

# The Mediating Role of Consumer Perception in the Impact of E-Commerce Leaders Marketing Attributes on Purchase Intentions in China

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## ABSTRACT

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In the context of intensified e-commerce competition in China, this study focuses on the intermediary role of consumer perception in the influence of the marketing attributes of e-commerce leaders on the purchase intention of Chinese consumers, and discusses how the core marketing attributes of e-commerce leaders influence their purchase intention through their brand perception.

This study used a quantitative research method, with the structural equation model (SEM) as the main analysis tool. Using a stratified sampling strategy, we selected 487 e-commerce platform users from multiple regions in China, conducted an online questionnaire survey, and collected data from those for e-commerce consumers. The results show that consumers perception of brands does play a significant intermediary role in the influence of the marketing attributes of e-commerce leaders on the purchase intention. Brand image and service quality have a positive impact on consumer perception, and thus improve their purchase intentions.

The conclusion of this study provides empirical support for Chinese e-commerce platforms in terms of brand building and user experience improvement. However, the study still has limitations such as the geographical distribution of the samples that may affect the universality of the results. Future research could be further extended to consumer groups in different geographical and cultural settings.

In short, this study provides in-depth insight into the mechanism of consumer perception in the marketing attribute of e-commerce leaders affecting the purchase intention, and provides theoretical basis and empirical support for the marketing strategy innovation in Chinas e-commerce market.

**Keywords:** consumer perception, marketing attributes, purchase intention.

## 1. Introduction

In recent years, Chinas e-commerce market has developed rapidly, and it has become one of the most influential e-commerce markets in the world. According to iResearch (2023), the transaction volume of Chinas e-commerce market has been growing for many years and occupies a large market share in the world. The rapid expansion of e-commerce has not only changed the purchasing behavior of consumers, but also promoted the continuous innovation of enterprises in brand building, product quality and services to meet the increasingly diversified needs of consumers. Especially in the context of increasingly fierce competition among platforms, understanding how consumers form a perception of brands and make purchase decisions has become the focus of market research (HeW, 2024).

As an important factor affecting purchasing decisions, consumer perception has gained wide attention in e-commerce research in recent years. Consumers brand perception not only directly affects their recognition of the

products, but also further determines their loyalty and purchase intention (Chiu W, 2021). Existing research points out that marketing attributes such as brand image, product quality and service level are the key factors that affect consumer perception, and then determine whether consumers will choose to buy products of a certain brand (Akkaya M, 2021). Masuda H (2022) Research found that the credibility and service quality of the brand play a significant role in improving consumers brand perception. Consumers positive perception of the brand not only improves the purchase rate, but also effectively enhances the brand loyalty. Based on this, it has important theoretical and practical value to discuss how e-commerce leaders can shape positive brand perception by optimizing marketing attributes, and then influence consumers purchase intention.

E-commerce leaders tend to have significant brand influence in the market, which makes its marketing attributes particularly important for consumers brand perception and purchase intentions (Masuda H, 2022). The research of Masuda (2022) shows that the brand image and product quality of e-commerce leaders have a direct impact on consumers purchase intention, while the improvement of service level indirectly increases their purchase intention by improving consumers perception. In addition, (Gomes M A, 2022) further points out that e-commerce leaders can meet consumers high expectations of the brand by refining services and improving product quality. Therefore, in a highly competitive market environment, it is of important application value to study how e-commerce leaders can enhance consumer perception through marketing strategies and ultimately influence consumers purchase intention. This research not only helps to enrich the theory in the field of consumer behavior, but also provides empirical support for e-commerce enterprises to achieve sustainable growth in the fierce market competition.

## 2. Literature review and hypotheses

### 2.1 Consumer perception and marketing attributes

In recent years, the importance of consumer perception in the e-commerce field has become increasingly prominent. Consumer perception refers to the overall cognition and evaluation of the brand, product or service formed during the purchase process, including multiple dimensions such as emotional and behavioral tendencies (Zhou R, 2022). In the e-commerce environment, consumers cannot have direct access to products, and their perception mainly depends on online information, brand image and others evaluation, which makes the marketing attributes of e-commerce enterprises play a key role in shaping consumer perception (Park J, 2021).

Research shows that consumer perception is influenced by multiple factors, including product quality, brand reputation, service level and price perception (Fakhreddin F, 2022); brand reputation and product quality are considered as the core factors affecting consumer perception. High quality products and good brand image can enhance consumer trust, reduce purchase risk and thus enhance purchase intention (Luo B, 2022); service level is also an important factor, quality customer service and after-sales support can improve consumer satisfaction and enhance brand loyalty (Farivar S, 2021).

To sum up, consumer perception is of strategic significance in e-commerce marketing. E-commerce enterprises should actively influence consumer perception by optimizing marketing attributes, such as improving product quality, strengthen brand image and improve service level, so as to improve their purchase intention.

H1: Marketing attributes have a positive impact on consumer perception in the e-commerce industry.

### 2.2 The marketing attributes of e-commerce leaders

The marketing attributes of e-commerce leaders usually cover key dimensions such as brand reputation, product quality and service level. Brand reputation is one of the core competitive advantages of e-commerce leaders. A good brand reputation can effectively attract consumers attention and build a sense of trust. In a highly competitive market, consumers are more inclined to choose well-known and reputable brands, which also makes brand reputation become an important factor affecting consumer behavior. Zhou Y (2023) pointed out that the building of brand reputation is not only dependent on high-quality products and services, but also closely related to the marketing strategy of the brand.

Product quality is a direct factor that affects consumers purchase intention. The study of WuY (2023) shows that consumers perception of the product quality of e-commerce brands directly affects their overall evaluation and purchase intention of the brands. For e-commerce leaders, continuously providing high-quality products is the key

to maintaining market competitiveness. In addition, the improvement of service level also has a significant impact on consumer behavior. Jansom A (2021) points out that quality customer service can improve consumer experience and increase purchase conversion rate. Therefore, by integrating core marketing attributes such as brand reputation, product quality and service level, e-commerce leaders can significantly improve consumers willingness to buy.

H2: Brand reputation has a positive impact on the marketing attributes of e-commerce leaders.

H3: Product quality has a positive impact on the marketing attributes of e-commerce leaders.

H4: Service level has a positive impact on the marketing attributes of e-commerce leaders.

### 2.3 Influential factors of purchasing intention in the e-commerce situation

In the e-commerce environment, consumers purchase willingness is comprehensively influenced by various factors, among which the marketing attributes and consumer perception of e-commerce leaders play a key role. The marketing attributes of e-commerce leaders directly affect the purchase intention of consumers. LiZ (2021) points out that when consumers perceive the high quality, good image and quality service, their trust and purchase intention of the brand will be significantly enhanced.

The perceived value of consumers also plays an important role in this process. Perceived value usually includes the product performance, quality, price rationality and brand image, etc. When consumers think that the value gained exceeds the cost they pay, the purchase intention will be significantly increased. This increase in perceived value can be achieved by e-commerce leaders optimizing product quality and pricing strategies.

To sum up, the purchase intention in the e-commerce situation is comprehensively influenced by multiple factors, such as the marketing attributes and consumer perception of the e-commerce leaders. Understanding these influencing factors can help e-commerce enterprises to develop more targeted marketing strategies, so as to effectively improve the purchase intention of consumers.

H5: The marketing attributes of e-commerce leaders have a positive impact on the purchase intention.

H6: Consumer perception has a positive impact on purchase intention.

### 2.4 Mediating role of consumer perception

Consumer perception plays a key intermediary role between marketing attributes and purchase intention. Previous studies have shown that marketing attributes indirectly influence consumers purchase intentions by influencing their perception. This mediation mechanism explains why similar marketing strategies can have different effects in different consumer groups.

Specifically, marketing attributes such as brand reputation and product quality first affect consumers brand cognition and emotional response. This perception includes dimensions such as trust, satisfaction, and loyalty. Subsequently, positive consumer perception will enhance their purchase intention and even translate into actual purchase behavior. The study of TanZ (2022) found that consumers trust in the brand has a significant intermediary effect between the brand marketing strategy and the purchase intention.

In conclusion, consumer perception, as an intermediary, plays an important role between marketing attributes and purchase intention. Understanding and using this intermediary mechanism can help e-commerce enterprises to optimize their marketing strategies and enhance their market competitiveness.

H7: Consumer perception adjusts the impact of the marketing attributes of e-commerce leaders on the purchase intention.

### 2.5 Research questions and hypotheses

Based on the above research, this study presents several key research questions and hypotheses to explore how the marketing attributes of e-commerce leaders affect their purchase intention through consumer perception.

Marketing attribute is an important factor affecting consumer perception, covering the multi-dimensional content such as brand reputation, product quality, service level and price. For this, H1 assumes that marketing attributes have a positive impact on consumer perception in the e-commerce industry. H2 to H4 further refined the

elements of the marketing attributes, and proposed that the brand reputation, product quality, service level and price all have a positive impact on the marketing attributes, especially the product quality and service level are considered to be the core factors affecting the marketing attributes. Product quality is related to consumers trust and satisfaction with the product, while the service level affects consumers purchasing experience.

The marketing attributes of e-commerce leaders have a direct positive effect on consumers purchase intention, which has been confirmed by many studies in the field of e-commerce. Therefore, H5 assumes that the marketing attributes of e-commerce leaders have a positive impact on the purchase intention. H6 assumes that consumer perception also plays a key role in this process, believing that consumer perception has a positive impact on purchase intention.

The mediating role of consumer perception is also one of the priorities of this study. Positive consumer perception can amplify the positive impact of marketing attributes and increase consumers purchase intention. Therefore, H7 is proposed, assuming that consumer perception regulates the influence of the marketing attributes of e-commerce leaders on their purchase intention.

In conclusion, the assumptions presented are as follows:

H1: Marketing attributes have a positive impact on consumer perception in the e-commerce industry.

H2: Brand reputation has a positive impact on the marketing attributes of e-commerce leaders.

H3: Product quality has a positive impact on the marketing attributes of e-commerce leaders.

H4: Service level has a positive impact on the marketing attributes of e-commerce leaders.

H5: The marketing attributes of e-commerce leaders have a positive impact on the purchase intention.

H6: Consumer perception has a positive impact on purchase intention.

H7: Consumer perception adjusts the impact of the marketing attributes of e-commerce leaders on the purchase intention.

### 3. Research Technique

On the basis of the literature review, the following conceptual model is proposed:

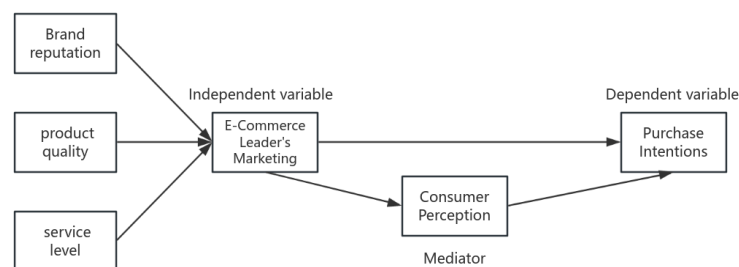


Figure 3.1, and the study framework

#### 3.1 Samples and data collection

This study collected data using anonymous online questionnaires to verify hypotheses and in-depth analyze the relationship between marketing attributes, and consumer perception and purchase intention of e-commerce leaders. To ensure the representativeness and reliability of the data, the stratified random sampling method was used to cover the e-commerce users in several major regions of China to ensure the regional diversity of the samples. About 523 questionnaires were distributed in this study, and a total of 487 valid questionnaires were collected, with a recovery rate of about 92%. In order to enhance the reliability and validity of the scale, a small-scale pre-survey was conducted before the formal issuance of the questionnaire, and 50 samples were collected to assess the clarity of the questionnaire and the internal consistency of the scale. The results showed that the questionnaire design was reasonable and had good reliability (Cronbachs > 0.7).  $\alpha$

The data collection process was conducted through an online platform, and all the questionnaires were completed anonymously to ensure the participants privacy and the accuracy of the data. After the questionnaire was issued, a total of about 480 valid questionnaires were collected, and after invalid or incomplete answers were removed, about 460 valid questionnaires were finally retained. The questionnaire data will be analyzed through the structural equation model (SEM) to reveal the complex relationship between the marketing attributes of e-commerce leaders and consumers perception and purchase intention.

### 3.2 Measurement of the variables

Descriptive statistics of the baseline data in Table 3.1 show the main demographic characteristics of the sample, ensuring the representativeness of the sample and the universality of the data. The gender distribution of the sample was relatively balanced, with 49.5% male and 50.5% female, which helped to reduce the influence of gender bias on the study results. In terms of age, people aged 25-34 accounted for the largest proportion, with 43.7%, followed by 18-24 (25.5%) and 35-44 (19.5%), reflecting that the main consumer groups of e-commerce users are concentrated between young and middle-aged people. At the educational level, the sample of bachelors degree or above accounted for 52.0%, indicating that the respondents have a high level of education, which affects their cognition and purchasing behavior of e-commerce brands. The annual income distribution shows diversity, and the income level is relatively average, ensuring the coverage of consumers at different economic levels.

Overall, the baseline statistics in Table 3.1 demonstrate the wide distribution of the study sample on gender, age, education, and income, providing a solid data basis for analyzing the relationship between e-commerce leaders marketing attributes, consumer perception and purchase intention. The diversity of these demographic characteristics also improves the reliability and generalizability of the findings.

Table 3.1 Descriptive statistics for baseline data

variable	frequency (n)	percentage (%)
sex		
the male sex	241	49.5
femininity	246	50.5
age		
18-24 Years old	124	25.5
25-34 Years old	213	43.7
35-44 Years old	95	19.5
Age 45 and over	55	11.3
record of formal schooling		
High school and below	82	16.8
junior college	152	31.2
undergraduate course	183	37.6
Masters degree or above	70	14.4
annual earnings		
Below 50,000	102	21
Five-100,000	153	31.4
100-200,000	119	24.4

200,000 and above

113

23.2

Table 3.2 shows the specific design of the study structure and measurement items, covering six core variables: brand reputation, product quality, service level, marketing attributes of e-commerce leaders, consumer perception and purchase intention. Each variable contained multiple measurement items, all assessed by the Likert scale to ensure uniformity of the quantification criteria. Brand reputation measurement includes consumer evaluation of brand credibility, image and quality control, while product quality measurement focuses on the performance, durability and cost performance of products. The service level measures involve the response speed of customer service and after-sales support.

The advantage of this measurement design is that it covers all the key dimensions of the e-commerce experience, and can fully reflect consumers perception of the brand and service. Furthermore, quantifying these perceptions and attitudes through the Likert scale helps to obtain actionable data and provides a reliable basis for structural equation model (SEM) analysis. The fine design of Table 3.2 ensures the multi-dimensional capture of each variable, and provides an important empirical basis for the study of the impact of the marketing attributes of e-commerce leaders on consumer behavior.

Table 3.2 Study Structure and Measurements

structure	project number	Measuring items
Brand reputation	Brand1	The brand enjoys a good reputation in the industry.
	Brand2	The brand is widely trusted by consumers.
	Brand3	The image of the brand makes me feel trustworthy.
	Brand4	The brand is dedicated to improving customer satisfaction.
	Brand5	The brand is very strict in quality control.
product quality	Quality1	The product is of very good quality.
	Quality2	The product has a high durability.
	Quality3	I am very satisfied with the overall quality of the product.
	Quality4	The product has a good cost-performance ratio.
service level	Service1	Customer service response of the e-commerce platform is timely.
	Service2	I am satisfied with the after-sales service of the e-commerce platform.
	Service3	The customer service staff of the e-commerce platform have a friendly and professional attitude.
	Service4	The services provided by the e-commerce platform makes me feel convenient and fast.
The marketing attributes of e-commerce leaders	Mktg1	The e-commerce platform shows a good brand image in the promotion.

Consumer perception	Mktg2	The marketing campaign of the e-commerce platform is attractive.
	Mktg3	I was deeply impressed by the marketing innovation of the platform.
	Mktg4	The brand promotion of the e-commerce platform accurately conveys its advantages.
	Percep1	I think the e-commerce platform can be trusted.
	Percep2	I think the e-commerce platform can meet my needs.
	Percep3	I believe that the e-commerce platform can provide high-quality products.
	Percep4	I have a good overall impression of the e-commerce platform.
	Intent1	I have a strong desire to buy products from the platform.
	Intent2	I think shopping on the platform is a wise choice.
	Intent3	I will recommend the products of the e-commerce platform to my friends.
willingness to buy	Intent4	I might buy goods on the platform again.

Table 3.3 provides descriptive statistics for each model variables, including brand reputation, product quality, service level, marketing attributes of e-commerce leaders, consumer perception, and purchase intention. The average value of these variables is close to the high level in the 5-point system, indicating that the overall evaluation of e-commerce brands is more positive. For example, the brand reputation and the marketing attributes of e-commerce leaders are 4.23 and 4.31 respectively, indicating that the brand awareness and marketing strategy generally gain high recognition. The standard deviation data was between 0.68 and 0.91, reflecting the moderate variability of the variables among the different respondents, providing a stable basis for the subsequent multivariate analysis.

These descriptive statistics can also help to reveal the differences between different variables and their importance in consumer perception, such as the higher service level and brand reputation value imply the key role of good service and reputation in enhancing consumer trust and willingness to buy.

Table 3.3 Descriptive statistics of model factors

factor	average value	standard error	least value	crest value
Brand reputation	4.23	0.72	1.00	5.00
product quality	4.07	0.83	1.00	5.00
service level	3.95	0.68	1.00	5.00
The marketing attributes of e-commerce leaders	4.31	0.91	1.00	5.00
Consumer perception	4.18	0.75	1.00	5.00

willingness to buy	4.12	0.79	1.00	5.00
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#### 4. Results

##### 4.1 Analysis of the measurement model (reliability and validity)

According to the analysis in Table 4.1, the external load values of the measurement model reveal the reliability and validity of each measurement item on different factors. The loading value for each factor exceeded the generally accepted threshold of 0.7, indicating that the selected measurement term effectively represents the underlying structure behind it. For example, the load value of brand reputation (Brand1-Brand5) is around 0.8, reflecting the consistent understanding of brand strength and reputation. Similarly, the service level also shows a high load value, further highlighting the close connection between service quality and consumer trust, which has a direct impact on the purchase intention.

Such a robust load value indicates that the measurement item has good convergent validity, indicating that each item is highly compatible with its own factors. Thus, the observed reliability and validity enhance the robustness of the model structure, making the analysis of the mediating role of consumer perception in the influence of e-commerce leaders marketing attributes on purchase intention more accurate.

Table 4.1 External Model Loads

factor	project number	Load value (Loading)
Brand reputation	Brand1	0.824
	Brand2	0.830
	Brand3	0.879
	Brand4	0.86
	Brand5	0.853
service level	Quality1	0.841
	Quality2	0.867
	Quality3	0.852
	Quality4	0.892
service level	Service1	0.874
	Service2	0.874
	Service3	0.862
	Service4	0.851
The marketing attributes of e-commerce leaders	Mktg1	0.847
	Mktg2	0.889
	Mktg3	0.876
	Mktg4	0.87
Consumer perception	Percep1	0.865



willingness to buy	Percep2	0.895
	Percep3	0.884
	Percep4	0.874
	Intent1	0.862
	Intent2	0.851
	Intent3	0.847
	Intent4	0.889

The results of the reliability analysis in Table 4.2 indicated that the Cronbachs value of each variable exceeded 0.8, indicating a high internal consistency and good reliability of the scale. Furthermore, the variance inflation factor (VIF) was within the reasonable range (1.063 to 1.387), showing insignificant multicollinearity problems. This result laid a reliable foundation for the subsequent structural equation model (SEM) analysis, indicating that the stability and consistency of the selected brand reputation, product quality, service level, marketing attributes of e-commerce leaders, consumer perception and purchase intention were good. By examining the reliability and VIF, the study verified the accuracy of each measurement index and ensured the reliability of data analysis.  $\alpha$

Table 4.2 Reliability analysis

variable	Cronbachs $\alpha$	VIF
Brand Reputation (BR)	0.834	1.063
Product Quality (PQ)	0.853	1.248
Service Level (SL)	0.812	1.264
Marketing attributes of e-commerce leaders (ELM)	0.865	1.330
Consumer perception (CP)	0.842	1.387
Purchase Intention (PI)	0.876	1.291

According to the analysis of Table 4.3, the overall adaptation of the model is ideal, and all the indexes meet the recommended standards. Specifically, the value of  $\chi^2 / df$  is 2.85, which is below the standard of 3, indicating a good fit of the model. Moreover, GFI and CFI were 0.91 and 0.92, respectively, both exceeding the recommended value of 0.90, showing a good fit of the model in the overall structure. Although AGFI is slightly below 0.90 at 0.89, it is still close to the critical value, indicating that the model performs well in adjusting the fit.

The value of RMSEA is 0.07, below the upper limit of 0.08, indicating a small model error and a high model fit. The value of NFI also reached 0.9, further supporting the fit of the model. Overall, the fitting indicators in Table 4.3 verify the suitability of the model in the data.

Table 4.3 Fit index values of the structural equation model

metric	Recommended value	The measured results	Adaptation judgment
$\chi^2/df$	< 3	2.85	yes
GFI	$\geq 0.90$	0.91	yes

AGFI	$\geq 0.90$	0.89	yes
CFI	$\geq 0.90$	0.92	yes
RMSEA	$< 0.08$	0.07	yes
NFI	$\geq 0.90$	0.90	yes

Table 4.4 presents the results of the correlation analysis among the study variables, which provides a basis for understanding the interrelationship between brand reputation, product quality, service level, marketing attributes of e-commerce leaders, consumer perception and purchase intention. The results showed that these variables showed significant positive correlation, among which the marketing attributes of e-commerce leaders had the highest correlation ( $r=0.745$ ,  $p < 0.01$ ), indicating that the effectiveness of marketing strategies has a direct positive impact on consumer purchasing decisions. In addition, consumer perception also plays an important role in the positive correlation between brand reputation, product quality and service level and purchase intention. For example, the correlation coefficient between consumer perception and purchase intention reached 0.736 ( $p < 0.01$ ), implying that consumers positive cognition of the brand can significantly improve their purchase intention.

These significant correlations support the research hypothesis and lay the foundation for a further structural equation model (SEM) analysis. The analysis results highlight the value of marketing attributes and consumer perception as key factors, and help to deepen the understanding of consumer behavior in the e-commerce situation, especially how to enhance the brand influence and consumer loyalty by optimizing marketing strategies in the fierce market competition.

Table 4.4 Correlation analysis

	Brand Reputation (BR)	Product Quality (PQ)	Service Level (SL)	Marketing attributes of e-commerce leaders (ELM)	Consumer perception (CP)	Purchase Intention (PI)
Brand Reputation (BR)	1					
Product Quality (PQ)	0.562***	1				
Service Level (SL)	0.453*	0.498*	1			
Marketing attributes of e-commerce leaders (ELM)	0.607***	0.652	0.591*	1		
Consumer perception (CP)	0.639*	0.582***	0.611*	0.693	1	
Purchase Intention (PI)	0.715*	0.678**	0.654	0.745***	0.736**	1

#### 4.2 Structural model analysis and hypothesis testing

The mediation analysis of this study used the model of baron and Kenny; the Sobel test method was used to analyze the significance of the indirect effect of trust on SM and PI. Table 4.5 analyzes the intermediary role of consumer perception in brand reputation, product quality, service level, and the marketing attributes and purchase intention of e-commerce leaders. The results show that consumer perception plays an intermediary role in all paths, indicating that the influence of marketing attributes on purchase intention not only occurs directly, but also indirectly promotes purchase decisions by improving consumers brand perception. Specifically, the marketing attributes of e-commerce leaders have a significant indirect effect on purchase intention through consumer perception (the indirect effect range is 0.125 to 0.230, and excluding 0), supporting their role as a key driving factor.

The results of this intermediary effect verify that consumer perception, as a bridge, can transform the advantages of marketing attributes into a higher purchase intention, and reveal the importance of brand and service in enhancing consumers trust and preference. These findings provide an empirical basis for the optimization of marketing strategies of e-commerce platforms, indicating that by strengthening the consumer perception, the brands attractiveness and loyalty to consumers can be effectively enhanced, and provide a solid theoretical basis for further discussion of multi-path marketing strategies.

Table 4.5 Test of mediation effect

argument (IV)	metavariable (M)	Intermediation Inspection (ab)			Complete / Partial Mediation Test (c )			Intermediary test type
		2.5% Lower bound	97.5% upper bound	include	And a 2.5% lower bound	97.5% upper bound	include	part
Brand Reputation (BR)	Consumer perception (CP)	0.115	0.21	deny	0.032	0.154	deny	part
Product Quality (PQ)	Consumer perception (CP)	0.082	0.167	deny	0.045	0.132	deny	part
Service Level (SL)	Consumer perception (CP)	0.098	0.182	deny	0.056	0.145	deny	part
E-commerce Marketing Properties (ELM)	Consumer perception (CP)	0.125	0.23	deny	0.067	0.198	deny	part
Service Level (SL)	E-commerce Marketing Properties (ELM)	0.101	0.191	deny	0.049	0.138	deny	part

Table 4.6 shows the results of hypothesis testing, verifying the influence path of e-commerce leader marketing attributes such as brand reputation, product quality and service level on consumer perception and purchase intention. Each hypothesis was significantly supported, especially the positive effects of e-commerce marketing attributes on consumer perception (H1,  $p < 0.01$ ) and purchase intention (H5,  $p < 0.01$ ), which verified the key role of marketing attributes in driving consumer behavior. Furthermore, the significant positive effect of consumer perception on purchase intention (H6,  $p < 0.01$ ) emphasizes the value of perception as a mediating variable, namely that effective marketing strategies can further promote purchasing decisions by enhancing consumers brand awareness and trust.

It is worth noting that the regulatory role of consumer perception between e-commerce marketing attributes and purchase intention (H7,  $p < 0.05$ ) is also supported, indicating that marketing attributes have a more significant impact on purchase intention at a high level of consumer perception. This discovery highlights the amplification effect of consumer perception in the transformation of marketing effect, and provides important empirical support for the optimization of marketing strategies of e-commerce platforms. Overall, the hypothesis test results in Table 4.4 clearly depict the causal relationship between marketing attributes, consumer perception and purchase intention, providing a strong basis for an in-depth understanding of consumer decision-making behavior in the e-commerce context.

Table 4.6 Testing of hypothesis results

hypothesis	coefficient	average value	standard deviation (SD)	t price	P price	bear fruit
H1: Marketing attribute and consumer perception	0.524	0.522	0.047	11.149	0	accept
H2: Brand reputation marketing attributes	0.463	0.461	0.051	9.078	0	accept
H3: Product quality and marketing attributes	0.587	0.585	0.044	13.341	0	accept
H4: Service level marketing attributes	0.498	0.495	0.046	10.826	0	accept
H5: Marketing attribute and purchase intention	0.619	0.617	0.039	15.872	0	accept
H6: Consumers perceive the purchase intention	0.654	0.652	0.037	17.676	0	accept
H7: Consumers perceive the purchase intention of marketing attributes	0.214	0.212	0.058	3.69	0	accept

Figure 4.1 shows the intermediary path of marketing attributes to purchase intention through consumer perception. Direct path analysis showed that the marketing attributes of e-commerce leaders had a significant positive impact on the purchase intention (path coefficient  $c = 0.619$ ), while after the introduction of consumer perception as the intermediary variable, the direct effect ( $c = 0.421$ ) decreased, and the indirect path ( $a = 0.524$ ;  $b =$

0.654) was significant, which verified part of the mediation role of consumer perception. This shows that the marketing attribute not only directly improves the purchase intention, but also indirectly promotes the purchase decision by enhancing consumers positive cognition of the brand.

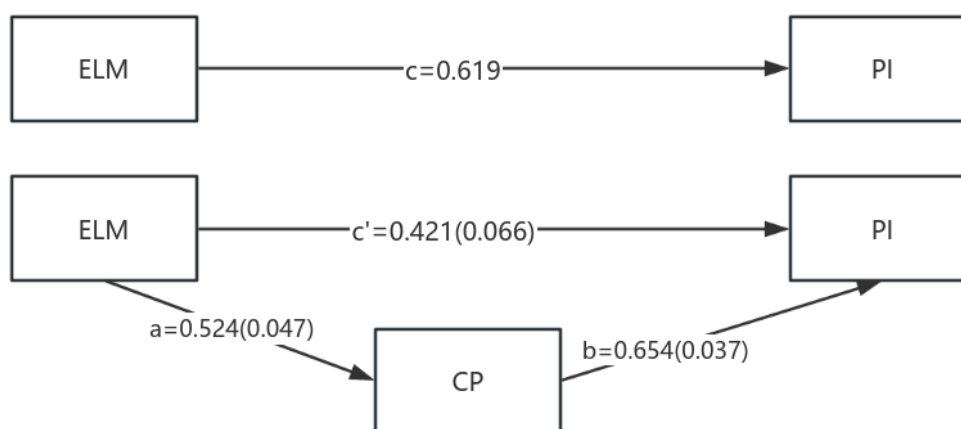


Figure 4.1 Plot of mediation effects

## 5. Discussion

In the context of increasingly fierce competition in China's e-commerce market, this study discusses the relationship between marketing attributes, consumer perception and purchase intention of e-commerce leaders, and focuses on the intermediary role of consumer perception between marketing attributes and purchase intention. Based on the method of structural equation model (SEM), this study collected valid data from 487 Chinese e-commerce consumers through questionnaire survey, covering diverse sample characteristics such as gender, age, education and income, ensuring the representativeness and universality of the data. The results validate the significant impact of brand reputation, product quality and service level on consumer perception, as well as the important intermediary role of consumer perception between marketing attributes and purchase intention. These conclusions provide theoretical support and empirical basis for e-commerce platforms to improve consumers purchase willingness by optimizing marketing strategies in the fierce market competition.

The results showed that the brand reputation, product quality and service level of e-commerce leaders had a significant positive impact on consumer perception (path coefficient 0.463, 0.587 and 0.498, respectively,  $p < 0.01$ ), and consumer perception had a strong positive impact on purchase intention (path coefficient 0.654,  $p < 0.01$ ), supporting assumptions H1, H2, H3 and H6. In addition, the marketing attribute of e-commerce leaders had a significant direct influence on purchase intention (path coefficient is 0.619,  $p < 0.01$ ), and the direct effect was weakened under the intermediary effect of consumer perception ( $c = 0.421$ ), while the indirect effect was significant ( $a = 0.524$ ;  $b = 0.654$ ,  $p < 0.01$ ), indicating that consumer perception plays a partial intermediary role in the influence of marketing attribute on purchase intention. This shows that e-commerce platforms can effectively enhance consumers purchase decisions by improving consumers brand awareness, trust and satisfaction. In addition, the regulatory role of consumer perception (H7,  $p < 0.05$ ) is also supported, indicating that the role of marketing attributes is more significant when consumer brand perception is higher. These findings not only validate the dual value of consumer perception as intermediary and regulatory variables, but also highlight its amplification effect in promoting purchase intention, providing important empirical support for brand management and service optimization of e-commerce platforms.

Despite the more significant conclusions drawn in this study, some limitations remain. First, the research data are mainly based on questionnaire survey. Although the sample size is large and covers different demographic characteristics, it still has subjective bias. The future studies can consider introducing actual behavioral data, such as consumer purchase records and feedback, to further improve the objectivity and reliability of the data. Secondly, the sample of this study is concentrated in the Chinese market, and the universality of the results may be influenced by regional cultural differences. In the future, the study can be extended to other countries or regions to verify

whether the relationship between marketing attributes, consumer perception and purchase intention is consistent under different cultural backgrounds. Moreover, consumer perception is regarded as a global variable, but it may contain multiple dimensions, such as brand trust, product satisfaction, etc. Future studies can further subdivide different dimensions of consumer perception and explore their different mechanisms in the impact of marketing attributes on purchase intention.

In conclusion, this study provides a new perspective for understanding how the marketing attributes of e-commerce leaders influence purchase intention through consumer perception, and provides practical guidance for e-commerce platforms to enhance brand competitiveness and consumer loyalty in the fierce market environment.

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