Chinese Online Big Movie Effect on Viewing Behavior among Generation Z Audiences: A Moderated Mediation Model

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Abstract

As an original content movie broadcast by streaming media in China, Online Big Movie (OBM for short) has developed rapidly from product to industry since it was proposed in 2014. This study explored the research model of Chinese generation Z's OBM-viewing behavior. Structural equation modeling (SEM) with bootstrapping estimation and multi-group comparison was conducted using data from 447 college students in Shanxi Province of China. The results show that the comparative advantage, OBM traits and crowdfunding intention positively influenced viewing behavior. Moreover, perceived value and attitudes to OBM were found to mediate the above three relationships.

Keywords: Online Big Movie, Generation Z, Viewing Behavior, Mediation Model

Introduction

China is the most populous and the largest market for viewing streaming movies. Scale of Internet users has reached 904 million in 2020, 64.5% Internet penetration, streaming video user 759 million, utilization rate of 83.9% (China Government, 2020). The extremely high penetration of mobile network and streaming video, with the high-speed development of streaming film industry, coupled with the "Stay-at-Home Economy" brought with COVID-19, the huge consumption potential of China's streaming original content (online big) movie (short for OBM) has attracted the attention of the global capital markets, as well as the mass media. Therefore, it is urgent to research the OBM-viewing behavior of Chinese audience.

Theory and Hypotheses

At present, most of the research on consumer behavior decision-making is based on the Theory of Rational Behavior (TRA), Theory of Planned Behavior (TPB) and Decomposed Theory of Planned Behavior (DTPB). Compared with TRA and TPB, DTPB has verified to be stronger applicability in many research fields, explanatory and predictive power (Taylor & Todd, 1995). However, studies on viewing behavior are still relatively weak, and this study hopes to make a breakthrough in this aspect. Therefore, DTPB was used as a framework basis and the hypothesized model is illustrated in Figure1. This study first examines the direct effects of comparative advantages, OBM traits and crowdfunding intention on movie-viewing behavior, then examines the indirect influences among them.
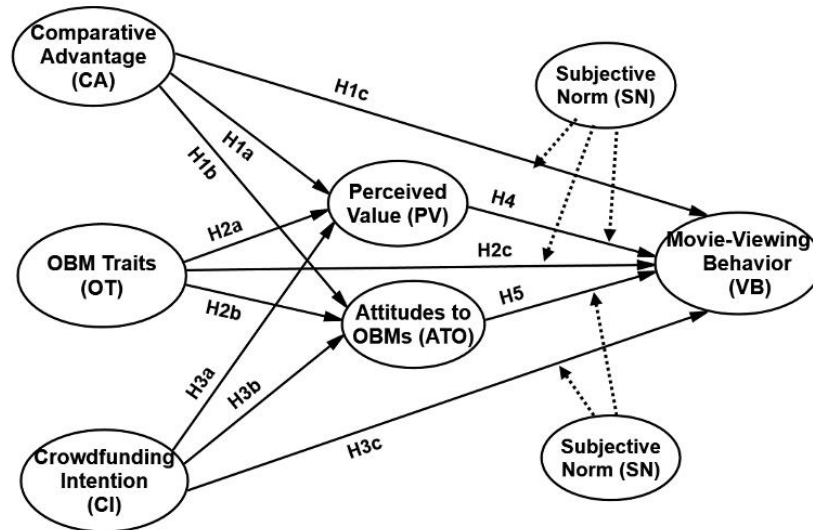
Figure 1 The Hypothesized Model

Comparative Advantage and Movie-Viewing Behavior

For streaming video, because its comparative advantage was faster than ordinary TV series, audiences would choose to pay for viewing (Wood & O'Hare, 2010). Moreover, compared with American audiences, movies with lower fees can promote the viewing desire of Chinese audiences (McKechnie & Zhou, 2003). For this study, compared with cinema movie, the streaming platform of OBM has incomparable advantages in terms of convenience of viewing mode (view anytime, anywhere, and view from more screen), controllability of viewing process (freely pause, rewind, fast-forward), and experience of viewing (participate in the comments on the bullet screen, watch the ending tidbits), etc. Thus, we propose the following hypothesis,

Hypothesis 1. Comparative advantage is positively related to viewing behavior.

OBM Traits and Movie-Viewing Behavior

Film is an art as well as a product, its traits make a movie a hit and no amount of "star power" or marketing can alter that. Many scholars have confirmed that the different traits of film and television works themselves impacted on viewing behavior. In addition, both of movie genre and star power (Basuroy et al., 2003) had significant positive effects on movie-viewing behavior and box office. Thus, we propose the following hypothesis,

Hypothesis 2. OBM traits is positively related to viewing behavior.

Crowdfunding Intention and Movie-Viewing Behavior

Film crowdfunding is a collective effort by audiences who network and pool their money together to invest in and support efforts initiated by independent young filmmakers or film organizations for film production. Studies have shown that film crowdfunding has the advantage of massive fans and college student stars chasers accounted for 83.7% among the investors of film crowdfunding (Su, 2017). Because the cost of OBM filming, publicity and distributing are lower than that of cinema movie, and currently the main mode of

film crowdfunding in the market rewarded crowdfunding with fan's enthusiasm and emotional support as rewards, through which allows more young fans to have the opportunity to realize entertainment benefits. Accordingly, we propose the following hypothesis,

Hypothesis 3. Crowdfunding intention is positively related to movie-viewing behavior.

The Mediating Roles of Perceived Value and Attitudes to OBMs

Perceived value is the audience's subjective cognition, evaluation and judgment on the ability of watching OBM to meet their own psychological, social, and life needs, which can positively predict customers' purchase behavior. For movie, the audio-visual sensory services it provide allow audience to release their emotions and impulses in the viewing process, especially for college students (Vincent & Basil, 1997). In addition, when DPTPB is used in different research situations, other variables such as individual beliefs indirectly affect through behavior attitudes (Mackenzie et al., 1986). Similarly, when college students watching OBMs, perceived value and attitudes to OBMs are important medium for them to perform viewing behavior after forming subjective evaluations of the platform comparative advantages, OBM traits, and crowdfunding intentions. Therefore, we present the following hypotheses,

Hypothesis 4. Perceived value mediates the effect of comparative advantage, OBM traits and crowdfunding intention on movie-viewing behavior.

Hypothesis 5. Attitudes to OBMs mediates the effect of comparative advantage, OBM traits and crowdfunding intention on movie-viewing behavior.

Methods

All variables were measured by a five-point Likert-type scale ranging from 1, "strongly disagree," to 5, "strongly agree". The data used in this study was drawn from college students who currently studying in Shanxi Province. From March 20 to May 3, 2020, WeChat social software was conducted to distribute the survey questionnaires to 500 college students and received 462 of complete and valid questionnaires out of the 447 possible, giving an 89.4% overall response rate. The age of the responding students was between 18 and 22, which fitted the Generation Z range, majority of whose majoring were 246 students (55.0%) in management and 96 (21.5%) students in Art respectively. There were 338 female (75.6%) and 109 male (24.4%) respondents in the collected sample. The students' monthly living expense was distributed as follows: 302 spent 1500-2000 Yuan (67.6%), 78 spent 1000 Yuan (17.4%), 45 spent 2001-3000 Yuan (10.1), 9 spent 3001-4000 Yuan (2.0%) and 13 spent more than 4000Yuan (2.9%). With regards to viewing preference, 92.6% of the respondents indicated they had watched at least one OBMs, while 15.9% of them went to the cinema more than 10 times in the past year. Among various film genres, comedy (78.5%), Love (52.8%), Suspense (40.3%) were considered as favourite movies that respondents would like to watch online.

Results

Table1 shows the means, standard deviations, reliabilities, and correlations of the variables. CA was positively related to OT (r=0.52, p<0.01), CI (r=0.43, p<0.01), PV (r=0.55, p<0.01), ATO (r=0.63, p < 0.01), and MVB (r=0.48, p<0.01). Similarly, all variables themselves were significantly correlated with other variables at 0.01.

Table 1 Descriptive Statistics and Bivariate Correlations

Variables	Mean	S.D.	CA	OT	CI	PV	ATO	MVB
CA	3.91	0.78	(0.82)					
OT	3.46	0.79	0.52**	(0.78)				
CI	3.45	0.79	0.43**	0.59**	(0.87)			
PV	3.46	0.77	0.55**	0.61**	0.65**	(0.85)		
ATO	3.67	0.68	0.63**	0.61**	0.62**	0.75**	(0.87)	
MVB	3.16	0.90	0.48**	0.58**	0.57**	0.72**	0.68**	(0.89)

Note. (1) **P<0.01(two-tailed); N =447. SD=standard deviation.

To measure the internal consistency reliability, convergent validity and discriminant validity of the constructs in our proposed model, we performed CFA analysis on the six constructs (see Table 2). The results revealed that the composite reliability (CR) of each construct ranged from 0.82 to 0.92, exceeding the 0.60 CR threshold value, and giving evidence of internal consistency reliability. Meanwhile, the average variance extracted (AVE) ranged from 0.61 to 0.78, exceeding the 0.50 AVE threshold value, and thus the convergent validity was acceptable. Error! Reference source not found.1 shows that the estimated intercorrelations were less than the square roots of the AVE in each construct, and this provides preliminary support for discriminant validity.

Table 2 Coefficients for the 6-factor measurement model

Construct	Items	Standardized factor loadings	S.E.	C.R. (t-value)	AVE	Composite Reliability
CA	CA1	0.85			0.67	0.89
	CA2	0.91	0.04	24.14(***)		
	CA3	0.79	0.05	19.89(***)		
	CA4	0.70	0.05	16.72(***)		
OT	OT2	0.83			0.61	0.82
	OT1	0.60	0.05	12.94(***)		
	OT3	0.90	0.05	19.11(***)		
CI	CI1	0.85			0.75	0.92
	CI2	0.89	0.04	24.66(***)		
	CI3	0.90	0.04	25.21(***)		
	CI4	0.83	0.04	21.75(***)		
PV	PV1	0.88			0.73	0.89
	PV2	0.87	0.04	24.04(***)		
	PV3	0.81	0.05	21.19(***)		

Table 2 Coefficients for the 6-factor measurement model (Continue)

Construct	Items	Standardized factor loadings	S.E.	C.R. (t-value)	AVE	Composite Reliability
ATO	ATO1	0.89			0.75	0.90
	ATO2	0.91	0.04	27.38(***)		
	ATO3	0.79	0.04	21.45(***)		
MVB	MVB1	0.87			0.78	0.92
	MVB2	0.890	0.04	25.98(***)		
	MVB3	0.89	0.04	25.41(***)		

Note: **p<0.01, ***p<0.01 (two-tailed); N =447.

Structural model

The structural modeling results indicate that the hypothesized model fit the data well ($\chi^2 = 420.53$, df=156, χ^2/df=2.70, GFI=0.92, AGFI=0.89, CFI=0.96, NFI=0.94, and RMSEA=0.06). We used a causal steps strategy to examine the first condition of mediation with regard to Hypotheses 1 and 2. As shown in Table1, the correlation coefficients indicated that MVB was positively and significantly related to CA (r=0.48, p <0.01), OT (r=0.58, p <0.01) and CI (r=0.57, p<0.01). In addition, see Figure 2, the results of the direct effect of CA, OT, and CI on MVB (standardized direct effect=0.23, 0.33, 0.31; p<0.01) were all statistically significant. Hypotheses 1, 2and 3 were thus supported.
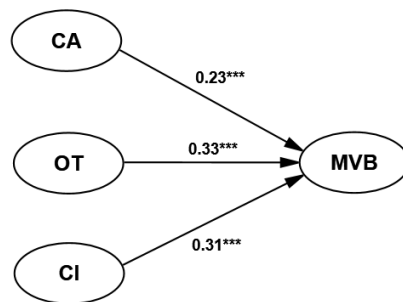

Figure 2 Direct effects of CA, OT, and CI on MVB

Note: * p < .05; ** p < .01 (two-tailed); N = 447

For testing Hypotheses 4 and 5, we measured the second conditions of mediation. As the results show in Table1, the correlation coefficients indicated that CA, OT, and CI were positively and significantly related to PV (r=0.55, 0.61, 0.65, p<0.01), similarly, they were positively and significantly related to ATO (r=0.63, 0.61, 0.62, p<0.01) and MVB (r=0.72, 0.68, p<0.01). In addition, the results of the direct effects of CA, OT, and CI on PV (standardized direct effect=0.30, 0.23, 0.46, p<0.01, see Figure 3), the direct effect of CA, OT, and CI on ATO (standardized direct effect=0.41, 0.21, 0.35, p<0.01), and the direct effect of PV and ATO on MVB (standardized direct effect=0.40, 0.38, p<0.01) were all statistically significant. Therefore, the second conditions of mediation in our proposed model were supported.

In order to investigate the indirect effects of the dependent variable through the mediators, we performed percentile bootstrapping and bias-corrected percentile bootstrapping at a 99% confidence interval

with 10,000 bootstrap samples. We calculated the confidence interval of the lower and upper bounds to test of whether the indirect effects were significant. As shown in Table3, the results of the bootstrap test confirmed the existence of a positive and significant mediating effect for PV between CA, OT, CI and MVB (standardized indirect effect =0.34, 0.36, 0.30, p<0.01), and positive and significant mediating effects for ATO between CA, OT, CI and MVB. Hypotheses 4 and 5 were thus supported.
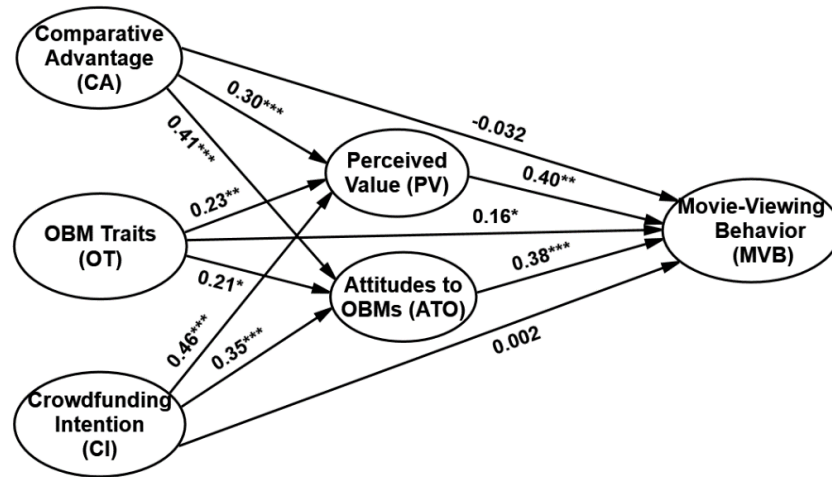

Figure 3 Structural equation modeling of the hypothesized model.

Note: *p<0.05; **p<0.01 (two-tailed); N =447

Table 3 Standardized direct, indirect, and total effects of the hypothesized model.

| | Point Estimate | Product of Coefficients | | Bootstrapping | | | | Two-tailed significance (BC 95% CI) |
| | | | | Percentile 95% CI | | BC 95% CI | | |
		SE	Z	Lower	Upper	Lower	Upper	
Standardized Total Effects								
CA--MVB	0.63	0.08	7.91	0.49	0.81	0.50	0.81	0.00(**)
OT--MVB	0.72	0.09	0.97	0.57	0.92	0.58	0.93	0.00(**)
CI--MVB	0.71	0.06	11.03	0.58	0.83	0.58	0.83	0.00(**)
Standardized Indirect Effects								
CA--PV--MVB	0.34	0.08	4.40	0.21	0.52	0.22	0.52	0.00(**)
OT--PV--MVB	0.30	0.08	3.86	0.17	0.47	0.18	0.48	0.00(**)
CI--PV--MVB	0.36	0.07	4.80	0.23	0.52	0.23	0.53	0.00(**)
CA--ATO--MVB	0.33	0.07	4.99	0.21	0.47	0.21	0.47	0.00(**)
OT--ATO--MVB	0.25	0.07	3.68	0.13	0.40	0.14	0.41	0.00(**)
CI--ATO--MVB	0.30	0.07	4.66	0.17	0.43	0.18	0.44	0.00(**)
Standardized Direct Effects								
CA--MVB	-0.04	0.07	-0.54	-0.18	0.10	-0.18	0.10	0.57
OT--MVB	0.17	0.11	1.58	-0.02	0.39	-0.01	0.40	0.07
CI--MVB	0.04	0.10	0.43	-0.17	0.23	-0.17	0.22	0.67

Note: BC--bias corrected, standardized estimating of 5000 bootstrap samples.*p<0.05, **p<0.01

Discussion

This study makes six contributions to the film literature. First of all, because of the relative newness of original content movies in general and there is a dearth of research studies within that sphere. This study is the first to investigate the OBM-viewing behaviors from the perspective of Gen Z, which extend the scope of research related to China's OBM. Second, we developed and examined the modified model based on DTPB, which explained 65% of the variation in the viewing behavior of college students, enriching the application of the DTPB in viewing behavior.

Third, our empirical results revealed that increases in comparative advantages related to increases in college students' movie-viewing behavior. Compared with cinema, OBM viewing services and experience are more convenient, efficient, preferential, and richer, which affect college students' value judgments and attitudes towards OBMs, in turn leading to more active viewing behaviors, which extend Wood and O'Hare (2010) and McKechnie and Zhou (2003) works.

Fourth, our findings also show that if college students can be made to feel that OBM traits excellent, then can be enhanced their viewing behavior. Although a number of past studies have reviewed the relationship between film star and viewing behavior (Basuroy et al., 2003), this is the first work that concerning the influence of new and young film practitioners, who are the main force in the creative team of OBM (Zhang, 2018). According to statistics, in 2019, the proportion of works directed by newcomer directors accounted for 23% of the TOP100 OBMs, which is a significant increase by 9% from 2018 (12%), and both performed better than the average (China Industry, 2020).

Fifth, our results indicate that a stronger relationship between film crowdfunding and movie-viewing behavior (Su, 2017), which has proposed theoretically outcomes by previous scholars , but our work is the first empirical research to support it. Our findings will enable us to identify new production and distribution options for independent OBM filmmakers who operate outside the industry mainstream and must therefore utilize alternative financing sources – notably crowdfunding – which ramps up the pressure to deliver motion pictures that donor fans want to see.

Finally, our conclusions expand the work of Vincent and Basil (1997) by investigating perceived value as a mediator between three independent variables and movie-viewing behavior, and also extend Mackenzie et al. (1986) work by examining attitudes to OBMs as another mediator of impact above three paths. More specifically, this is the first work that examines the mediating roles of both perceived value and attitudes in the relationships between comparative advantages, film traits and film crowdfunding and movie-viewing behavior.

Limitations and directions for future research

This study has two limitations as follows. First, limitations in sampling and samples. The sample is particularly unbalanced in the distribution of gender and educational background, mainly concentrated in female undergraduates, which lead our findings are more applicable to female undergraduate groups but may not be applicable to groups with higher monthly living expenses and deeper subjective thinking (such as graduate students and doctoral students). In addition, since the survey was conducted through the Internet

during COVID-19 pandemic, and the lack of supervision and guidance on the questionnaire filling process may lead to consequences such as low data quality. Second, the research method is not perfect. This research is a cross-sectional study and the collection of sample data at a fixed time point, but OBM is a more practical concept, its characteristics will be continuously updated and expanded with the evolution of time and technology, as well as the respondents' subjective attitudes and emotions will also increase or decrease at different times, so our results can only be applied in the performance stage. We suggest that future research could address this issue by obtaining data from qualitative research and longitudinal research to strengthen the causal interpretation of the interacting relationship between platform comparative advantages, film traits, film crowdfunding and movie-viewing behavior in the context of OBM.

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