirmed by Kim et al.'s study [78]. Taken together, this study expects that social presence in SVEAs can significantly and positively influence consumers' flow experience of advertisements. The hypothesis is as follows:

Hypothesis 2a (H2a). *Co-presence positively influences flow experiences.*

Hypothesis 2b (H2b). *Psychological involvement positively influences flow experiences.*

2.3. Social Presence and Advertising Avoidance

In an embedded advertisement, the advertiser targets a specific group of viewers and integrates the product, brand, and other related information into the film or television in an intangible way through paid payment [79]. Characteristics typically associated with embedded advertisements include planned integration, covert persuasive intent, and commercial motivation [80]. Although embedded advertisements market products through covert means, covertness does not always make intentions explicit. Thus, a paradox arises: if the consumer notices the advertisement, the advertisement will be bad. If consumers do not notice the advertisement, the advertisement will be worthless [81]. Therefore, embedded advertisements can only become more prominent, thus increasing the consumer's impression [82]. Hence, advertising avoidance is often unavoidable.

In advertising avoidance, consumers diminish their exposure to advertising content within media platforms [83]. Advertising avoidance is usually a consumer's response to persuasive attempts or intentions in advertising, and this phenomenon involves a variety of psychological mechanisms [27]. Psychological reactance is an important cause of advertising avoidance [84], and psychological reactance theory suggests that advertisements cause consumers to perceive intrusiveness [85], which consequently causes them to change their attitudes to regain their autonomy [86]. Other contributors to advertising avoidance have been explored by academics. For example, Pagendarm et al. argue that inconvenient ad placement reduces consumers' willingness to click [87], and Rojas-Méndez et al.'s study showed that the more educated the consumer is, the greater the chances of advertising avoidance [88]. Scholars have classified advertising avoidance into partial and total avoidance [89], behavioral and mechanical avoidance [90], and cognitive, affective, and behavioral avoidance [91] according to different perspectives. This study defines advertising avoidance in SVEAs as actions taken by consumers to minimize the reception of advertising content.

Existing studies have shown that the dimensions of co-presence and psychological involvement in social presence are highly correlated with interactivity [39], and some studies even classify interactivity as a dimension of social presence [92]. Interactivity can create positive emotions in consumers and reduce the likelihood of advertising avoidance [93]. Additionally, social media interactions delay consumers' cognitive closure and prolong their attention to advertisements, thus reducing advertising avoidance [94]. Social presence positively influences consumers' perceived usefulness and trust in the media used and produces more favorable consumer attitudes [95]. Meanwhile, media trust is considered a significant method in reducing advertising avoidance [83], while consumer attitudes are deemed crucial factors in predicting avoidance behaviors toward advertisements [96].

Consequently, social presence can impact consumers' advertising avoidance at three levels: interaction, trust, and attitude. Altogether, this study expects social presence in short videos to significantly negatively affect consumer advertising avoidance. The hypothesis is as follows:

Hypothesis 3a (H3a). *Co-presence negatively influences advertising avoidance.*

Hypothesis 3b (H3b). *Psychological involvement negatively influences advertising avoidance.*

2.4. Flow Experience and Advertising Avoidance

Existing research has identified that a sense of control over individuals' surroundings is essential for the flow experience [97]. Specifically, in the flow experience state, consumers' attention and awareness are entirely focused on the ongoing activity, and they lose their sense of self and experience a strong sense of control over their behavior and surroundings [67]. When the degree of control is high, consumers develop positive attitudes and behaviors [98]. The psychological reactance theory posits that a sense of control can alleviate the negative impact of advertising intrusiveness, and it has been substantiated as one of the influential factors in reducing advertising avoidance in studies related to advertising [99]. Although the existing sense of control in advertisements stems from the effects of ad blockers or ad skip buttons on consumers, this study argues that this sense of active control shares similarities with the sense of control elicited in the flow experience and encompasses an individual's perception of self-control [100,101]. The pleasure brought about by flow experiences is also thought to be related to advertising avoidance. When consumers experience such pleasure and excitement, the reception of dopamine feedback encourages them to remain immersed in the ongoing activity, leading to a delay in consumers' inclination to close or avoid advertisements [94]. Related studies reveal that an enjoyable and exciting entertainment experience can enhance consumers' perception of advertising value, which directly or indirectly influences advertising avoidance [102]. In summary, this study contends that the flow experience in SVEAs has a negative impact on advertisement avoidance. The hypothesis is as follows:

Hypothesis 4 (H4). *Flow experience negatively influences advertising avoidance.*

2.5. Flow Experiences and Advertising Engagement

Some studies have linked the flow experience to the concept of engagement, defining engagement as a strong involvement in a current activity [67]. According to these studies, flow experiences are enjoyable and increase individuals' desire to engage in spite of time and effort [103,104]. Some scholars postulate that consumers in a flow experience resonate with the current activity; thus, the flow experience is a prerequisite for engagement [105]. Simultaneously, the time distortion associated with the flow experience puts the consumer in a state of cognitive lock-in and increases consumer engagement to some extent [106]. Scholars have applied this influential relationship in various contexts. For example, Arghashi et al. argued that virtual reality enhances consumer user experience and positively influences consumer engagement via attitudes and perceived usefulness [107]. Mesurado et al. argued that flow experience positively affects learning engagement, highlighting the role of self-efficacy and benign stress [104]. This study contends that consumers' flow experience increases their advertising engagement. The hypothesis is as follows:

Hypothesis 5 (H5). *Flow experience positively influences advertising engagement.*

2.6. Advertising Avoidance and Advertising Engagement

Previous research has examined the impact of many factors on advertising avoidance or engagement, with few studies examining the causal relationship between the two. Regarding the aforementioned advertising paradox, advertising avoidance cannot be completely avoided in delivering advertising content to consumers, so advertising engagement should consider the antecedent of advertising avoidance. According to the approach–avoidance theory, people approach pleasure and avoid pain [108,109]. Similarly, consumers choose to engage or avoid an advertisement because of a reward [110]. Thus, advertising avoidance and engagement can be considered as two endpoint decisions taken by consumers who receive advertising content. Prior research has shown that advertising engagement is generated by consumers interacting with advertisements in a dynamic, iterative process [111]. Consumers who engage in advertising avoidance behavior during this process will reduce or terminate the interactive process, preventing the formation of advertising engagement. Therefore, this study contends that consumers' advertising avoidance behavior reduces their advertising engagement. The hypothesis is as follows:

Hypothesis 6 (H6). *Advertising avoidance negatively influences advertising engagement.*

2.7. The Mediating Role of Flow Experience and Advertising Avoidance

Building upon the aforementioned hypotheses, this study argues that consumers' social presence in advertisements can positively influence consumers' flow experience of advertisements by increasing interaction, intimacy, and trust (Hypotheses H2a, H2b). Consumers' flow experience of advertising can reduce their advertising avoidance behavior by increasing pleasant experiences, empathy, and time distortion (Hypothesis H4) and ultimately increase their advertising engagement by reducing advertising avoidance (Hypothesis H6). Therefore, this study contends that there are serial mediating effects of flow experience and advertising avoidance between social presence and consumer advertising engagement. The hypotheses are as follows:

Hypothesis 7a (H7a). *Flow experience mediates co-presence and advertising engagement.*

Hypothesis 7b (H7b). *Flow experience mediates psychological involvement and advertising engagement.*

Hypothesis 7c (H7c). *Advertising avoidance mediates co-presence and advertising engagement.*

Hypothesis 7d (H7d). *Advertising avoidance mediates psychological involvement and advertising engagement.*

Hypothesis 7e (H7e). *Flow experience and advertising avoidance play a serial mediating role between co-presence and advertising engagement.*

Hypothesis 7f (H7f). *Flow experience and advertising avoidance play a serial mediating role between psychological involvement and advertising engagement.*

2.8. Research Model

Derived from the proposed hypotheses, this study developed a serial mediation model. The model was established to explore how social presence influences consumers' advertising engagement and the combined effects of flow experience and advertising avoidance in this influential relationship, as shown in Figure 1.

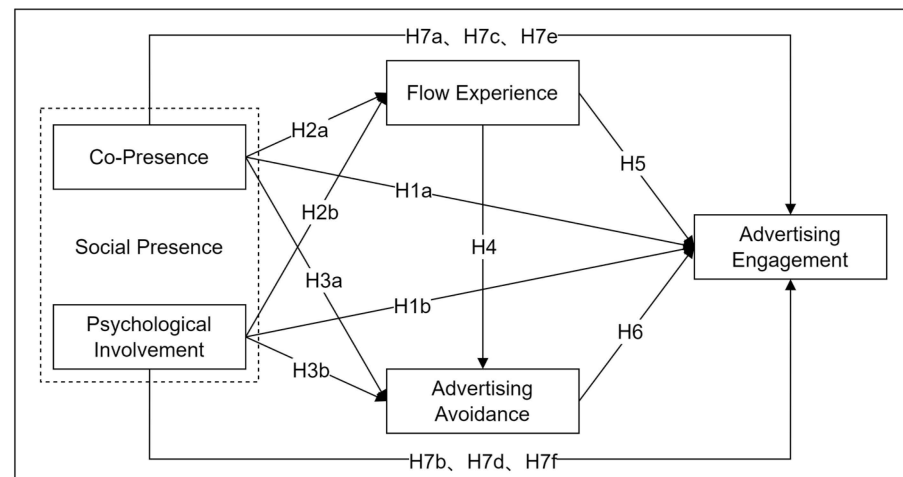


Figure 1. Conceptual model of the study.

3. Methodology

3.1. Data Acquisition

The respondents of this study were users of short video platforms who have watched SVEAs. Questionnaire collection was conducted through cooperation with the professional data survey organization wjx.cn, where eligible respondents were randomly selected and recruited for the survey. In this study, some monetary incentives were given to the respondents for completing the questionnaire to increase their conscientiousness and motivation. To ensure the results' authenticity, an internet protocol address could be used only once. A total of 617 questionnaires were collected in this survey. In the subsequent data sorting stage, some questionnaires with obvious quality problems, such as short completion duration and repeated values running through the questionnaire, were eliminated. Eventually, 563 valid questionnaires remained. The criterion in the rules of operation for structural equations states that the sample size should be more than 10 times the number of items measured [112]; thus, the total sample size for this study was acceptable.

3.2. Measures

All the measuring items in this study were based on validated items from the existing literature. The expressions were suitably adjusted to align with the specific context of short videos, as presented in Table 1. A small pre-test was conducted to ensure the feasibility of the questionnaire after the items were finalized, and modifications to the questionnaire were implemented based on the input gained from the respondents. The final questionnaire had two parts. The first part targeted respondents' characteristics. The second part was a 20-item questionnaire about co-presence, psychological involvement, flow experience, advertising avoidance, and advertising engagement. All variables in the second part were measured on a 7-point Likert scale from 1 = "strongly disagree" to 7 = "strongly agree".

3.3. Data Analysis

SmartPLS 4 is a structural equation modeling software based on partial least squares. Through path analysis, the software calculates and reveals the interrelationships between variables to scientifically explain the mechanism of the research problem and make reasonable predictions. In this study, descriptive statistical analysis and Harman's single-factor test were performed on the collected valid data using SPSS 26. Subsequently, reliability and validity analyses and hypothesis validation were conducted using SmartPLS 4 software to ensure the model's validity and achieve the study's purpose.

Table 1. Measurement.

Constructs	Items	Sources
Co-Presence (CP)	I feel like the characters in the short video advertisements are all around me. I feel like the characters in the short video advertisements are talking to me. It feels like I have a connection across time and space with the characters in the short video advertisements. It felt like I was in a world created by the characters in the short video advertisements.	Short et al. Gefen et al. [30,113]
Psychological Involvement (PI)	A sense of social interaction can be felt in short video advertisements. A sense of warmth can be felt in short video advertisements. A sense of enthusiasm can be felt in short video advertisements. A sense of intimacy can be felt in short video advertisements.	Kim et al. Sun et al. Animesh et al. [39,114,115]
Flow Experience (FE)	I feel like time flies when I'm watching short video advertisements. I'm focused when I watch short video advertisements. I feel I have everything under control when watching short video advertisements. I ignore what's happening around me when I watch short video advertisements.	Liu et al. [116]
Advertising Avoidance (AA)	I will purposely ignore short video advertisements when I see them. I will purposely reduce my attention when I see short video advertisements. I will fast forward when I see short video advertisements. I will switch to the next video when I see short video advertisements.	Youn et al. [84]
Advertising Engagement (AE)	Feel like you are a part of the advertisements while watching them. After watching the advertisement, I feel a connection with the product featured. I feel this advertising is of great value to me. I feel this advertising is relevant to my needs.	Kim et al. Geng et al. [13,117]

3.4. Respondent Demographic Characteristics

The demographic characteristics of the study's respondents are presented in Table 2. There were 261 males and 302 females, accounting for 46.4% and 53.6% of the sample, respectively. The male-to-female ratio was close to 1:1, in line with the male-to-female ratio of short video users in China [118]. The proportion of respondents aged 26–45 was 61.6%, similar to the view that young people aged 25–44 are the main users of short video platforms [118]. A total of 321 respondents had bachelor's degrees, accounting for 57.0% of the sample. The income distribution of respondents primarily ranged from RMB 3000 to 8000 and RMB 8000 to 13,000, accounting for 52.0% and 30.6%, respectively. Respondents mostly used short video apps once a day (48.7%) and multiple times a week (26.5%). The characteristics of the respondents are consistent with the respondent profiles in the China Short Video Platform User Research Report. Therefore, this study's sample is representative and can be used for further research.

Table 2. Respondent demographic characteristics (N = 563).

	Items	Frequency	Proportion
Gender	Male	261	46.4%
	Female	302	53.6%
Age (in years)	18–25	119	21.1%
	26–35	208	36.9%
	36–45	139	24.7%
	>45	97	17.2%

Table 2. Cont.

	Items	Frequency	Proportion
Education	High school or below	52	9.2%
	Three-year college	133	23.6%
	Undergraduate	321	57.0%
	Postgraduate or above	57	10.1%
Monthly income (RMB/Yuan)	<3000	57	10.1%
	3000–8000	293	52.0%
	8000–13,000	172	30.6%
	>13,000	41	7.3%
Frequency of using short video apps	Multiple times per day	81	14.4%
	Once a day	274	48.7%
	Multiple times per week	149	26.5%
	Once a week	59	10.5%

4. Results

4.1. Common Method Bias

If the same respondent provided answers for all variables, it could produce a common method bias (CMB) in the data and introduce significant bias into the research results [119]. Therefore, Harman's single-factor test and a full collinearity test were used to test for a CMB. The results showed that the first factor accounted for only 39.202% of the variance, which was less than the 50% reference value [120]. The VIF values of all latent variables were lower than the recommended value of 3.3 [121]. Therefore, there was no CMB problem in this study.

4.2. Reliability and Validity Analysis

Before testing the hypotheses, the reliability and validity of the study's model were measured. As shown in Table 3, the Cronbach's α values ranged between 0.837–0.882, all above threshold 0.7 [122], and the CR values ranged between 0.891–0.919, all above threshold 0.7 [123]. The outer loadings ranged between 0.757–0.868, all above threshold 0.708 [124], and the AVE values ranged between 0.672–0.738, all above threshold 0.5 [124]. Two criteria were utilized to validate the discriminant validity of the measurement model in this study. The first criterion required that the square root of the AVE values of all variables be greater than the absolute value of the correlation coefficient of that variable. The second criterion required that all HTMT values be below 0.85 [125]. The results, as shown in Tables 4 and 5, satisfy the test requirements of both criteria. Thus, the measurement model in this study exhibited strong reliability, convergent validity, and discriminant validity.

Table 3. Reliability and validity analysis.

Constructs	Item	Loadings	Cronbach's α	CR	AVE
Co-Presence (CP)	CP1	0.868	0.837	0.891	0.673
	CP2	0.757			
	CP3	0.799			
	CP4	0.852			
Psychological Involvement (PI)	PI1	0.833	0.849	0.898	0.688
	PI2	0.823			
	PI3	0.827			
	PI4	0.835			
Flow Experience (FE)	FE1	0.831	0.850	0.899	0.689
	FE2	0.843			
	FE3	0.821			
	FE4	0.825			

Table 3. *Cont.*

Constructs	Item	Loadings	Cronbach's α	CR	AVE
Advertising Avoidance (AA)	AA1	0.863	0.882	0.919	0.738
	AA2	0.865			
	AA3	0.841			
	AA4	0.867			
Advertising Engagement (AE)	AE1	0.811	0.838	0.891	0.672
	AE2	0.811			
	AE3	0.824			
	AE4	0.833			

Table 4. Discriminant validity (FORNELL).

	CP	PI	FE	AA	AE
Co-Presence (CP)	0.820				
Psychological Involvement (PI)	0.159	0.830			
Flow Experience (FE)	0.511	0.468	0.830		
Advertising Avoidance (AA)	−0.389	−0.453	−0.595	0.859	
Advertising Engagement (AE)	0.375	0.458	0.509	−0.569	0.820

Table 5. Discriminant validity (HTMT).

	CP	PI	FE	AA	AE
Co-Presence (CP)					
Psychological Involvement (PI)	0.183				
Flow Experience (FE)	0.606	0.551			
Advertising Avoidance (AA)	0.450	0.523	0.687		
Advertising Engagement (AE)	0.444	0.541	0.602	0.661	

4.3. Collinearity Analysis

The first step in evaluating the structural model results is conducting a collinearity diagnosis, based on the criterion that when the internal model VIFs are all less than five [126], the data is free from the severe effects of collinearity. The VIF values, as indicated in Table 6, range from 1.026 to 1.997, indicating that the model constructed in this study passed the collinearity diagnosis.

Table 6. VIF value of the inner model matrix.

	CP	PI	FE	AA	AE
Co-Presence (CP)			1.026	1.369	1.402
Psychological Involvement (PI)			1.026	1.296	1.391
Flow Experience (FE)				1.710	1.997
Advertising Avoidance (AA)					1.688
Advertising Engagement (AE)					

4.4. Path Analysis

The results of the path analysis are shown in Table 7 and Figure 2; CP ($\beta = 0.141$, $t = 3.323$, $p = 0.001$) and PI ($\beta = 0.221$, $t = 5.515$, $p = 0.000$) had a significant positive effect on AE. Hypotheses H1a and H1b were supported. CP ($\beta = 0.448$, $t = 14.850$, $p = 0.000$) and PI ($\beta = 0.397$, $t = 12.328$, $p = 0.000$) significantly positively affected FE. Hypotheses H2a and H2b were supported. CP ($\beta = -0.140$, $t = 3.885$, $p = 0.000$) and PI ($\beta = -0.237$, $t = 6.321$, $p = 0.000$) significantly negatively affected AA. Hypotheses H3a and H3b were supported. FE ($\beta = -0.413$, $t = 10.482$, $p = 0.000$) significantly negatively affected AA. Hypothesis H4 was supported. FE ($\beta = 0.134$, $t = 2.788$, $p = 0.005$) had a significant positive effect on AE.

Hypothesis H5 was supported. AA ($\beta = -0.335$, $t = 8.307$, $p = 0.000$) significantly negatively affected AE. Hypothesis H6 was supported. FE mediated the effects between CP and AE ($\beta = 0.060$, $t = 2.715$, $p = 0.007$) and PI and AE ($\beta = 0.053$, $t = 2.671$, $p = 0.008$). AA mediated the effects between CP and AE ($\beta = 0.047$, $t = 3.485$, $p = 0.000$) and PI and AE ($\beta = 0.079$, $t = 4.987$, $p = 0.000$). FE and AA had serial mediation effects between CP and AE ($\beta = 0.062$, $t = 5.732$, $p = 0.000$) and PI and AE ($\beta = 0.055$, $t = 5.746$, $p = 0.000$). Hypotheses H7a to H7f were supported.

Table 7. Path analysis.

Hypotheses	β	SD	t	p	Confidence Interval		Decision
					2.5%	97.5%	
H1a: CP \rightarrow AE	0.141	0.043	3.323	0.001	0.057	0.224	Supported
H1b: PI \rightarrow AE	0.221	0.040	5.515	0.000	0.144	0.300	Supported
H2a: CP \rightarrow FE	0.448	0.030	14.850	0.000	0.390	0.508	Supported
H2b: PI \rightarrow FE	0.397	0.032	12.328	0.000	0.334	0.459	Supported
H3a: CP \rightarrow AA	-0.140	0.036	3.885	0.000	-0.212	-0.070	Supported
H3b: PI \rightarrow AA	-0.237	0.038	6.321	0.000	-0.309	-0.163	Supported
H4: FE \rightarrow AA	-0.413	0.039	10.482	0.000	-0.488	-0.334	Supported
H5: FE \rightarrow AE	0.134	0.048	2.788	0.005	0.041	0.226	Supported
H6: AA \rightarrow AE	-0.335	0.040	8.307	0.000	-0.413	-0.257	Supported
H7a: CP \rightarrow FE \rightarrow AE	0.060	0.022	2.715	0.007	0.018	0.104	Supported
H7b: PI \rightarrow FE \rightarrow AE	0.053	0.020	2.671	0.008	0.016	0.094	Supported
H7c: CP \rightarrow AA \rightarrow AE	0.047	0.013	3.485	0.000	0.022	0.075	Supported
H7d: PI \rightarrow AA \rightarrow AE	0.079	0.016	4.987	0.000	0.050	0.112	Supported
H7e: CP \rightarrow FE \rightarrow AA \rightarrow AE	0.062	0.011	5.732	0.000	0.043	0.085	Supported
H7f: PI \rightarrow FE \rightarrow AA \rightarrow AE	0.055	0.010	5.746	0.000	0.038	0.075	Supported

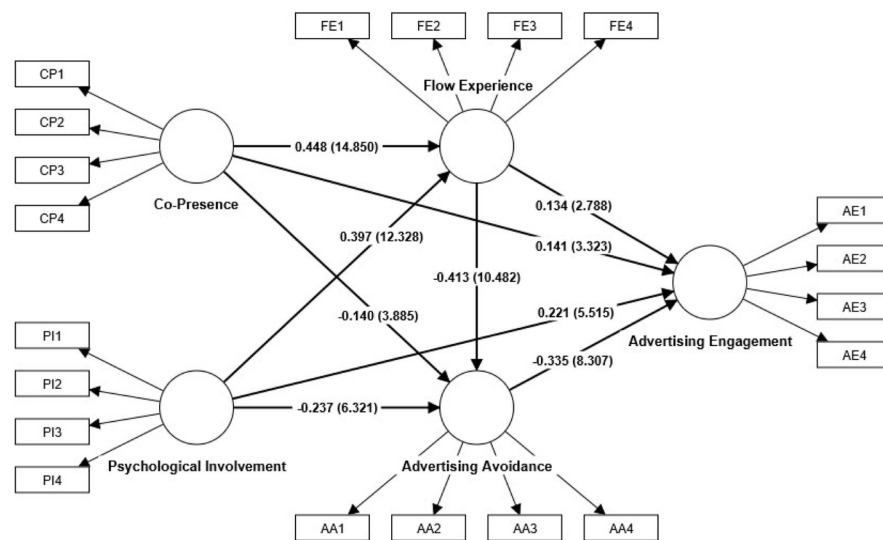


Figure 2. Analytical results of the model.

4.5. Model Explanatory and Prediction Ability

The quality of the structural model can be assessed by analyzing the values of R^2 and Q^2 . When the value of R^2 is greater than 0.25 (R^2 values for FE, AA, and AE were all greater than 0.25) [127], the model has a strong explanatory power. When the Q^2 value is greater than 0 (Q^2 values for FE, AA, and AE were all greater than 0) [128], the model has a good predictive relevance. Therefore, the structural model of this study passed the quality assessment, as shown in Table 8.

Table 8. R² value and Q² value.

	R ²	Q ²
Flow Experience (FE)	0.415	0.409
Advertising Avoidance (AA)	0.408	0.302
Advertising Engagement (AE)	0.413	0.296

5. Discussion and Implications

5.1. Discussion

This study analyzed SVEAs' influence on consumer advertising engagement through psychological and behavioral perspectives. Based on the social presence theory, the study focused primarily on examining the direct effects of co-presence and psychological involvement within the theoretical model and indirect effects through flow experience and advertising avoidance. The following is a detailed discussion of the study's findings:

Social presence significantly and positively influences advertising engagement. This means that consumers' positive responses to advertisements are largely influenced by co-presence and psychological involvement. Co-presence largely depends on the consumer's spatial proximity to the character in the advertisement, a proximity that does not exist in the real world but in the consumer's psyche. Psychological involvement largely depends on the emotional connection evoked by the advertisement. This finding is similar to several previous studies [52,53], which have suggested that emotional connection and a sense of sociability triggered by social presence mainly promote consumer engagement. However, the distinctiveness of this study lies in its more detailed differentiation of social presence, rather than considering it as a singular dimension. Remarkably, the results indicate that psychological involvement exerts a more substantial influence on advertising engagement than co-presence. On the one hand, this may be attributed to limitations in technological means, causing co-presence to generate an inadequate sense of social interaction. On the other hand, it reaffirms the driving role of emotional factors in consumer behavior within advertisements [129].

Social presence significantly and positively influences the flow experience. The interactions and feedback that result from co-presence and psychological involvement enable consumers to achieve a euphoric psychological state and focus on the activity of the moment. This finding aligns with a previous study that emphasizes the significant role of social presence in shaping consumer psychological states [130]. Interestingly, the statistics show that co-presence exhibits a more significant influential role in this relationship, which emphasizes the strength of co-presence in providing interaction and feedback. The reason may be that the feeling of proximity to others is more intuitive and easier to perceive than an emotional connection, thus guiding the consumer into a flow state in the virtual environment.

Social presence significantly and inversely affects advertising avoidance. Thus, co-presence and psychological involvement reduce advertising intrusiveness, minimize consumer psychological resistance, and delay consumer cognitive closure. To the best of our knowledge, prior research has not corroborated this outcome. Nonetheless, a comprehensive review of previous literature concerning social presence implies that the theoretical underpinnings for this outcome can be linked to the influence of social presence on cultivating trust and positive attitudes [95,96]. Trust created by social presence establishes a positive emotional connection that reduces the intrusiveness and psychological resistance the consumer feels and increases their willingness to accept advertisements. This result extends previous research in advertising management and indicates the mechanisms by which social presence reduces advertising avoidance.

Flow experience and advertising avoidance significantly positively and negatively affected advertising engagement, and both mediated the effect between social presence and advertising engagement. This result suggests that social presence influences consumers' mental states by creating intimate and warm virtual environments and positive interactions

and feedback. Thus, users enjoy a state of flow and enhance their advertising engagement. Social presence can also increase consumer engagement by reducing advertising avoidance. This is similar to previous findings that emphasize how psychological states facilitate the flow experience and how the flow experience impacts consumer behavior [69,107]. In contrast, this study suggests that social presence is the key influencing factor and examines it based on co-presence and psychological involvement. Flow experience and advertising avoidance connect social presence and advertising engagement; they are two different solutions for potential mechanisms in increasing advertising engagement.

The flow experience significantly and negatively affects advertising avoidance and has a serial mediation between social presence and advertising engagement. This finding indicates that social presence and flow experience influence advertising engagement in the SVEA environment. Specifically, social presence facilitates the flow experience through positive social experiences. Due to the flow experience, consumers undergo profound immersion, enjoyment, and concentration as they view an advertisement. Consumers become more inclined to reduce avoidance behaviors toward advertisements. The decrease in advertising avoidance behavior ultimately fosters consumers' positive engagement with advertisements. This shows that due to the positive psychological state induced by the flow experience, advertisements are no longer perceived as intrusive elements but become part of the consumer experience. Altogether, in virtual advertising environments, the synergy between social presence and the flow experience positively influences consumer behavior.

5.2. Implications

5.2.1. Theoretical Implications

This study provides some theoretical contributions to the field of advertising marketing.

First, unlike the single dimension of social presence used in most studies, this study chose a two-dimensional approach encompassing co-presence and psychological involvement. The basis for this dimensional choice lies in the social presence dimension proposed by scholars such as Biocca et al. and Kim et al., with improvements in several key areas [37,39]. Previous studies on this dimension are at the stage of theoretical research. In contrast, this research examines two dimensions of social presence regarding short video advertisements, thereby broadening its practical utility in the field of advertising and marketing. Additionally, advertising avoidance and engagement correspond with the behavioral engagement dimension of social presence proposed by scholars such as Biocca et al. Therefore, this study validates the relationship between different dimensions of social presence and contributes to a deeper understanding of the multidimensional structure of social presence. Finally, as Biocca et al. point out, due to the lack of standardized definitions and measures, previous research on social presence has developed separately in the mediating environment and person-to-person domains [131]. This study associates co-presence and psychological involvement in short videos with the "person-to-person" and "mediating environment" domains. This differentiated approach can apply social presence to a wider array of interactive settings.

Second, previous studies examining the influence of social presence within the person-to-person domain have predominantly focused on contexts involving bidirectional information exchange, such as e-commerce or social media [52,132]. However, this study applies co-presence from social presence theory to short videos, a one-way information exchange medium, thereby expanding its application to different information interaction situations. Consequently, this study supports the applicability of social presence and the mechanism of its impact on one-way information transfer. This expansion fills the knowledge gap in existing research regarding the application of social presence in one-way information transfer situations.

Finally, this study constructs a new serial mediation model considering practical problems in short video advertising and marketing. The model considers the impact of mental input on consumer behavior alongside the influence of advertising avoidance behavior within the advertising industry. By considering flow experience and advertising

avoidance as mediating variables, it delineates the causal relationship between social presence and advertising engagement from both psychological and behavioral perspectives. The model underscores the role of social presence in short video advertising marketing, thereby broadening the comprehension and application of associated theories. Given the limited scholarly attention on the impact of flow experience on advertising avoidance, this aspect provides a novel theoretical perspective within the current research domain, enabling a more comprehensive understanding of the mechanisms underlying the role of social presence in advertising marketing.

5.2.2. Practical Implications

This study has some practical implications for practitioners in the short video advertising industry.

First, the focus on co-presence is crucial in short video advertisements. To enhance consumers' co-presence perception, technology and skills must be considered. On the technical level, the degree of co-presence can be enhanced by optimizing software functions, such as introducing cutting-edge technological means, like surround sound or augmented reality (AR) visual displays, to deepen the user's sense of reality. On the skill level, by skillfully using the illusion of communicating with consumers in real-time, such as greeting, questioning, and other interactive means, we can create an interactive experience closer to reality and improve co-presence.

Second, practitioners should recognize the significant impact of psychological involvement on advertising, focusing on emotional connection with consumers. For example, the emotional image of product brands should convey positive emotions through advertisements to strengthen consumers' emotional resonance. Second, music that can trigger consumers' emotional resonance should be selected and skillfully integrated into the advertisement to strengthen the emotional attraction of the advertisement. Third, visual design elements rich in emotional colors and symbols should be adopted to intuitively stimulate the audience's emotional response.

Finally, SVEAs are often conducted via rapid playback to deliver as much advertising content as possible before consumers adopt avoidance behavior. However, it has been shown that such forced interventions reinforce advertisement intrusiveness and instead increase avoidance behavior. The study's model confirms that social presence and flow experience constitute crucial psychological states in diminishing consumers' advertising avoidance behavior, while these psychological states require some time to produce effects. Therefore, relevant practitioners should build on the strategies above and lengthen the introduction time in advertisements, so that consumers can fully generate favorable psychological states, which will increase consumer advertising engagement.

6. Conclusions

This study explored the impact of social presence (co-presence and psychological involvement) on consumer advertising engagement in SVEAs and developed a theoretical model encompassing social presence, flow experience, advertising avoidance, and advertising engagement. The results show that social presence can positively influence consumers' flow experience and advertising engagement and negatively influence advertising avoidance behavior. Flow experience and advertising avoidance mediate the effect of social presence on advertising engagement. This study validates the serial mediating roles of flow experience and advertising avoidance in social presence influencing advertising engagement. This comprehensive theoretical model provides a reference for an in-depth understanding of SVEAs' influence on consumer psychology and behavior, which provides practical guidance for advertising practitioners to develop more accurate marketing strategies.

Some limitations to this study need to be addressed in future research. First, this study's main variables were flow experience and advertising avoidance, but some other factors affecting advertising engagement were ignored. Examples include product in-

volvement, brand image, individual personality traits, technological aspects, and content characteristics. Future research should include additional relevant variables to enhance research depth and improve understanding of the factors that influence consumers' participation in SVEAs.

Second, this study was cross-sectional. Thus, it cannot determine consumer changes over time. Longitudinal studies in the future would reveal the evolution of consumer engagement with SVEAs and provide valuable insights into the long-term impact of social presence on advertising effectiveness.

Third, this study's participants comprised only short video users in China, while consumer behavior may vary across regions. This geographical limitation may affect the applicability and generalization of the study's results. Therefore, future research should validate the model in other regions and compare the results between different cultural contexts to elucidate the potential differences in the influence and perception of social presence in SVEAs in cross-cultural regions.

Fourth, this study did not consider the impact of demographic characteristics on the findings. Future research could cover a wider range of demographic variables, including, but not limited to, age group, income level, and educational background, and examine the potential impact of these variables on consumer engagement with SVEAs for a more diverse understanding of consumer responses.

Fifth, this study did not fully consider the impact of momentary incentives on consumer engagement and did not explore whether incentives apply to real life. A focused discussion on the relevant aspects should be provided in future research.

Author Contributions: Conceptualization, C.Z., S.L. and D.C.; data curation, C.Z. and S.L.; formal analysis, C.Z.; methodology, C.Z., S.L. and Y.K.; supervision, S.L., D.C. and Y.K.; validation, C.Z., S.L. and D.C.; writing—original draft, C.Z.; writing—review and editing, S.L. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was approved by the Institutional Review Board of Jeonbuk National University.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data availability upon requested.

Acknowledgments: We thank Kunpeng Ding and Xinxiang Li of Jeonbuk National University for their help during the research process. They supported this work.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Tian, K.; Xuan, W.; Hao, L.; Wei, W.; Li, D.; Zhu, L. Exploring Youth Consumer Behavior in the Context of Mobile Short Video Advertising Using an Extended Stimulus–Organization–Response Model. *Front. Psychol.* **2022**, *13*, 933542. [CrossRef] [PubMed]
2. CNNIC Expert Interpretation of the 52nd Statistical Report on Internet Development in China. Available online: <https://www.cnnic.cn/n4/2023/0828/c199-10831.html> (accessed on 12 November 2023).
3. Quest, M. 2023 Content Videoconversion and Business Development Insights Report. Available online: <https://www.questmobile.com.cn/research/report/1678658723797635073> (accessed on 12 November 2023).
4. Perrin, N. The Ad Platform: Talking TikTok with Movers + Shakers. Available online: <https://www.insiderintelligence.com/content/podcast-the-ad-platform-talking-tiktok-with-movers-shakers> (accessed on 12 November 2023).
5. Kang, H.; Shin, W.; Huang, J. Teens' Privacy Management on Video-Sharing Social Media: The Roles of Perceived Privacy Risk and Parental Mediation. *Internet Res.* **2021**, *32*, 312–334. [CrossRef]
6. Research, N.M. A Comprehensive Picture of Digital Video and TV Advertising: Viewing, Budget Share Shift and Effectiveness. Available online: <https://www.iab.com/wp-content/uploads/2015/05/Digital-Video-and-TV-Advertising-Viewing-Budget-Share-Shift-and-Effectiveness-FINAL.pdf> (accessed on 14 November 2023).
7. LeadLeo 2022 China's Short Video Marketing Industry Overview. Available online: https://pdf.dfcfw.com/pdf/H3_AP202204281562203862_1.pdf (accessed on 14 November 2023).
8. Gao, P.; Zeng, Y.; Cheng, Y. The Formation Mechanism of Impulse Buying in Short Video Scenario: Perspectives from Presence and Customer Inspiration. *Front. Psychol.* **2022**, *13*, 870635. [CrossRef]

9. Ren, J.; Yang, J.; Zhu, M.; Majeed, S. Relationship between Consumer Participation Behaviors and Consumer Stickiness on Mobile Short Video Social Platform under the Development of ICT: Based on Value Co-Creation Theory Perspective. *Inf. Technol. Dev.* **2021**, *27*, 697–717. [\[CrossRef\]](#)
10. Mou, X.; Xu, F.; Du, J.T. Examining the Factors Influencing College Students' Continuance Intention to Use Short-Form Video APP. *Aslib J. Inf. Manag.* **2021**, *73*, 992–1013. [\[CrossRef\]](#)
11. Soochow, S. Exploring the Nature, Ceiling and Monetization Rate of Live e-Commerce. Available online: https://pdf.dfcfw.com/pdf/H3_AP202206131571887508_1.pdf?1655140930000.pdf (accessed on 15 November 2023).
12. Pansari, A.; Kumar, V. Customer Engagement: The Construct, Antecedents, and Consequences. *J. Acad. Mark. Sci.* **2016**, *45*, 294–311. [\[CrossRef\]](#)
13. Kim, J.; Ahn, S.J.; Kwon, E.S.; Reid, L.N. TV Advertising Engagement as a State of Immersion and Presence. *J. Bus. Res.* **2017**, *76*, 67–76. [\[CrossRef\]](#)
14. Northcott, C.; Curtis, R.; Bogomolova, S.; Olds, T.; Vandelanotte, C.; Plotnikoff, R.; Maher, C. Should Facebook Advertisements Promoting a Physical Activity Smartphone App Be Image or Video-Based, and Should They Promote Benefits of Being Active or the App Attributes? *Behav. Med. Pract. Policy Res.* **2021**, *11*, 2136–2143. [\[CrossRef\]](#) [\[PubMed\]](#)
15. Lee, D.; Hosanagar, K.; Nair, H.S. Advertising Content and Consumer Engagement on Social Media: Evidence from Facebook. *Manag. Sci.* **2018**, *64*, 5105–5131. [\[CrossRef\]](#)
16. Lou, C.; Tan, S.-S.; Chen, X. Investigating Consumer Engagement with Influencer- vs. Brand-Promoted Ads: The Roles of Source and Disclosure. *J. Interact. Advert.* **2019**, *19*, 169–186. [\[CrossRef\]](#)
17. Xiao, L.; Li, X.; Zhang, Y. Exploring the Factors Influencing Consumer Engagement Behavior Regarding Short-Form Video Advertising: A Big Data Perspective. *J. Retail. Consum. Serv.* **2023**, *70*, 103170. [\[CrossRef\]](#)
18. Tsai, W.-H.S.; Liu, Y.; Chuan, C.-H. How Chatbots' Social Presence Communication Enhances Consumer Engagement: The Mediating Role of Parasocial Interaction and Dialogue. *J. Res. Interact. Mark.* **2021**, *15*, 460–482. [\[CrossRef\]](#)
19. Herrando, C.; Jiménez-Martínez, J.; Martín-De Hoyos, M.J. Passion at First Sight: How to Engage Users in Social Commerce Contexts. *Electron. Commer. Res.* **2016**, *17*, 701–720. [\[CrossRef\]](#)
20. Gunawardena, C.N.; Zittle, F.J. Social Presence as a Predictor of Satisfaction within a Computer-mediated Conferencing Environment. *Am. J. Distance Educ.* **1997**, *11*, 8–26. [\[CrossRef\]](#)
21. Kim, J.-H.; Kim, M.; Park, M.; Yoo, J. How Interactivity and Vividness Influence Consumer Virtual Reality Shopping Experience: The Mediating Role of Telepresence. *J. Res. Interact. Mark.* **2021**, *15*, 502–525. [\[CrossRef\]](#)
22. Csikszentmihalyi, M. *Beyond Boredom and Anxiety*; Jossey-Bass: San Francisco, CA, USA, 2000.
23. Rauschnabel, P.A.; Rossmann, A.; tom Dieck, M.C. An Adoption Framework for Mobile Augmented Reality Games: The Case of Pokémon Go. *Comput. Hum. Behav.* **2017**, *76*, 276–286. [\[CrossRef\]](#)
24. Mahdi Hosseini, S.; Fattahi, R. Databases' Interface Interactivity and User Self-Efficacy: Two Mediators for Flow Experience and Scientific Behavior Improvement. *Comput. Hum. Behav.* **2014**, *36*, 316–322. [\[CrossRef\]](#)
25. Speck, P.S.; Elliott, M.T. Predictors of Advertising Avoidance in Print and Broadcast Media. *J. Advert.* **1997**, *26*, 61–76. [\[CrossRef\]](#)
26. Bellman, S.; Schweda, A.; Varan, D. The Residual Impact of Avoided Television Advertising. *J. Advert.* **2010**, *39*, 67–82. [\[CrossRef\]](#)
27. Baek, T.H.; Morimoto, M. Stay Away from Me. *J. Advert.* **2012**, *41*, 59–76. [\[CrossRef\]](#)
28. Shin, D.-H.; Shin, Y.-J. Consumers' Trust in Virtual Mall Shopping: The Role of Social Presence and Perceived Security. *Int. J. Hum.-Comput. Interact.* **2011**, *27*, 450–475. [\[CrossRef\]](#)
29. Lombard, M.; Ditton, T.B.; Crane, D.; Davis, B.; Gil-Egui, G.; Horvath, K.; Rossman, J.; Park, S. Measuring Presence: A Literature-Based Approach to the Development of a Standardized Paper-and-Pencil Instrument. In Proceedings of the Third International Workshop on Presence, Delft, The Netherlands, 27–28 March 2000; Volume 240, pp. 2–4.
30. Short, J.; Williams, E.; Christie, B. *The Social Psychology of Telecommunications*; John Wiley & Sons: London, UK, 1976.
31. Andel, S.A.; de Vreede, T.; Spector, P.E.; Padmanabhan, B.; Singh, V.K.; de Vreede, G.-J. Do Social Features Help in Video-Centric Online Learning Platforms? A Social Presence Perspective. *Comput. Hum. Behav.* **2020**, *113*, 106505. [\[CrossRef\]](#)
32. Gunawardena, C.N. Social Presence Theory and Implications for Interaction and Collaborative Learning in Computer Conferences. *Int. J. Educ. Telecommun.* **1995**, *1*, 147–166.
33. Garrison, D.R.; Anderson, T.; Archer, W. Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. *Internet High. Educ.* **1999**, *2*, 87–105. [\[CrossRef\]](#)
34. Biocca, F. The Cyborg's Dilemma: Progressive Embodiment in Virtual Environments. *J. Comput.-Mediat. Commun.* **2006**, *3*, JCMC324. [\[CrossRef\]](#)
35. Huang, Z.; Zhu, Y.; Hao, A.; Deng, J. How Social Presence Influences Consumer Purchase Intention in Live Video Commerce: The Mediating Role of Immersive Experience and the Moderating Role of Positive Emotions. *J. Res. Interact. Mark.* **2022**, *17*, 493–509. [\[CrossRef\]](#)
36. Sivunen, A.; Nordbäck, E. Social Presence as a Multi-Dimensional Group Construct in 3D Virtual Environments. *J. Comput.-Mediat. Commun.* **2014**, *20*, 19–36. [\[CrossRef\]](#)
37. Biocca, F.; Harms, C.; Burgoon, J.K. Toward a More Robust Theory and Measure of Social Presence: Review and Suggested Criteria. *Presence Teleoperators Virtual Environ.* **2003**, *12*, 456–480. [\[CrossRef\]](#)
38. Ning Shen, K.; Khalifa, M. Exploring Multidimensional Conceptualization of Social Presence in the Context of Online Communities. *Int. J. Hum.-Comput. Interact.* **2008**, *24*, 722–748. [\[CrossRef\]](#)

39. Kim, J.; Song, H.; Luo, W. Broadening the Understanding of Social Presence: Implications and Contributions to the Mediated Communication and Online Education. *Comput. Hum. Behav.* **2016**, *65*, 672–679. [CrossRef]
40. Goffman, E. *Behavior in Public Places*; The Free Press: New York, NY, USA, 2008.
41. Hwang, H.S.; Park, S. Being Together: User's Subjective Experience of Social Presence in CMC Environments. In *Human-Computer Interaction. Interaction Design and Usability*; Springer: Berlin/Heidelberg, Germany, 2007; pp. 844–853.
42. Higgins, E.T. Value from Hedonic Experience and Engagement. *Psychol. Rev.* **2006**, *113*, 439–460. [CrossRef] [PubMed]
43. Spielmann, N.; Richard, M.-O. How Captive Is Your Audience? Defining Overall Advertising Involvement. *J. Bus. Res.* **2013**, *66*, 499–505. [CrossRef]
44. Peracchio, L.A.; Meyers-Levy, J. Evaluating Persuasion-Enhancing Techniques from a Resource-Matching Perspective. *J. Consum. Res.* **1997**, *24*, 178–191. [CrossRef]
45. Ziliak, J. Advertising Engagement: Giving Creative Credit Where Credit Is Due. ComScore. 2011. Available online: <https://www.comscore.com/ita/Insights/Blog/Advertising-Engagement-Giving-Creative-Credit-Where-Credit-is-Due> (accessed on 19 November 2023).
46. O'Brien, H.L.; Toms, E.G. What Is User Engagement? A Conceptual Framework for Defining User Engagement with Technology. *J. Am. Soc. Inf. Sci.* **2008**, *59*, 938–955. [CrossRef]
47. Calder, B.J.; Malhotra, E.C.; Schaedel, U. An Experimental Study of the Relationship between Online Engagement and Advertising Effectiveness. *J. Interact. Mark.* **2009**, *23*, 321–331. [CrossRef]
48. Oh, J.; Bellur, S.; Sundar, S.S. Clicking, Assessing, Immersing, and Sharing: An Empirical Model of User Engagement with Interactive Media. *Commun. Res.* **2015**, *45*, 737–763. [CrossRef]
49. Lu, X.; Das, D.; Huh, J.; Srivastava, J. Influence of Consumers' Temporary Affect on Ad Engagement: A Computational Research Approach. *J. Advert.* **2021**, *51*, 352–368. [CrossRef]
50. Mirbagheri, S.; Najmi, M. Consumers' Engagement with Social Media Activation Campaigns: Construct Conceptualization and Scale Development. *Psychol. Mark.* **2019**, *36*, 376–394. [CrossRef]
51. Cui, G.; Lockee, B.; Meng, C. Building Modern Online Social Presence: A Review of Social Presence Theory and Its Instructional Design Implications for Future Trends. *Educ. Inf. Technol.* **2012**, *18*, 661–685. [CrossRef]
52. Algharabat, R.; Rana, N.P.; Dwivedi, Y.K.; Alalwan, A.A.; Qasem, Z. The Effect of Telepresence, Social Presence and Involvement on Consumer Brand Engagement: An Empirical Study of Non-Profit Organizations. *J. Retail. Consum. Serv.* **2018**, *40*, 139–149. [CrossRef]
53. Osei-Frimpong, K.; McLean, G. Examining Online Social Brand Engagement: A Social Presence Theory Perspective. *Technol. Forecast. Soc. Change* **2018**, *128*, 10–21. [CrossRef]
54. Kruikemeier, S.; van Noort, G.; Vliegenthart, R.; de Vreese, C.H. Getting Closer: The Effects of Personalized and Interactive Online Political Communication. *Eur. J. Commun.* **2013**, *28*, 53–66. [CrossRef]
55. Nowak, K.L. Choosing Buddy Icons That Look like Me or Represent My Personality: Using Buddy Icons for Social Presence. *Comput. Hum. Behav.* **2013**, *29*, 1456–1464. [CrossRef]
56. Jung, I.; Choi, S.; Lim, C.; Leem, J. Effects of Different Types of Interaction on Learning Achievement, Satisfaction and Participation in Web-Based Instruction. *Innov. Educ. Teach. Int.* **2002**, *39*, 153–162. [CrossRef]
57. Etemad-Sajadi, R.; Ghachem, L. The Impact of Hedonic and Utilitarian Value of Online Avatars on E-Service Quality. *Comput. Hum. Behav.* **2015**, *52*, 81–86. [CrossRef]
58. Wongkitrungrueng, A.; Assarut, N. The Role of Live Streaming in Building Consumer Trust and Engagement with Social Commerce Sellers. *J. Bus. Res.* **2020**, *117*, 543–556. [CrossRef]
59. Csikszentmihalyi, M.; LeFevre, J. Optimal Experience in Work and Leisure. *J. Personal. Soc. Psychol.* **1989**, *56*, 815–822. [CrossRef]
60. Smith, T.E. Book Review: Flow: The Psychology of Optimal Experience. *J. Exp. Educ.* **1991**, *14*, 51–52. [CrossRef]
61. Skadberg, Y.X.; Kimmel, J.R. Visitors' Flow Experience While Browsing a Web Site: Its Measurement, Contributing Factors and Consequences. *Comput. Hum. Behav.* **2004**, *20*, 403–422. [CrossRef]
62. Hoffman, D.L.; Novak, T.P. Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations. *J. Mark.* **1996**, *60*, 50–68. [CrossRef]
63. Martins, J.; Costa, C.; Oliveira, T.; Gonçalves, R.; Branco, F. How Smartphone Advertising Influences Consumers' Purchase Intention. *J. Bus. Res.* **2019**, *94*, 378–387. [CrossRef]
64. Tuncer, I. The Relationship between IT Affordance, Flow Experience, Trust, and Social Commerce Intention: An Exploration Using the S-O-R Paradigm. *Technol. Soc.* **2021**, *65*, 101567. [CrossRef]
65. Trevino, L.K.; Webster, J. Flow in Computer-Mediated Communication. *Commun. Res.* **1992**, *19*, 539–573. [CrossRef]
66. Novak, T.P.; Hoffman, D.L.; Yung, Y.-F. Measuring the Customer Experience in Online Environments: A Structural Modeling Approach. *Mark. Sci.* **2000**, *19*, 22–42. [CrossRef]
67. Hsu, C.-L.; Lu, H.-P. Why Do People Play On-Line Games? An Extended TAM with Social Influences and Flow Experience. *Inf. Manag.* **2004**, *41*, 853–868. [CrossRef]
68. Fulk, J.; Steinfield, C.W.; Schmitz, J.; Power, J.G. A Social Information Processing Model of Media Use in Organizations. *Commun. Res.* **1987**, *14*, 529–552. [CrossRef]
69. Rodríguez-Ardura, I.; Meseguer-Artola, A. E-Learning Continuance: The Impact of Interactivity and the Mediating Role of Imagery, Presence and Flow. *Inf. Manag.* **2016**, *53*, 504–516. [CrossRef]

70. Kim, D.; Ko, Y.J. The Impact of Virtual Reality (VR) Technology on Sport Spectators' Flow Experience and Satisfaction. *Comput. Hum. Behav.* **2019**, *93*, 346–356. [\[CrossRef\]](#)
71. Van Noort, G.; Voorveld, H.A.M.; van Reijmersdal, E.A. Interactivity in Brand Web Sites: Cognitive, Affective, and Behavioral Responses Explained by Consumers' Online Flow Experience. *J. Interact. Mark.* **2012**, *26*, 223–234. [\[CrossRef\]](#)
72. Csikszentmihályi, M. Play and Intrinsic Rewards. *J. Humanist. Psychol.* **1975**, *15*, 41–63. [\[CrossRef\]](#)
73. Peifer, C.; Wolters, G. Flow in the Context of Work. In *Advances in Flow Research*; Springer International Publishing: Cham, Switzerland, 2021; pp. 287–321.
74. Nakamura, J.; Csikszentmihályi, M. The Concept of Flow. In *Flow and the Foundations of Positive Psychology*; Springer: Dordrecht, The Netherlands, 2014; pp. 239–263.
75. Ryan, R.M.; Grolnick, W.S. Origins and Pawns in the Classroom: Self-Report and Projective Assessments of Individual Differences in Children's Perceptions. *J. Personal. Soc. Psychol.* **1986**, *50*, 550–558. [\[CrossRef\]](#)
76. Lu, B.; Fan, W.; Zhou, M. Social Presence, Trust, and Social Commerce Purchase Intention: An Empirical Research. *Comput. Hum. Behav.* **2016**, *56*, 225–237. [\[CrossRef\]](#)
77. Bao, Z.; Yang, J. Why Online Consumers Have the Urge to Buy Impulsively: Roles of Serendipity, Trust and Flow Experience. *Manag. Decis.* **2022**, *60*, 3350–3365. [\[CrossRef\]](#)
78. Kim, Y.J.; Han, J. Why Smartphone Advertising Attracts Customers: A Model of Web Advertising, Flow, and Personalization. *Comput. Hum. Behav.* **2014**, *33*, 256–269. [\[CrossRef\]](#)
79. Balasubramanian, S.K. Beyond Advertising and Publicity: Hybrid Messages and Public Policy Issues. *J. Advert.* **1994**, *23*, 29–46. [\[CrossRef\]](#)
80. Chan, F. Product Placement and Its Effectiveness: A Systematic Review and Propositions for Future Research. *Mark. Rev.* **2012**, *12*, 39–60. [\[CrossRef\]](#)
81. Ephron, E. The Paradox of Product Placement. *Mediaweek*, 2 June 2003; p. 20.
82. Homer, P.M. Product Placements. *J. Advert.* **2009**, *38*, 21–32. [\[CrossRef\]](#)
83. Seyedghorban, Z.; Tahernejad, H.; Matanda, M.J. Reinquiry into Advertising Avoidance on the Internet: A Conceptual Replication and Extension. *J. Advert.* **2015**, *45*, 120–129. [\[CrossRef\]](#)
84. Youn, S.; Kim, S. Understanding Ad Avoidance on Facebook: Antecedents and Outcomes of Psychological Reactance. *Comput. Hum. Behav.* **2019**, *98*, 232–244. [\[CrossRef\]](#)
85. Ying, L.; Korneliussen, T.; Grønhaug, K. The Effect of Ad Value, Ad Placement and Ad Execution on the Perceived Intrusiveness of Web Advertisements. *Int. J. Advert.* **2009**, *28*, 623–638. [\[CrossRef\]](#)
86. Brehm, S.S.; Brehm, J.W. *Psychological Reactance: A Theory of Freedom and Control*; Academic Press: Waltham, MA, USA, 2013.
87. Pagendarm, M.; Schaumburg, H. Why Are Users Banner-Blind? The Impact of Navigation Style on the Perception of Web Banners. *J. Digit. Inf.* **2006**, *2*, 1–6.
88. Rojas-Méndez, J.I.; Davies, G.; Madran, C. Universal Differences in Advertising Avoidance Behavior: A Cross-Cultural Study. *J. Bus. Res.* **2009**, *62*, 947–954. [\[CrossRef\]](#)
89. Rojas-Méndez, J.I.; Davies, G. Avoiding Television Advertising: Some Explanations from Time Allocation Theory. *J. Adv. Res.* **2005**, *45*, 34. [\[CrossRef\]](#)
90. Rojas-Méndez, J.I.; Davies, G. Time Pressure and Time Planning in Explaining Advertising Avoidance Behavior. *J. Promot. Manag.* **2017**, *23*, 481–503. [\[CrossRef\]](#)
91. Song, H.; Jiang, Y. Online Personalized Advertising Avoidance by Chinese Consumers: The Effect of Consumer Good Types. *Int. J. Bus. Manag.* **2017**, *1*, 107–117.
92. Tu, C.-H.; McIsaac, M. The Relationship of Social Presence and Interaction in Online Classes. *Am. J. Distance Educ.* **2002**, *16*, 131–150. [\[CrossRef\]](#)
93. Hussain, D.; Lasage, H. Online Video Advertisement Avoidance: Can Interactivity Help? *J. Appl. Bus. Res.* **2013**, *30*, 43. [\[CrossRef\]](#)
94. Yin, X.; Li, J.; Si, H.; Wu, P. Attention Marketing in Fragmented Entertainment: How Advertising Embedding Influences Purchase Decision in Short-Form Video Apps. *J. Retail. Consum. Serv.* **2024**, *76*, 103572. [\[CrossRef\]](#)
95. Hassanein, K.; Head, M. Manipulating Perceived Social Presence through the Web Interface and Its Impact on Attitude towards Online Shopping. *Int. J. Hum.-Comput. Stud.* **2007**, *65*, 689–708. [\[CrossRef\]](#)
96. Muehling, D.D.; McCann, M. Attitude toward the Ad: A Review. *J. Curr. Issue Res. Advert.* **1993**, *15*, 25–58. [\[CrossRef\]](#)
97. Ghani, J.A.; Deshpande, S.P. Task Characteristics and the Experience of Optimal Flow in Human—Computer Interaction. *J. Psychol.* **1994**, *128*, 381–391. [\[CrossRef\]](#)
98. Hui, M.K.; Toffoli, R. Perceived Control and Consumer Attribution for the Service Encounter. *J. Appl. Soc. Psychol.* **2002**, *32*, 1825–1844. [\[CrossRef\]](#)
99. Li, B.; Yin, S. How Perceived Control Affects Advertising Avoidance Intention in a Skippable Advertising Context: A Moderated Mediation Model. *Chin. J. Commun.* **2020**, *14*, 157–175. [\[CrossRef\]](#)
100. Quick, B.L.; Stephenson, M.T. Further Evidence That Psychological Reactance Can Be Modeled as a Combination of Anger and Negative Cognitions. *Commun. Res.* **2007**, *34*, 255–276. [\[CrossRef\]](#)
101. Procci, K.; Singer, A.R.; Levy, K.R.; Bowers, C. Measuring the Flow Experience of Gamers: An Evaluation of the DFS-2. *Comput. Hum. Behav.* **2012**, *28*, 2306–2312. [\[CrossRef\]](#)
102. Ho, V.T. Advertising Avoidance: A Literature Review. *Indep. J. Manag. Prod.* **2021**, *12*, 185–200. [\[CrossRef\]](#)

103. Chen, H.; Wigand, R.T.; Nilan, M. Exploring Web Users' Optimal Flow Experiences. *Inf. Technol. People* **2000**, *13*, 263–281. [CrossRef]
104. Mesurado, B.; Cristina Richaud, M.; José Mateo, N. Engagement, Flow, Self-Efficacy, and Eustress of University Students: A Cross-National Comparison between the Philippines and Argentina. *J. Psychol.* **2015**, *150*, 281–299. [CrossRef] [PubMed]
105. Carvalho, A.; Fernandes, T. Understanding Customer Brand Engagement with Virtual Social Communities: A Comprehensive Model of Drivers, Outcomes and Moderators. *J. Mark. Theory Pract.* **2018**, *26*, 23–37. [CrossRef]
106. Kaur, P.; Dhir, A.; Chen, S.; Rajala, R. Flow in Context: Development and Validation of the Flow Experience Instrument for Social Networking. *Comput. Hum. Behav.* **2016**, *59*, 358–367. [CrossRef]
107. Arghashi, V.; Yuksel, C.A. Interactivity, Inspiration, and Perceived Usefulness! How Retailers' AR-Apps Improve Consumer Engagement through Flow. *J. Retail. Consum. Serv.* **2022**, *64*, 102756. [CrossRef]
108. Elliot, A.J.; Thrash, T.M. Approach-Avoidance Motivation in Personality: Approach and Avoidance Temperaments and Goals. *J. Personal. Soc. Psychol.* **2002**, *82*, 804–818. [CrossRef] [PubMed]
109. Elliot, A.J. The Hierarchical Model of Approach-Avoidance Motivation. *Motiv. Emot.* **2006**, *30*, 111–116. [CrossRef]
110. Kelly, L.; Kerr, G.; Drennan, J. Triggers of Engagement and Avoidance: Applying Approach-Avoid Theory. *J. Mark. Commun.* **2018**, *26*, 488–508. [CrossRef]
111. Brodie, R.J.; Hollebeek, L.D.; Jurić, B.; Ilić, A. Customer Engagement. *J. Serv. Res.* **2011**, *14*, 252–271. [CrossRef]
112. Kline, R.B. *Principles and Practice of Structural Equation Modeling* (3. Baski); Guilford Press: New York, NY, USA, 2011; Volume 14, pp. 1497–1513.
113. Gefen, D.; Straub, D.W. Consumer Trust in B2C E-Commerce and the Importance of Social Presence: Experiments in e-Products and e-Services. *Omega* **2004**, *32*, 407–424. [CrossRef]
114. Sun, Y.; Shao, X.; Li, X.; Guo, Y.; Nie, K. How Live Streaming Influences Purchase Intentions in Social Commerce: An IT Affordance Perspective. *Electron. Commer. Res. Appl.* **2019**, *37*, 100886. [CrossRef]
115. Animesh, A.; Pinsonneault, A.; Yang, S.-B.; Oh, W. An Odyssey into Virtual Worlds: Exploring the Impacts of Technological and Spatial Environments on Intention to Purchase Virtual Products. *MIS Q.* **2011**, *35*, 789. [CrossRef]
116. Liu, X.; Zhang, L.; Chen, Q. The Effects of Tourism E-Commerce Live Streaming Features on Consumer Purchase Intention: The Mediating Roles of Flow Experience and Trust. *Front. Psychol.* **2022**, *13*, 995129. [CrossRef]
117. Geng, S.; Yang, P.; Gao, Y.; Tan, Y.; Yang, C. The Effects of Ad Social and Personal Relevance on Consumer Ad Engagement on Social Media: The Moderating Role of Platform Trust. *Comput. Hum. Behav.* **2021**, *122*, 106834. [CrossRef]
118. MobTech China Short Video Industry Insight Report 2020. Available online: <https://www.mob.com/mobdata/report/114> (accessed on 23 November 2023).
119. Schwarz, A.; Rizzuto, T.; Carraher-Wolverton, C.; Roldán, J.L.; Barrera-Barrera, R. Examining the Impact and Detection of the “Urban Legend” of Common Method Bias. *SIGMIS Database* **2017**, *48*, 93–119. [CrossRef]
120. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.-Y.; Podsakoff, N.P. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [CrossRef] [PubMed]
121. Kock, N. Common Method Bias in PLS-SEM. *Int. J. e-Collab.* **2015**, *11*, 1–10. [CrossRef]
122. Nunnally, J.; Bernstein, I. Elements of Statistical Description and Estimation. In *Psychometric Theory*; McGraw-Hill: New York, NY, USA, 1994; Volume 3.
123. Bagozzi, R.P.; Yi, Y. On the Evaluation of Structural Equation Models. *J. Acad. Mark. Sci.* **1988**, *16*, 74–94. [CrossRef]
124. Hair, J.F.; Ringle, C.M.; Sarstedt, M. PLS-SEM: Indeed a Silver Bullet. *J. Mark. Theory Pract.* **2011**, *19*, 139–152. [CrossRef]
125. Henseler, J.; Ringle, C.M.; Sarstedt, M. A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *J. Acad. Mark. Sci.* **2014**, *43*, 115–135. [CrossRef]
126. Hair, J.F.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M.; Danks, N.P.; Ray, S. *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*; Springer: Cham, Switzerland, 2021.
127. Sarstedt, M.; Ringle, C.M.; Henseler, J.; Hair, J.F. On the Emancipation of PLS-SEM: A Commentary on Rigdon (2012). *Long Range Plan.* **2014**, *47*, 154–160. [CrossRef]
128. Hair, J.F.; Howard, M.C.; Nitzl, C. Assessing Measurement Model Quality in PLS-SEM Using Confirmatory Composite Analysis. *J. Bus. Res.* **2020**, *109*, 101–110. [CrossRef]
129. Lau-Gesk, L.; Meyers-Levy, J. Emotional Persuasion: When the Valence versus the Resource Demands of Emotions Influence Consumers' Attitudes. *J. Consum. Res.* **2009**, *36*, 585–599. [CrossRef]
130. Wang, H.; Ding, J.; Akram, U.; Yue, X.; Chen, Y. An Empirical Study on the Impact of E-Commerce Live Features on Consumers' Purchase Intention: From the Perspective of Flow Experience and Social Presence. *Information* **2021**, *12*, 324. [CrossRef]
131. Lee, K.M. Presence, Explicated. *Commun. Theory* **2004**, *14*, 27–50. [CrossRef]
132. Weisberg, J.; Te'eni, D.; Arman, L. Past Purchase and Intention to Purchase in E-commerce. *Internet Res.* **2011**, *21*, 82–96. [CrossRef]

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.