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Research on the Influencing Factors and Guiding Measures of Social Media Content Choice Behavior: Vice and Virtue Perspectives

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Abstract. Social media serves not only as a source of gossip but also as a primary news outlet for adults. When faced with the trade-off between short-term and long-term benefits, the decision to watch virtue videos (self-control) or vice videos (self-indulgence) on social media becomes a critical choice for contemporary consumers. This paper investigates three main questions: (1) How do consumer busy mindset (CBM) and consumer time pressure (CTP) directly influence consumer self-control behavior. (2) How do CBM and CTP affect consumer self-control behavior through consumer self-importance (CSI), and (3) how does consumer time concept (CTC) moderate the relationship between CBM and CSI. To address these questions, two experimental studies were conducted. The results indicate that CBM can directly enhance consumers' willingness to watch virtue videos on social media (VVSM), while CTP has no direct effect on watching VVSM. Additionally, this study uncovered two contrasting mediation paths. Specifically, CBM increases the willingness to watch VVSM by boosting CSI, whereas CTP reduces this willingness by diminishing CSI. Finally, the study found that CTC moderates the relationship between CBM and CSI. Both distinct measures of CTC (consumer-anticipated video consumption duration, consumer-planned viewing time) augmented the positive impact of CBM on CSI.

Keywords: social media; busy mindset; time pressure; time concept; self-control; self-importance

1. Introduction

Social media serves not only as a source of gossip but also as a primary news source for adults in both China and the United States [1]. In China, platforms such as TikTok and Bilibili (similar to YouTube in the United States) are particularly popular among Chinese youth. Consumers have the option to watch virtue videos that provide long-term knowledge benefits (e.g., scientific news and educational content) and vice videos that offer instant gratification (e.g., game livestreams and entertainment videos) [2,3]. Watching virtue videos on social media (VVSM) indicates self-control, whereas watching vice videos signifies self-indulgence [3]. Given consumers' limited time, the

choice between watching virtue or vice videos on social media represents a contemporary consumer dilemma involving short-term versus long-term benefit trade-offs. Understanding how consumers choose video content (vice vs. virtue) on social media is crucial for marketers aiming to comprehend their daily habits and engage them more effectively on social media platforms [3,4]. Therefore, this article aims to investigate how consumers select video content on social media.

Recent studies indicate that consumers' busy mindset (CBM) and consumer time pressure (CTP) may influence their choice between vice and virtue videos [5]. CBM refers to an individual's perception of having many tasks to handle, which does not necessarily imply an impending deadline or completing a long list of tasks under time pressure [5]. Unlike CBM, CTP pertains to the stress, tension, and anxiety experienced when individuals must complete certain work tasks or make decisions within a limited time frame [6]. The themes of "busyness" and "pressure" have become deeply integrated into daily life [7], necessitating marketers to leverage CBM or CTP to enhance their brand appeal. Consequently, this article focuses on the relationship between CBM or CTP and consumer choices of video content on social media.

Current research on the impact of CBM or CTP on consumer self-control behavior is relatively scarce [5,7]. First, existing studies on the antecedents of consumer self-control behavior mainly focus on food. Masters and Mishra [8] explored how hero versus villain labeling influences consumers' preference for vice or virtue. Choosing from a larger product assortment often shifts preferences from vice (regular ice cream) to virtue (low-fat ice cream) [9]. Milkman [10] noted that environmental uncertainty reduces self-control resources, leading consumers to prefer vice products. Second, only two studies have directly examined the effect of CBM or CTP on consumer self-control behavior. Without considering CTP, CBM can increase consumer self-control and the willingness to choose virtue; CTP undermines consumer self-control and increases the likelihood of choosing vice [5]. Siemer and Reisenzein [11] pointed out that CTP causes consumers to rely primarily on their emotional system, reducing self-control and increasing the likelihood of choosing vice. Third, only one study has investigated the mediating mechanism between CBM and consumer self-control behavior. Kim et al. [5] found that CBM increases self-control by enhancing consumer self-importance (CSI).

In conclusion, we identify three research gaps concerning consumer self-control behavior. First, there is a lack of studies on consumer self-control behavior in the context of social media video content. Second, given that the impact of CBM on consumer self-control behavior can be influenced by CTP [5], there is a scarcity of research examining the independent effects of both CBM and CTP on consumer self-control behavior. Third, there is a dearth of research exploring mediating factors between CBM or CTP and consumer self-control behavior. Fourth, there is a lack of research investigating moderating factors between CBM or CTP and consumer self-control behavior.

This article advances the existing literature in three aspects. First, it broadens the research scope on consumer self-control behavior. Previous studies have primarily focused on domains such as food, savings, and fitness [3,5,12], whereas this article centers on the domain of video content on social media. Second, by measuring CBM and CTP separately and incorporating them simultaneously into the research model, this study distinguishes their respective effects. Consequently, two mediation pathways are identified. CSI partially mediates the relationship between CBM and consumer self-

control behavior, consistent with the findings of Kim et al. [5]; CSI fully mediates the relationship between CTP and consumer self-control behavior, a novel pathway revealed in this study. Third, this article introduces the consumer time concept (CTC) as a moderating variable and finds that CTC enhances the positive relationship between CBM and CSI. While prior research suggests that CTC may influence consumer self-control behavior [13,14,15], no study has examined its moderating role.

2. Literature review and research hypotheses

2.1. Vice versus virtue

To describe the two types of consumer goods chosen due to the trade-off between short-term and long-term benefits, Wertenbroch [16] first introduced the relative concepts of vice and virtue. The corresponding vice provides immediate gratification upon consumption but may not be beneficial in the long run; the corresponding virtue may not be pleasant at the moment but can bring long-term benefits [17,18]. The relative concepts of vice and virtue are highly applicable in the social media context [3]. However, in consumer research, studies on vice or virtue have mainly focused on food [8,9,10], while research on vice or virtue in social media content has been neglected [3].

Social media content can be either vice or virtue, depending on the consumer's purpose [5]. One of the consumer's purposes is to satisfy curiosity and gain pleasure from social media content [19]. Another purpose is to acquire knowledge that is beneficial for the future [20]. These two purposes correspond to vice and virtue. Therefore, a series of videos providing consumers with instant gratification, such as game live streams or entertaining clips, may be considered a vice. In contrast, a series of videos offering long-term benefits, such as popular science knowledge or educational courses, may be considered a virtue [21]. According to the dual-system theory of self-control, when faced with a dilemma between the two, people experience a conflict of self-control: choosing vice means self-indulgence while choosing virtue signifies successful self-control [22].

2.2. Busy mindset, time pressure and the intention to watch virtue videos

CBM refers to an individual's perception of having many tasks to handle, which does not necessarily imply that a deadline is approaching or that a long list of tasks needs to be completed under time pressure [5]. The occurrence of CBM is mainly related to work rather than leisure [7]. CTP differs from CBM [5]. CTP refers to the stress, tension, anxiety, and other emotions people feel due to the need to complete certain work tasks or make decisions within a limited time [6]. The triggers for CBM and CTP are distinct: the main trigger for CBM is the increase in the number of work tasks, the extension of working hours, or the reduction of leisure time, making people feel they have much to do, thereby causing subjective busy cognition; the primary trigger for CTP is time, i.e., people perceive they do not have enough time to complete work or make decisions before an established deadline, hence feeling tense, overwhelmed, stressed, or anxious [5].

The dual-system theory of self-control suggests that the realization of self-control is based on the competition between impulsive processes and reflective processes (self-control processes): when individuals have sufficient resources and motivation to think, the control system dominates, guiding individuals more effectively towards choices aligned with long-term goals; conversely, when motivation is low, under time pressure, or cognitive capacity is insufficient, the impulsive system takes over, leading to self-

control failure [23]. Kim et al. [5] found that when people are under CBM, they tend to choose virtue foods and activities; when people are under CTP, they tend to choose vice foods and activities. Based on the dual-system theory of self-control and Kim et al. [5], we propose: when consumers are in a non-time-limited CBM state, they have sufficient time resources and motivation (e.g., the pursuit of achievement) to think, thus the control system dominates, making them more inclined to engage in Watching SMVV; when consumers are under CTP, they lack sufficient time resources and motivation to think, thus the impulsive system takes over, making them more inclined to watch vice videos on social media. Therefore, we hypothesize:

H1. CBM has a positive impact on watching SMVV.

H2. CTP has a negative impact on watching SMVV.

2.3. Busy mindset, time pressure and self-importance

CSI refers to an individual's evaluation of how important they are in their own field [5]. CSI is a specific dimension of the overall self-concept, shaped by multidimensional self-evaluations [24,25]. For example, feelings of being important, generous, or attractive can all enhance one's overall self-concept.

Perceived busyness implies "more work for the capable", and people view busy individuals as high-status individuals [26]. Gershuny [27] suggests that busyness is a status symbol for successful individuals, leading to a higher quality of life. CBM makes individuals perceive themselves as valuable individuals—important people, thus enhancing their cognition of self-importance [5]. CBM only affects self-dimensions related to importance and does not affect self-dimensions unrelated to importance [5].

According to the dual-system theory of self-control, when time resources are limited, CTP makes consumers more likely to rely on intuitive and emotional systems [11], leading consumers to seek instant gratification. This instant gratification causes consumers to focus on using limited time resources for self-indulgent behaviors, which may lead to reduced opportunities for self-improvement and self-concept perception, making them less likely to perceive CSI. Therefore, we hypothesize:

H3. CBM is positively correlated with CSI.

H4. CTP is negatively correlated with CSI.

2.4. Self-importance and the intention to watch virtue videos

CSI may promote self-control behavior. Existing research indicates that feelings of being valuable, capable, and affirming the self can promote long-term interest choices over immediate gratification [28,29,30]. A positive self-concept is related to an individual's ability to delay instant gratification and wait for larger future rewards [31]. Other studies on self-concept suggest that people are motivated to make choices that help them maintain a positive self-concept [32,33]. Individuals with stronger CSI are more likely to choose decisions beneficial for the future by not succumbing to immediate temptations [5,34]. Therefore, we hypothesize:

H5. CSI has a positive impact on watching VVSM.

2.5. The mediation effect of self-importance

The relationship between CBM and consumer self-control behavior may be mediated by CSI. Kim et al. [5] demonstrated that CBM enhances the perception of CSI, and CSI increases consumer self-control behavior, leading to healthier food choices and higher savings rates. CSI mediates the relationship between CBM and consumer self-control behavior [5]. Therefore, this study suggests that CSI mediates the relationship between CBM and watching VVSM; CBM makes individuals realize their importance, thereby increasing their willingness to watch virtue videos beneficial for long-term development.

The relationship between CTP and consumer self-control behavior may also be mediated by CSI. According to the previously mentioned dual-system theory of self-control, time constraints may reduce opportunities for self-improvement and self-concept perception, thereby weakening the perception of CSI and reducing self-control. Therefore, this study suggests that CSI mediates the relationship between CTP and watching VVSM; CTP weakens CSI, thereby decreasing the willingness to watch virtue videos beneficial for long-term development. Thus, we hypothesize:

H6. CSI mediates the relationship between CBM and watching VVSM.

H7. CSI mediates the relationship between CTP and watching VVSM.

2.6. The moderating effect of the time concept

The impact of CBM on CSI may be influenced by CTC. The activation of CTC weakens the psychological connection between the present self and the past self, providing individuals with an opportunity and confidence to rebuild their self-concept, making them believe that their current self is superior to their past self [35]. Questions about time perception can activate people's social goals [13]. Because time is irreplaceable, people are more inclined to plan for future time allocations and treasure their time investments more. We believe that compared to consumers without CTC stimulation, those with CTC stimulation pay more attention to efficiency and productivity, thereby increasing their affirmation of personal capabilities and status. This focus on time further strengthens the perception of CSI brought about by CBM. Therefore, we hypothesize:

H8. CTC moderates the relationship between CBM and CSI. That is, for consumers with CTC stimulation (as opposed to those without), an increase in CBM leads to a higher perception of CSI.

3. Methods

This article comprises two studies aimed at investigating the impact of CBM and CTP on consumer self-control behavior and their mechanisms. The reason for selecting Bilibili (similar to YouTube in the United States) as the social media platform for this study is as follows: Bilibili initially focused on entertainment videos, covering a wide range of content including funny videos, game reviews, variety shows, and entertainment news. However, over time, consumers began to upload a significant number of educational videos, including skill sharing, language learning, educational courses, and popular science knowledge, making Bilibili a platform that combines both entertainment and educational functions. This unique dual nature makes Bilibili an ideal place to study self-

control behavior. Both Study 1 and Study 2 investigate the impact of consumers' CBM and CTP on their self-control behavior and the mediating role of CSI. The difference between Study 1 and Study 2 lies in the design of the moderating variable (CTC). Study 1 focuses on the moderating effect of consumer-anticipated video consumption duration (CTC); Study 2 focuses on the moderating effect of consumer-planned viewing time (CTC).

3.1. Sample

We recruited 1588 Chinese participants from Credamo (similar to Mturk) to complete the questionnaire survey. We conducted strict screenings and rigorously excluded those who failed attention check questions, exhibited patterned responses, or completed the survey in an unrealistically short time. Ultimately, 1498 individuals (451 males vs. 1047 females) validly completed the experiment.

The characteristics of the sample are as follows: The average age of participants is 30.54 years (SD = 7.49), with an average monthly income of 8659.77 RMB (SD = 5232.03). Most participants have a bachelor's degree (71.6%). In the past two weeks, most subjects watched Bilibili for an average duration of 1 to 2 hours (48.0%), typically between 7 PM and 11 PM (78.0%).

3.2. Procedure

Participants volunteered to take part in the survey. At the beginning of the questionnaire, we provided definitions for educational and entertainment videos, and participants were required to answer four questions to determine their eligibility for the survey invitation.

Eligible participants were randomly assigned to three experimental groups concerning CTC (consumer-anticipated video consumption duration vs. consumer-planned viewing time vs. no CTC): In the "consumer-anticipated video consumption duration" group, participants were informed that the average duration of a single video on Bilibili in 2024 is approximately 390 seconds, and they were then asked to fill in what they considered a reasonable duration for a single video (in seconds); in the "consumer-planned viewing time" group, participants were asked to select the amount of time they planned to spend watching Bilibili videos (including both educational and entertainment videos) over the next two weeks; the "no CTC" group did not receive any CTC-related stimuli. Finally, participants in all three groups were required to choose the proportion of time they planned to spend watching educational and entertainment videos on Bilibili over the next two weeks and to answer questions related to busyness mindset, time pressure, and self-importance and provide demographic information.

3.3. Measures

We measured the dependent variable, Watching VVSM, by asking participants, "In the next two weeks, what is the approximate ratio of time you plan to spend watching educational and entertainment videos on Bilibili?" The questionnaire covered three constructs: CBM, CTP, and CSI. All construct items were measured on a 7-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). The scales for CBM, CTP, and CSI were adopted from Kim et al. [5]. Since the survey was conducted in China, we employed back-translation techniques to translate the scales. Appropriate modifications were made based on the context. The measurement items for each construct are shown in Table 1.

Table 1. Measurement items for each construct

Constructs	Items	References
CBM	In the past two weeks, I felt very busy. In the past two weeks, I felt that I had a lot of things to do. In the past two weeks, I felt that I was working hard (studying).	Kim et al. [5]
CTP	In the past two weeks, I did not have enough time to complete everything. In the past two weeks, I worried about not being able to complete everything.	Kim et al. [5]
CSI	I feel that I am an important person. I feel that I am indispensable to others. I feel that my presence is important to my friends and family. I feel that my life is meaningful. I feel that my life is valuable.	Kim et al. [5]

3.4. Descriptive

Descriptive statistics of the participants are shown in Table 2.

Table 2. Descriptive statistics for the participants

	Category	Overall (Frequency)	Video consumption duration (Frequency)	Planned viewing time (Frequency)	No CTC (Frequency)
Gender	Male	451	136	137	178
	Female	1047	362	363	322
Age	18-20	89	33	31	25
	21-25	335	107	122	106
	26-30	361	118	116	127
	31-35	401	130	135	136
	36-40	190	75	57	58
	41-45	49	14	18	17
	46-50	39	9	15	15
	51-55	23	8	3	12
	56 or over	11	4	3	4
Education	Junior high school and below	4	1	1	2
	High school/Vocational high school/Technical school	32	8	9	15
	Associate degree/Community college	108	38	37	33
	Bachelor	1072	352	359	361
	Master (including MBA and MPA)	265	91	89	85
	Doctorate and above	17	8	5	4
Monthly income	Less than ¥2000	177	58	55	64
	¥2001-¥4000	133	48	51	34
	¥4001-¥6000	210	66	78	66
	¥6001-¥8000	275	91	75	109
	¥8001-¥10000	212	70	68	74
	¥10001-¥12000	137	39	49	49
	¥12001-¥14000	101	38	33	30
	¥14001-¥16000	75	24	33	18
	¥16001-¥18000	35	16	12	7
	¥18001-¥20000	57	21	20	16
	More than ¥20000	86	27	26	33
Total		1498	498	500	500

The mean comparison of the three group variables is shown in Table 3. The analysis results indicate that there are no differences in CBM, CSI, and Watching VVSM among the three groups, while CTP differs significantly across the three groups, suggesting that CTC has an impact on CTP

Table 3. Comparison of variable means for three CTC experimental groups

Constructs	Video consumption duration	Planned viewing time	No CTC	F
CBM	5.149	5.147	5.172	0.063
CTP	4.365	4.374	4.109	4.418*
CSI	5.653	5.592	5.674	1.143
Watching VVSM	6.040	5.930	5.840	1.012

Note(s): *$p < 0.05$.

4. Study 1

We selected two groups from the three sets of data (consumer-anticipated video consumption duration vs. no CTC) for model fitting, aiming to investigate (1) the impact of CBM and CTP on Bilibili consumers' video choices (Watching VVSM), (2) the mediating role of CSI, and (3) the moderating effect of consumer-anticipated video consumption duration as a CTC.

4.1. Validity and reliability

This study employed the Partial Least Square Structural Equation Model (PLS-SEM) in Smart-PLS 4 software to test the proposed conceptual model [36]. The reliability and validity of the measurement scales for the three variables were analyzed using three indicators: Cronbach's α coefficient, composite reliability (CR), and average variance extracted (AVE). The results are shown in Table 4. All variables had Cronbach's α and CR values above the 0.70 threshold, indicating internal consistency of the scales used to measure each variable. The AVE values were all above the 0.50 threshold, and the factor loadings for each item were above the 0.70 threshold, indicating that the convergent validity met the requirements [37].

Table 4. Reliability and validity analysis results of the study 1 (N=998)

Constructs	Items	Standardized Factor Loading (λ)	Cronbach's α	CR	AVE
CBM	CBM01	0.823	0.866	0.895	0.740
	CBM02	0.800			
	CBM03	0.950			
CTP	CTP01	0.924	0.867	0.937	0.881
	CTP02	0.953			
CSI	CSI01	0.842	0.846	0.891	0.621
	CSI02	0.724			
	CSI03	0.713			
	CSI04	0.822			
	CSI05	0.827			

To test for discriminant validity, this study conducted two independent tests. First, according to the Fornell-Larcker criterion, which compares the square root of AVE for each variable with the correlation between variables, in each case, the square root of AVE is greater than the inter-variable correlation, as shown in Table 5, indicating that the discriminant validity meets the requirements.

Table 5. Fornell-Larcker criterion of the study 1

Constructs	1	2	3	4
1.CBM	0.860			
2.CTP	0.471	0.939		
3. Watching VVSM	0.227	0.055	1.000	
4.CSI	0.163	-0.195	0.164	0.788

Note: The values off the diagonal represent the correlation coefficients between variables, and the values on the diagonal represent the square roots of AVE.

As shown in Table 6, all heterotrait-monotrait ratio (HTMT) values are below the threshold of 0.90 [38], further demonstrating good discriminant validity.

Table 6. Heterotrait-Monotrait Ratio (HTMT) of the study 1

Constructs	1	2	3	4
1.CBM	-			
2.CTP	0.647	-		
3. Watching VVSM	0.199	0.058	1.000	-
4.CSI	0.137	0.219	0.176	-

Finally, the Harman single-factor test was conducted using SPSS 27.0. The variance explained by the first factor was 33.536%, which is below the critical standard of 40%, indicating that there is no common method bias in this study [39].

4.2. Structural model and hypothesis testing

Henseler et al. [38] recommended using the Standardized Root Mean Square Residual (SRMR) to assess model fit, which should be < 0.10. The SRMR value for Study 1 is 0.087, indicating a good model fit. Subsequently, we assessed the predictive power of the model by evaluating the R^2 and Q^2 values of the predictor variables. R^2_{CSI}=0.120; $R^2_{Watching\ VVSM}$=0.087. Additionally, this study used the Blindfolding algorithm to calculate the Q^2 values with an omission distance of 6. Q^2_{CSI}=0.071; $Q^2_{Watching\ VVSM}$=0.077, all of which are greater than 0, meeting the standard [36]. These data demonstrate the predictive ability of the model.

This study used the Smart-PLS bootstrapping method with 5000 subsamples as a non-parametric approach to test the structural model. As shown in Table 7, CBM positively influences Watching VVSM (β=0.204, P<0.001), supporting H1. CTP has no significant effect on Watching VVSM (β=-0.012, P>0.05), and thus H2 is not supported. CBM positively influences CSI (β=0.328, P<0.001), supporting H3. CTP negatively influences CSI (β=-0.350, P<0.001), supporting H4. CSI positively influences Watching VVSM (β=0.119, P<0.001), supporting H5.

The results of the indirect effect test are presented in Table 8. The indirect effect of CBM on Watching VVSM through CSI is significant, supporting H6. Similarly, the indirect effect of CTP on Watching VVSM through CSI is significant, supporting H7.

We used hierarchical regression to test the moderating effects, and the analysis results are shown in Table 9. Model 1 includes only the four control variables: age, gender, education, and income. In Model 2, we added the two independent variables, CBM and CTC, and the results showed that the main effect of CBM (β=0.088, P<0.05) was significant, reaffirming the validity of H3. In Model 3, we added the interaction term between centered CBM and CTC [40]. The results indicated that the addition of the interaction term significantly increased R^2 (ΔF=4.166, P<0.05), and the interaction term

between CBM and CTC had a significant positive effect on CSI (β=0.085, P<0.05), supporting H8.

Table 7. Results of the structural model in study 1

Hypothesis	Path	Path coefficients	P-value	f^2	Confidence interval (95%) bias-corrected	Hypothesis supported?
H1	CBM→Watching VVSM	0.204	0.000***	0.032	[0.134, 0.273]	Yes
H2	CTP→Watching VVSM	-0.012	0.750	0.000	[-0.085, 0.060]	No
H3	CBM→CSI	0.328	0.000***	0.095	[0.255, 0.397]	Yes
H4	CTP→CSI	-0.350	0.000***	0.109	[-0.403, -0.293]	Yes
H5	CSI→Watching VVSM	0.119	0.000***	0.013	[0.053, 0.186]	Yes

Note(s): ***p < 0.001.

Table 8. Indirect effect test in study 1

Hypothesis	Indirect effect path	Indirect effect (β (p-value))	Confidence interval (95%) bias-corrected	Hypothesis supported?
H6	CBM→CSI→Watching VVSM	0.039 (0.001**)	[0.017, 0.064]	Yes
H7	CTP→CSI→Watching VVSM	-0.042（0.001***）	[-0.066, -0.019]	Yes

Note(s): **p < 0.01; ***p < 0.001.

Table 9. Test of interaction effects between CBM and CTC in study 1

Predictor Variables	CSI					
	Model 1		Model 2		Model 3	
	β	P	β	P	β	P
Control variables						
Gender	-0.057	0.058	-0.057	0.062	-0.057	0.058
Age	0.001	0.976	0.002	0.968	-0.001	0.986
Education	-0.006	0.857	-0.009	0.765	-0.010	0.761
Income	0.314	<0.001***	0.312	<0.001***	0.314	<0.001***
Independent variables						
CBM			0.088	0.003**	0.030	0.475
CTC			-0.009	0.772	-0.009	0.773
Interaction terms						
CBM × CTC					0.085	0.042*
R^2	0.103		0.110		0.114	
ΔR^2	0.103		0.008		0.004	
F 值	28.393		20.521		18.241	
ΔF	28.393		4.391		4.166	

Note(s): *p < 0.05; **p < 0.01; ***p < 0.001.

5. Study 2

We selected two sets of data from the three available groups (consumer-planned viewing time vs. no CTC) for model fitting, aiming to explore (1) the impact of CBM and CTP on

video selection (Watching VVSM) among Bilibili consumers. (2) The mediating role of CSI and (3) the moderating effect of consumer-planned viewing time as a CTC.

5.1. Validity and reliability

The reliability and validity analysis process for Study 2 was the same as that for Study 1. All variables have Cronbach's α and CR values higher than the 0.70 threshold, indicating that the scales used to measure each variable have internal consistency. The AVE values are all above the 0.50 threshold, and the factor loadings for each item are above the 0.70 threshold, indicating that the convergent validity meets the requirements. The analysis results are shown in Tables 10, 11, and 12.

Table 10. Reliability and validity analysis results of the study 2 (N=1000)

Constructs	Items	Standardized Factor Loading (λ)	Cronbach's α	CR	AVE
CBM	CBM01	0.773	0.864	0.877	0.707
	CBM02	0.762			
	CBM03	0.970			
CTP	CTP01	0.923	0.868	0.937	0.881
	CTP02	0.954			
CSI	CSI01	0.840	0.865	0.903	0.650
	CSI02	0.764			
	CSI03	0.739			
	CSI04	0.843			
	CSI05	0.840			

Table 11. Fornell-Larcker criterion of the study 2

Constructs	1	2	3	4
1.CTP	0.939			
2.CBM	0.444	0.841		
3. Watching VVSM	0.013	0.214	1.000	
4.CSI	-0.219	0.175	0.193	0.806

Note(s): The values off the diagonal represent the correlation coefficients between variables, and the values on the diagonal represent the square roots of AVE.

Table 12. Heterotrait-Monotrait Ratio (HTMT) of the study 2

Constructs	1	2	3	4
1.CTP	-			
2.CBM	0.658	-		
3. Watching VVSM	0.014	0.173	-	-
4.CSI	0.243	0.133	0.206	-

Additionally, a Harman single-factor test was conducted using SPSS 27.0. The variance explained by the first factor was 35.225%, which is below the critical threshold of 40%, indicating that there is no common method bias issue in this study [39].

5.2. Structural model and hypothesis testing

The structural model assessment and hypothesis testing methods for Study 2 are the same as those for Study 1. The SRMR value for Study 2 is 0.096, indicating good model fit. $R^2_{CSI} = 0.139$; $R^2_{Watching\ VVSM} = 0.082$. $Q^2_{CSI} = 0.088$; $Q^2_{Watching\ VVSM} = 0.073$. These figures all demonstrate the predictive power of the model. Through hypothesis testing, H1, H3,

H4, H5, H6, H7, and H8 were supported, while H2 was not supported. The analysis results are shown in Tables 13, 14, and 15.

Table 13. Results of the structural model in study 2

Hypothesis	Path	Path coefficients	P-value	f^2	Confidence interval (95%) bias-corrected	Hypothesis supported?
H1	CBM→Watching VVSM	0.216	0.000***	0.036	[0.149, 0.285]	Yes
H2	CTP→Watching VVSM	-0.054	0.147	0.002	[-0.132, 0.017]	No
H3	CBM→CSI	0.339	0.000***	0.108	[0.276, 0.401]	Yes
H4	CTP→CSI	-0.370	0.000***	0.128	[-0.425, -0.313]	Yes
H5	CSI→Watching VVSM	0.157	0.000***	0.022	[0.086, 0.226]	Yes

Note(s): ***$p < 0.001$.

Table 14. Indirect effect test in study 2

Hypothesis	Indirect effect path	Indirect effect (β (p-value))	Confidence interval (95%) bias-corrected	Hypothesis supported?
H6	CBM→CSI→Watching VVSM	0.053 (0.000***)	[0.029, 0.081]	Yes
H7	CTP→CSI→Watching VVSM	-0.058 (0.000***)	[-0.088, -0.031]	Yes

Note(s): ***$p < 0.001$.

Table15. Test of interaction effects between CBM and CTC in study 2

Predictor Variables	CSI					
	Model 1		Model 2		Model 3	
	β	P	β	P	β	P
Control variables						
Gender	-0.062	0.041*	-0.058	0.057	-0.058	0.057
Age	0.012	0.702	0.010	0.749	0.006	0.831
Education	-0.017	0.582	-0.015	0.616	-0.012	0.706
Income	0.300	0.000***	0.302	0.000***	0.305	0.001**
Independent variables						
CBM			0.086	0.004**	0.028	0.506
CTC			-0.040	0.180	-0.041	0.178
Interaction terms						
CBM × CTC					0.084	0.044*
R^2	0.094		0.103		0.107	
ΔR^2	0.094		0.009		0.004	
F 值	25.899		19.069		16.973	
ΔF	25.899		4.992		4.050	

Note(s): *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

6. Discussion

This paper primarily investigates three questions: First, the direct impact of CBM and CTP on consumer self-control behavior. Second, how CBM and CTP influence consumer self-control behavior through CSI. Third, whether CTC has a moderating effect between CBM and CSI. Through empirical testing, H1, H3, H4, H5, H6, H7, and H8 were supported in both studies. H2 was not supported in either study. The following is a discussion of the results.

First, this paper finds that CBM promotes consumer self-control behavior, while CTP has no impact on consumer self-control behavior. Contrary to Kim et al. [5] who suggested that CTP would weaken consumer self-control behavior, this study finds that CTP has no effect on consumer self-control behavior.

Second, this paper identifies two mediation paths: one mediating path has a positive effect on consumer self-control behavior, while the other mediating path has a negative effect. Specifically, CBM increases the intention to watch VVSM by increasing CSI, which aligns with the findings of Kim et al. [5]; whereas CTP decreases the intention to watch VVSM by weakening CSI, a newly discovered mediating path in this study.

Third, this paper confirms the moderating effect of CTC. The study finds that both types of CTC (consumer-anticipated video consumption duration, consumer-planned viewing time) enhance the positive effect of CBM on CSI.

6.1. Theoretical implications

The theoretical significance of this study is as follows. First, this paper expands the research field of consumer self-control behavior from previous studies on food [5,41], savings [5], and fitness [12,42] to social media video content. Second, this paper distinguishes the effects of CBM and CTP on consumer self-control behavior and finds that CBM has a positive promoting effect on consumer self-control behavior, while CTP has an indirect negative impact. CSI plays a crucial mediating role in these two mechanisms. Third, this paper treats CTC as a moderating variable and discovers that CTC enhances the positive relationship between CBM and CSI. Previous studies suggest that CTC may affect consumer self-control behavior [13,14,15]. Because time is irreplaceable, people are more likely to plan for future time allocation and cherish their time investment. However, no scholar has studied its moderating effect. This paper validates this moderating effect.

6.2. Practical implications

The findings of this study hold practical significance for policymakers, social media operators, and consumers.

Firstly, the results can serve as a reference for governments in formulating relevant policies to foster a healthier online environment. First, governments could require social media platforms to display video duration at the start of playback, thereby raising consumer awareness of time spent on videos. Second, governments could conduct consumer education campaigns on social media to promote time management skills. Both measures would enhance CSI and aid in making more disciplined video viewing decisions. Third, given that CTP may reduce consumer self-control through CSI, governments could advocate that watching short videos is not a healthy way to relieve stress. Instead, guiding consumers toward healthier stress relief methods can prevent excessive indulgence in content due to CTP.

Secondly, the findings can help social media operators balance profitability with social responsibility. First, the study reveals that consumers with a busy mindset prefer disciplined content (e.g., educational videos). Given the prevalent busy lifestyles today, it is foreseeable that the demand for such content will remain high and possibly increase. Therefore, providing disciplined content can attract traffic, aiding in profitability while fulfilling social responsibilities and contributing to a healthier online environment—a "win-win" situation. Second, social media operators can collaborate with the government to implement guiding policies. For example: prominently displaying playback duration before and during video playback to raise awareness of time consumption; incorporating consumer education content within videos to promote time planning. These measures can enhance the CSI of busy consumers, thereby increasing the demand for disciplined content.

Lastly, the findings can help consumers better understand themselves and become more disciplined in their content consumption. First, consumers should avoid using social media as a means to alleviate CTP. The study shows that under CTP, consumers are more likely to choose indulgent content, which not only fails to relieve CTP but also leads to addiction and wasted time, thus increasing CTP and creating a vicious cycle. Second, consumers should consciously monitor the time spent on social media content and regularly review their time plans. This helps enhance CSI, leading to a greater choice of disciplined content and long-term benefits.

6.3. Limitations and suggestions for future research

This study has several limitations. First, the experiment was conducted only in China, and the findings may not be generalizable to other cultural contexts. Future research should explore similar studies in different cultural backgrounds to enhance the external validity of the findings and uncover additional insights. Second, the variables in this study were measured using self-report questionnaires, which may be subject to common method biases. Future studies could employ laboratory experiments or utilize multiple data sources and multimodal data to improve the reliability of the results.

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