

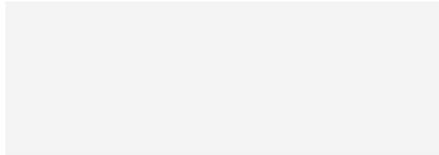
The mechanism of KOL on consumer purchasing behavior: the mediating role of consumer purchasing intention

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Abstract:

This article explores in depth the dissemination effects of KOLs (Key Opinion Leaders) on different social media platforms, particularly their mechanisms in influencing consumer purchasing behavior. With the deepening of globalization and the rapid development of Internet technology, KOL marketing has become one of the important strategies for brand promotion. All major social media platforms, such as Tiktok, Weibo, Little Red Book and Bilibili, have provided KOL with a broad platform for communication by virtue of their unique user base and content ecology. This article first analyzes the challenges and opportunities of KOL marketing in different cultural backgrounds, emphasizing the importance of precise selection of KOLs, customized personalized content, and deep interaction with consumers. Subsequently, the article focused on exploring the dissemination effects of KOLs on the four major social media platforms. On the Tiktok platform, the rapid growth of education and knowledge popular science content highlights the role of KOL in content innovation; Weibo, with its wide user coverage and diverse content forms, provides KOLs with strong dissemination power; As a lifestyle sharing platform, Xiaohongshu allows KOLs to effectively guide consumers' purchasing behavior by sharing their personal experiences and recommending products; As a gathering place of anime culture, Bilibili has formed a high degree of user stickiness through its unique video content and community interaction. In order to quantitatively analyze the dissemination effect of KOLs, this article conducted empirical research on the influencing factors of consumer purchase intention through questionnaire surveys and data analysis methods. The results show that KOLs' professionalism, reputation, content quality, and interaction with consumers are all key factors affecting their purchase intention. In addition, the article also revealed the mediating role of emotional support and information support in the effectiveness of KOL communication



through regression analysis and other methods.

Keywords: *KOL communication effect, Social media platforms, Consumer purchase intention, Kol marketing*

I. Introduction

In today’s increasingly globalized world, how brands can achieve widespread dissemination and deep influence in different cultural backgrounds through effective marketing strategies has become an important issue in the field of marketing. Among them, KOLs (Key Opinion Leaders) marketing strategies play a crucial role in brand promotion due to their unique charm and significant effectiveness. As a bridge connecting brands and consumers, KOLs can generate strong influence in specific fields through their professionalism, reputation, and content quality, guiding consumers’ purchasing behavior and brand preferences. However, there are significant cultural differences between different countries and regions, including values, consumption habits, aesthetic concepts, and other aspects. These cultural differences have had a profound impact on the adaptability and effectiveness of KOL marketing strategies. How to accurately select KOLs, customize personalized content, and achieve deep interaction with consumers in different cultural backgrounds has become a huge challenge for brands. This study aims to explore the adaptability and effective-

ness of KOL marketing strategies in different cultural backgrounds through case studies. By selecting representative brand and KOL cooperation cases, analyzing their marketing strategies, content customization, interactive methods, and other aspects in different cultural backgrounds, summarizing successful experiences, revealing potential problems, and providing useful references and inspirations for brand promotion in the global market.

II. Analysis of KOL Communication Effectiveness on Different Social Media Platforms

Key Opinion Leaders (KOLs), as an important marketing tool, have a profound impact on consumers’ purchasing intentions. Major social media platforms, with their unique user groups and content ecosystems, provide a broad platform for KOLs to spread their message. The following is an analysis of KOL’s communication effects under the four social media platforms of Tiktok, Weibo, Little Red Book and Bilibili, and lists relevant analysis data.

TABLE I. The mechanism of KOL on consumer purchasing behavior: the mediating role of consumer purchasing intention

Social media platforms	User characteristics	KOL characteristics	communication effect	related data
Tiktok	Young and active, with a preference for short videos	Large fan base, strong professionalism, and excellent short video production	Visually display products and quickly stimulate purchase intention	Tiktok’s head talent “I’m Zhang Kaiyi” has a reputation of 4.9 people with goods and 3.988 million buyers+
micro-blog	Wide age range, pay attention to current events and hot topics	Widely influential, diverse in various fields, and rich in content and forms	Initiate topic discussions and enhance brand awareness	Weibo’s vertical KOLs account for over 40% of the total scale, and the vertical Golden Orange V scale has grown by 20%
The Little Red Book	Female users are the main ones, pursuing fashionable beauty and makeup	Strong professionalism, segmented content, and emphasis on user experience	The grass planting effect is outstanding, promoting purchasing decisions	The contribution of fans in the beauty and fashion vertical categories on Xiaohongshu has been further diluted, but the contribution of fans in categories such as food and cute pets continues to grow

Bilibili	Younger, strong anime culture	Knowledge popularization, strong professionalism, and active interaction with UP hosts	Provide in-depth content and cultivate user loyalty	Bilibili education and knowledge popularization content both rank among the top 10 in terms of fan growth
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On the Tiktok platform, KOL intuitively displays its products in the form of short videos to quickly attract users' attention. Tiktok's strong social attribute and high user stickiness enable KOL's grass planting content to spread rapidly and stimulate consumers' willingness to buy.

The Weibo platform has become an important place for KOLs to spread information and trigger topic discussions due to its wide user base and diverse content forms. The continuous expansion of Weibo's vertical KOL scale has further enhanced the brand's visibility and influence on the platform.

The Xiaohongshu platform focuses mainly on female users, emphasizing fashion, beauty, and user experience. KOLs have a high degree of content segmentation on this platform, which can accurately reach the target user group. The continuous growth of fan contributions in categories such as food and cute pets on Xiaohongshu demonstrates the diversified consumption trend of user content on the platform.

Bilibili platform is famous for its young user group and strong anime culture. KOLs' knowledge popularization and professional content on this platform are favored by

users, which helps cultivate user loyalty and improve brand awareness. The rapid growth of educational and popular science content also reflects the trend of users seeking in-depth content and knowledge learning on Bilibili.

III. Questionnaire design and data collection

The antecedent variables of this article are KOL interaction signals: responsiveness, personalization, entertainment, co viewer signals: mutual assistance, platform interaction signals: controllability; Selecting social support as the mediating variable, which covers two core dimensions of emotional support and information support, aims to comprehensively reveal the multiple dimensions of social and psychological support that consumers receive in KOL contexts; Set purchase intention as the outcome variable. Based on extensive reference to relevant literature at home and abroad, this article closely combines the context of live streaming e-commerce to provide operational definitions for the variables involved.

TABLE II. Table variable definition and source

variable	definition
Responsiveness	KOLs have the ability to quickly, accurately, and appropriately respond to feedback information such as consumer needs, questions, and comments.
individualization	The degree to which specific consumer needs and preferences are met.
for entertainment	The level of interest and attractiveness of interactive information and methods perceived by consumers in live streaming marketing.
mutualization	A mutual support, information sharing, experience exchange, and problem-solving relationship established among consumers in the live broadcast room.
controllability	The degree to which consumers perceive a dominant shopping experience on live streaming platforms.
Emotional support	Consumers perceive care and support from KOLs and co viewers in the context of live streaming e-commerce.
Information support	Consumers perceive information assistance from KOLs and co viewers in the context of live streaming e-commerce.
Purchase intention	The psychological state and tendency of consumers to be willing to purchase specific products or services.

During the formal questionnaire data collection period, this study started on October 15, 2024 and ended in January 2025, successfully collecting 458 valid questionnaire

responses. To ensure the data quality and research value of these collected questionnaires, a strict screening criteria were adopted:

TABLE III. Table variable measurement items 2

Variable	Item number	Measurement items
Responsiveness	RE1	KOLs can answer my questions and requests in a timely manner
	RE2	KOLs can provide relevant information in a timely manner for me to query
	RE3	The response from KOLs is closely related to my question
	RE4	KOLs are happy to communicate with me
Individualization	PE1	During the live broadcast, the products recommended by KOLs matched my interests
	PE2	During the live broadcast, the products recommended by KOLs matched my needs
	PE3	During the live broadcast, KOLs provided professional advice based on the condition of the products I browsed
	PE4	During the live broadcast, the products recommended by KOLs took into account my personal preferences
For entertainment	EN1	KOLs will initiate interesting activities to attract me to interact with them
	EN2	KOLs share detailed product information with fans in a fun way, including interesting usage methods.
	EN3	Participating in fun activities with KOLs can make me feel happy
	EN4	The process of KOL explaining products is very interesting
Mutualization	MU1	I can get a lot of advice and help from the reviews of other consumers
	MU2	I can share my shopping knowledge and experience through bullet comments and interact with KOLs and other consumers
	MU3	I can obtain useful information from other consumers
	MU4	I can obtain opinions and experience from other consumers
Controllability	CO1	I can freely choose the live stream I want to watch
	CO2	I have a great deal of control over the content of the applications I see
	CO3	I can control the order in which product information is viewed
	CO4	I can review the explanation of the product I want to see
Emotional support	ES1	When I have doubts, I get emotional help from e-commerce live streaming rooms
	ES2	When I have doubts, I will receive comfort and encouragement from e-commerce live streaming rooms
	ES3	When I have doubts, I will receive care from the e-commerce live streaming room
	ES4	When I have doubts, I will find some positive listeners in the e-commerce live broadcast room
Information support	IS1	When I have doubts in the e-commerce live broadcast room, the people in the live broadcast (including KOLs and viewers) will provide me with rich information
	IS2	When I have doubts in the e-commerce live broadcast room, the people in the live broadcast (including KOLs and viewers) will provide me with useful information
	IS3	When I have doubts in the e-commerce live broadcast room, the people in the live broadcast (including KOLs and viewers) will provide me with advice
	IS4	When I have problems in the e-commerce live streaming room, the people in the live stream (including KOLs and viewers) will help me analyze the reasons
Purchase intention	PI1	I may purchase products recommended by live streaming
	PI2	I am willing to purchase products recommended by live streaming
	PI3	I will consider purchasing products in this live streaming room
	PI4	I plan to purchase products recommended by live streaming

Firstly, for questionnaires that take less than 2 minutes to fill out, we consider that they may lack a serious attitude or have been filled out arbitrarily, so they are excluded to ensure the authenticity and reliability of the data.

Secondly, regarding the respondents who clearly stated in the questionnaire that they had not participated in any KOL shopping in the past 3 months, considering their high relevance to the research topic, it was decided not to include them in the data analysis sample to ensure the pertinence of the sample and the representativeness of the research results.

Finally, for questionnaires that exhibit obvious convergence characteristics, where most or all of the answers are almost identical, they may not truly reflect the individual differences or independent thinking abilities of the respondents and are therefore excluded from the dataset.

After a series of questionnaire quality control processes, 51 questionnaires that did not meet the requirements were ultimately screened and eliminated, ensuring the validity and reliability of the remaining 407 questionnaires, with a validity rate of 88.86%.

IV. Reliability and validity analysis: taking Tiktok as an example

Reliability analysis:

This study adopted the classic and widely used statistical method of Cronbach's alpha coefficient to comprehensively evaluate the internal consistency level of research tools. Specifically, when the Cronbach's alpha coefficient of a scale reaches or exceeds the recognized threshold of 0.6, it indicates that its reliability is high and trustworthy.

If the CITC value of a certain item is lower than 0.5, it means that the correlation between the item and other items in the scale is weak and not sufficient to be used as part of an effective measurement tool. Based on this, according to convention, it is considered to remove this item from the scale in order to optimize the scale structure and improve the reliability and quality of the entire research tool.

After conducting reliability analysis on all the items covered by the concepts in this article, the results showed that the pairwise correlations between the items within each concept significantly exceeded the preset minimum standard of 0.3, which clearly reveals the close internal connections between the items. The Cronbach's alpha coefficients for all dimensions fall within the range of 0.871 to 0.944, without exception exceeding the threshold of 0.6. This result strongly confirms the high inherent consistency and stability among the items of each construct.

At the same time, the Corrected Item Total Correlation (CITC) values of all items have exceeded the threshold of 0.5, which fully demonstrates that the contributions of all items to their respective constructs have met the expected standards and there is no need to delete any items. In summary, the questionnaire used in this study demonstrated good reliability, fully ensuring the reliability of the data and the effectiveness of the research.

Validity analysis:

As for the construct validity, this study used exploratory factor analysis method for verification, including Kaiser Meyer Olkin (KMO) measurement and Bartlett's Test of Sphericity. These statistical tests aim to confirm whether the collected data is suitable for exploratory factor analysis. Following the usual standard, if the KMO value exceeds 0.7 and the Bartlett's test P value is less than 0.05, the data is considered suitable for exploratory factor analysis.

The KMO test achieved a significant value of 0.908, which far exceeds the critical value of 0.5, strongly indicating moderate correlation between data and facilitating factor analysis. Meanwhile, the P-value obtained from Bartlett's sphericity test is less than 0.05, which further confirms the significant correlation structure between various observed indicators. Therefore, exploratory factor analysis is suitable.

This analysis explained 78.663% of the total variance and identified 8 major factors, indicating that the identified factors performed well in terms of representativeness and were consistent with the specific needs of this study. According to the analysis, the loading coefficients of the indicators under each factor show a high numerical range on the corresponding factor, ranging from 0.747 to 0.918. This clearly reveals that the scale indicators designed in this study have good convergence validity, that is, each indicator can strongly characterize the underlying variable characteristics behind it. In addition, the cross loading coefficients of each indicator between different factors are significantly lower than the threshold of 0.4, which means that the scale also performs well in discriminant validity, that is, the uniqueness of each factor is well maintained, and there is a clear distinction between the indicators under each factor.

V. Analysis of the mediating role of perceived trust

Basic regression analysis:

This study utilized 458 valid questionnaire data collected

and conducted regression analysis using SPSS statistical software. The following is the specific analysis process and results of the relationship between each independent variable and the dependent variable (purchase intention):

(1) Responsiveness and purchase intention

Perform regression analysis with responsiveness as the independent variable and purchase intention as the dependent variable. The results showed a significant positive correlation between responsiveness and purchase intention, indicating that the higher the responsiveness of KOLs, the stronger the purchase intention of consumers.

(2) Personalization and purchase intention

Similarly, conducting regression analysis with personalization as the independent variable and purchase intention as the dependent variable. The analysis results indicate that there is a significant positive correlation between personalization and purchase intention, which means that personalized recommendations and services provided by KOLs can enhance consumers' purchase intention.

(3) Entertainment and purchase intention

Perform regression analysis with entertainment as the independent variable and purchase intention as the dependent variable. The results showed a significant positive correlation between entertainment value and purchase intention, indicating that the entertainment value displayed by KOLs in live broadcasts can attract consumers and thereby enhance their purchase intention.

(4) Mutual assistance and purchase intention

Finally, regression analysis will be conducted with mutual assistance as the independent variable and purchase intention as the dependent variable. The analysis results show that there is a significant positive correlation between mutual assistance and purchase intention, indicating that the mutual assistance atmosphere in the live broadcast room and the interaction between consumers can enhance purchase intention.

In order to present the results of basic regression analysis more intuitively, the following is a table of regression analysis results showing the relationship between each independent variable and the dependent variable:

TABLE IV. Regression Analysis Results Table

Independent variable	0.352	0.045	7.82	<0.001	[0.264, 0.440]
Responsiveness	0.387	0.042	9.22	<0.001	[0.294, 0.450]
Individualization	0.321	0.048	6.70	<0.001	[0.236, 0.426]
For entertainment	0.294	0.046	6.40	<0.001	[0.204, 0.384]
Mutualization	0.352	0.045	7.82	<0.001	[0.264, 0.440]

Analysis of intermediary role:

Under the intermediary role of information support, responsiveness, personalization, entertainment, and mutual assistance all have significant indirect effects on purchase intention. Specifically, the mediating effect of responsiveness on purchase intention through information support is 0.200 (P<0.001), with a 95% confidence interval of [0.125, 0.253]; Personalization is 0.221 (P<0.001), with a 95% confidence interval of [0.139, 0.264]; The entertainment value was 0.200 (P<0.001), with a 95% confidence interval of [0.130, 0.250]; Mutual assistance was 0.163 (P<0.001), with a 95% confidence interval of [0.101, 0.215]. These intervals do not contain zero values, confirming the mediating role of information support in the relationship between these factors and purchase intention. Therefore, hypotheses H5a, H5c, H5e, and H5g are empirically supported.

Under the mediating effect of emotional support, sig-

nificant indirect effects of responsiveness, personalization, entertainment, and mutual assistance on purchase intention were also observed. The mediating effect of responsiveness on purchase intention through emotional support is 0.190 (P<0.001), with a 95% confidence interval of [0.120, 0.237]; Personalization is 0.198 (P<0.001), with a 95% confidence interval of [0.121, 0.239]; The entertainment value was 0.189 (P<0.001), with a 95% confidence interval of [0.119, 0.236]; Mutual assistance is 0.154 (P<0.001), with a 95% confidence interval of [0.090, 0.211]. These intervals also do not contain zero values, indicating that emotional support plays a mediating role in the relationship between these factors and purchase intention. Therefore, it is assumed that H5b, H5d, H5f, and H5h are all valid.

In summary, responsiveness, personalization, entertainment, and mutual assistance have all had a significant impact on consumer purchase intention through emotional and informational support.

TABLE V. Mediation effect test results

intermediary	Effect	Lower	Upper	P	Conclusion
Responsiveness → Information Support → Purchase Intention	0.200	0.125	0.253	***	Establish
Responsiveness → Emotional support → Purchase intention	0.190	0.120	0.237	***	Establish
Personalization → Information Support → Purchase Intention	0.221	0.139	0.264	***	Establish
Personalization → Emotional Support → Purchase Intention	0.198	0.121	0.239	***	Establish
Entertainment → Information support → Purchase intention	0.200	0.130	0.250	***	Establish
Entertainment → emotional support → purchase intention	0.189	0.119	0.236	***	Establish
Mutual assistance → Information support → Purchase intention	0.163	0.101	0.215	***	Establish
Mutual Aid → Emotional Support → Purchase Intention	0.154	0.090	0.211	***	Establish

VI. Survey consumers' trust in KOL recommended products

Based on empirical data, this article deeply analyzes the research results from five dimensions:

(1) In terms of KOL interaction, research has found that the responsiveness, personalization, and entertainment displayed by KOLs in live streaming e-commerce have a positive impact on emotional and information support, which is consistent with existing research in academia. This indicates that in the process of live streaming e-commerce, the signals released by KOLs can enhance consumers' sense of social support. Specifically, personalization has the greatest positive impact on emotional support (path coefficient: 0.194), followed by responsiveness (path coefficient: 0.187), and finally entertainment (path coefficient: 0.180). This may be because personalized recommendations make the audience feel understood and cared for, satisfying their emotional needs of being seen and having their needs met. Although responsiveness can make the audience feel valued, it is slightly inferior to personalization in terms of emotional satisfaction. Entertainment, on the other hand, focuses more on surface enjoyment and has relatively lower satisfaction with deep-seated emotional needs. For information support, personalization has the greatest positive impact (path coefficient: 0.274), followed by responsiveness (path coefficient: 0.190), and entertainment has the smallest impact (path coefficient: 0.177). This may be because personalized recommendations make information more relevant and valuable, while the information provided by responsiveness may not be as accurate as personalization, and entertainment focuses more on viewing experience rather than information transmission.

(2) In terms of co viewer signaling factors, research has found that the mutual assistance of co viewers has a positive impact on emotional and informational support.

Among them, the positive impact of mutual assistance on information support (path coefficient: 0.139) is slightly higher than its impact on emotional support (path coefficient: 0.137).

(3) In terms of platform interaction signal factors, research has found that the control signals transmitted by live streaming e-commerce platforms can regulate the impact of KOL interaction signals and co viewer interaction signals on social support. This indicates that consumers' perceived control over the interactive process enhances their sense of social support, thereby promoting purchase intention. Therefore, live streaming rooms should enhance the objective evaluation of the platform and increase consumers' perceived control.

(4) In terms of the relationship between social support and purchase intention, research has found that both emotional and informational support of consumers have a positive impact on purchase intention, which is consistent with previous studies. Among them, emotional support has a greater positive impact (path coefficient: 0.407), followed by information support (path coefficient: 0.363). This may be because shopping decisions in live streaming e-commerce are often driven by emotional factors, and viewers are more easily attracted by emotions. Although information support is important, its emotional impact in shopping decisions is relatively small. Therefore, e-commerce live streaming rooms should focus on stimulating emotional resonance among viewers.

(5) In terms of the mediating role of social support, this article successfully verified the mediating effect of emotional support and information support between responsiveness, personalization, entertainment, mutual assistance, and purchase intention through the mediation effect test. Under the mediating effect of emotional support, personalized mediation has the highest value (0.198), followed by responsiveness (0.190), entertainment (0.189), and mutual assistance (0.154). Under the mediating effect of information support, personalized mediation has the

strongest effect (0.221), followed by entertainment (0.200), responsiveness and mutual assistance rank third and fourth respectively (mediation utility values of 0.200 and 0.163). In addition, the mediation effect test showed that after being regulated by platform signals (i.e. control), 7 out of the 8 existing mediation pathways still maintained a significant level, indicating that the control of platform signals has a certain impact on the mediating effect.

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