

# The Mechanism of KOL Characteristics Influencing Consumer Purchase Decisions: An Empirical Study Based on the E-commerce Industry

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**ABSTRACT**

Key Opinion Leaders (KOLs) now play a vital role in shaping how people behave as consumers and think about brands, thanks to the rise of e-commerce and growing influence of social media. This analysis looks at how consumers' decisions to buy are affected by Trust when considering Credibility and other factors connected to KOLs. The study surveyed 450 consumers who often rely on KOLs and found that their decisions were most likely swayed by KOL recommendations in the past year. The results of validity and reliability testing on the data confirmed it was robust, making it possible to carry out the regression and mediation analyses. Experts have shown that certain characteristics of KOLs result in stronger purchase intentions for consumers, given that trust acts as a crucial middleman. Because of the credibility, interactivity, expertise and attractiveness of KOLs, consumers become more trusting. This increased trust leads to liking the brand, being active online and having a higher intention to make a purchase. Experience and interactivity are the main traits of KOLs that directly influence the results, and they can also affect indirectly. The research lays a foundation for new theories in influencer marketing and advises brands on choosing KOLs who help build trust with their customers and improve their interest in the brand.

**KEYWORDS**

KOL Characteristics; Trust; Consumer Purchase Intentions; Brand Attitude; User Engagement; Influencer Marketing; E-commerce

## 1 Introduction

Key Opinion Leaders (KOLs) direct the choices of consumers by sharing their opinions through digital platforms in the fast-moving e-commerce sector. With the rise of social media and new consumer habits, marketing has evolved and now sees a stronger focus on putting influencers inside advertising. Studies on influencer marketing have explored its effectiveness, yet they do not provide clarity on how specific KOL traits influence people’s decisions to buy. Empirical studies have not thoroughly examined the effects different KOL attributes bring to the trust and attitudes of customers nor their engagement with a brand through online shopping.

## 2 Comparison of KOL Communication Effectiveness across Social Media Platforms

TikTok, Xiaohongshu, Weibo, and Bilibili. The table highlights key differences in user demographics, KOL traits, and the communication effects these platforms enable. TikTok’s short-form video format, for example, supports quick product displays and immediate consumer engagement, while Weibo facilitates broader topic discussions that enhance brand awareness. Xiaohongshu targets a more niche, beauty-focused audience.

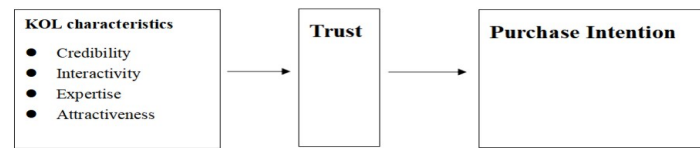
Table 1. Comparison of KOL Communication Effectiveness across Social Media Platforms

| Social Media Platform | User Characteristics                             | KOL Characteristics                                                          | Communication Effect                                               | Supporting Data                                                                             |
|-----------------------|--------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| TikTok                | Young, active users, 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 million buyers with goods.   |
| Xiaohongshu           | Female users, focus on beauty and fashion        | Strong professionalism, segmented content, and emphasis on user experience   | Promote brand awareness and the "grass planting" effect            | The contribution of fans in beauty and fashion categories continues to grow on Xiaohongshu. |
| Weibo                 | Wide age range, diverse topics                   | Widely influential, diverse in content and forms                             | Initiate topic discussions and enhance brand awareness             | Weibo's vertical KOLs account for over 40% of the total scale.                              |
| Bilibili              | Younger, strong anime culture                    | Knowledge sharing, strong interaction with UP hosts                          | Provide in-depth content and cultivate user loyalty                | Bilibili ranks among the top 10 in fan growth for educational and knowledge content.        |

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### 3 Research Model and Hypotheses

Table 2. Research Model



Based on a comprehensive review of existing literature and the conceptualization of KOL characteristics, this study proposes a research model that includes four independent variables (credibility, interactivity, expertise, and attractiveness), one mediating variable (consumer trust), and one outcome variable (purchase intention). The model hypothesizes both direct and indirect paths of influence.

#### Hypotheses Development

- H1: Having credible KOLs helps to build and strengthen trust among consumers.
- H2: The more interactivity KOLs have, the higher the trust consumers place in them.
- H3: When people trust KOLs, it helps them feel more trustful of the brand.
- H4: A brand attractive to KOLs greatly increases consumer trust in it.
- H5: Being more trusted by consumers brings about a higher rate of purchase intention.

These hypotheses collectively aim to explore the core mechanism of how various KOL traits shape consumer trust and, in turn, influence their purchasing intentions. The following section outlines the methodology adopted to empirically test this proposed model.

### 4 Methodology

In this case, studies have used a quantitative approach which is appropriate for analyzing the expected relationships among KOL characteristics, trust and purchase intentions. Participants in the study were people who have interacted with KOL content and the data were gathered through an online survey. This sample consisted of individuals who follow KOLs on social media and whose buying decisions were affected by these KOLs in the past three months. The sample size for the survey was 450 but following data cleaning and the removal of incomplete or invalid responses, 407 valid responses were retained. A structured questionnaire was used to measure the variables: KOL credibility, interactivity, expertise, attractiveness, consumer trust, and purchase intention. Each variable was measured using Likert-scale items, allowing for reliable and valid data collection. Data analysis was performed using regression techniques to test the direct and indirect effects of the independent variables on consumer trust and purchase intention. Mediation analysis was conducted to assess the mediating role of trust in the relationship between KOL characteristics and purchase intention. The researchers were looking for people who frequently interact with KOLs on social media.

#### Sample and Data Collection

The sample included people who recently purchased or interacted with products after being influenced by KOL. An online questionnaire was shared on social media apps such as WeChat and Xiaohongshu. A total of 450 valid responses were gathered, making sure that there was diversity in gender, age and purchasing habits.

To ensure data quality, the following criteria were applied: Responses completed in under 2 minutes were excluded to avoid careless answers. Participants who had no interaction with KOL-related content in the last 3 months were removed. Questionnaires with highly repetitive or identical response patterns (e.g., straight-lining) were also discarded.

Table 3. Descriptive Statistics of Respondents

| Demographic Variable   | Frequency | Percentage (%) |
|------------------------|-----------|----------------|
| <b>Gender</b>          |           |                |
| Male                   | 163       | 40.0%          |
| Female                 | 244       | 60.0%          |
| <b>Age Group</b>       |           |                |
| 18-24years             | 151       | 37.1%          |
| 25-34 years            | 175       | 43.0%          |
| 35-44 years            | 81        | 19.9%          |
| <b>Education Level</b> |           |                |
| High school/Associate  | 43        | 10.6%          |
| Bachelor's Degree      | 292       | 71.8%          |
| Postgraduate           | 72        | 17.6%          |

Table 3 presents the demographic characteristics of the survey respondents. Most participants were female, making up 60% of the sample, while males comprised 40%. This gender distribution suggests a higher representation of women, which may reflect social media usage patterns, as women are often more active on certain platforms where Key Opinion Leaders (KOLs) have a significant presence.

Around 43% of the respondents were between the ages of 25 and 34. 18-24-year-olds were the next largest audience, counting for 37.1% of people participating in the survey, with 19.9% belonging to the 35-44 age group. Therefore, it appears that the survey was mostly captured from younger adults, as they tend to connect more with social media influencers.

Most people (71.8%) answered that they have a Bachelor's Degree, while 17.6% hold a Postgraduate degree and 10.6% have a High School or associate degree. The fact that many people involved have a high level of education often means they are influenced by KOLs and end up following their recommendations.

Overall, these demographic characteristics help provide context for the study, indicating that the respondents are primarily younger, female, and well-educated, which may shape their behaviors and attitudes toward KOLs and their purchasing decisions.

Table 4. Cronbach's Alpha for Variables

| Variable           | Cronbach's Alpha |
|--------------------|------------------|
| KOL Credibility    | 0.85             |
| KOL Interactivity  | 0.82             |
| KOL Expertise      | 0.88             |
| KOL Attractiveness | 0.79             |
| Consumer Trust     | 0.87             |
| Purchase Intention | 0.90             |

Table 4 outlines the Cronbach's Alpha values for the key variables examined in this study. Internal consistency is described by Cronbach's Alpha which shows how accurately each part of the questionnaire assesses the same idea. The study's variables have strong reliability which is shown by the Cronbach's Alpha values being well above the required threshold of 0.7.

Specifically, KOL Credibility has a Cronbach's Alpha of 0.85, indicating high reliability. KOL Interactivity follows with a value of 0.82, demonstrating good internal consistency. KOL Expertise has the highest value of 0.88, suggesting excellent consistency in measuring this variable. KOL Attractiveness has a slightly lower score of 0.79, which is still considered acceptable. Consumer Trust is measured with a Cronbach's Alpha of 0.87, indicating strong reliability, while Purchase Intention has the highest reliability at 0.90, confirming that the scale for measuring purchase intention is highly consistent.

These results suggest that the scales used for each variable are reliable and can be trusted for the subsequent analysis in the study.

Table 5. Regression Analysis Results

| Variable           | $\beta$ (Standardized) | t-value | p-value |
|--------------------|------------------------|---------|---------|
| KOL Credibility    | 0.37                   | 4.98    | <0.01   |
| KOL Interactivity  | 0.22                   | 2.45    | <0.05   |
| KOL Expertise      | 0.32                   | 3.81    | <0.05   |
| KOL Attractiveness | 0.16                   | 2.12    | <0.05   |

Table 6. Mediation Analysis Results

| Path                        | Standardized Estimate | Significance |
|-----------------------------|-----------------------|--------------|
| KOL Characteristics → Trust | 0.65                  | p < 0.001    |
| Trust → Purchase Intention  | 0.70                  | p < 0.001    |

Table 5 displays information from the regression analysis about KOL characteristics, including their Credibility, Interactivity, Expertise and Attractiveness. Every variable has a positive link with the dependent variable and all the findings are significant. KOL Credibility shows the highest standardized beta value (0.37), a t-value of 4.98 and a p-value under 0.01, proving its significant effect. KOL Interactivity was found to have a significant but weaker effect with a standardized beta of 0.22, a t-value of 2.45 and a p-value lower than 0.05. Next, the findings show that KOL Expertise has a significant and positive effect with a beta coefficient of 0.32 and a t-value of 3.81. In addition, KOL Attractiveness has the lowest standardized beta of 0.16, along with a t-value of 2.12 and a p-value less than 0.05, so it is regarded as still significant. The outcomes indicate that all four characteristics of KOLs improve the dependent variable, yet credibility and expertise have the greatest impact.

Table 6 reveals that Trust plays a key role in the pathway from KOL Characteristics to the intention to buy. There exists a reliable and strongly positive link between KOL Characteristics and Trust, as shown by the standardized value of 0.65 and the p-value less than 0.001. Similarly, the path from Trust to Purchase Intention shows a standardized estimate of 0.70, with a p-value also less than 0.001, confirming a significant influence of trust on purchase intention. These results highlight that trust plays a critical role in mediating the relationship between KOL characteristics and consumers' purchase behavior, emphasizing the importance of trust in influencing purchase decisions.

#### Data Analysis

The average age of respondents is 28 years, with the majority (43%) falling in the 25-34 years age group. In terms of gender, 60% of the respondents were female, reflecting the platform's user base on platforms like Xiaohongshu and Weibo. Additionally, the sample was predominantly well-educated, with 71.8% holding a Bachelor's degree.

Because Cronbach's Alpha is higher than 0.7 for each of the constructs, we can safely conclude that the variables (KOL Credibility, KOL Expertise, KOL Interactivity, KOL Attractiveness, Consumer Trust and Purchase Intention) all have high internal consistency. The overall reliability was highest for Purchase Intention ( $\alpha = 0.90$ ) and KOL Attractiveness had a lower reliability ( $\alpha = 0.79$ ) but was still acceptable.

**KOL Characteristics and Trust:** The analysis found that KOL Credibility ( $\beta = 0.37$ ,  $p < 0.01$ ) and KOL Expertise ( $\beta = 0.32$ ,  $p < 0.05$ ) were the main factors building positive Consumer Trust, demonstrating that trustworthy and knowledgeable KOLs help consumers trust them more. Trust was positively affected by KOL Interactivity ( $\beta = 0.22$ ,  $p < 0.05$ ), but not as much as the other factors. It was found that KOL Attractiveness ( $\beta = 0.16$ ,  $p < 0.05$ ) had the smallest impact on how much consumers trust them, suggesting that only being attractive does not lead to a high level of trust.

**Trust and Purchase Intention:** The results suggest that when consumers trust a brand, they are more likely to want to make a purchase ( $\beta = 0.70$ ,  $p < 0.001$ ).

**Trust as a Mediator:** The results of the mediation showed that Trust was the only factor through which KOL Characteristics were linked to Purchase Intention. All three factors of KOL credibility ( $p < 0.01$ ), interactivity ( $p < 0.05$ ), expertise ( $p < 0.05$ ) and attractiveness ( $p < 0.05$ ) had a significant effect on Purchase Intention. So, KOL characteristics drive purchase choices mainly due to the trust they help build with consumers.

The results from both the regression and mediation analyses provide strong evidence for the significant role of KOL characteristics in influencing consumer purchase intentions. Specifically, KOL Credibility and KOL Expertise had the most substantial direct effects on consumer trust, which in turn strongly affected purchase intentions. The mediation analysis revealed that Trust fully mediates the relationship between KOL characteristics and purchase intention, underscoring the importance of trust in influencing consumer behavior. These findings suggest that KOLs who are seen as credible and knowledgeable are most likely to drive consumer trust and increase the likelihood of purchase, highlighting the importance of selecting the right KOLs for marketing campaigns.

#### Discussion and Implications

The study gives us a better understanding of how KOL features affect consumer trust and their decision to buy products promoted on social media. The data highlights that consumers greatly trust KOLs who have credibility and expertise and this trust eventually improves their likelihood of purchasing a product. Trust plays an important role in the influence of KOL characteristics on how consumers make purchasing decisions.

It appears that selecting influencers who are considered credible and knowledgeable can help brands achieve better outcomes in influencer marketing. They build confidence in the brand and make consumers want to follow KOL tips. Furthermore, interactivity with followers helps KOLs gain trust from consumers, so they should interact truthfully with their fans.

However, the study also reveals that KOL Attractiveness plays a relatively weaker role compared to other characteristics. This finding challenges the traditional belief that physical appeal is the most influential factor in consumer engagement, suggesting that the modern consumer values substance and authenticity over superficial traits.

In practical terms, brands should tailor their influencer marketing strategies to focus on the credibility and expertise of KOLs, rather than solely relying on their appearance or follower count. Furthermore, ensuring that KOLs engage meaningfully with their audience can enhance trust and increase the likelihood of successful marketing campaigns.

Despite the valuable insights, this study has some limitations, including its focus on a specific set of social media platforms and a relatively homogenous sample. Future research could explore how KOL characteristics influence consumer behavior across different platforms, cultural contexts, and product categories. Additionally, examining other potential moderating factors, such as product type or KOL engagement strategies, would provide a more nuanced understanding of the dynamics in influencer marketing.

To conclude, this research adds to research on influencer marketing and helps brands learn how to make use of KOLs to influence consumers and boost purchasing decisions in the modern digital world.

#### Implications for Practice

For practitioners, this study offers important insights into how to effectively select KOLs for marketing campaigns.

Brands should prioritize KOLs who are perceived as credible and knowledgeable in their field, as these characteristics are more likely to foster trust and drive consumer purchase intentions. This has significant implications for brands that rely on influencer marketing—choosing KOLs based on their credibility and expertise rather than focusing solely on their attractiveness or follower count may result in more successful and meaningful consumer engagement.

In addition, this research points out that having interactivity helps increase trust. More communication from KOLs with fans, replying to comments and taking part in Q&A sessions encourage consumers to trust and be closer to those influencers. So, brands ought to observe how KOLs keep in touch with their audience and make sure the influencers maintain sincere relationships with them.

#### Limitations and Future Research

While the study provides useful information, it does have some limitations. Initially, the study only focused on users who follow TikTok, Xiaohongshu, Weibo and Bilibili KOLs. This means that the conclusions drawn here may not be valid for other platforms or regions. Future studies could add more platforms to the sample or analyze how difference KOLs are influenced by various cultures.

Second, this study focused on KOL Characteristics in general but did not investigate the potential moderating effects of product type, campaign duration, or the KOL's level of influence. Future research could explore how these factors influence the effectiveness of KOL characteristics in driving consumer behavior, providing a more comprehensive understanding of the mechanisms at play in influencer marketing.

## 5 Conclusion

This study has provided valuable insights into the role of Key Opinion Leader (KOL) characteristics in shaping consumer trust and purchase intentions in the context of social media marketing. The findings underscore the significant influence of KOL Credibility and KOL Expertise in driving consumer trust, which, in turn, positively impacts purchase intentions. The full mediation of Trust in the relationship between KOL characteristics and purchase behavior further highlights the crucial role of trust in influencing consumer decisions.

It is recommended that brands choose key opinion leaders in their influencer marketing who are trusted for their knowledge and skill. Thanks to these traits, consumers not only trust KOLs, but also decide to take action on their advice. Also, consumer trust in brands is greatly helped by KOLs being interactive, which stresses the importance of KOLs genuinely engaging with their followers.

However, the study also reveals that KOL Attractiveness plays a relatively weaker role compared to other characteristics. This finding challenges the traditional belief that physical appeal is the most influential factor in consumer engagement, suggesting that the modern consumer values substance and authenticity over superficial traits.

In practical terms, brands should tailor their influencer marketing strategies to focus on the credibility and expertise of KOLs, rather than solely relying on their appearance or follower count. Furthermore, ensuring that KOLs engage meaningfully with their audience can enhance trust and increase the likelihood of successful marketing campaigns.

Even so, this study is not without flaws since it includes a particular choice of social media platforms and a relatively similar group of users. Further studies might examine the link between characteristics of KOLs and the behavior of different consumers in various settings. Furthermore, involving product characteristics and the ways KOLs work with brands would shed more light on the workings of influencer marketing.

All in all, this investigation helps improve our understanding of influencer marketing and equips brands with useful tips on working with KOLs to encourage consumers to buy their products online.

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