



Analysis of the Factors Influencing Consumers' Purchase Behavior by Recommendation Platform Take Casual Snacks as an Example

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Abstract. In the Internet era, the “recommendation economy” has emerged. The purpose of this paper is tantamount to reveal the influence of various types of influences on consumers' purchase behavior in recommendation platform. This study constructs a model of three major categories of influences on consumers' purchase behavior: Recommendation bloggers/anchors, graphic and video recommendation, and live broadcast recommendation. The questionnaires were gathered for empirical analysis with casual snacks and college students as the survey subjects. The results show that bloggers/anchors' visibility, professionalism, similarity to consumers have the most significant positive influence on consumer's purchase behavior, with professionalism having the strongest influence; content quality and content format provided by graphic and video recommendation platform has significant positive influence on consumers' purchase behavior; benefits provided by live broadcast recommendation platform and live broadcast scenario have significant positive influence on consumers' purchase behavior.

Keywords: Recommendation Platform · purchase behavior · bloggers/anchors · live broadcast

1 Introduction

In the Web 2.0 era, China's Internet industry is gradually improving, and the Internet has become a second world of people's lives. A different type of economy, the “recommendation economy”, is flourishing, and the platforms on which it is based are gradually developing. Online recommendation is called “Zhong Cao” in Chinese, referring to bloggers or anchors guiding consumers to buy products through videos and live broadcasts. Today applications with recommendation functions, such as Little Red Book, Taobao and Tik Tok, have become important positions for online consumption. The influence of recommendation-growing platforms on consumer decisions is also growing.

There are relatively few scholarly studies that directly address the phenomenon of recommendation. Numerous studies generally focus on narratives while lacking rigorous models and data validation, also ignoring that live broadcast recommendation is also

an important part of the economic form of recommendation. In the existing research of constructing models and data validation, Mengyan Yang [1] explored the influence of Little Red Book KOL characteristics on interpersonal attractiveness, presentation forms of seeded content information and other aspects on consumers' purchase intention; Fei Meng [2] combined theories and models of social environment and consumer behavior and information reception to study the factors influencing consumer purchase decisions in the commerce environment, etc. However, it is common to only focus on a single platform. And there is virtually no literature that has been studied by specifically classifying recommendation platforms. However, academic research on key opinion leaders is more fully, Huayin Yang [3] analyzed bloggers' professionalism, visibility, and information quality of recommendation content, and recommendation bloggers/anchors are essentially a kind of key opinion leaders, so they can be an important reference for this study. Based on the literature examined. This study will learn and summarize its useful analytical ideas to form models and scientific data analysis methods to fill the research gaps in the field of this study.

2 Research Hypothesis and Model Construction

2.1 Bloggers/Anchors' Characteristics Factors

Visibility

Visibility is the extent to which an individual is known and understood by the public, and is an objective measure to evaluate the size of their fame. It's also a comprehensive reflection of the bloggers/anchors personal history, abilities, achievements, reputations and other factors [4]. For bloggers/anchors, who have the characteristics of KOL (Key Opinion Leader), their high visibility helps reduce the time and cost of information gathering for consumers [5], thus increasing consumers' purchase intention and confidence. Besides, it also affects consumers' perceived safety in the decision-making process: the higher visibility they have, the more trust emotion of consumers increase, and their psychological preference for purchase arises, eventually the purchase behavior is generated [6]. So we assumed:

H1: Visibility of bloggers/hosts has a significant positive effect on consumers' purchase behavior.

Professionalism

Professionalism is the characteristics of knowledge, experience or skills that bloggers/anchors possess and disseminate to their followers and live viewers. As the main source of recommendation, they are required to introduce a lot of information about the products they recommend. Research shows that the more professional the information source, the more efficient and effective information delivery, and the more consumers believe they can get more detailed information about the product from the information source [7]. Moreover, the stronger the professionalism of them, the more professional information consumers have about the product, the less cost and effort it takes to search for the target product, which helps to enhance consumers' experience of the product [8], and gain great trust from consumers, thus influencing their purchase decisions. So we assumed:

H2: The professionalism of bloggers/hosts has a significant positive influence on consumers' purchase behavior.

Degree of Similarity to Consumers

Similarity is the human sensory perception of the consistency of things that are intimately connected, and it is one of the main factors that influence interpersonal attraction. Similarity between individuals is mainly manifested in factors such as psychological, mental, and background characteristics. Psychology suggests that similar people tend to interact more informatively with each other, thus shrinking each other's distance. In a study on the impact of merchant self-presentation on customer trust, Rong Liu et al. [9] pointed out the important mediating role of similarity, while consumers' perceptions of consumption decisions are more likely to be influenced by bloggers/hosts who have higher similarity to them in the process of being seeded. So we assumed:

H3: The similarity between bloggers/hosts and consumers has a significant positive effect on consumers' purchase behavior.

2.2 Graphic and Video Factors

Content Quality

The quality of content on a seeding platform is the blogger's ranking of value to the user. Specifically, it is the extent to which the introduction of a product can actually unfold, catch the consumer's eye, etc. In the era of fragmented information, content that lacks highlights is easily drowned in the mass of information. High-quality seeding content can help consumers quickly understand product information, reduce the risks and time cost of their purchase decisions, and increase their satisfaction, trust and loyalty [10]. Depending on Zhou Feiqiao, in the era of "content is king", the richer the content, the higher the user's stickiness [11]. If consumers feel that the content is of high quality, they are likely to see it as authentic and credible, so they will refer to it more and ultimately make positive consumer decisions [12]. So we assumed that:

H4: The content quality of graphics and video has a significant positive influence on consumers' purchase behavior.

Content Format

The presentation of content is also known as the visual cues of information. Different forms of content presentation can prompt consumers to visually target the information that the merchant wants to spread. There are 5 main types of new media content: text, images, GIFs, short videos and H5. Relatively static seeding platforms often use video, or a mix of text and images to explain products [13]. In addition, bloggers will also introduce seeding products through personal reviews, combined with new media, to meet the multifaceted needs of consumers [14]. Studies have shown that the presentation of authentic and rich information can lead to the formation of consumer expectations and influence their purchasing decisions [15]. So we assumed:

H5: The content format of graphic and video has a significant positive impact on consumers' purchase behavior.

2.3 Live Broadcast Factors

Scenario-based Live Broadcast

Live broadcast often stimulates consumers' impulsive purchase behavior by creating a scenario-based mechanism, which is mainly reflected in the following two aspects: First, in the live broadcast, in order to give consumers a better shopping experience, abundant and personalized elements will be added to the interactive interface design, such as the form of bullet subtitles and the pattern when giving a like, etc. to enhance aesthetic feeling of the overall design [16]. Second, the physical elements in the network service scenario will stimulate consumers' senses and have an impact on consumers' cognition and behavior. During the live broadcast, merchants often carefully arrange the lighting, scenes, decoration, etc. of the live broadcast rooms to achieve a good visual presentation effect, promoting consumers to pay more attention to the live broadcast content, which make the information presented by the live broadcast more three-dimensional and rich, stimulating the senses more strongly, improving the consumers' vivid perception level, thus affecting consumers' idea [17]. So we assumed:

H6: The live broadcast scenario in live broadcast has a significant positive influence on consumers' purchase behavior.

Benefits in Live Broadcast

In a live broadcast, there are usually live broadcast benefits offered including grabbing virtual red packets and special offers. On the one hand, consumers can obtain a large number of price or quantity discounts that are not available offline, thus perceiving the presence of community and inspiring participation; on the other hand, prices are

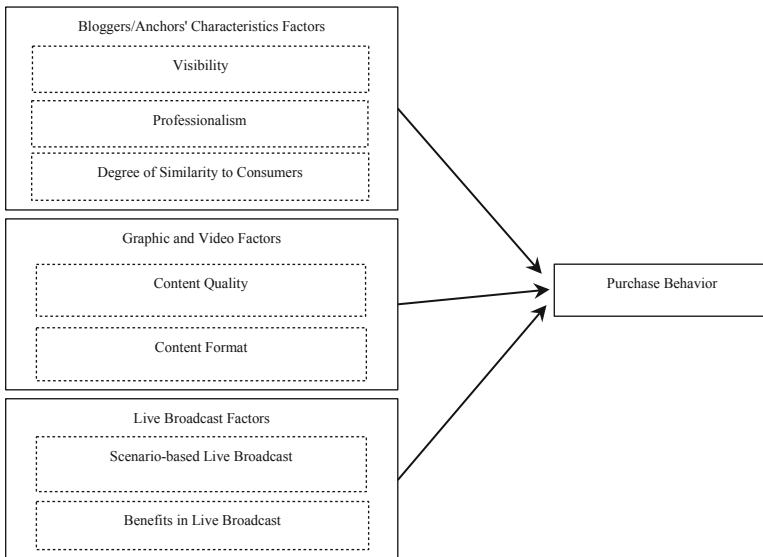


Fig. 1. Research Model

significantly lower than daily promotional prices, which will reduce the use of time pressure and enhance the perceived value of consumers [18]. So we assumed:

H7: The provision of benefits in the live broadcast has a significant positive influence on consumers' purchase behavior.

Based on the above analysis, the final research model created in this paper is as follows (Fig. 1):

3 Data Analysis

In this paper, an online questionnaire was designed, mainly consisting of personal information and a Likert scale. A total of 296 valid questionnaires were collected from online communities such as WeChat. The data were subsequently analyzed with SPSS software using four data analysis methods: descriptive analysis, reliability and validity analysis, correlation analysis, and multiple regression analysis. The results of the analysis were as following.

3.1 Descriptive Analysis

The data shows that the proportion of men and women among the respondents is basically balanced, and the proportion of women is relatively high; The age was concentrated between 15 and 30 years old, accounting for 98.94% of the respondents; 97.64% of the respondents were students, and the remaining small part were freelancers and employees of enterprises and institutions; Most of the academic qualifications are bachelor's degrees, accounting for 54.47% of the total, followed by college degrees; The monthly consumption level is mostly between 1,000 yuan and 3,000 yuan. In terms of platform selection, 40% of the respondents have contact with both types of platforms, with consumers mainly on live streaming platforms such as Tik Tok and Snack Video and consumers mainly on graphic and video platforms such as Little Red Book, Zhihu and Bilibili, accounting for a similar proportion, each at about 30%. In terms of snack choices, bread, seasoned noodle products, meat products, puffed food, soy products, and nuts are obviously more popular with consumers.

3.2 Reliability and Validity Analysis

The McDonald's ω for the questionnaire scale was 0.854 (Table 1). The discrete variable reliability values were all greater than 0.6 (Table 2). This indicates that the reliability of the variables is high and the data are scientifically credible.

The KMO value for the overall validity of the scale was 0.925 (Table 3), with a significance of 0 and good overall validity. The corresponding commonality values for each of the study items for the predictor variables were well above 0.4 (Table 4). The cumulative variance explained after rotation was 80% > 50% (Table 5), with superior structural validity of the predictor variables. The outcome variable had a KMO value of 0.759, with a significance of 0 (Table 6). The outcome variables all was for commonality values above 0.4 (Table 7) and the cumulative variance explained after rotation was 87.539% > 50% (Table 8), indicating good structural validity of the outcome variables.

Table 1. Overall Reliability

Item Number	Sample Capacity	McDonald's ω Coefficient
80	296	0.854

Table 2. Reliability of Final Research Results

Category	CITC	Cronbach's Alpha	Cronbach α Coefficient
Visibility	0.795	0.954	0.958
Professionalism	0.746	0.955	
Degree of Similarity to Consumers	0.781	0.955	
Content Quality	0.716	0.956	
Content Format	0.707	0.956	
Scenario-based Live Broadcast	0.666	0.957	
Benefits in Live Broadcast	0.706	0.956	
Purchase Behavior	0.871	0.953	
Standardization Cronbach α Coefficient: 0.958			

Table 3. KMO and Bartlett for Predictor Variables

KMO		0.925
Bartlett Test	Approx. Chi-Square	4643.346
	<i>df</i>	78
	<i>P</i> value	0.000

3.3 Correlation Analysis

The Pearson test shows that all thirteen predictor variables have Pearson correlation coefficients above 0.5 for purchase behavior, indicating that there is a relatively significant correlation (Table 9), which allows for regression analysis. And the coefficients of the factor variables for bloggers/anchors were all relatively high, above 0.7. There were no significant differences in Pearson coefficients between the other categories.

3.4 Regression Analysis

Using the factors of the three types of influencing factors as the dependent variables, regression models were constructed respectively, and the results of the regression analysis are presented in Table 10, 11, 12. In combination, the F-tests correspond to p-values of $0.000 < 0.01$, indicating that they all show significant and the models were constructed

Table 4. Predictor Variables Factors Analysis Loadings Results Output

Name	Factor loading		Communality
	Factor 1	Factor 2	
Visibility	0.647	0.512	0.681
Professionalism	0.620	0.471	0.607
Degree of Similarity to Consumers	0.641	0.506	0.667
Content Quality	0.911	0.091	0.838
Content Format	0.931	0.054	0.869
Scenario-based Live Broadcast	0.158	0.933	0.895
Benefits in Live Broadcast	0.906	0.070	0.826

Table 5. Explanation of Variance of Predictor Variables

Factor	Eigen			Unrotated			Rotated		
	Eigen Value	% of Variance	Cumulative % of Variance	Eigen Value	% of Variance	Cumulative % of Variance	Eigen Value	% of Variance	Cumulative % of Variance
1	7.741	59.550	59.550	7.741	59.550	59.550	5.604	43.109	43.109
2	2.659	20.451	80.000	2.659	20.451	80.000	4.796	36.891	80.000
3	0.892	6.864	86.864	-	-	-	-	-	-
4	0.217	1.669	94.851	-	-	-	-	-	-
5	0.132	1.018	97.175	-	-	-	-	-	-
6	0.122	0.935	98.110	-	-	-	-	-	-
7	0.064	0.493	100.000	-	-	-	-	-	-

Table 6. KMO and Bartlett for the Outcome Variables

KMO		0.768
Bartlett Test	Approx. Chi-Square	283.381
	<i>df</i>	3
	<i>p</i> value	0.000

successfully. The R-squared values are all between 0–1, indicating that the models have a normal fit, in which, of the three types of factors on consumers’ purchase behavior. The fit was the best for the three categories of factors on consumers’ purchase behavior, namely, visibility, content quality, and leave benefits, respectively. Meanwhile, the VIF values were all less than 10, i.e. there was no co-linearity problem. The significance of the independent variable *x* was judged by a t-test, and the *p*-values of the corresponding t-tests for the influencing factors was all less than 0.05, indicating that the independent variables

Table 7. Outcome Variables Factors Analysis Loadings Results Output

Name	Factor loading	Communality
	Factor 1	
Purchase Behavior	0.944	0.891
	0.960	0.921
	0.949	0.901

Table 8. Explanation of Variance of Outcome Variables

Factor	Eigen			% of Variance (Unrotated)			% of Variance (Rotated)		
	Eigen Value	% of Variance	Cumulative % of Variance	Eigen Value	% of Variance	Cumulative % of Variance	Eigen Value	% of Variance	Cumulative % of Variance
1	1.501	50.034	50.034	1.501	50.034	50.034	1.501	50.034	50.034
2	0.766	25.531	75.565	-	-	-	-	-	-
3	0.733	24.435	100.000	-	-	-	-	-	-

Table 9. Pearson Coefficient Results

Influencing Factors	purchase Behavior
Visibility	0.741**
Professionalism	0.720**
Degree of Similarity to Consumers	0.715**
Content Quality	0.630**
Content Format	0.633**
Scenario-based Live Broadcast	0.572**
Benefits in Live Broadcast	0.644**

all had a significant effect on the dependent variable. Referring to the standardised regression coefficients, it can be possible to conclude that these influencing factors are all positive and significant on consumer purchase behavior, with professionalism, content quality and benefits in live broadcast being the most significant in each of the three categories.

3.5 Assumption Verification Results

The above data analysis showed that H1 to H7 are all tenable.

Table 10. Regression Analysis of the Characteristics Factors of recommendation Bloggers/Anchors on Consumers' purchase Behavior

	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R ²	Adjusted R Square	F
	B	Std. Error	Beta						
Visibility	0.177	0.046	0.442	6.981	0.018*	2.168	0.896	0.801	F (3,466) = 17.540,p = 0.000
Professionalism	0.219	0.045	0.658	3.5	0.032	2.095	0.722	0.716	F (3,466) = 21.506,p = 0.000
Degree of Similarity to Consumers	0.082	0.047	0.122	5.56	0.013	2.135	0.469	0.463	F (3,466) = 11.546,p = 0.000

D-W value: 2.025

* p < 0.05 ** p < 0.01

Table 11. Regression Analysis of Graphic and Video Factors on Consumers' purchase Behavior

	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R ²	Adjusted R Square	F
	B	Std. Error	Beta						
Content Quality	0.163	0.054	0.473	5.159	0.033	2.084	0.638	0.632	F (3,466) = 6.199,p = 0.000
Content Format	0.074	0.054	0.285	4.38	0.029	2.074	0.551	0.545	F (3,466) = 8.299,p = 0.000

D-W value: 1.972

* p < 0.05 ** p < 0.01

Table 12. Regression Analysis of Live Broadcast Factors on Consumers' purchase Behavior

	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R ²	Adjusted R Square	F
	B	Std. Error	Beta						
Scenario-based Live Broadcast	0.014	0.063	0.316	4.221	0.032	2.028	0.562	0.531	F (15,454) = 1.990,p = 0.000
Benefits in Live Broadcast	0.248	0.056	0.548	6.884	0.025*	2.077	0.842	0.834	F (4,465) = 5.142,p = 0.000

D-W value: 1.981

* p < 0.05 ** p < 0.01

4 Conclusions and Recommendations

Firstly, college students are more inclined to choose graphic and video recommendation platforms like Little Red Book and Bilibili. So it should focus on the above recommendation platforms; secondly, compared with recommendation content, consumers are more concerned about bloggers/anchors. Therefore, we should concentrate on bloggers/anchors. Firstly, to consider their knowledge base and other professionalism. Secondly, to have a certain visibility in the society or network, and again, to be as similar

as possible to consumers in some aspects and have strong network interaction ability. Thirdly, video graphics platforms provide consumers with benefits in terms of content quality and format that have a significant positive impact on consumers' willingness to buy. Therefore, the focus should be on providing consumers with sufficient discounts and other benefits, while ensuring the quality of the content, including the authenticity of the information, etc. The content format should try to combine graphics, video explanations, etc. Fourthly, the benefits provided by the live broadcast recommendation platform, live broadcast scenes, mastering the interactive purchase Behavior with others, has a significant positive impact on consumers' willingness to buy. When choosing a live broadcast recommendation platform for recommendation, first of all, it should provide enough live broadcast benefits, such as sufficient price reduction, etc. At the same time, it is best to choose a fully functional and convenient live broadcast interface, with a better live broadcast room arrangement i.e. a highly live broadcast scene. The chosen live broadcast recommendation platform should have complete consumer interactive features, etc.

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