

A Study on the Factors Influencing Douyin Users' Sharing Behavior of Health Information Short Videos in China

Jingbo Fang^{1, *}

¹The Faculty of Literature and Media, Hebei Minzu Normal University, Chengde, Hebei, 067000, China

*Corresponding author:
1707102021@stu.sqxy.edu.cn

Abstract:

In the context of Chinese short video platforms, such as Douyin, dominating the mainstream media market and more and more diversified forms of health information communication, this study delves into the factors influencing the willingness of Chinese Douyin users to adopt health information behaviors, offers methods and suggestions for content creators and related platforms, and explores a superior path for health communication. Utilizing the Heuristic-Systematic Model (HSM), this research investigates the impact of both heuristic and systematic cues on user-sharing behavior. Data was gathered through a survey and analyzed using SPSS, revealing that source credibility, information presentation, information involvement, and information quality are all correlated with user-sharing behavior. For future development, media platforms such as Douyin and content creators ought to continuously enhance themselves in terms of strengthening account audits and improving content quality, to furnish users with better health information knowledge and strengthen their willingness to share health information.

Keywords: Users' Sharing Behavior; Health Information; Short Videos; Douyin

1. Introduction

Health is a universal pursuit, and building a "Healthy China" is a crucial national agenda. The foundation of this initiative is the health literacy of the population, which requires education, placing health communication at the forefront. The "Healthy China 2030" plan, released in 2016, clearly outlines using modern information technology to promote public

health as a national strategy. Utilizing various media, especially new media, to facilitate the popularization of health education and scientific health knowledge is of great significance for improving the public's health literacy. Disseminating health knowledge on internet platforms has become essential for disease prevention and understanding health information. Among new media platforms, short video platforms like Douyin in China are gaining significant traction

due to their quick and efficient dissemination capabilities. According to the 53rd “Statistical Report on Internet Development in China,” as of December 2023, the short video user base in China reached 1.053 billion, with Douyin surpassing one billion users, underscoring its dominant role in the short video arena. The China Douyin Health Science Report states that as of 2023, there are over 35,000 certified medical doctors on the platform, with over 200 million users accessing health science content daily. Douyin has become a crucial channel for understanding, disseminating, and sharing health knowledge. Investigating the influencing factors of the sharing behavior of Douyin users in China regarding short videos of health information can assist health short-video creators in generating superior health information content. Simultaneously, it enables short-video platforms like Douyin in China to better promote health short videos and safeguard the health of the Chinese people.

2. Literature Review

Researchers have increasingly focused on the intersection of health communication and new media platforms, with the application of the Heuristic-Systematic Model (HSM) in the realm of communication effects becoming more refined. Chen Liang et al. observe that health communication faces both opportunities and challenges with the rise of social media [1]. Huang Chen studied factors influencing the perceived credibility of corporate WeChat content, while Yin Yilin analyzed the current state of health-related short video dissemination on Douyin and its influencing factors [2, 3]. Li Yongning and Wu Ye explored knowledge dissemination mechanisms on social short video platforms, finding that content-based systematic cues have a more significant impact on the dissemination effectiveness of knowledge videos compared to context-based heuristic cues [4].

While scholars have examined health communication content and its dissemination effects, most studies employ content analysis focusing on the content itself, with less emphasis on the user perspective, especially sharing behavior. This research aims to explore the mechanisms underlying health information-sharing behavior among Douyin users in China.

The Heuristic-Systematic Model (HSM), proposed by psychologist Chaiken in 1980, is a critical branch of the dual-process theory of information processing [5]. This model effectively explains individuals’ cognitive and behavioral processes when receiving and processing information, dividing information processing into heuristic and systematic modes. Heuristic cues refer to non-content, contextual cues inherent in the information, indicating de-

cisions made with minimal personal investment based on secondary information like others’ evaluations. Systematic processing involves comprehensive consideration of information content before making judgments, encompassing cues such as content theme and video duration, closely tied to the video quality.

This study proceeds from the perspective of audience behavior and, based on the Heuristic-Systematic Model in the information processing theory, investigates the influence degree of heuristic cues (source credibility, information presentation form, information involvement) and systematic cues (information quality) on the sharing behavior of Douyin users in China regarding health information. Specifically, this study aims to explore the different influences of the four factors on the adoption and sharing behavior of Douyin users in China: source credibility, information presentation, information involvement, and information quality.

Source credibility refers to the degree to which people accept and believe the disseminators of communication information. During the process of information dissemination, people will initially make judgments on the authenticity and value of the information based on the credibility of the disseminators themselves. In general, higher credibility leads to a stronger persuasive effect, whereas lower credibility results in a diminished persuasive influence.

Information presentation form involves expressing information, data, or knowledge in various ways, such as text, images, videos, audio, and infographics. On platforms like Douyin in China, short videos are the most popular medium of information dissemination. An effective video combines text, audio, images, and richness to help people more efficiently acquire, understand, and convey information.

Information involvement refers to the degree to which individuals perceive information as relevant to themselves and whether it aligns with their needs and interests. In the information-saturated environment of the internet, individuals cannot and need not engage with all available information; they often focus only on what is necessary or closely related to them.

Information quality encompasses accuracy, completeness, and consistency, ensuring information meets its intended purpose. In health communication, this relates to whether health information is correct, comprehensive, and meets user needs, with higher quality leading to more effective dissemination.

Therefore, this article puts forward the hypotheses:

H1: Higher source credibility increases the willingness to share.

H2: Information presentation form positively correlates with willingness to share.

H3: Information involvement positively correlates with willingness to share.

H4: Information quality positively correlates with willingness to share.

The design of the questionnaire and measurement scales is based on the hypothetical model and previous literature to ensure validity, adapted to the context of health information short videos on Douyin in China. Source credibility is adapted from An Shuangge and Xia Zhijie's questions, such as "To what extent do you think the author of this post understands the subject? (Not at all/Very well)," "To what extent is the author an expert in this field? (Not at all/Very)," and "How credible do you find the author? (Not credible/Very credible)" [6]. The information presentation format is adapted from Zhang Di's "I tend to trust information with clear images or video content" and

"The layout and neatness of the information affect my perception of its credibility" [7]. Information involvement is adapted from Huang Chen's "The corporate WeChat public account is very relevant to my work or life" and Wei Lu's "Using the Internet boosts my work and life efficiency" [2,8]. Information quality is adapted from Zhang Di's "Corporate WeChat post information is accurate/useful" and Yang Qingyang's "Weibo health information is complete" [7,9]. Sharing behavior is adapted from Wang Xivei's "I will share skills and knowledge I learn with my WeChat friends" [10]. The questionnaire consists of basic information and variable measurement items, using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The final design encompasses five scales. Variables, measurement items, and citations can be seen in Table 1.

Table 1. Conceptual Model of Sharing Behavior Among Users of Health Information Short Videos on Douyin, China

Variable	Measurement Items	Citation
Source Credibility (SC)	SC1. The author of the video has a deep understanding of the content's subject matter.	[6]
	SC2. To what extent do you believe the author of the video is an expert in this field?	
	SC3. How credible do you find the author of this video?	
Information Presentation Format (IPF)	IPF1. The images and text in the health information videos on Douyin are clear.	[7]
	IPF2. The voiceover and background music in the health information videos are appropriate.	
	IPF3. The presentation format of the health information videos on Douyin is diverse.	
Information Involvement (II)	II1. The health information on Douyin is highly relevant to my work or life.	[2] [8]
	II2. The health information on Douyin provides guidance for my actions.	
	II3. The health information on Douyin has a significant impact on my work and life.	
Information Quality (IQ)	IQ1. The health information on Douyin is complete and comprehensive.	[7] [9]
	IQ2. The health information on Douyin is accurate.	
	IQ3. The health information on Douyin is useful to me.	
Sharing Behavior (SB)	SB1. You would directly share the video with a specific friend.	[10]
	SB2. You would share the video in your Douyin group.	
	SB3. You would share the video on your friends' daily feed.	

3. Methodology

This study employed online surveys for data collection, distributing the questionnaire via platforms including Questionnaire Star and Weibo. A total of 215 responses were collected. After screening, one incomplete survey was discarded using the control question "2 + 2 = ?", resulting in 214 valid responses.

Regarding demographics, 121 respondents were male, accounting for 56.5% of the sample, while 93 were female, comprising 43.5%, indicating a balanced gender ratio. The

majority of participants were aged 21-30 (54.7%), and educational levels were primarily at or below undergraduate (89.7%). Most participants had used the platform for 2 to 3 years (34.6%), with a usage frequency of 0-10 times per week (58.9%), and followed 0-5 health accounts (59.8%). SPSS software was utilized to perform confirmatory factor analysis on the four independent variables and the dependent variable in the constructed model. The reliability scores were: SC = 0.809, IPF = 0.799, II = 0.733, IQ = 0.799, and SB = 0.774. The data analysis indicates that the

model's internal quality is robust, with composite reliability above 0.7, signifying an ideal internal quality for the model.

Prior to conducting the regression analysis, this paper initially analyzed the correlations among the variables. The Pearson correlation coefficients between the sharing behavior and SC, IPF, II, and IQ were 0.781, 0.794, 0.792, and 0.789 respectively, and these correlations were all significant in the two-sided test at the 0.01 level. This indicates that there is a significant positive correlation between the sharing behavior and these four influencing factors, and regression analysis can be conducted on them.

4. Results

Setting sharing behavior as the dependent variable and SC, IPF, II, and IQ as independent variables, we imported the data into SPSS and used the enter method for regression analysis. In the model's goodness-of-fit test, the F value was 156.605, significant at the 0.01 level, indicating that the regression coefficients of the model are not zero, thus validating the regression model. The multiple correlation coefficient R was 0.866, suggesting a strong linear relationship between the independent variables (SC, IPF, II, IQ) and sharing behavior. The coefficient of determination R-squared was 0.750, indicating that these four variables explain 75% of the variance in perceived content trustworthiness. Based on the analysis, the regression coefficients for SC, IPF, II, and IQ were 0.179, 0.277, 0.284, and 0.230, respectively, all significant at the 0.01 level. This demonstrates a significant correlation between SC, IPF, II, IQ, and sharing behavior. Hence, hypotheses H1, H2, H3, and H4 are supported.

Firstly, the regression analysis between the sharing behavior and its influencing factors indicates that the four factors, namely source credibility, information presentation form, information involvement degree, and information quality, are all positively correlated with the willingness of Douyin users to share short videos of health information.

Information quality, as a systematic variable in user information processing, has a clear correlation with sharing behavior. This suggests that high-quality health communication videos enhance users' willingness to share health information. When these videos offer accurate, complete, comprehensive, and useful information, users are more inclined to share them. Among heuristic variables, the information presentation form and information involvement have the strongest correlation with user-sharing behavior. This is reflected in the regression coefficients for source credibility. It indicates that when users conduct heuristic analysis, they focus more on the different forms of infor-

mation presentation and their relevance to themselves. Users tend to trust information that is presented richly and is highly relevant to them. In addition to the information presentation form and involvement, source credibility—a heuristic variable—also significantly correlates with user-sharing behavior. Users are more likely to trust health information from experts who possess deep knowledge of the content.

5. Discussion

Higher quality of health information on Douyin in China correlates with increased user willingness to share. As a systematic variable in information processing, information quality is clearly related to sharing behavior. This indicates that high-quality health videos can enhance the willingness to share when they provide accurate, comprehensive, and useful information. For content creators, maintaining high standards is crucial in this age of information overload and misinformation. Ensuring the correctness, comprehensiveness, and completeness of health content on Douyin is a primary task. Users are more inclined to share content they perceive as high quality.

Rich information presentation and higher involvement lead to greater willingness to share. These factors exhibit the strongest correlation with sharing behavior, as reflected in the regression coefficients of source credibility. Users focus more on different presentation forms and personal relevance during heuristic analysis, preferring information that is richly presented and highly relevant to them. In the era of new media, content creators should prioritize presentation forms. Given the quick nature of short videos, capturing users' attention is critical. Ensuring video clarity, background music suitability, and diverse presentation forms can enhance user satisfaction and sharing behavior. Social media platforms should leverage personalized recommendations through algorithms to present highly relevant health information to users, thereby increasing the willingness to share.

The higher the credibility of health information on Douyin in China, the higher the willingness of users to share. Users are more willing to believe in health information that comes from experts and have a deep understanding of the relevant content. For Douyin and social media platforms, it is necessary to raise the threshold of review and actively authenticate relevant official accounts to ensure that major opinion leaders and media in the health field are experts or scholars in related fields. Source credibility can also affect the sharing behavior of users. To enhance its source credibility, the platform's endorsement is needed. People often consider those officially authenticated accounts to have high credibility.

6. Conclusion

Exploring user-sharing behavior aims to enhance the dissemination of health information. Our research reveals that both heuristic and systematic cues contribute to dissemination effectiveness. Factors influencing sharing extend beyond content quality to include source credibility, the richness of presentation, and personal relevance.

These factors assign distinct roles and responsibilities to various stakeholders. Content creators should focus on enhancing information quality and presentation, providing users with high-quality, engaging, and useful content. Platforms like Douyin should emphasize source credibility and information involvement, leveraging technology and authority to vet and recommend accounts and content. This ensures users can better access and engage with health information. Effective health information dissemination requires collaboration among all parties, contributing to the advancement of health communication.

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