

“Divergence, Similarity, or Both”: An Empirical Study on the Influence of eWOM on College Students’ Purchasing Intention

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ABSTRACT

Consumers’ purchase intention is a hot topic of research by many scholars. However, few scholars have conducted research on the unique group of "college students" in the consumer group. This article analyzes the unique buying habits and psychology of the college student group, then explores the mechanism of influence of electronic Word-of-Mouth on college students’ purchase intention, with a view to discovering the differences and the same in the treatment of electronic Word-of-Mouth among college students compared with other consumer groups. Empirical analysis by establishing structural equation model, this research found that: (1) unlike other consumer groups, college students are not concerned about the timeliness and differences of electronic word-of-mouth; (2) although college students have a high degree of involvement in the Internet, they are less affected by the central path of eWOM(such as the quality, authenticity of eWOM) than the outer path of eWOM(such as publishers of eWOM); (3) college students with different characteristics have quite different attitudes towards electronic Word-of-Mouth. College students with highly sensitive characteristics are more affected by electronic Word-of-Mouth. This research not only enriches the related research on the influence of electronic Word-of-Mouth on consumer purchase intention, but also has strong practical guiding significance, and can provides management reference for the differentiated marketing of merchants.

Keywords: *Electronic word-of-mouth, Group differences, College students, Purchase intention.*

1. INTRODUCTION

As a key part of the purchase process, purchase intention has a strong subjectivity, so different consumer groups will have certain differences, and there will be greater similarities within the same group. In previous studies, scholars usually took the entire consumer group as the research object. But this ignores an important fact: there are still many small groups within the consumer group, such as college students. If the consumer group is the research object, it will inevitably lead to the shortcomings of inaccurate conclusions.

College students have increasingly become an important consumer group. Based on group differences, this article focuses on college students in the consumer group, and explores the mechanism of the influence of eWOM on the purchase intention of college students. With the increasing role of word-of-mouth marketing, marketing based on market segmentation needs to

further explore the role of word-of-mouth marketing. On this basis, it is inevitable to carry out word-of-mouth marketing for different target customer groups. What’s more, finding out the differences in the attitudes of different consumer groups towards electronic word-of-mouth is of greater practical significance for businesses to carry out word-of-mouth marketing, and put forward more targeted management suggestions and marketing guidance for businesses.

2. LITERATURE REVIEW AND RESEARCH HYPOTHESES

Regarding electronic word-of-mouth, Stauss first defined it, believing that eWOM is consumer reporting consumption-related information on the Internet[1]. When shopping online, Safdar.Hussain believes that consumers will rely on information provided by others. This information may be adopted and may profoundly

affect their behavior, intentions and attitudes. This information is eWOM[2].

The professionalism of eWOM publishers will affect consumers' purchase intention [3]. Hu found compared with low-professional eWOM publishers, high-professional eWOM publishers have a greater impact on consumers' purchase intention[4]. Tan Chunhui pointed out that the professionalism of eWOM publishers positively affects consumers' purchase intention through trust variables[5]. From the perspective of persuasive effect[6], the information released by more professional eWOM publishers can dispel consumers' doubts. College students with serious herd mentality and more likely to be affected by eWOM's publishers. Therefore, the hypothesis H1: The professionalism and popularity of eWOM publishers positively affect the purchase intention of college students.

The quality of eWOM has always attracted attention[7]. Doll believes that the quality of eWOM can be evaluated in terms of content, accuracy and timeliness[8]. In short, the quality of eWOM needs to be measured from some aspects. This article measures the quality of eWOM from authenticity, richness, quantity, timeliness and differences.

The accuracy and usefulness of the information will increase the credibility of the information[9]. Cheung found that consumers regard the authenticity and reliability of the evaluation as the criteria for judging the quality of eWOM. This true and reliable perception will make consumers form a positive attitude and purchase intention[10]. Cao Huanhuan found that high-quality review information contains more comprehensive and useful information, from which consumers can obtain more comprehensive information, thereby enhancing their trust in wWOM information. Therefore, the comprehensiveness of reviews will produce strong persuasive power to consumers[11]. College students have a high degree of involvement in the Internet, so there is reason to believe they have higher requirements for the authenticity of wWOM. So, hypothesis H2: The accuracy and authenticity of eWOM positively affect the purchase intention of college students.

The vividness and richness of eWOM are the most important factors for its re-dissemination[12], and vivid eWOM has a greater impact on consumers' purchase intention than pale eWOM[13]. McMillan pointed out in his research on Internet interaction that the vividness of eWOM has a greater impact on consumers' purchase intentions than other characteristics of eWOM[14]. So, hypothesis H3: The richness of eWOM positively affects college students' purchase intentions.

New eWOM integrates previous information to be more accurate, and therefore easier to be adopted by consumers. Through research, Wang Junjun found that

the timeliness of wWOM has a significant impact on the sales of popular brand products[15]. Lee studied the influence of eWOM and comment help on the box office of movies and found that when the perception of comments is helpful, the time of the comment information has a greater impact on the box office[16]. College students who seek novelty will inevitably focus more on the latest eWOM, and their poor patience also makes them reluctant to search for long-term information. So, hypothesis H4: The timeliness of eWOM positively affects college students' purchase intention.

There is a big controversy about the influence of the differences of eWOM on consumers. Chintagunta believed that the differences of eWOM has little effect on the box office of movies[13]; Moon believed that the differences of eWOM will negatively affect consumers' purchase intention[17]; while Sun believed that when the average evaluation of a product is lower than the consumer's expectation level, the differences of eWOM has a positive impact on the sales of the product[18]. Taking into account the weak trial and error ability of college students and their stronger awareness of risk aversion, college students will be more cautious in choosing products with polarized reviews, so hypothesis H5: The difference in eWOM negatively affects college students' purchase intentions.

The number of online reviews can directly reflect the popularity of goods or services to a certain extent, and consumers tend to trust those popular goods more. Liu found through researching the film industry that the number of eWOM significantly affects consumers' purchase intention, and compared with eWOM valence, the number of eWOM has a greater positive impact on movie box office[19]. Gong Shiyang also found that the number of eWOM directly positive affects the sales of books through research on the sales of books on Dangdang.com[6]. The number of eWOM is a good indicator of "risk Aversion". So, hypothesis H6: The number of eWOM positively affects the purchase intention of college students.

According to the theory of communication and persuasion, there are three factors affect the effect of persuasion: source of information, the information itself, and the recipient of the information[20]. The eWOM recipient is the purchase decision-making behavior. According to the personality trait theory, personality differences between people may cause them to make different decisions. People with high sensitivity tend to care more about the opinions of others. Based on this, hypothesis H7: Compared with people with low sensitivity, eWOM has a greater impact on the purchase intention of college students with high sensitivity.

Different types of communication media have different impacts on consumers by word-of-mouth utility[21]. According to the source reliability theory,

people are more likely to be persuaded by information from reliable sources[22]. Hofland believes that the credibility effect of the information source affects the effect of information dissemination. Generally speaking, the higher the credibility of the information dissemination medium, the more people trust the information. Therefore, hypothesis H8: The regularity and reliability of the media of eWOM communication are positively affecting the purchase intention of college students.

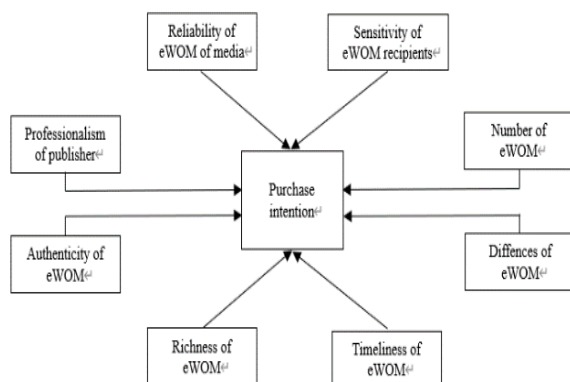


Figure 1 Research framework

3. RESEARCH DESIGN AND RESULTS

3.1. Research Method and Data Collection

The subject of this article is the purchase intention of college students, which is an exploratory research. This research adopts the form of questionnaire to conduct the survey, and the questionnaire adopts the form of the Likert five-level scale. The questionnaire is divided into two parts: the first part is a survey of the basic situation of the respondents; the second part is a survey of research hypotheses, including 4 independent variables and 1 dependent variable.

The survey was conducted on a sample of 5 universities in Nanjing, involving college students of different majors and grades. In this study, a total of 258 college students were surveyed, and 245 valid questionnaires were collected, with an effective rate of 94.96%.

3.2. Reliability and Validity Analysis

Reliability refers to the consistency of the results obtained by using the same method to repeatedly measure the same object. Cronbach's coefficient is commonly used in statistics to measure the degree of reliability. This article uses SPSS22.0 for reliability analysis, and the results show that the total Cronbach's coefficient is 0.923, and the reliability reaches the excellent standard.

Validity refers to the degree to which the results measured by the questionnaire can reflect the results

you want. This article uses factor analysis to evaluate construct validity. It is calculated that the KMO value is 0.938 greater than 0.9, and the Sig value of Bartlett's sphere test is 0.000, which is less than 0.05, indicating that the questionnaire is suitable for factor analysis.

Table 1. Reliability analysis results

Reliability statistics	
Cronbach's Alpha	Number of items
.923	20

After performing factor analysis on the questionnaire data, the results obtained are: the cumulative variance contribution rate of the common factor is greater than 60%; the load of each item on the common factor is greater than 0.5; the common factor variance is greater than 0.4, which meets the statistical requirements, which proves the constructive validity is good.

Table 2. KMO and Bartlett test

KMO and Bartlett		
KMO value		.938
	Approximate chi-square	2160.570
Bartlett's sphericity test	Degree of freedom	190
	Significance	.000

4. STRUCTURAL EQUATION AND AMOS EMPIRICAL ANALYSIS

4.1. Model Construction

This article uses AMOS24.0 to establish a structural equation model for empirical analysis, and meet the requirement that the sample size is more than 10 times the variables [23].

Model comparison is the key to ensuring model quality, so this paper sets up two models for comparison and selection. According to the nature of the research question, the authenticity, accuracy, number, difference and timeliness of eWOM are all dimensions of the content characteristics of eWOM. Therefore, these aspects of eWOM can constitute a common factor, which is the content of eWOM. So, this paper constructs two models, the first-order 8-factor model and the second-order 4-factor model.

Model 1 is a first-order 8-factor model, including 8 latent variables and 1 dependent variable. The latent variables include the number of eWOM, the authenticity of eWOM, the vividness of eWOM, the timeliness of eWOM, the difference of eWOM, the publisher of eWOM, the communication media of eWOM and the recipient of eWOM. The dependent variable is the purchase intention of college students.

Table 3. Goodness of fit test

	χ^2/df	NFI	GFI	PNFI	RMSEA	Optimal model
Ideal range	<3.0	>0.9	>0.8	>0.5	<0.08	
model 1	4.391	0.702	0.726	0.501	0.081	Model 2
model 2	2.892	0.925	0.790	0.539	0.078	

Table 4. Path coefficient evaluation table

Path/Hypothesis	Non-standardized coefficient	standardized coefficient	C.R.	P value	Whether the hypothesis holds
H1	.40	.832	5.883	***	yes
H2	.18	.19	3.229	.001	yes
H3	.15	.18	3.016	.003	yes
H4	-.03	.04	.588	.557	no
H5	-.10	.10	1.711	.087	no
H6	.15	.16	2.751	.006	yes
H7	.628	.766	6.489	***	yes
H8	.30	.370	3.188	.001	yes

*** means the P value is significant at the 0.01 level

Model 2 is a second-order 4-factor model, including 4 latent variables and 1 dependent variable. The latent variables are the content of eWOM, the publisher of eWOM, the recipient of eWOM, and the communication medium of eWOM. The content of eWOM is a second-order public factor. Compared with model 1, model 2 is more concise and more general.

When the preset model is greater than or equal to 2, it is necessary to select the best model. Generally speaking, the following principles need to be considered in the model competition[24]: (1) the principle of model simplification; (2) the principle of multiple models; (3) statistics principles of inspection. Since there are only two models in this article, statistical testing methods are mainly used to select models[25].

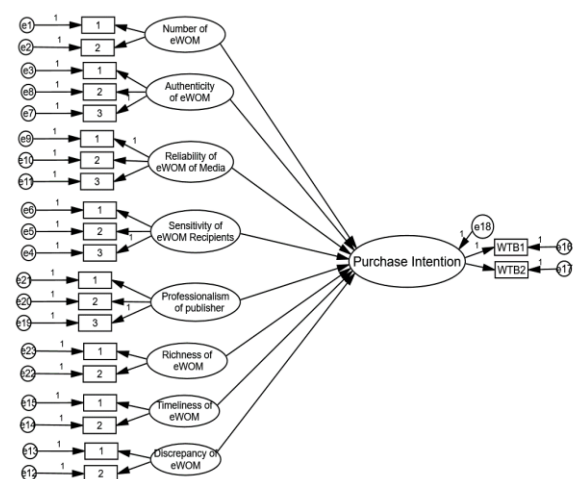


Figure 2 Order 8-factor model

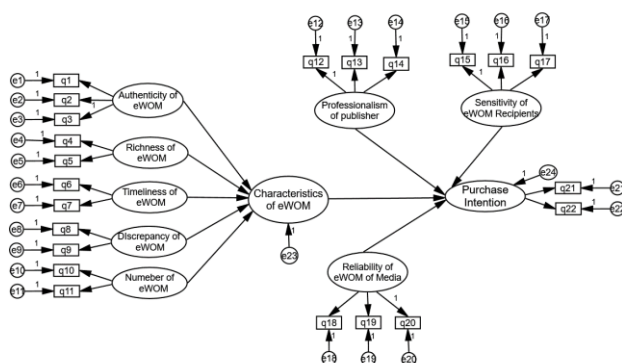


Figure 3 Order 4 factor model

4.2. Model Competition

The goodness of fit index is the main criterion to measure the pros and cons of the model. This article selects 5 indicators to compare the models, including χ^2/df , NFI, GFI, PNFI and RMSEA[23]. After the calculation of AMOS24.0, the results are shown in the table 3. Comparing model 1 and model 2 according to the ideal range of the selected evaluation index, model 1 did not reach the ideal range of most evaluation indexes, and model 2 reached the ideal range except for the ideal range of GFI evaluation index. Therefore, according to the statistical test results, this paper selects model 2 as the final model, and uses model 2 for the next analysis.

4.3. Path Analysis and Hypothesis Testing

This article uses AMOS24.0 to analyze the path of non-standard conversion and standardization. Table 4 shows the specific coefficient values.

The non-standardized coefficient represents the linear proportional relationship between the independent variable and the dependent variable. For example, the coefficient of the professionalism of the eWOM publisher on the purchase intention of college students is 0.40, indicating the professionalism of eWOM senders increases by one unit, and the purchase intention of college students increases by 0.40 units. The impact coefficient of the difference of eWOM on the purchase intention of college students is -0.1, which means that when the difference of eWOM increases by one unit, college students' purchase intention decreases by 0.1 unit. It can be seen from the table 4 that, except for the timeliness and differences of eWOM, which can inhibit college students' purchase intention, the other variables all have different degrees of promotion effect on college students' purchase intention.

The standardized coefficient represents the degree of importance of the independent variable to the dependent variable, and the closer the coefficient is to 1, the higher the degree of importance of the independent variable to

the dependent variable. According to statistical analysis, the professionalism of eWOM publisher has the greatest influence on college students' purchasing intention, reaching 0.832; the sensitive characteristics of eWOM receivers also have a greater impact on college students' purchase intention; but the timeliness of eWOM and the difference of eWOM have little effect on college students' purchase intention.

When using AMOS for hypothesis testing, it is required that the C R. value is greater than 1.96 and the P value is less than 0.05 to be significant. Through analysis, it is found that Hypothesis 4 and Hypothesis 5 are not statistically significant, so the hypothesis does not hold. The remaining hypotheses are significant in statistical testing. To sum up, in the eight hypotheses established in this paper, six hypotheses are established and two hypotheses are not established.

5. RESEARCH CONCLUSIONS AND DISCUSSIONS

5.1. Research Conclusion

Based on the unique consumer psychology and behavior characteristics of college students, this paper explores the purchase intention of eWOM to college students. Through empirical research, this article draws the following conclusions.

(1) The popularity and professionalism of eWOM publisher significantly positively affect college students' purchase intention, and among many influencing factors, the popularity and professionalism of eWOM publisher have the greatest influence.

(2) Regarding the impact of the timeliness and difference of eWOM on purchase intention, this article draws different conclusions from the predecessors. This article found that the timeliness and difference of eWOM don't have a significant impact on college students' purchase intention. Regarding the differences in research conclusions, the possible reasons are as followed. College students have a high degree of involvement in the Internet, and have strong information search capabilities. Therefore, it is reasonable to believe that college students can find enough information in a relatively short period of time, so college students don't care about the timeliness of eWOM. College students are willing to pursue a unique shopping experience, so they tend to make some purchase decisions that are different from ordinary people. When ordinary consumers are affected by the greater difference of eWOM, college students may continue to choose to purchase the product because of the pursuit of individuality, so as to satisfy their vanity and show their own uniqueness.

(3) College students with different sensitive traits are differently affected by eWOM. College students with

high sensitivity traits are more susceptible to the opinions of others when making decisions. In particular, some negative comments will make college students with highly sensitive traits more vigilant and affect their purchase decisions.

5.2. Theoretical Contribution

(1) Based on group differences, this article analyzes the influence mechanism of eWOM on the purchase intention of college students. The theory of internal and external groups proposed by sociologist Sumner well proves that there are similar characteristics and preferences in the same group, but different groups have different characteristics and preferences. Therefore, studying the influence of eWOM on the purchase intention of college students can further clarify the role and influence of eWOM, and enrich the research results in this field.

(2) This article quantitatively analyzes the degree of influence of various aspects of eWOM on college students' purchase intention, and concludes that the publisher of eWOM is the most important factor affecting college students. Previous studies often only explore the influence of eWOM on consumers' purchase intention from two perspectives, positive and negative. However, few people have studied the impact of different characteristics of eWOM on consumers' purchase intention, this article has made a certain contribution in this regard.

(3) This article found that in terms of the timeliness and differences of eWOM, there are big differences between college students and other consumer groups, and college students do not pay attention to the timeliness and differences of eWOM, this provides an angle worthy of further research in the field of Internet word-of-mouth.

5.3. Management Enlightenment

This article specifically studies the impact of eWOM on college students' purchase intention, and can provide marketing guidance for companies whose main marketing targets are college students

(1) Electronic word-of-mouth publishers are the most concerned factor for college students, so companies can actively invite some well-known or professional opinion leaders to post comments on relevant social media. Taking advantage of the serious celebrity and herd effects of college students, training and education institutions can create some "famous teachers" and use well-known tutors to increase the company's reputation.

(2) College students are not concerned about the timeliness and differences of eWOM. Therefore, companies do not need to arrange the information in the

time sequence of eWOM release. Companies can rank eWOM according to the star rating or quality of online reviews, and present better-quality word-of-mouth information in a conspicuous position, forming a halo effect. In addition, because college students do not pay attention to timeliness, companies can continue to invest in relevant eWOM information or product reviews on mainstream social media for a long time, so that college student can search for relevant information when they need them.

(3) The authenticity and richness of eWOM positively affect the purchase intention of college students, so companies can actively encourage consumers to make post-consumer evaluations and encourage consumers to publish rich, authentic and useful online reviews in the hope of serving other consumers more useful advice and guidance.

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