

Research on Internet Charity Information Forwarding Behavior: A Dual Attitude Model Based on Persuasion Theory (Postprint)

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Date: 2023-04-01T16:02:53+00:00

Abstract

[Purpose/Significance] Information forwarding through social media has become a crucial mechanism for the diffusion of charitable information, playing a pivotal role in expanding fundraising reach and enhancing fundraising efficiency. This study aims to investigate the key antecedent factors influencing charitable information forwarding behavior and their underlying mechanisms.

[Method/Process] Grounded in persuasion communication theory, this research identifies the antecedent factors affecting public forwarding attitudes across four dimensions: information channel, information source, information receiver, and information content. Dual attitude theory is incorporated to elucidate the differential impacts of explicit and implicit attitudes on forwarding behavior. Data were collected through a combination of SC-IAT experiments and questionnaire surveys, and the proposed model was validated using structural equation modeling.

[Results/Conclusion] The findings indicate that, in contrast to explicit attitudes which influence forwarding behavior indirectly through forwarding intention, implicit attitudes can directly predict forwarding behavior. The formation of explicit attitudes is shaped by social tie strength, source credibility, and information quality, whereas implicit attitudes are determined solely by source credibility.

Full Text

Preamble

Internet Charity Information Forwarding Behavior Research: A Dual Attitude Model Based on Persuasive Communication Theory

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Abstract: [Purpose/Significance] Information forwarding through social media has become an important means of charity information diffusion, playing a key role in expanding fundraising scope and improving fundraising efficiency. This study aims to explore the key antecedents and mechanisms influencing charity information forwarding behavior. [Method/Process] Based on persuasive communication theory, this paper clarifies the antecedent factors affecting public forwarding attitudes from four dimensions: information channel, information source, information receiver, and information content. Dual attitude theory is introduced to reveal the differential effects of explicit and implicit attitudes on forwarding behavior. Data were collected through a combination of SC-IAT experiments and questionnaire surveys, and the model was validated using structural equation modeling. [Result/Conclusion] The study finds that compared with explicit attitudes that affect forwarding behavior through forwarding intention, implicit attitudes can directly predict forwarding behavior. The formation of explicit attitudes is influenced by social connection strength, source credibility, and information quality, while implicit attitudes are shaped only by source credibility.

Keywords: Dual attitudes; Persuasive communication; Charity information; Forwarding behavior

Classification Number: G203

DOI: 10.13266/j.issn.0252-3116.2021.14.013

China's 14th Five-Year Plan includes "standardizing the development of online charity platforms" as one of its social development goals [1]. According to the 2020 China Online Charity Development Report, the proportion of online donations to total social donations in China rose from 0.4% in 2013 to 4.1% in 2019 [2]. "Internet + Charity" has become an important pathway for improving China's social assistance system and constructing a comprehensive assistance framework. The completion of charity donation amounts depends to some extent on the volume of charity information forwarding [3]. Information forwarding behavior directly promotes the diffusion of charity information and can effectively enhance communication effectiveness [4]. By forwarding charity information through social media tools, widespread social attention can be attracted, thereby achieving rapid fundraising.

Explicit attitude is the key trigger for information forwarding behavior [5]. Explicit attitude is defined as a conscious psychological evaluation formed by individuals toward an attitude object [6]. Existing research has revealed the influence of information quality [7], characteristics of information publishers and receivers [8], technical factors [9], and others on forwarding attitudes. Unlike explicit attitudes, implicit attitudes are automatically activated in an unconscious state from an individual's associative memory and experience, representing a

stable evaluation of the attitude object [6] that can directly drive behavior, particularly spontaneous behavior [10]. Explicit and implicit attitudes differ in formation and operating principles, and both jointly influence behavior, with the final behavioral manifestation depending on which attitude dominates [11]. Since forwarding charity information constitutes helping behavior, attitude measurement involves moral evaluation and is susceptible to social desirability factors. People may unconsciously make responses consistent with social expectations, thereby masking their true thoughts and affecting the role of explicit attitudes [10]. Implicit measurement can effectively reduce conscious control over responses, measuring attitudes that are difficult to express [12], compensating for the limitations of explicit measurement and improving predictive validity for forwarding behavior. Second, influenced by altruism and dedication, people generally hold positive attitudes toward forwarding charity information. However, frequent fraud and scam donation incidents in recent years have somewhat impacted users' forwarding attitudes. Existing literature indicates that implicit attitudes are more enduring and stable than explicit attitudes and more resistant to negative information shocks [13]. Explicit attitudes have strong predictive power for immediate behavior, while implicit attitudes directly reflect individuals' long-term behavior [14]. Therefore, charity information forwarding requires consideration of implicit attitudes to more comprehensively understand the mechanisms of forwarding behavior.

This study examines the antecedents and mechanisms of public participation in charity information forwarding from a dual attitude perspective. Based on persuasive communication theory, it explores the causes of explicit and implicit attitudes and constructs an integrated dual attitude model of antecedents to charity information forwarding behavior. This research incorporates users' implicit attitudes, previously overlooked in information forwarding behavior studies. Theoretically, it demonstrates the applicability of dual attitude theory in the context of charity information forwarding, reveals the differential mechanisms of implicit and explicit attitudes in predicting forwarding behavior, and identifies differences in the factors shaping the two types of attitudes. Practically, it provides strategies for online charity platforms to motivate users to forward charity information.

1 Literature Review and Theoretical Foundation

1.1 Information Forwarding Behavior

User information sharing behavior [15], information continuous sharing behavior [16], and online public opinion dissemination behavior [17] have been extensively explored in internet environments. This study focuses on user information forwarding behavior, which is an efficient information dissemination mechanism referring to the process where users 进行二次传播 of already generated content by clicking “forward” or “share” buttons [3]. In social network environments, users are not only information receivers but can also act as disseminators to promote information diffusion through forwarding. Existing research has identified nu-

merous factors influencing information forwarding behavior: (1) factors at the information publisher and user level, including characteristics of information publishers [8], source credibility and expertise of information publishers [18], users' perceived sharing value [19], sharing motivation [20], and self-efficacy [5]; (2) factors at the information content level, such as whether information content is accurate, clear, and concise [7], and positive and negative emotional valence of information [5]; and (3) environmental factors, such as relationships and human connections [3].

Existing research on information forwarding lacks consideration of the charity context. Compared with other types of information, charity information, particularly medical charity information, concerns human life and health and requires efficient dissemination to open fundraising channels. Forwarding behavior determines the scope of information dissemination and plays an important role in the fundraising progress of medical assistance projects. Additionally, current research focuses on discussing users' explicit attitudes in information forwarding behavior, lacking analysis of the implicit and subconscious processes involved in decision-making.

1.2 Implicit and Explicit Attitudes

Attitude is a single behavioral tendency of support or opposition toward social objects [21]. Previous research on information behavior has mostly concentrated on explicit attitudes. However, people are not always aware of all attitudes that drive their behavior [12]. Building on this, T.D. Wilson et al. [6] proposed the Dual Attitudes Model Theory, which suggests that individuals can simultaneously hold two attitudes toward the same attitude object. One is an explicit attitude formed through careful thinking in a conscious state with current cognitive resources, which can be directly measured using self-report scales. The other is an implicit attitude automatically activated in an unconscious state without requiring effortful control, which needs to be measured indirectly through methods such as the Implicit Association Test. Focusing only on explicit attitudes cannot fully describe the factors influencing behavior. Dual attitude theory has been confirmed to explain explicit and implicit processes in many behavioral domains, such as information system usage behavior [11], helping behavior [10], and blood donation behavior [22]. Charity information is time-sensitive, and when time is urgent, implicit attitudes are more likely to directly influence individual behavior [12]. This paper introduces implicit attitudes on the basis of explicit attitudes to comprehensively analyze the formation mechanism of charity information forwarding behavior.

1.3 Persuasive Communication Theory

Persuasive Communication Theory posits that the main factors influencing audience attitude change are four types of variables: source, message, channel, and receiver—that is, factors related to the information communication subject (source), communication content, information channel, and information commu-

nication object (receiver) [23]. Persuasive communication theory applies not only to traditional information communication contexts but also to explaining information dissemination behavior in online environments. For example, Chen Mingliang et al. [24] classified factors influencing word-of-mouth audience dissemination intention into three categories—information source characteristics, content characteristics, and receiver characteristics—based on persuasive communication theory. Lei Haidong and Chen Xia [8] explored factors influencing users' forwarding intention in social media contexts based on persuasive communication theory. The process of users forwarding charity information is also a process where charity information guides the audience through a series of factors (such as information quality and information source) to trigger attitude change in information receivers and subsequently forwarding behavior. Based on this, this paper applies persuasive communication theory to charity information forwarding research.

2 Theoretical Model and Research Hypotheses

The theoretical model integrates persuasive communication theory and dual attitude theory to reveal key factors promoting users' forwarding of charity information and the mechanisms through which dual attitudes affect charity information forwarding behavior, as shown in Figure 1 [Figure 1: see original paper]. Considering the negative impact of fraud and scam donation incidents in the current internet charity environment on information audiences' forwarding behavior, this study examines the antecedents of individual forwarding attitudes from a trust perspective. Based on persuasive communication theory, social connection strength, source credibility, user expectation, and information quality are set to represent the four key elements of information channel, source, receiver, and content. These constructs also have trust-related connotations, and through the construction of a trust transmission chain, the path relationship of “persuasive elements → dual attitudes → behavioral outcomes” is revealed.

2.1 Persuasive Communication and Explicit Attitude

Explicit attitudes are formed through careful thinking with current cognitive resources [6], and persuasive communication theory provides a series of cognitive resources for individuals when forwarding charity information.

Information channel refers to the path of information dissemination [23], such as face-to-face appeals, written signs, and media advertisements. This study defines information channel as the primary means through which social media users forward or share charity information. In social network environments, charity information is mainly disseminated based on interpersonal relationships. After charity information published on online assistance platforms is forwarded to social media, it is often transmitted through social ties. **Social connection** refers to the association between individuals, and the degree of closeness between users constitutes **social connection strength** [25]. In this study, social connection strength refers to the strength of social interaction relationships between users

and information publishers. The strength of relationships among social network users positively influences information credibility [26], and trust is more readily obtained from strong ties, which facilitates information dissemination [27]. The strength of social connection between source and audience significantly and positively affects users' forwarding behavior [25]. When users see charity information published by close friends and relatives, the relationship strength between them provides a trust endorsement for the charity information to some extent, enhancing users' perception of information authenticity and increasing the positivity of their explicit attitudes toward forwarding such information. Based on this, we propose:

H1: Social connection strength has a positive effect on explicit attitude.

Source credibility refers to the degree to which information receivers believe the information source is trustworthy [8]. This study defines it as users' trust in charity information platforms. Information from highly credible sources is more likely to be considered reliable by information receivers and positively influences the formation of positive attitudes [28]. Social network users are more inclined to forward information from highly credible sources [18], and source credibility positively influences users' behavioral intention to forward social media information [8]. Therefore, we propose:

H2: Source credibility has a positive effect on explicit attitude.

Persuasive communication theory suggests that personal traits and motivations of information receivers affect information dissemination effectiveness [23]. The purpose of charity information is to achieve rapid dissemination and call for donations in a short time. When considering forwarding such information, users may evaluate the contribution of their own behavior to the project. Therefore, this study examines information receivers' explicit attitudes from the dimension of user expectation. **User expectation** refers to an individual's anticipated outcome of performing a certain behavior [29], defined in this study as users' expected judgment of the results of forwarding charity information. User expectation can influence individual decision-making behavior [30] and affect information sharing intention [31] and sharing behavior [32]. If users believe that forwarding can expand the dissemination scope of charity information and even improve fundraising effectiveness, this perceived expectation can be viewed as an incentive that enhances the positivity of users' explicit forwarding attitudes. Therefore, we propose:

H3: User expectation has a positive effect on explicit attitude.

Persuasive communication theory focuses on the influence of information content characteristics on audience dissemination. This study uses **information quality** to represent information content, referring primarily to the completeness, accuracy, and objectivity of information content [26]. Social media information lacks corresponding quality assurance mechanisms [33], and careful evaluation of charity information content can help avoid potential risks in forwarding, such as mis-forwarding and incorrect information. Information quality affects users'

perception of information and determines whether they accept it [33]. Zhang Kun [7] proposed that information quality is an external influencing factor in the formation of health information forwarding behavior among WeChat Moments users. Similarly, for charity information forwarding, if the information presents complete and accurate descriptions and evidence of the help-seeker's situation, users will tend to believe the information is authentic and credible, making their explicit attitudes toward forwarding medical charity information more positive. Based on this, we propose:

H4: Information quality has a positive effect on explicit attitude.

2.2 Persuasive Communication and Implicit Attitude

According to the Associative-Propositional Evaluation Model (APE), implicit attitude change occurs when there is incremental change in associative structures or change in activation patterns [13]. Incremental change in associative structures refers to the process where new associations between attitude objects and stimuli are established when they appear in pairs, causing incremental changes in associative structures and making implicit attitudes positive or negative [34]. Change in activation patterns refers to the process where, when attitude objects already have multiple associative structures in memory, environmental cues can activate a subset of the object's associative structures, causing implicit attitudes to change [34]. Accordingly, persuasive communication elements can influence users' implicit attitudes through these two pathways. On one hand, source credibility and information quality can influence users' implicit attitudes based on incremental changes in associative structures. When users encounter positive evaluations of platform credibility and perceive the completeness and accuracy of charity information narratives through reading, this can be viewed as a process where positive stimuli are paired with forwarding behavior, causing incremental changes in associative structures and prompting users to form positive implicit attitudes. On the other hand, social connection strength and user expectation can influence users' implicit attitudes based on changes in activation patterns. Through past interactions and experiences, users may have already established associations in memory between relationship closeness, their own dissemination effectiveness, and forwarding behavior. When encountering charity information, vocabulary related to information publishers and forwarding can serve as cues to activate subsets of users' positive or negative associative structures, causing implicit attitudes to change. Therefore, we propose the following hypotheses:

H5: Social connection strength has a positive effect on implicit attitude.

H6: Source credibility has a positive effect on implicit attitude.

H7: User expectation has a positive effect on implicit attitude.

H8: Information quality has a positive effect on implicit attitude.

2.3 Dual Attitudes and Forwarding Behavior

Implicit attitude is the first default response activated before explicit attitude formation and expression, and it can directly drive behavior [11, 12]. Wu Rui et al. [10] found that implicit attitudes can effectively predict highly spontaneous donation behavior. A. Serenko et al. [11] showed that implicit attitudes significantly and positively influence social network users' information system usage behavior. The direct link between implicit attitudes and behavior has been confirmed in over 100 studies across different behavioral contexts [35]. Positive implicit attitudes can generate behavioral responses such as participation and usage, while negative implicit attitudes generate avoidance responses [36]. For charity information forwarding, once users' positive implicit attitudes are activated, they will drive individuals to participate in forwarding behavior; conversely, negative implicit attitudes will cause users to avoid or ignore forwarding such information. Based on this, we propose:

H9: Users' implicit attitudes have a positive effect on their forwarding behavior.

The formation of behavioral intention is influenced by individual attitudes—the more positive an individual's attitude toward a behavior, the stronger their intention to perform it [21]. Forwarding intention is an antecedent of forwarding behavior, indicating how much effort and planning people are willing to invest in implementing the behavior, and individual behavior can be reasonably inferred from behavioral intention [37]. When users have relatively positive explicit attitudes toward forwarding charity information, they are more likely to generate behavioral intention and perform forwarding behavior. Therefore, we propose:

H10: Users' explicit attitudes have a positive effect on their forwarding intention.

H11: Forwarding intention has a positive effect on forwarding behavior.

3 Research Design and Data Collection

This study uses the forwarding of internet-based medical charity information as an example to explore key factors influencing public participation in forwarding such information and the mechanisms of dual attitudes. A combination of experimental and questionnaire methods was used for data collection. First, the Single Category Implicit Association Test (SC-IAT) was used to measure users' implicit attitudes toward forwarding medical charity information. Then, a questionnaire survey was employed to measure other variables.

3.1 Implicit Attitude Experimental Design and Data Collection

SC-IAT is a method proposed by A. Karpinski et al. [38] to measure individuals' implicit attitudes toward a single object. Following the research of Ai Chuan-guo and Zuo Bin [39], this study uses the SC-IAT method to measure implicit attitudes, with specific operations described below.

3.1.1 Preliminary Study: Selection of Target Words and Attribute Words

(1) Target stimulus setting. First, students were selected as survey respondents, and questionnaires were distributed asking them to write down words that most readily came to mind when mentioning forwarding charity information. Thirty questionnaires were collected, and 56 target words were gathered after compilation. Second, five master's students were invited to screen the words, with selection criteria set as: choosing common and neutral words while eliminating synonyms. After comprehensive evaluation, 20 words related to charity information forwarding behavior were selected. Third, a survey was published through "Wenjuanxing," following the word selection research of Ai Chuanguo and Zuo Bin [39], requiring participants to select six words from the above 20 that best represented "charity information forwarding behavior." The surveyed population included 25 undergraduates, 14 graduate students, and 11 working professionals. After data collection, words were sorted by selection frequency, and the final target words were determined as: forward; diffuse; seek help; serious illness crowdfunding; Shuidichou (a major crowdfunding platform); donate.

(2) Attribute stimuli. Positive and negative words were selected based on the Tsinghua University Li Jun Chinese Affective Words Dictionary [40]. By referencing attribute words in existing implicit attitude research [10, 39], positive and negative words with high citation frequency and common usage in the dictionary were selected. The final attribute words are as follows:

Positive words: joy; happiness; friendliness; glory; beauty; love

Negative words: loneliness; failure; depression; hatred; stupidity; evil

3.1.2 Experimental Subjects and Procedure From August to September 2020, 116 subjects were recruited locally through announcements. All subjects were required to have normal or corrected vision, no color blindness or weakness, and be familiar with basic computer operations. The SC-IAT experiment followed the operational procedure of A. Karpinski et al. [38]. All SC-IAT measurement information was automatically recorded by computer, with reaction times precise to milliseconds (ms). To balance order effects, subjects were evenly divided into two groups: one group completed the positive SC-IAT test (compatible task first, incompatible task second), and the other group completed the reverse test (incompatible task first, compatible task second). After grouping, collective testing was conducted in the laboratory. Before SC-IAT administration, the experimenter demonstrated the operation procedure through a teaching program to ensure each subject understood the rules before the experiment began.

This study used E-prime 2.0 software to compile the experimental program [10]. The specific procedure steps are shown in Table 1. The entire test program consists of two stages: compatible task matching (Steps 1 and 2) and incompatible task matching (Steps 3 and 4). Each stage includes two steps: 24 practice trials and 48 formal test trials. Steps 1 and 3 are for practice only and do not record

experimental results. The difference between the two formal tests (Steps 2 and 4) serves as the SC-IAT evaluation index. To prevent boredom that might affect the reliability and validity of results, following the research of Ai Chuanguo and Zuo Bin [39], 48 stimuli were designed in Steps 2 and 4.

During the test, category labels were presented on the upper left and upper right sides of the computer screen, while stimulus words were presented in random order at the center of the screen. If subjects judged that a stimulus word belonged to the left label category, they responded by pressing the “F” key; if it belonged to the right label category, they responded by pressing the “J” key. The test consisted of four steps, which subjects completed independently following the instructions presented in the program. Reaction times and accuracy for each test were automatically recorded by the computer. Additionally, to prevent response bias, in compatible tasks, target words, positive words, and negative words were presented at a ratio of 1:1:2, making the left and right key press ratios 50% each. In incompatible tasks, target words, positive words, and negative words were presented at a ratio of 1:2:1, also making the left and right key press ratios 50% each.

3.1.3 Experimental Data Processing SC-IAT test data processing followed the method of A. Karpinski et al. [38]: (1) Delete trials with reaction times above 10,000 ms or below 350 ms. (2) Modify reaction times for incorrect responses by replacing them with the mean reaction time of correct trials in their block plus a 400 ms penalty. (3) Calculate the difference between the mean reaction times of incompatible and compatible tasks. (4) Calculate the standard deviation of all correct reaction times in Steps 2 and 4. (5) Use the D value to represent the implicit effect, where $D = \text{mean difference} / \text{standard deviation}$. Larger D values indicate greater differences between incompatible and compatible task reaction times, meaning larger implicit effects. A positive D value indicates positive attitudes toward forwarding charity information, while a negative D value indicates negative attitudes.

3.2 Measurement and Data Collection of Other Variables

After subjects completed the SC-IAT test program, they were given a questionnaire and asked to continue completing other content. Scales were used to measure the remaining variables, including seven latent variables: explicit attitude, social connection strength, source credibility, user expectation, information quality, forwarding intention, and forwarding behavior. Among these, explicit attitude was measured using a semantic differential scale [41], while the other six latent variables were measured using a seven-point Likert scale. The measurement indicators used in this study were adapted from previous research and appropriately revised for the charity information context. The measurement items and main reference sources are shown in Table 2 .

3.3 Sample Descriptive Statistics

This study collected 116 data points. For implicit measurement, subjects with accuracy rates below 80% were eliminated. For explicit measurement, subjects with incomplete information or random responses were eliminated. Ten invalid subjects were removed, resulting in 106 valid subjects. Relevant demographic information is shown in Table 3 .

4 Data Analysis

This study used PLS-SEM for model validation, which demonstrates good model fit for small sample data analysis [43].

4.1 Measurement Model Testing

Measurement model testing includes reliability and validity tests. Cronbach's Alpha and Composite Reliability (CR) were used for reliability testing. In exploratory research, CR values above 0.7 and Cronbach's Alpha values above 0.6 are acceptable [43]. Table 4 shows that all latent variables meet these requirements. Additionally, factor loadings for all measurement items are greater than 0.7, indicating good reliability. Convergent validity was examined using Average Variance Extracted (AVE). Table 4 results show that all AVE values meet the requirement of being greater than 0.5 [43], indicating good convergent validity. This study used correlation matrices to assess discriminant validity. Table 5 shows that the square root of each variable's AVE is greater than its correlation coefficients with other variables, indicating good discriminant validity.

4.2 Structural Model Validation

4.2.1 Basic Model Validation The PLS method was used to test the structural model. Path coefficients and explained variance are shown in Figure 2 [Figure 2: see original paper]. Path coefficients from social connection strength, source credibility, user expectation, and information quality to explicit attitude are 0.356 ($t = 8.872$), 0.180 ($t = 2.881$), -0.048 ($t = 0.156$), and 0.253 ($t = 4.797$), respectively. H1, H2, and H4 are supported, while H3 is not supported. The path coefficient from source credibility to implicit attitude is 0.248 ($t = 3.662$), supporting H6. However, path coefficients from social connection strength, user expectation, and information quality to implicit attitude are -0.073 ($t = 0.990$), -0.043 ($t = 0.529$), and 0.014 ($t = 0.221$), respectively, failing to support H5, H7, and H8. The path coefficient from implicit attitude to forwarding behavior is 0.140 ($t = 5.541$), supporting H9. The path coefficient from explicit attitude to forwarding intention is 0.754 ($t = 33.877$), supporting H10. The path coefficient from forwarding intention to forwarding behavior is 0.761 ($t = 19.071$), supporting H11.

4.2.2 Post-hoc Testing To more clearly present the differential effects of implicit and explicit attitudes on forwarding behavior, this study measured the

relationships between implicit attitude and forwarding intention and between explicit attitude and forwarding behavior, with results shown in Figure 3 [Figure 3: see original paper]. The study found no direct effect between explicit attitude and forwarding behavior; explicit attitude influences forwarding behavior through forwarding intention. However, the relationship between implicit attitude and forwarding intention is not significant, and implicit attitude can directly predict forwarding behavior. To test the mediating role of forwarding intention between explicit attitude and forwarding behavior, this study used the bootstrapping method [44] to test indirect effects. The data show an indirect effect of 0.574 ($P < 0.001$) with a Z-value of 7.807 (greater than 1.96), indicating significant mediation. Moreover, after introducing the mediating variable forwarding intention, the path coefficient from explicit attitude to forwarding behavior changed from 0.569 ($P < 0.001$) to -0.005 ($P > 0.05$), indicating that forwarding intention plays a full mediating role in this process.

4.3 Main Conclusions and Discussion

4.3.1 Persuasive Communication Elements and Explicit Attitude Social connection strength has a significant positive effect on explicit attitude, similar to the conclusion of Z. Shi et al. [25] in their study of social network users forwarding Twitter information, indicating that when users receive medical charity information from strong-tie interpersonal networks, their positivity toward forwarding such information increases. Source credibility has a significant positive effect on explicit attitude, consistent with the conclusion of Lei Haidong et al. [8] in their study of social media users forwarding self-media information, indicating that when users perceive higher credibility of medical crowdfunding platforms, their positivity toward forwarding medical charity information increases. Information quality has a significant positive effect on explicit attitude, similar to the conclusion of Zhang Kun [7] in their study of WeChat Moments users forwarding health information, indicating that when information content is more complete and accurate, users' positivity toward forwarding such information increases.

User expectation does not have a significant effect on explicit attitude toward forwarding, which is inconsistent with the findings of Tang Yin et al. [32] in their study of social media users' forwarding behavior. This may be due to the particularity of medical charity information. Medical charity information involves patients' life safety. When users consider that the patient's condition is urgent and perceive others' real and urgent needs, they often want to help others and contribute their own strength. They view forwarding as a behavior to express their own viewpoints and values and do not pay much attention to the results after forwarding. Consequently, user expectation does not affect users' explicit forwarding attitudes.

4.3.2 Persuasive Communication Elements and Implicit Attitude Unlike the persuasive communication elements that influence explicit attitude for-

mation, this study found that only source credibility has a positive effect on implicit attitude formation. Source credibility positively influences implicit attitude, indicating that the credibility of medical crowdfunding platforms can effectively stimulate the positivity of users' implicit forwarding attitudes. The effects of social connection strength and user expectation on implicit attitude did not pass significance testing. The possible reason is that activation patterns only change when stimuli reach a certain degree. When users see charity information, the stimulation from information publishers and forwarding-related vocabulary alone is insufficient to activate implicit associative memory, and associative structures are not fully activated, making it difficult for implicit attitudes to change. The effect of information quality on implicit attitude did not pass significance testing, possibly because most existing medical charity information is written using templated formats, resulting in large amounts of similar information circulating in social networks that cause fatigue and make it difficult to add new associative structures between information quality and forwarding behavior in users' associative memory, thus not easily forming positive or negative implicit evaluations.

4.3.3 Dual Attitudes and Forwarding Behavior The results show that explicit and implicit attitudes jointly influence charity information forwarding behavior, and they have different mechanisms. Explicit attitudes affect forwarding behavior through forwarding intention, while implicit attitudes directly influence forwarding behavior. This means that when individuals are driven by implicit attitudes, they will directly engage in charity information forwarding behavior, whereas when driven by explicit attitudes, they will generate higher forwarding intention rather than direct forwarding behavior. Although this study found a causal relationship between forwarding intention and forwarding behavior, existing research also indicates that the transformation from intention to behavior is subject to interference from many barrier factors [45], such as image risks and human connection pressures that may arise from forwarding, which affect the actual conversion from intention to behavior. This is also an important reason why this study compares the differential mechanisms of the two types of attitudes.

5 Contributions and Implications

This study uses medical charity information as an example to explore important factors influencing public participation in charity information forwarding and the mechanisms of dual attitudes based on the dual attitude model and persuasive communication theory.

Innovations and academic contributions include: (1) Using the dual attitude model to comprehensively analyze the effects of users' explicit and implicit attitudes on forwarding behavior. Previous research has mostly focused on users' explicit attitudes [5], neglecting the mechanism of implicit attitudes. This study shows that explicit and implicit attitudes jointly influence users' forwarding be-

havior, breaking the singularity of previous attitude research on forwarding behavior and explaining the mechanism of information forwarding from a multidimensional perspective. (2) Revealing the different triggering mechanisms of the two attitudes on forwarding behavior: explicit attitudes influence forwarding behavior through forwarding intention, while implicit attitudes directly affect forwarding behavior. This not only deepens the dual attitude theory itself but also effectively applies it to the context of charity information forwarding. (3) Exploring the antecedents of users' explicit and implicit attitudes toward forwarding based on persuasive communication theory. The study finds that improving source credibility of charity information can promote the formation of both users' implicit and explicit attitudes, while social connection strength and information quality are important factors influencing the formation of users' explicit attitudes. These conclusions enrich existing research on key elements shaping forwarding attitudes and reveal differential antecedents for the two types of attitudes. The study also confirms the predictive validity of SC-IAT in the information forwarding behavior domain. As A. Karpinski et al. [38] proposed, more evidence is needed to confirm the application of SC-IAT outside the field of psychology.

Practical implications include: (1) The research conclusions provide practical countermeasures for curbing fraud and scam donation behaviors. Source credibility is confirmed as a key element shaping individuals' explicit and implicit forwarding attitudes, suggesting that charity platforms should emphasize credibility review of charity project initiators, strengthen supervision and auditing mechanisms, ensure the authority of platform information sources, and strive to enhance users' trust in platforms. (2) Information quality is an antecedent of forwarders' explicit attitudes, suggesting that platforms should set higher quality requirements for project descriptions provided by charity project initiators, including auditing the completeness, accuracy, and objectivity of information content and enhancing quality assurance mechanisms to avoid the risk of forwarding incorrect information. (3) Research conclusions provide reference for efficient dissemination of charity information. Utilizing social connections—that is, the potential trust endorsement and strong-tie connections in acquaintance relationships—can better enhance individuals' implicit attitudes toward charity information, thereby promoting charity information forwarding behavior. (4) Social media should pay attention to the triggering process of users' implicit attitudes toward forwarding behavior. Platforms can invite successfully assisted individuals to provide positive feedback and demonstrate more positive evaluations of forwarding behavior to the public, thereby enhancing the positivity of users' implicit attitudes toward charity information forwarding, stimulating continuous forwarding behavior, and forming a virtuous cycle of information dissemination.

This study has some limitations. The sample mainly consists of young student populations with bachelor's and master's degrees. The young student population has rich information system usage experience and high IT innovativeness and represents the primary users of social media, making the research conclu-

sions somewhat representative. However, it cannot be ignored that this group's social media circles may also be primarily student populations (for example, the main sources of friends in their social circles are also students). Consequently, some variables involved in this study, such as user expectation, implicit attitude, and explicit attitude, may be potentially influenced by the characteristics of the sample group itself. Future research could apply SC-IAT experiments and survey methods to broader age groups and other social groups with richer social experience to enhance the applicability of the research conclusions.

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Abstract:

[Purpose/significance] Information forwarding through social media is an important way to diffuse charity information, which plays a key role in expanding the scope and accelerating the success of fundraising. This paper aims to explore the key antecedents and their influence mechanisms of charity information forwarding behavior. [Method/process] Based on the theory of persuasive communication, the antecedent factors of forwarding attitude were clarified from four aspects: information channel, information source, information receiver, and information content. The dual attitude theory was introduced to reveal the difference between explicit attitude and implicit attitude on forwarding behavior. This paper collected data through a SC-IAT experiment and a questionnaire survey, then the research model was verified by using structural equation modeling method. [Result/conclusion] This paper found that, compared with explicit attitude which affects forwarding behavior through forwarding intention, implicit attitude can directly predict forwarding behavior. The formation of explicit attitude is influenced by social connection, source credibility, and information quality, while implicit attitude is only shaped by source credibility.

Keywords: dual-attitudes; persuasive communication; charity information; forwarding behavior

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

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