

Research on the Impact of the Contents of Goods Reviews on Consumers' Purchasing Intention

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Abstract: This paper tries to explore the impact of online goods reviews on consumers' purchasing intentions. Based on the text word frequency statistics method, the study proposed a research hypothesis and evaluated the impacts of the primary and secondary attributes of goods involved in online reviews on the purchase intention of consumers. Reviews on the cost performance, brand, logistics service, quality, and appearance of goods will have an impact on consumers' purchase intention, with the largest impact on appearance, the second largest on quality and cost performance, and the smallest on brand and logistics service. The results of this research can provide management enlightenment for e-commerce enterprises on how to improve the market recognition of their products by virtue of Internet reputation.

Keywords: Word frequency count; Goods attributes; Purchase intention

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1. Introduction

To obtain more real reviews about the products and avoid risks, most online shoppers usually refer to relevant online product reviews before making a transaction (including: the pros and cons of the product, quality, cost-effectiveness, satisfaction, etc.)^[1]. Product online reviews reflect consumers' intuitive feelings about products, and have also become one of the references for e-commerce companies to improve products and formulate marketing strategies. To leverage the power of reviews, merchants should focus on improving overall review quality to gain consumer trust and increase purchase willingness^[2].

Numerous studies have examined the influence of online reviews on purchase intention^[1-6]. These studies examine the format, quantity, and channel of online reviews, the credibility of reviewers, consumer behavior, and online reputation. These studies primarily analyze factors influencing purchase intention from the consumer perspective, while fewer studies empirically analyze factors influencing purchase intention based on fine-grained product attributes from the merchant perspective. However, with the proliferation of online reviews, e-commerce companies struggle to truly understand consumer needs from this vast pool of feedback. For example, when consumers browse product reviews, which aspects of the product attributes are most influential in their purchase

intention? Which dimension of product descriptions in online reviews is most influential in consumers' purchase desire? Exploring these questions will help merchants identify useful reviews, thereby improving product design, developing review-driven mechanisms, and implementing targeted marketing strategies to boost consumer purchase intention.

This paper will obtain review texts based on web crawlers, extract evaluation objects (i.e., product attributes) from the texts, and then determine the potential factors that may affect consumers' purchasing intentions, propose research hypotheses, and verify the hypotheses using structural equation models.

2. Literature review

Online product reviews, as an important form of online word-of-mouth, significantly influence consumers' purchase decisions and product sales on e-commerce websites, and have always attracted the attention of the majority of researchers^[7]. A higher quantity of reviews can lead to increased consumer confidence, while the quality of these reviews is crucial for effective persuasion^[8]. Positive reviews enhance purchase intention, with valence showing a strong correlation to consumer decisions^[9].

The current research status will be elaborated from two aspects: product reviews and the influence of product reviews on consumers' purchase intentions.

Research on the content of product reviews can generally be summarized into the following aspects: the credibility of review content, the usefulness of review content, the quality of review content, and the emotional tendency of review content. Generally, the dimensions of credibility evaluation include the relevance, timeliness, accuracy, and sufficiency of reviews^[10]. In the study of review usefulness, academia has no unified view on the factors that affect the utility of online product reviews. Some studies suggest that the subjectivity of opinions in the content helps predict the utility of reviews, while others indicate that consumers' perception of review usefulness is influenced by the relevance, objectivity, and timeliness of the review information^[11–12]. The quality of review information is generally composed of dimensions such as timeliness, relevance, completeness, added value, accuracy, and understandability^[13]. In the aspect of emotional analysis of review content, a literature closely related to this study also explores attribute features in reviews and uses them as dimensions for evaluating user satisfaction^[14]. By calculating the weight values of each dimension, it finds that the key factors affecting user satisfaction are: product, price, interaction, service, and logistics. However, unlike this study, it did not investigate consumer purchase intention.

Purchase intention is the tendency of consumers to make purchase decisions and a reflection of actual purchase behavior^[1]. A large number of scholars have conducted research on how product reviews influence consumers' purchase intention. Research suggests that the quality attributes of online reviews, the platform, and user characteristics all affect consumers' purchase intention. Consumers' perceptions of the ease of use and usefulness of online reviews promote their willingness to use them, ultimately enhancing their purchase intention^[15]. Research proposes that the length, quantity, and emotional tendencies of online reviews affect consumers' perceived usefulness, meaning consumers judge whether online reviews influence their purchase decisions based on whether there are enough reviews, whether they are objective, and whether there are more positive reviews^[16]. Research conducted empirical research on the impact of review quality and reviewer status on consumers' purchase intention^[17]. Research studied the influence of online review contradiction on consumers' contradictory attitudes and purchase intention, using the product attributes mentioned in the review content and the source of the reviewer as two dimensions to categorize contradictory online reviews into four types^[18]. From an attribution theory perspective,

they explored the differences in the impact of these four types of contradictory online reviews on consumers' contradictory attitudes and purchase intention.

Through previous related research findings: the research on the influencing factors of consumer purchase intention based on product review content is mostly concentrated on the characteristics of the review text, such as text length, quantity, and sentiment tendency, these relatively broad influencing factors are discussed, and has not further refined the characteristics of the product itself into more specific factors for discussion; at the same time, most studies consider the usefulness of reviews from the perspective of consumers, fewer based on merchants from the perspective of product and service improvement to carry out research on the influencing factors of purchase intention.

Based on this, this paper intends to further refine the influencing factors of review content on purchase intention in combination with previous research into more specific and consistent with actual review content, and helpful for merchants to improve product design and service influencing factors for research.

3. Methodology

This paper captures review data from the two major Chinese online shopping platforms, Taobao and JD.com, to statistically analyze the frequency of review language in different types of products, thereby identifying fine-grained attribute features of products as influencing factors. Additionally, referring to previous research findings by other scholars, it proposes corresponding research hypotheses.

3.1. Product attribute identification

This paper uses web crawling technology to collect review data for major categories of goods, including clothing, daily necessities, mobile phones, skincare products, electrical appliances, and food, and obtains the word frequency statistics shown in **Table 1** through Chinese word segmentation.

Table 1. Product review frequency chart

Category	Review content	Frequency	Category	Review content	Frequency	Category	Review content	Frequency
Clothing	Good quality	10635	Daily Goods	Good service attitude	1852	Phones	Strong performance	4587
	Comfortable to wear	5731		Decent quality	1299		Nice phone	4452
	Looks good on	4139		Fast delivery	690		Fast shipping	1995
	Great color	3672		Matches description	211		Stylish design	1621
	Nice style	3339		Great cost-effective	98		Great cost-effective	1185
Category	Review content	Frequency	Category	Review content	Frequency	Category	Review content	Frequency
Skincare	Fast logistics	15587	Electronics	Very cheap	1055	Food	Affordable	1560
	Good packaging	10005		Good quality	880		Fast logistics	1434
	Moisturizing	8111		Fast logistics	440		Excellent quality	1119
	Good quality	4770		Good service	210		Tastes good	618
	Pleasant scent	3519		Average quality	91		Expensive	378

Through further in-depth analysis, it has been found that the review data of various products all involved cost-effectiveness, quality, brand, logistics services, and appearance, and their frequency of appearance was relatively high. Therefore, these dimensions were selected as the main attributes (quality, appearance, brand) and secondary attributes (cost-effectiveness, logistics services) of the products.

3.2. Hypotheses

As product review data grows, merchants find it increasingly difficult to derive useful insights to improve products or understand consumer behavior. Identifying how fine-grained attributes affect purchase intention can help businesses quickly identify strengths and weaknesses and develop targeted strategies. This study examines five attributes—cost-effectiveness, quality, brand, logistics, and appearance—as independent variables influencing purchase intention.

Frequently reviewed attributes indicate consumer concern, but widespread review manipulation undermines trust. When many reviews mention certain features, consumers may either perceive them as objective or suspect fraud. Decisions ultimately depend on personal judgment. From a business perspective, it remains unclear which attributes truly affect purchasing. Thus, the following hypotheses are proposed:

H1: The more reviews related to cost-effectiveness, the more they influence consumers' purchasing intention.

H2: The more reviews related to a brand, the more they influence consumers' purchasing intention.

H3: The more comments are related to logistics service content, the more they affect consumers' purchasing intention.

H4: The more comments are related to quality content, the more they affect consumers' purchasing intention.

H5: The more comments are related to appearance content, the more they affect consumers' purchasing intention.

4. Experimental design

4.1. Method

Before conducting large-scale questionnaire distribution and collection, a pre-test is first conducted to examine whether the designed questionnaire meets the reliability and validity requirements for the experiment. This paper first employs the AMOS model for confirmatory factor analysis of the data. If the measurement model's fit is acceptable, path analysis will be used to explore the relationships among the independent variables affecting consumer purchase intention and their impact on the dependent variable, identify key influencing factors, verify the model, and provide data support for this study.

The experimental work of this study is divided into three parts: 1) Designing a five-point Likert measurement scale. This scale consists of a set of statements, each with five response options: "Completely believe," "Somewhat believe", "Uncertain", "Somewhat disbelieve", and "Completely disbelieve", respectively recorded as 1, 2, 3, 4, and 5. The total attitude score of each respondent is the sum of their scores for each statement, which can indicate the strength of the respondent's attitude ^[19]. Randomly select 30 consumers with online shopping experience for pre-testing to verify the rationality and feasibility of the designed scale; 2) Select and determine the research subjects, mainly distributing and collecting questionnaires among a broad consumer group with online shopping experience, and screening out valid data; 3) Use SPSS tools to analyze the valid data to test whether it can be used for the subsequent modeling stage.

4.2. Experimental preparation

4.2.1. Measurement indicator design

The measurement indicators in the research scale designed in this paper refer to the previous research results of relevant scholars and are further modified and refined based on them (Table 2)^[20–25].

Table 2. Measurement indicators

Variable	Issue indicator	Indicator details	Source
Price-effective	P1	Most reviews state that the product offers good value for money	Wu X, 2016
	P2	Most consumers give positive feedback on the product's cost-effectiveness	
	P3	Most reviews mention that the product is attractively priced and comes with small free gifts	
	P4	Most reviews believe the product is more cost-effective than most competing products	
Brand	B1	Most reviews feel the brand's culture aligns with their own values	Wang J, 2016
	B2	Most reviews indicate the brand enjoys a certain level of public awareness	
	B3	Most reviewers have a strong sense of identity and loyalty toward the brand	
	B4	Most reviews regard the brand as highly credible or reputable making it a worry-free purchase	
Logistics service	L1	Most reviews mention information about the merchant's logistics service	Wang X, 2017
	L2	Most consumers praise the delivery personnel's service attitude	
	L3	Most consumers give positive feedback on the merchant's logistics speed (dispatch and delivery)	
	L4	Most reviews believe the product's return & exchange service is good	
Quality	Q1	Most reviews mention the product's quality	Song M et al., 2019
	Q2	Most consumers believe the product's durability meets their purchase expectations	
	Q3	Most reviews state the product's quality closely matches expectations	
	Q4	Most reviews praise the product's workmanship and material quality	
Appearance	A1	Most reviews provide concrete product-appearance descriptions and photo displays	Moon S et al., 2016
	A2	Most consumers express high satisfaction with the product's appearance	
	A3	Most reviews state the product style is novel and the description matches the actual item	
	A4	Most reviews report no color difference in the product	
Willingness to purchase	W1	I would generally be willing to buy this product	Onwezen et al., 2017
	W2	If possible, I will continue to purchase this product	
	W3	I would consider recommending this product to my classmates and friends	
	W4	When buying similar products in the future, I will prioritize this one	

4.2.2. Select research subjects

Students, as the main consumers of online shopping, play an increasingly important role in online shopping. Additionally, most students tend to browse product reviews before making a purchase, and are also more willing to

share their online shopping experiences and psychological feelings on social platforms. Therefore, this study will mainly distribute questionnaires and collect data from young students aged 18–30 to obtain the data samples for this experiment.

4.2.3. Pre-test

Pre-testing is conducted to ensure that each question indicator corresponding to each variable in the designed questionnaire meets the requirements of the experiment. Initially, a small random sample of 30 research subjects was selected and surveyed, and the sample characteristics were analyzed, and the reliability of the indicators was tested. Any indicators that did not meet the experimental requirements were repeatedly modified until the reliability analysis of the questionnaire met the experimental requirements.

Approximately 87% of the research subjects selected for the pre-test have a monthly consumption level of over 1000, indicating a certain purchasing power and making them a likely group for online shopping, which enhances the representativeness of the experimental results. Additionally, the majority of the research subjects have a college education or higher. 83.33% of them have a rich history of online shopping, and 76.67% have made more than five online purchases within the past six months, suggesting that the selected subjects are more familiar with online shopping and have a stronger voice in opinions about product reviews. This demonstrates that the selected survey subjects are targeted. It indicates that the survey subjects selected for this experiment are representative and scientifically sound, which is a crucial guarantee for making the experimental results more convincing.

To analyze the consistency of responses to various question formats regarding the same influencing factor among the research subjects, this paper uses the Cronbach Alpha coefficient from SPSS statistical analysis software to measure the reliability of the questionnaire, with the results shown in **Table 2**. The data in the table indicate that the overall reliability coefficient of the questionnaire is 0.858, which is greater than the standard value of 0.8, indicating that the designed questionnaire has high reliability^[26]. The Cronbach Alpha coefficient for each item corresponding to each question indicator after deletion is all smaller than its Cronbach's Alpha value, suggesting that all items should be retained^[27]. The overall correlation coefficient CITC for each question indicator corresponding to each variable is all greater than 0.3, indicating a strong correlation between the various question indicators^[28]. In summary, it can be demonstrated that the reliability of the questionnaire designed in this study meets the requirements of the experiment (**Table 3**).

Table 3. Pre-test statistics for each indicator

Dependent variable	Issue indicator	Scale mean if item deleted	Variance of scale if item deleted	Corrected item-total correlation	Item deleted Cronbach's alpha	Cronbach's alpha
Price-effectiveness	P1	84.13	86.878	.552	.824	0.849
	P2	84.10	85.197	.663	.748	
	P3	84.07	82.961	.510	.832	
	P4	84.20	90.303	.716	.763	
Brand	B1	84.00	87.103	.631	.800	0.818
	B2	84.17	89.937	.670	.758	
	B3	83.97	84.516	.649	.796	
	B4	83.83	86.557	.591	.811	

Table 3 (Continued)

Dependent variable	Issue indicator	Scale mean if item deleted	Variance of scale if item deleted	Corrected item-total correlation	Item deleted Cronbach's alpha	Cronbach's alpha
Logistics Service	L1	84.00	85.655	.599	.853	0.942
	L2	83.87	85.637	.648	.851	
	L3	83.90	83.817	.533	.848	
	L4	83.93	87.444	.560	.854	
Quality	Q1	84.03	87.137	.623	.811	0.829
	Q2	84.00	86.483	.524	.820	
	Q3	84.00	88.621	.513	.755	
	Q4	83.90	85.472	.612	.809	
Appearance	A1	83.77	85.633	.517	.804	0.812
	A2	83.97	86.930	.453	.791	
	A3	84.07	84.961	.546	.848	
	A4	84.20	87.476	.416	.783	
Willingness to purchase	W1	83.90	85.266	.676	.846	0.887
	W2	83.97	85.689	.424	.852	
	W3	84.43	87.220	.741	.860	
	W4	84.70	81.252	.523	.855	
Sum						0.858

5. Data analysis and discussion

5.1. Formal investigation sample statistical analysis

This survey was created on the Wenjuanxing platform. If a survey has more than 15% of its questions unanswered or marked as “uncertain”, it can be considered invalid. Additionally, surveys with identical question options and those with excessively short completion times were excluded. The survey distribution process lasted over a month, and a total of 227 valid surveys were eventually collected. The statistical profile of the research subjects is as follows:

1. The gender ratio in the total sample is largely consistent with the gender ratio in the pre-test and is relatively balanced, without bias toward any particular gender, ensuring the scientific validity of the experimental results. This indicates that the selection of male and female subjects for this experiment is reasonable.

2. The distribution of education levels in the total sample data is largely consistent with the distribution in the pre-test. Approximately 95.6% of the respondents have a college education or higher. This suggests that the subjects have a higher level of education, making them more likely to use the internet for online shopping and to pay attention to online product reviews. Therefore, the subjects selected for this experiment are more representative and targeted, strengthening the scientific validity of the conclusions.

3. The distribution of monthly consumption levels in the total sample data is largely consistent with the

distribution in the pre-test data. Over 85% of the subjects spend more than 1,000 yuan per person on average, indicating that the subjects have greater purchasing power and are more likely to engage in online shopping.

4. The distribution of online shopping history in the total sample data is basically consistent with the pre-test distribution, and the proportion of people with more than 3 years of online shopping history is as high as 85%, indicating that the survey subjects have rich online shopping experience and are more likely to post or view product reviews.

5. The distribution of online shopping frequency in the total sample data is basically consistent with the distribution of online shopping frequency in the pre-test data, and the proportion of people with more than 3 online shopping sessions within half a year is as high as 96%, indicating that the selected survey subjects have more say in product reviews.

5.2. Structural validity analysis

Structural validity is to test whether the questions in the questionnaire design are effective and reasonable. Structural validity is often tested by factor analysis to find the potential factors that affect the dependent variable, and rotation techniques can be used to explain these factors. When the cumulative variance contribution rate in the factor analysis is greater than 50% and the factor loading is above 0.5, it indicates that the designed scale has good structural validity.

This paper intends to use exploratory factor analysis for validity analysis. However, whether a questionnaire can be used for exploratory factor analysis depends on its KMO value and Bartlett's sphericity test. Only when certain conditions are met can researchers determine whether the designed questionnaire can be used for exploratory factor analysis to test its structural validity. The judgment criteria are:

1. KMO value judgment criteria^[29]: A KMO value above 0.9 indicates that it is very suitable for factor analysis; a KMO value between 0.8-0.9 indicates that it is very suitable for factor analysis; a KMO value between 0.7-0.8 indicates that it is suitable for factor analysis; a KMO value between 0.6-0.7 indicates that it is not very suitable for factor analysis; a KMO value between 0.5-0.6 indicates that it is difficult to perform factor analysis; a KMO value below 0.5 indicates that it is not suitable for factor analysis.

2. Bartlett's sphericity test judgment criteria^[30]: When the significance probability of the Bartlett value is less than 0.01, it is suitable for factor analysis.

This paper will use SPSS to conduct factor analysis on independent variables and dependent variables, respectively.

5.2.1. Factor analysis of independent variables

KMO test and Bartlett's test: The test results of the independent variables are shown in **Table 4**, where it is found that the KMO value is 0.823, greater than 0.8, and the significance probability of Bartlett's sphericity test is less than 0.01, indicating that it is suitable for factor analysis.

Table 4. KMO and Bartlett's test for the independent variable

KMO measurement of a sufficient sample size		0.823
Bartlett's sphericity test	Approximate chi-square	2494.724
	df	190
	sig.	.000

Factor extraction: The results of factor analysis are shown in **Figure 1**. Starting from the sixth factor, the size of its eigenvalue gradually becomes flat, which verifies that it is reasonable to extract five factors in this experiment.

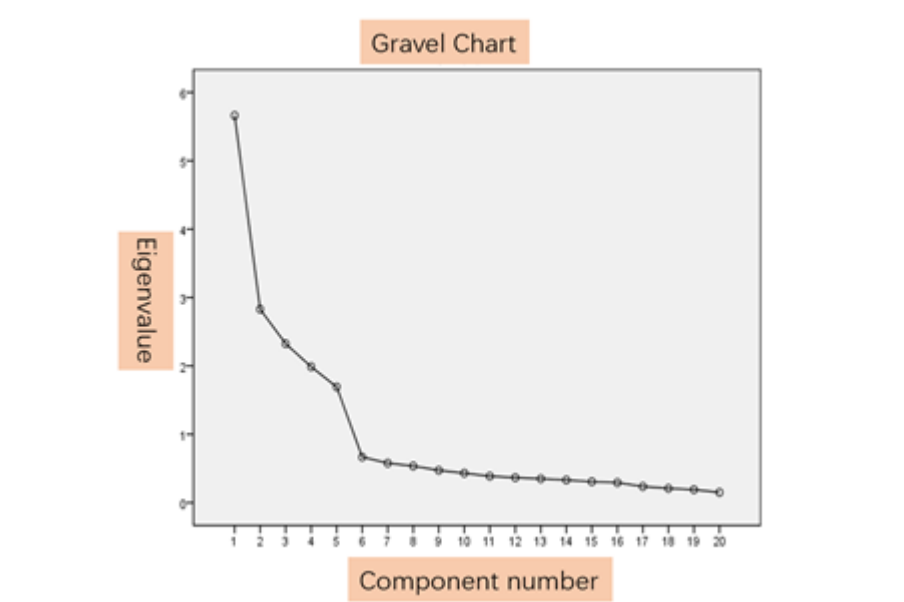


Figure 1. Gravel chart

Test results: **Table 5** is mainly used to observe which variables can be included in which factors: The variable with the highest factor loading in Column 1 is cost-performance; the variable with the highest value in Column 2 is the quality indicator; the variable with the highest value in Column 3 is the logistics service indicator; the variable with the highest value in Column 4 is the brand indicator; the variable with the highest value in Column 5 is the appearance indicator. The maximum value for each column's factor is all greater than 0.5, and the cumulative variance contribution rate of the total sample is 72.471%, which is greater than 50%, indicating that the self-variable problem items in this experimental design have good structural validity.

5.2.2. Factor analysis of the dependent variable

KMO test and Bartlett's test: The test results of the dependent variable are shown in **Table 6**, where it was found that the KMO value is 0.848, greater than 0.8, and the significance probability of Bartlett's sphericity test is less than 0.01, indicating suitability for factor analysis.

Test results: As shown in **Table 7**, the factor loadings of each measurement item for purchase behavior intention are 0.889, 0.886, 0.881, and 0.854, all of which are greater than the benchmark value of 0.5, and the cumulative explained variance contribution rate is 77.42%, which is also greater than the benchmark value of 50%. Based on the factor loadings and cumulative explained variance, the dependent variable items designed in this study demonstrate good structural validity.

Table 5 Factor analysis of measurement items for each dimension of product reviews

Dimension	Item	Factor loadings					Rotation Square Sum loading		
		F1	F2	F3	F4	F5	Eigenvalue	Explain variance%	Cumulative explained variance
Price-effectiveness	P1	.888	.104	.093	.213	.095	5.661	28.305	28.305
	P2	.866	.117	.032	.118	.044			
	P3	.821	.079	.145	.160	.043			
	P4	.859	.132	.061	.108	.114			
Brand	B1	.009	.810	.135	.084	.129	2.829	14.145	42.450
	B2	.149	.835	.154	.062	.043			
	B3	.114	.837	.187	.070	.007			
	B4	.163	.809	.078	.186	.110			
Logistics service	L1	.141	.208	.806	.028	.097	2.325	11.623	54.073
	L2	.096	.028	.874	-.018	.057			
	L3	.071	.095	.880	.031	.032			
	L4	.008	.218	.730	.037	-.004			
Quality	Q1	.114	.132	-.003	.809	.127	1.988	9.938	64.011
	Q2	.070	.139	-.035	.766	.047			
	Q3	.170	.134	.009	.824	.144			
	Q4	.236	-.035	.124	.796	.125			
Appearance	A1	.043	.071	.130	.112	.724	1.692	8.460	72.471
	A2	.021	.062	.081	.169	.846			
	A3	.087	.121	-.014	.099	.845			
	A4	.112	.014	-.029	.036	.820			

Note: Bold values are the maximum items for each column factor

Table 6. Factor analysis of the dependent variable

KMO measurement of sufficient sample size			0.848
Approximate chi-square			560.077
Bartlett's sphericity test			6
df			.000
sig.			

Table 7. Factor analysis of willingness to purchase measurement items

Dimension	Item	Factor loadings		Rotating sum of squares and loading	
		Factor 1	Eigenvalue	Explain variance %	Cumulative explained variance %
Willingness to Purchase	W1	0.889	3.097	77.420%	77.420%
	W2	0.886			
	W3	0.881			
	W4	0.854			

5.3. Structural equation modeling path analysis

Structural equation modeling is primarily used to verify the structural relationships of research hypotheses and generally includes steps such as model construction, model fitting, model evaluation, and model modification (Figure 2).

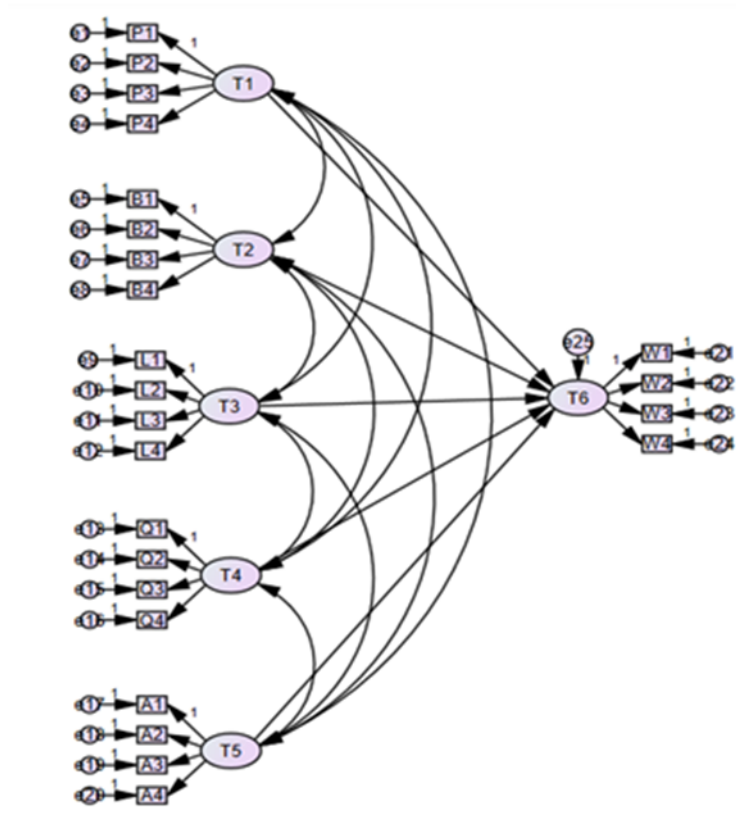


Figure 2. Initial structural equation model diagram

5.3.1. Model construction

This study uses AMOS software to conduct path analysis on structural equation models, as shown in Figure 2.

5.3.2. Model fitting

Goodness of fit analysis is used to test the constructed model and compare whether the predicted results are consistent with the actual situation and the degree of consistency. Whether a model has a good fit depends on the specific conditions of each goodness-of-fit indicator. The judgment criteria are shown in Table 8 below^[31].

Table 8. Criteria for judging the fitting indicators of SEM models

Item		Absolute fit indices			Incremental fit indices			Parsimonious fit indices	
Class	χ^2/df	GFI	RMR	RNSEA	NFI	TLI	CFI	PGFI	PNFI
Stand	<3	>0.9	<0.08	<0.08	>0.9	>0.9	>0.9	>0.5	>0.5

After importing the questionnaire data and running the model, the indicators of fitting are shown in Table 9.

Table 9. Results of the SEM equation model fitting

Item	Absolute fit indices				Incremental fit indices			Parsimonious fit indices	
Class	χ^2/df	GFI	RMR	RNSEA	NFI	TLI	CFI	PGFI	PNFI
Standard	<3	>0.9	<0.08	<0.08	>0.9	>0.9	>0.9	>0.5	>0.5
Result	1.411	0.894	0.023	0.043	0.898	0.962	0.968	0.706	0.771
Evaluation		Good				Good			Good

1. The chi-square degrees of freedom for the absolute fitting indicators are less than 3, GFI is very close to 0.9, and both RMR and RNSEA indices are less than 0.08, indicating that the absolute fitting indicators of this model fit well.

2. Among the incremental fitting indicators, the NFI index is very close to 0.9, and both TLI and CFI indices are greater than 0.9, indicating that the incremental fitting indicators of this model fit well.

3. For the parsimonious fitting indicators, both PGFI and PNFI indices are greater than 0.5, indicating that the parsimonious fitting indicators fit well.

In summary, the structural equation model constructed in this paper has a good fit.

5.3.3. Model evaluation

Model evaluation involves testing each hypothesized path in a structural equation model to determine if there is a relationship, which allows judgment of whether the independent variable has an effect on the dependent variable. The evaluation criteria are as follows: CR values greater than 1.96 with $P < 0.05$, CR values greater than 2.58 with $P < 0.01$, and CR values greater than 3.29 with $P < 0.001$. Meeting any one of these criteria allows for the conclusion that the hypothesis is accepted, indicating that the hypothesized path is valid. The path coefficient results after model execution are shown in **Table 10**.

Table 10. Initial model path coefficients and significance levels

Hypothesis	Path relationship	Estimated value	S.E.	C.R.	<i>P</i>
H1	P→W	0.216	0.076	2.527	0.027
H2	B→W	0.148	0.067	2.216	0.041
H3	L→W	0.135	0.062	2.181	0.029
H4	Q→W	0.248	0.065	2.736	0.008
H5	A→W	0.350	0.117	2.999	0.003

As shown in **Table 10**, according to the above judgment criteria, each path in the hypothesis can be established, meaning that the cost-effectiveness, brand, logistics service, quality, and appearance involved in product reviews all significantly affect consumers' purchase intention. The magnitude of the estimated values indicates the extent of the impact of each path, where the impact of appearance on purchase intention is 0.350, the impact of quality on purchase intention is 0.248, the direct impact of cost-performance on purchase intention is 0.216, and the direct impacts of brand and logistics service on purchase intention are 0.148 and 0.135, respectively. This indicates that the impact of appearance is the greatest, followed by quality and cost-performance, and the impact of brand and logistics service is the smallest. Since all the hypothesized paths in the structural equation

model are valid, this model does not require modification.

5.4. Discussion of results

Based on the research and investigation mentioned above, the analysis conclusions of this paper are as follows:

1. Among the factors influencing consumers' purchase intentions, product reviews related to appearance hold the highest impact, indicating that consumers pay particular attention to the design of product appearance. Firstly, merchants should not only focus on appearance design but also provide as detailed information as possible about the product appearance on e-commerce platforms. Moreover, when reviewers comment on the high alignment between expected and actual styles, color differences, etc., in product appearance, it will be beneficial to promote consumers' purchase intentions. At the same time, merchants can encourage and guide purchased consumers to give positive reviews on appearance.

2. In product reviews, information related to quality and cost-effectiveness has a slightly weaker impact on consumers' purchase intentions compared to appearance. This suggests that young consumer groups prioritize visual effects over product quality and price. Merchants should continuously develop innovative appearance designs to attract consumers' attention, thereby promoting purchase intentions. At the same time, they should set appropriate prices based on the product's performance to enhance cost-effectiveness and further boost consumers' purchase intentions.

3. Product reviews containing brand information have an impact on consumers' purchase intentions, but it is less significant than the impact of quality. This indicates that when consumers browse product reviews, they may already be familiar with the brand and thus do not pay much attention to brand information mentioned in the reviews. Only some consumers who are relatively unfamiliar with the product's brand may focus on such review information. Merchants should cultivate their brand's cultural value, enhance consumers' brand identity and loyalty, and build a positive brand image among the public to shape a good reputation, which will be beneficial to promoting consumers' purchase intentions.

4. Logistics services mentioned in product review content have an influence on consumers' purchasing intentions, but compared to other features, their influence is the smallest. The reason may be that logistics services are affected by multiple factors (region, weather, delivery personnel, etc.), and consumers, to some extent understand the merchants. However, merchants must choose trusted logistics partners for cooperation, ensuring timely tracking of services after orders are placed, and strive to deliver the products to consumers as quickly as possible.

6. Conclusion

The findings reveal that all five selected factors influence consumer purchase intentions, with appearance having the greatest impact, followed by quality and cost-effectiveness, and brand and logistics services having the least impact. This study will help merchants improve product design, develop mechanisms to guide reviews, and implement targeted marketing strategies, thereby enhancing consumer purchase intentions.

The research subjects in this study are all young people, and the representativeness of the conclusions for the entire user group is still limited. Additionally, this study focuses on binary variables, without incorporating more factors to explore how the content of product reviews influences consumer purchase intentions. It only investigates which aspects of reviews consumers pay more attention to, thereby assisting merchants in developing relevant

review guidance mechanisms. Future research should comprehensively consider a broader range of user groups and include more mediating variables in the research model to further study the factors influencing consumer purchase intentions related to the fine-grained attribute features of product review content.

Disclosure statement

The author declares no conflict of interest.

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