

# The Mechanism of Corporate Weibo Content Presentation Characteristics on Information Penetration: A Postprint Based on Emotion-Cognition Theory

**Authors:** Xu Ying, Guo Wenjun, Zhang Mengliu

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## Abstract

[Purpose/Significance] Enterprise official microblogs constitute one of the formal channels for corporate information dissemination. Variations in the presentation modalities of official microblog content directly engender substantial differences in the breadth and depth of information propagation. Consequently, granular investigation into content presentation characteristics can effectively inform the strategic planning and publication of enterprise microblog communications, thereby enhancing enterprise-user stickiness. [Method/Process] Grounded in emotion-cognition theory, this study examines product information disseminated via enterprise microblogs, introducing emotion as a mediating variable within the analytical framework to investigate the underlying mechanisms through which content presentation characteristics influence information penetration. [Results/Conclusion] Enterprise microblog content presentation characteristics exert differential effects via cognitive and emotional pathways. Specifically, interactivity significantly impacts both the depth and breadth of information penetration across both pathways; however, interestingness demonstrates no significant effect on penetration depth within the cognitive pathway, whereas salience influences penetration depth exclusively through the cognitive pathway.

## Full Text

## Preamble

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## Research on the Mechanism of Corporate Weibo Content Presentation Characteristics on Information Permeability: A Study Based on Cognitive Emotion Theory

XU Ying, GUO Wenjun, ZHANG Mengliu

School of Management, Jilin University, Changchun 130022

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### Abstract

**[Purpose/Significance]** Corporate official microblogs represent a formal channel for enterprise information dissemination. Variations in the presentation of official microblog content directly lead to significant differences in the breadth and depth of information transmission. Therefore, detailed research on content presentation characteristics can effectively guide the planning and release of corporate microblog information, enhancing stickiness between enterprises and users.

**[Method/Process]** Grounded in cognitive emotion theory and using product information published on corporate microblogs as the research object, this study introduces emotion as a mediating variable to explore the mechanism through which corporate Weibo content presentation characteristics influence information permeability.

**[Result/Conclusion]** Corporate Weibo content presentation characteristics produce different effects through cognitive and emotional pathways. Interactivity significantly influences both the depth and breadth of information penetration under both paths. However, playfulness has no significant effect on information penetration depth under the cognitive path, while prominence only affects information penetration depth under the cognitive path.

**Classification Number:** G206.3

**Keywords:** firm-generated content, content presentation, emotion, information dissemination

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## 1 Literature Review

### 1.1 Weibo Information Dissemination Research

Enterprises utilize Weibo to disseminate information with dual objectives: encouraging users to accept the described products or brands, and motivating them to widely share information to expand its influence. Academic research on this issue falls into two categories. First, studies on information recipients' acceptance levels—that is, research on information penetration depth. Based on different research objects, these can be classified into three perspectives: brand

relationships, word-of-mouth, and product evaluation. Regarding brand relationships, studies by K.Z.K. Zhang and Xiao Xue have examined how Weibo interactivity influences brand relationships, demonstrating that user emotions such as pleasure and arousal mediate the relationship between interactivity and brand relationships. From a word-of-mouth perspective, J.W. Chun's research indicates that hedonic information improves corporate reputation more effectively than utilitarian information, while T. Araujo explored how different information sources affect corporate reputation. For product evaluation, studies by X. Wang and Si Ge show that information exchange among Weibo users influences product evaluation and purchase intention.

Second, research on information dissemination scope—that is, studies on information penetration breadth, which are relatively more numerous. For instance, A. Rudat and Lai Shengqiang investigated how information value and emotional content affect user sharing behavior, while Zhao Rongying and Zeng Xianqin demonstrated that microblog account activity level and posting time significantly influence forwarding behavior, with follower count forming the foundation for information dissemination.

Comprehensive review of previous research reveals that scholars have predominantly examined information dissemination effects from a single dimension. To more comprehensively measure information dissemination effectiveness, this study investigates both depth and breadth dimensions, introducing “information permeability” as the dependent variable. The term “permeability” originated in marketing management to measure how deeply corporate products penetrate audiences. This study applies the concept to the information domain, using information permeability to gauge how deeply corporate information penetrates users. Information permeability comprises two dimensions: depth, referring to users' acceptance of corporate information (measured by product evaluation since this study focuses on product information), and breadth, referring to information dissemination scope (measured by users' sharing intention).

## 1.2 Information Characteristics and Content Presentation Characteristics

Information characteristics describe information quality and represent users' cognition of information content and features. Scholars have studied information characteristics from various perspectives. For example, S. Shi categorized information into interactivity and entertainment, exploring their impact on user-enterprise microblog interaction intention. L.D. Vries investigated how information vividness and interactivity affect information popularity. Chang Yaping divided virtual community information characteristics into relevance, reliability, objectivity, timeliness, and playfulness, examining their influence on information sharing intention.

However, analyzing past research reveals that information characteristics describe inherent properties of information itself, which differ from content pre-

sentation characteristics. Content presentation characteristics refer to information expression methods and presentation techniques. For instance, information playfulness means the content itself is a joke, whereas content presentation playfulness refers to choosing a humorous expression for information that could be simply stated, thereby making the content appear playful through its presentation. Many enterprises publish marketing information about their companies or products on Weibo, yet these messages show substantial differences in dissemination effectiveness. While the inherent characteristics of enterprise microblog information are fixed, enterprises can “package” this information to present different characteristics that shape users’ impressions of the involved enterprises and products. Therefore, this study argues that content presentation characteristics are more important than information characteristics for corporate microblog information dissemination.

Weibo is an entertainment-oriented platform enabling real-time interaction, making playfulness and interactivity of corporate microblog information influential on user emotions. First, content presentation playfulness—that is, humorous expression—represents an information attribute that affects people’s moods. In Weibo’s entertainment-intensive environment, humor can promote positive emotions and inhibit negative emotions. Second, interaction on Weibo can create profound emotional dependence between parties, generating user affection and satisfaction toward enterprises. Additionally, embedding corporate marketing information in such an entertainment-oriented environment resembles product placement in movies or games; prominent advertising generates negative attitudes toward products, with these negative attitudes triggered by negative emotions upon seeing the advertisement. Based on these platform characteristics, this study categorizes content presentation characteristics into three dimensions: playfulness, prominence, and interactivity.

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## 2 Theoretical Foundation and Model Construction

### 2.1 Theoretical Foundation

Cognitive emotion theory, a branch of emotion theory originating from social psychology, posits that when external information enters the perceptual system, it undergoes organization and compilation by sensory and perceptual systems while simultaneously triggering positive or negative emotional reactions that generate behavioral tendencies.

Previous Weibo research has primarily employed theories such as Planned Behavior Theory, ELM Model, TAM Model, or emotional contagion theory. Studies using these frameworks either attribute user behavior to rational thinking and comparison, where cognition and intention determine behavior, or view Weibo users as emotionally susceptible individuals whose behavioral intentions are determined by observed information and personal emotions. However, in reality, both cognition and emotion influence information processing when users

read information on Weibo: cognitive processing generates behavioral intentions, while information-triggered emotions also guide user behavior. Therefore, to better explain how content presentation characteristics influence information permeability, this study employs cognitive emotion theory, dividing the influence into emotional and cognitive pathways.

Corporate microblogs differ from other corporate media. For instance, brand communities predominantly feature user-generated content with minimal firm-generated content, while official websites and WeChat public accounts primarily inform users about corporate information, emphasizing accuracy and depth with formal content. Corporate official microblogs serve as enterprise-centered, relatively informal communication channels where information can present different characteristics. Based on the literature review and theoretical analysis, the research model is shown in Figure 1 [Figure 1: see original paper].

## 2.2 Research Hypotheses

**2.2.1 Content Presentation Characteristics (1) Playfulness.** Content presentation playfulness refers to expressing information content in humorous, interesting ways. Previous research shows that information playfulness enhances user acceptance and triggers information dissemination behavior. M. Eisend's research demonstrates that humor improves advertising message attractiveness and produces positive effects: humorous information improves mood, triggers positive emotions, inhibits negative emotions, and increases product liking. Therefore, this study proposes:

- H1a: Content presentation playfulness positively influences information penetration depth.
- H1b: Content presentation playfulness positively influences information penetration breadth.
- H1c: Content presentation playfulness positively influences positive emotions.
- H1d: Content presentation playfulness negatively influences negative emotions.

**(2) Prominence.** Prominence originally described attributes of product placement in games and movies, such as timing, display position, and size, indicating how conspicuously advertisements are embedded in media. Weibo is an entertainment-intensive platform where publishing marketing information resembles product placement. Enterprises can adopt subtle approaches (such as soft articles) to release information naturally, covertly, and non-coercively, or use direct, obvious methods to inform users. Since users primarily browse Weibo for entertainment, highly prominent marketing information conflicts with their platform expectations and generates negative emotions like annoyance. Moreover, aggressive product promotion may signal low product quality, leading users to negatively evaluate the content and reducing dissemination intention. Therefore, this study proposes:

- H2a: Content presentation prominence negatively influences information penetration depth.
- H2b: Content presentation prominence negatively influences information penetration breadth.
- H2c: Content presentation prominence negatively influences positive emotions.
- H2d: Content presentation prominence positively influences negative emotions.

**(3) Interactivity.** Interactivity refers to the mutual influence between two or more communicating parties through each other, communication media, or information. Corporate microblog information can demonstrate varying degrees of interactivity: text-only messages have low interactivity, while messages with links and images enabling user clicks show relatively higher interactivity, and enterprises can further promote interaction through questions, reposts, or comment-based lotteries, demonstrating even higher interactivity. High interactivity enhances users' information perception, increases their willingness to accept and forward content to friends, and boosts information permeability. Additionally, high interactivity provides good viewing experiences and emotional satisfaction, generating positive emotions that trigger positive behavioral intentions. Therefore, this study proposes:

- H3a: Content presentation interactivity positively influences information penetration depth.
- H3b: Content presentation interactivity positively influences information penetration breadth.
- H3c: Content presentation interactivity positively influences positive emotions.
- H3d: Content presentation interactivity negatively influences negative emotions.

**2.2.2 Emotion** Emotion comprises positive and negative dimensions. Both information-triggered positive and negative emotions influence information dissemination. Research demonstrates that emotions affect user attitudes and behavioral intentions. D.A. Small's research found that emotions evoked by charitable activity information can stimulate positive behaviors, while emotions can directly or indirectly influence brand evaluation. Therefore, this study proposes:

- H4a: Positive emotions positively influence information penetration depth.
- H4b: Positive emotions positively influence information penetration breadth.
- H4c: Negative emotions negatively influence information penetration depth.
- H4d: Negative emotions negatively influence information penetration breadth.

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## 3 Research Methods

### 3.1 Research Design and Data Collection

This study employs a questionnaire survey to verify research hypotheses. The questionnaire includes screening items, formal items, and demographic information. To ensure reliability and validity, all formal items were adapted from established scales in the literature. Specifically: - Content presentation playfulness was adapted from S. Negash et al.'s scale (6 items) - Content presentation prominence was adapted from V. Cauberghe and Zhou Nan's scales (4 items) - Content presentation interactivity was adapted from Liu Y's scale (3 items) - Positive/negative emotions were adapted from M.L. Richins' scale (4 items each) - Product evaluation was adapted from D. Maheswaran and A. Mitra's scales (6 items) - Information sharing intention was adapted from M. Fishbein et al.'s scale (6 items)

All items used a 5-point Likert scale. The survey targeted users who had browsed corporate microblog product information, asking them to recall their most recent exposure to such information (e.g., "Innisfree skincare products") when completing the questionnaire. A total of 337 questionnaires were distributed, with 226 valid questionnaires remaining after excluding invalid and problematic responses (67% response rate). The sample comprised 44.2% male and 55.8% female participants. Age distribution was: under 20 (15%), 21-35 (69%), 36-50 (15.5%), and over 50 (0.4%). Education levels were: below college (8%), college (15.5%), bachelor's degree (69.9%), and master's degree or above (6.6%).

### 3.2 Data Analysis and Hypothesis Testing

**3.2.1 Data Analysis** SPSS software was used for data analysis. Reliability was assessed through Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha. As shown in Table 1, all variables had AVE values greater than 0.6, CR values greater than 0.8, and Cronbach's alpha values between 0.819-0.945, indicating good internal consistency. Validity was examined through convergent and discriminant validity. Table 2 presents the square roots of AVE values and inter-variable correlations, showing that the square root of each variable's AVE was significantly greater than its correlations with other variables, confirming good discriminant validity.

**3.2.2 Hypothesis Testing and Path Analysis** Linear regression analysis in SPSS was used to test hypotheses. Table 3 shows significance levels and hypothesis testing results. Findings indicate that: - Content presentation playfulness and interactivity significantly affect both positive/negative emotions and information penetration depth/breadth, supporting H1a, H1b, H1c, H1d, H3a, H3b, H3c, and H3d. - Content presentation prominence has no significant effect on emotions but significantly affects information penetration depth, supporting

H2a but not H2b, H2c, or H2d. - Both positive and negative emotions significantly affect information penetration depth, but only positive emotions significantly affect information penetration breadth, supporting H4a, H4b, and H4c but not H4d.

**3.2.3 Mediation Effect Testing** Cognitive emotion theory suggests that cognition can directly affect behavioral intention without emotional mediation. Therefore, mediation effects require testing. Table 4 presents the results (IV = independent variable; M = mediator; DV = dependent variable).

Mediation requires three conditions: (1) significant IV→DV effect without mediator, (2) significant IV→M effect, and (3) when mediator is added (IV+M→DV), if IV→DV remains significant, partial mediation exists; if not, full mediation exists.

Since prominence only affects information penetration depth, no mediation test was conducted for prominence. Results show: - Content presentation playfulness has full mediation through emotion on information penetration depth and partial mediation on breadth. - Content presentation interactivity has partial mediation on both depth and breadth. - Content presentation prominence directly affects information penetration depth without emotional mediation.

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## 4 Results and Discussion

This study reveals that content presentation characteristics influence information permeability through two pathways: cognitive and emotional. It demonstrates different mechanisms through which playfulness, interactivity, and prominence affect information penetration depth and breadth.

**(1) Effects of content presentation playfulness.** Playfulness influences information permeability through both emotional and cognitive pathways, with stronger effects through the emotional path. Specifically, playfulness positively affects information penetration breadth, while its positive effect on depth is fully mediated by positive emotions. Users' Weibo activities are easily influenced by emotions, particularly for humorous and interesting information that fulfills entertainment purposes. Therefore, playfulness exerts greater influence on information permeability through the emotional pathway.

**(2) Effects of content presentation interactivity.** Interactivity positively influences both information penetration depth and breadth through both cognitive and emotional pathways, consistent with cognitive emotion theory. On one hand, interactive information is accepted through organization and compilation by users' perceptual systems; on the other hand, it satisfies users' emotional needs, triggering positive emotions and inhibiting negative emotions.

**(3) Effects of content presentation prominence.** Prominence has no effect on user emotions and only significantly affects information penetration depth

through the cognitive pathway, with no significant effect on breadth. The lack of emotional impact may be because Weibo allows both individual and corporate users to freely publish information according to their wishes, so users view corporate marketing information as legitimate corporate freedom. Moreover, many enterprises already publish marketing information on Weibo, making users accustomed to such content and unlikely to experience significant emotional changes. The non-significant effect on breadth may be because users are habituated to corporate marketing information on Weibo, so their retransmission intention is not significantly affected. However, in users' cognition, aggressive marketing may signal low product quality, leading to lower product evaluations.

**(4) Emotional pathway effects.** Emotions triggered by content presentation ultimately affect information permeability. Specifically, positive emotions triggered by content presentation positively influence both depth and breadth, while negative emotions only negatively affect depth, with no significant effect on breadth. When information triggers positive emotions, users' information acceptance and dissemination intention both increase. Conversely, negative emotions cause resistance, reducing users' willingness to process information deeply and decreasing acceptance. The non-significant effect of negative emotions on breadth may be because some users express disagreement or dissatisfaction through forwarding and commenting, so negative emotions may inhibit some users from forwarding while motivating others to share the information with friends and family as a warning, resulting in no significant net effect on breadth.

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## 5 Research Implications and Recommendations

### 5.1 Management Implications

This study explores how corporate microblog content presentation characteristics affect information permeability, offering several recommendations for corporate managers:

First, most individual users treat Weibo as an entertainment tool, making their emotions susceptible to significant fluctuations. Therefore, enterprises should focus on user emotions when operating microblogs, identifying factors that trigger different emotions to elicit more positive emotions and reduce negative emotions like annoyance. Content presentation playfulness and interactivity can trigger positive emotions, inhibit negative emotions, and positively affect both depth and breadth of information penetration. Thus, enterprises should “package” information content to be humorous and interesting, and employ various interactive methods such as questions and repost lotteries to increase interactivity.

Finally, regarding content presentation prominence, enterprises should adopt a comprehensive approach. Prominence has no significant effect on user emotions or information penetration breadth but does affect depth, indicating that even

hard advertising on official microblogs does not generate negative emotions or affect dissemination intention. Previous research also shows that prominent advertising information can create strong impressions. Therefore, for products with low homogeneity and weak substitutability, explicit marketing messages can help users better understand products, and weak substitutability means users cannot easily find alternatives, making prominent content presentation advisable. For highly homogeneous and substitutable products, product evaluation significantly influences purchase intention, so enterprises should adopt non-prominent soft advertising to exert subtle influence and generate positive purchase intentions.

## 5.2 Research Limitations and Future Directions

This study focused on corporate product information, so conclusions may not generalize to other information types such as corporate culture or reputation. Future research could examine different corporate information types to enhance applicability. Additionally, this study used questionnaire surveys, which cannot fully recreate users' reading states, and respondents' emotions during questionnaire completion may affect measurements. Future research could combine questionnaire surveys with experimental methods to exclude interference from other potential factors.

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### Author Contributions

**XU Ying:** Conceptualized the research, revised and finalized the manuscript.

**GUO Wenjun:** Wrote the main body of the paper.

**ZHANG Mengliu:** Conducted literature review and data analysis.

*Note: Figure translations are in progress. See original paper for figures.*

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