



Explore the Effects of Information Quality, Source Credibility, and Reputation on User's Attitude: Weibo Case

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Abstract. Weibo, a predominant social media platform in China, facilitates the sharing of multimedia content like images, videos, and hyperlinks. Utilizing the Elaboration Likelihood Model (ELM) as the underpinning framework, this study investigates the effects of Weibo's information quality, source credibility, and reputation on users' attitudes. Structured equation modeling was incorporated to authenticate and validate the proposed research model. Empirical data analysis from a sample size of 206 demonstrates a positive correlation between information quality and source credibility with user attitudes whereas reputation yielded no significant impact. These findings present valuable insights into Weibo's user dynamics from a Chinese perspective, notably in shaping user attitudes. From a practical standpoint, this research offers valuable guidance to social media developers and managers for optimizing platform management. Ensuring clarity, accuracy, and currency in the disseminated content, and encouraging users to contribute high-quality and credible content could cultivate their positive attitude toward the platform, positively affecting their behavior.

Keywords: Information quality; source credibility; reputation; attitude.

1 INTRODUCTION

The emergence and rapid growth of social media, as an innovative form of Web 2.0 technology, has fundamentally reshaped the dynamics of information communication. Weibo, as a social media platform, serves a key role in China's information landscape, allowing millions of users worldwide to access, distribute, and generate content. However, Weibo faces challenges concerning the credibility of the disseminated information [1]. The COVID-19 pandemic bore witness to such challenges, as misinformation exemplified by rumors claiming Shuanghuanglian, a traditional Chinese medicine, as an effective COVID-19 therapy caused widespread panic buying.

This uncontrolled spread of misinformation on Weibo can undermine the platform's reputation, and subsequently impact users' positive attitudes toward the platform [2]. Previous research has found that, when users develop positive attitudes toward social media, they are more inclined to engage in favorable behavior, such as positive word-

of-mouth and purchase intention [3]. Thus, social media platforms need to build users' positive attitudes.

Previous research has extensively investigated factors such as perceived playfulness, ease of use, usefulness, and sociality in shaping social media attitudes [3 - 5]. However, elements related to information, such as its quality and credibility, are less frequently considered. Likewise, established theories such as the Uses and Gratifications Theory, the Affective-Cognitive Model, and the Technology Acceptance Model are widely applied in this context [3 - 5], yet they offer limited insights into the formation process of user attitudes. There is a notable lack of focus on understanding the factors that influence different persuasive strategy routes aimed at shaping attitudes. Therein lies the value of the Elaboration Likelihood Model (ELM) framework within the context of persuasive theory. The ELM effectively encapsulates and simplifies the persuasion process, outlining that information processing can operate via two distinct routes: central and peripheral [6]. To delve deeper into the development of users' attitudes, the current research employs the ELM as a theoretical foundation. This approach enables a comprehensive exploration of both the role of information quality and peripheral cues (source credibility and reputation) in affecting user attitudes toward social media.

This understanding provides significant insights for social media developers and managers. Focusing on these dimensions can better attract users to the social media platforms, subsequently influencing their behavioral intentions such as revisiting and recommending the platform. The application of these insights to optimize marketing strategies for social media platforms could be beneficial.

2 RESEARCH MODEL AND HYPOTHESIS

Building upon the theoretical groundwork, this study formulated a research model to investigate the influence of information quality and peripheral cues on the attitudes of users.

Pertaining to the central route, when users possess adequate motivation and (or) the ability to engage this route, they will scrutinize the cues from the information, such as its quality [7]. The information quality on social media is characterized by user perceptions regarding the accuracy, completeness, and timeliness of the produced information [8]. Previous research indicated that a platform must contain clear, up-to-date, useful, and accurate content to engender positive user attitudes and intentions [8]. As a result, we suggest that, when users are satisfied with the information quality based on their cognitive process, they develop positive attitudes toward social media. Thus, we hypothesize that:

H1: Information quality positively influences the attitude of users.

Beyond the central route, the peripheral cues will play a more critical role in the information process, such as the source credibility and the reputation of the information platform, when users lack motivation and (or) ability [7]. The source credibility of social media is characterized as the degree to which information recipients perceive the information producers on social media to be trustworthy, informed, and convincing [9]. Previous research has postulated that source credibility positively and indirectly affects

electronic word-of-mouth and purchase intention via attitude [9]. Therefore, we suggest that social media users rely on source credibility as a peripheral route to interpret information and form their attitudes toward social media. Based on the above we hypothesize that:

H2: Source credibility positively influences the attitude of users.

The reputation of social media refers to how honest, well-known, and popular users perceive social media to be [7]. Previous studies indicated that reputation possesses a positive influence on an individual's attitudes (attitudes toward the company and attitudes in terms of information fit-to-task) [7, 10]. It is a difficult and time-consuming process for social media to build a positive reputation, as a result, social media with a good reputation generally acts honestly to maintain that reputation. Therefore, we can expect that users are more likely to hold positive attitudes toward social media with a good reputation. Thus, we hypothesize that:

H3: The reputation of social media positively influences the attitude of users.

3 METHODS

3.1 Measures

Our questionnaire consists of four variables: information quality (IQ), source credibility (SC), reputation (REP), and attitude (ATT). We constructed measurement items utilizing established scales and revised them appropriately according to the context of social media. The finalized measurement items for each scale, along with their corresponding sources, are detailed in Table 1.

Table 1. Instrument items.

Constructs	Measurement Items
	Information quality (adapted from Zha et al., [7], 2019)
IQ1	The information on Weibo is up to date.
IQ2	The information on Weibo is accurate.
IQ3	The information on Weibo is comprehensive.
	Source credibility (adapted from Zha et al., [7], 2019)
SC1	The person(s) generating information on Weibo is trustworthy.
SC2	The person(s) generating information on Weibo is knowledgeable.
SC3	The person(s) generating information on Weibo is credible.
	Reputation (adapted from Zha et al., [7], 2019)
REP1	Weibo is well-known.
REP2	Weibo has a good reputation.
REP3	Weibo has a reputation for being honest.
	Attitude (adapted from Arli et al., [10], 2017)
ATT1	Your overall attitude towards using Weibo is (very unenjoyable ... very enjoyable)
ATT2	Your overall attitude towards using Weibo is (very bad ... very good)
ATT3	Your overall attitude towards using Weibo is (very unpleasant ... very pleasant)

3.2 Data collection sample

We utilized the snowball sampling methodology for participant recruitment, offering incentives to promote engagement from users with Weibo experience. We provided informed consent in this survey to ensure that each participant was aware that they were participating in an evaluation study and that their data were anonymous. A total of 206 valid responses were garnered for the study. The demographic characteristics of participants are delineated in Table 2.

Table 2. Participants' demographics.

Measure	Categories	Frequency	Percentage (%)
Gender (GE)	Male	73	35.44
	Female	133	64.56
Age (AG)	16-24	42	20.39
	25-30	52	25.24
	31-40	70	33.98
	>40	42	20.39
Education (ED)	High school or below	39	18.93
	College degree	29	14.08
	Bachelor's degree	112	54.37
	Master's degree or above	26	12.62

4 RESULTS

4.1 Measurement model

To scrutinize the reliability and validity of the items measuring the constructs, we employed SPSS and Mplus software. Table 3 presents Cronbach's alpha values of our constructs, which range from 0.757 to 0.839. These values notably exceed the standard threshold of 0.7, indicating a strong internal consistency for all constructs. Furthermore, the composite reliability (CR) of each construct ranged from 0.761 to 0.842, exceeding the standard threshold of 0.7. This underscores that all our constructs demonstrate a sufficient level of reliability.

Our study also examined convergent and discriminant validity. Convergent validity was evaluated through factor loadings and the average variance extracted (AVE). All factor loadings exceeded the accepted 0.5 thresholds, and AVEs, ranging from 0.519 to 0.640, surpassed the threshold of 0.5, thereby affirming convergent validity. Discriminant validity was verified by comparing the square root of the AVE against their associated pair of correlations, as detailed in Table 4. Each pair of constructs demonstrated a square root of AVE considerably higher than the corresponding correlation coefficients, thereby providing evidence for reasonable discriminant validity.

Furthermore, Harman's single-factor test was implemented to assess potential common method variance (CMV). The first unrotated factor accounted for merely 36.911% of the covariance among the principal variables, considerably below the critical 50%

benchmark. This result suggests that no single factor explains most of the covariance. Therefore, we concluded that CMV was not a potential concern in our study.

Table 3. Reliability and convergent validity.

	Items	Factor loading >0.5	CR >0.7	Cronbach's alpha >0.7	AVE >0.5
Information quality (IQ)	IQ 1	0.837	0.761	0.757	0.519
	IQ 2	0.621			
	IQ 3	0.686			
Source credibility (SC)	SC 1	0.881	0.825	0.820	0.616
	SC 2	0.635			
	SC 3	0.817			
Reputation (REP)	REP 1	0.648	0.771	0.766	0.531
	REP 2	0.781			
	REP 3	0.750			
Attitude (ATT)	ATT 1	0.813	0.842	0.839	0.640
	ATT 2	0.800			
	ATT 3	0.787			

Table 4. Correlations and discrimination validity.

	IQ	SC	REP	ATT
IQ	0.720			
SC	0.476	0.785		
REP	0.477	0.533	0.729	
ATT	0.388	0.460	0.307	0.800

Note: 1. IQ: information quality; REP: reputation; SC: source credibility; ATT: attitude. 2. The diagonally arranged data is the square roots of AVEs.

4.2 Structural model

All the fit indices of our structural model were satisfactory: $\chi^2/df = 1.661$, RMSEA = 0.057, CFI = 0.967, TLI = 0.954, and SRMR = 0.038.

The results of the proposed model shed light on the impacts of the source credibility, reputation, and information quality on attitude. Approximately 24.9% of the variance in attitude was explained. Both the information quality ($\beta = 0.213$, $p < 0.05$) and source credibility ($\beta = 0.348$, $p < 0.001$) had significant and positive effects on attitude, supporting H1, and H2. However, reputation has no significant impact on attitude, failing to support H3.

5 CONCLUSIONS

Underlying a dual-process perspective, this research explores how users form their attitudes toward social media via both the central and peripheral routes. The results imply

that both the quality of information and source credibility significantly and positively influence attitudes, while reputation does not exert a considerable impact. The empirical data robustly substantiates our hypotheses, thereby reinforcing the model's relevance in this context and offering significant insight into the existing body of knowledge. From a practical perspective, our research extends valuable recommendations to social media developers and managers to optimize platform management. These strategies include ensuring that disseminated content is precise, clear, useful, and current for enhancing the platform's information quality. Additionally, encouraging users to create and share high-quality and reliable content can significantly bolster the platform's source credibility. These methods could nurture a positive disposition towards the platform among users, encouraging favorable user behaviors. Consequently, this research makes a considerable contribution to theoretical development and practical enhancements within the rapidly evolving realm of social media.

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