

Research on Factors Influencing the Sharing Intention in Social Media

A model of Sina Weibo

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Abstract—Object: Based on the information behavior theory, this paper focus on Sina Weibo users' forwarding behavior to explore information sharing behavior in social media. **Methods:** This paper constructs the sharing intention model with perceived information quality, perceived risk and trust. The author collects data through distributed questionnaires. **Results:** All paths are significant at the level of 0.05, thus supporting the hypothesis H1~H6. Perceived information quality and trust have a positive impact on the willingness to share; Perceived risk has a negative impact on the willingness to share; Perceived information quality and trust have a negative impact on perceived risk. What's more, perceived information quality has a positive impact on trust. **Conclusion:** The empirical study shows that users' perceived information quality affects their perceived risk and trust, then these three factors affect the willingness to share. Our conclusion has practical significance for improving the development of social media. Social media users can improve their influence by enhance their information quality, reduce the risk, so that their fans will be more likely to forward their messages.

Keywords-Social media; Perceived Information Quality; Perceived Risk; Trust; Sharing intention.

I. INTRODUCTION

With the rapid advances in information technology, new Internet applications continue to grow, the number of users increasing. Social media, including blog, social networking sites and weibo, has become an important part of people's Internet lives. Social media is a tool or platform based on web technology or mobile technology, which allows individuals, communities or organizations to interact with others, and interactive forms include the text, images, music and video, etc.^[1]

On the one hand, users who use social media can be a source of news. On the other hand, they can choose their favorite information publisher freely. Therefore, users' forward behaviors play a crucial role in content distribution. Under this distribution mechanism, messages with high value are easier to be gained widespread because of users' trust, while those rumors to defraud users of their trust may also go viral and have a giant effect. So they are of great significance to study the factors influencing the content sharing intention, and even the actual sharing behaviors in social media for researching

and regulating the information distribution behaviors in social media.

This paper reviews the domestic and foreign researches about social media and weibo, and then builds the empirical study model according to the Information Behavior Theory and Consumer Behavior Theory. Taking the forwarding behavior of weibo, a typical social media service as examples, and selecting weibo's users as the subject, this paper explores the factors influencing social media users' content sharing intention, and suggests how to spread information through social media like weibo.

II. LITERATURE REVIEW

A. Research on Social Media

Many foreign scholars from different areas have studied social media from different aspects. According to the concept of social media, these researches can be divided into three classes:

(1) The technology characteristic of social media. For example, research on personalized recommendation of enterprise social media, including blogs, bookmarks, communities, wiki and shared files, suggests that recommendation based on tags is superior to the one based on users significantly^[2]; effects of three different reception mechanisms on online attention^[3]; effects of available characteristic of different kinds of social media on online public opinion expression^[4].

(2) Behaviors of social media users and the relationship between users' similarity and reviews on the others^[5]; Prediction on the strength of the relationship between users based on topic data^[6]; Vasalou studied motivations to use personal image in social media, and found that different motivations result in different preference in personal image, such as reflecting the real image or reflecting the ideal image^[7]; Research on emergency doctors using social media^[8]; linguistic analysis on the students learning through social media^[9]. Besides, scholars researched hot topics^[9] and high quality contents^[10] in social media with the help of data and text mining tools.

(3) Application in different areas, such as personal learning environment^[11], supply chain^[12], political transition^[13], public emotion management under disaster

[14], food safety [15] and future prediction [16], the regulation of social media [17].

Though there are a few domestic scholars exploring social media users' characteristics, behaviors and applications [18, 19], most of these studies still remain in the theoretical exploration stage.

B. Research on weibo

Currently foreign researches focus on weibo's characteristics in communication and social relations, but there is a lack in study about forwarding behaviors. Domestic's studies focus on weibo's applications, including weibo marketing and communications. Nowadays, enterprises have recognized the importance of brands in weibo marketing. Weibo marketing has five biggest advantages, namely low barriers to entry, original instant message, strong interactivity, high affinity and high accuracy, which help enterprises build brand better. The rapid development of weibo is due to meeting the need of efficient and convenient flow of information; users can communicate and share information better through this new media. In addition, some scholars analyze and study a particular type of Weibo account or users, such as the government and college students. Government weibo has three features: geographical distribution is uneven, pyramid hierarchical distribution, and function distribution is uneven. College students' main motivations to post weibo include reliable data sources, emotional catharsis, social concerns, and empirical research confirms relation-chain from technical factors to reliable data sources is the most important one of the entire model.

In summary, researches on social media, especially weibo, are mainly about the application and the changes it brings. But little refers to the mechanism of this change happens, namely why people use weibo, and what factors influence their use. Therefore, this paper starts from the basic function-forwarding, and studies the factors affecting forwarding willing.

III. HYPOTHESIS

A. Information Behavior Theory

Users' information behavior refers to users' behavior of demands expression, access to information and information utilization during seeking information they need. After continuous development, Rational Behavior Theory, Technology Acceptance Model, Information Adoption Theory and Information Sharing Theory are suggested. Different information behavior theories explain users' behaviors of processing information and making feedback (adoption and sharing) from different aspects [20]. For example, Information Sharing Theory tells that people sharing information is affected by the rational self-interest considerations, social and organizational context [21].

B. Perceived information quality

Taylor suggests that perceived information quality refers to information meeting users' objective needs of specific activities [22]. Higgoss defines information quality as information fulfilling users' expectation. In this paper, the author defines the perceived information quality as the contrast between users' expectation and actually gain of information quality. The smaller the gap is, the higher the perceived information quality [23] will be. Under

the electronic exchange environment, perceived information quality will affect users' perceived risks and trust directly, and affect the willing to use electronic exchange system indirectly [24]. Users have two motivations to share content online: altruism and self-expression [25]. With these motivations, when users perceive high information quality, they will behave sharing content online. So users' perceived information quality may affect the willing to share information. Based on this, the author suggests the following assumptions:

H1: Perceived information quality has a positive impact on the willingness to share;

C. Perceived risk on sharing

Kim defines perceived risk in e-commerce as consumers' faith of potential uncertainty in online transactions [26]. Milloy suggests that the so-called risk is the unknown about the output in the environment [27]. In our study, perceived risk in social media refers to users' prediction about the uncertain output result from their sharing behavior. For example, sharing the improper contents may be harm for their reputation. Sharing the false information may bring the risk of information deleted or account shut down. Chinese government published the law that if the same false information is forwarded for more than 500 times, the authors would be punished. After browsing information, users will evaluate its quality. If the perceived quality is low, such as false information, fraud, the words are too extremist with personal attacks and so on; users will consider the risk of forwarding higher, affecting the willingness to share. So this paper proposes the following hypothesis:

H2: Perceived risk has a negative impact on the willingness to share;

H3: Perceived information quality has a negative impact on perceived risk;

D. Trust on publishers

Users' trust on publishers comes from two ways, one is perception of the contents (namely perceived information quality), and the other one is other information related with publishers offered by social media. Peng Siqing and Zheng Yefu regarded trust as an attitude and belief, they defined that trust is personal mentality and behavior simulated by the situation [28]. Gefen summarized trust's definition [29], and divided trust into three classes: first, trust is one's belief of other's ability, goodness, and integrity; second, trust is one think the others can be trusted, and he is willing to believe in the others; third, trust is the combination of these above-mentioned elements. This study defines trust in social media as users think the publishers are trustworthy. As a manifestation of interpersonal relationship in human society, trust can reduce the complexity of the social environment and the uncertainty [30]. When users trust the information publishers, they perceives less risk and increase their willingness to forward. Therefore, the author proposes the following hypothesis:

H4: Trust has a negative impact on the perceived risk.

H5: Trust has a positive impact on the sharing willingness.

H6: Perceived information quality has a positive impact on trust.

Based on the above analysis, this paper proposes a research model and research hypotheses:

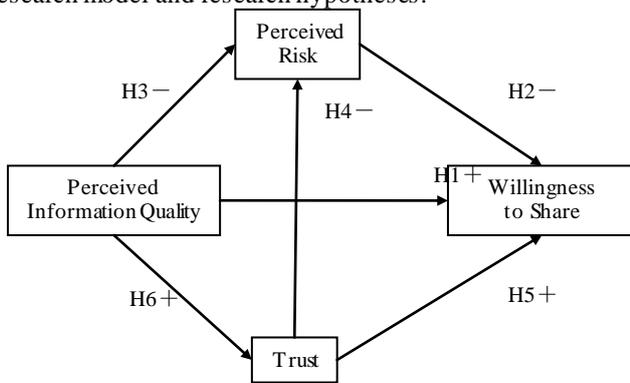


Figure 1. Research Model

Based on our research model and previous studies, this study developed scale to survey weibo’s users in Chinese Mainland. The subject is limited to these who have registered and used Sina Weibo, and they forwarded messages at least once.

The author issues questionnaires from October to November in 2013. 500 pieces of questionnaires were distributed (online 200, offline 300), and 472 pieces of questionnaires were finished (online 180, offline 292), 340 of which were valid (online 140, offline 200). The efficient was 68%. The author analyzes data with SPSS

17.0 and AMOS 7.0, and evaluates the reliability and validity and then fitting the research model.

Tab. 1 shows the reliability and validity analysis based the Cronbach’s alpha. According to Nunnally, Cronbach’s alpha should be greater than 0.70. Therefore, the questionnaire in this study has good internal consistency reliability. KMO measure and Bartlett ball test show that all four variables pass the test. So the sample is suit for factor analysis. Further, the author examines the construct validity of the scale with factor analysis.

In SEM checking, the entire model fitting results are shown in Tab. 2. CFI is greater than 0.90 [31], and RMSEA is smaller than 0.05 [32], which conforms the fitting requirements of a good model. If “Chi-square/degrees of freedom” is no more than 3.0, the model has good fitting degree [33]. So is the model in the paper. Tab. 3 shows the results of factors analysis. All factor loadings of four DV are greater than 0.7. Total variance explanations are: perceived information quality accounts for 79.73%, perceived risk accounts for 78.09%, trust accounts for 83.22%, and sharing willingness accounts for 92.21%, which means that all indicators within these four variables can be merged and the definition of these variables is reasonable.

Finally, this study constructs structural equation model by AMOS, and conducts goodness of fit test. The result is shown in Tab. 4. All paths are significant at the level of 0.05, thus supporting the hypothesis H1~H6.

TABLE I. RELIABILITY ANALYSIT (N=340)

Variables	Items	Cronbach α index	Approx. Chi-Square	KMO Measure	df	sig.
Perceived Information Quality (PIQ)	3	0.872	0.730	190.222	3	0.000
Perceived Risk (PR)	4	0.906	0.832	328.228	6	0.000
Trust (t)	3	0.899	0.751	228.028	3	0.000
Sharing Willingness (SW)	3	0.957	0.776	406.588	3	0.000

TABLE II. GOODNESS OF FITTING IN SEM

χ^2	df	χ^2/df	RMSEA	CFI	GFI	AGFI
64.2	59	1.086	0.026	0.996	0.995	0.953

TABLE III. FACTORS ANALYSIS

	PR	PIQ	T	SW	Total variance explained
A1	0.870				78.086
A2	0.853				
A3	0.922				
A4	0.888				
B1		0.915			79.734
B2		0.887			
B3		0.877			
C1			0.904		83.220
C2			0.920		
C3			0.913		
D1				0.954	92.205
D2				0.962	
D3				0.965	

TABLE IV. GOODNESS OF FIT TEST

Path Coefficient	Standardized regression coefficient	Standard Error	t	p
PIQ->PR	-0.369	0.135	-3.356	***
PIQ->T	0.508	0.110	5.377	***
PIQ->SW	0.344	0.145	3.342	***
T->PR	-0.303	0.112	-2.863	.004
PR->SW	-0.307	0.110	-3.190	.001
T->SW	0.204	0.115	2.159	.031

V. CONCLUSION

There are many factors influencing users sharing information in social media: on the one hand, the perceived quality of the information to be shared. Information with high quality will enhance users' sharing intention directly or through enhancing users' perceived trust on contents and publishers^[24] and reducing the perceived risk to share contents^[34]. On the other hand, different users perceive different risk and trust, and users' trust on social media can reduce perceived risk to share contents^[35]. The study applies the Information Behavior Theory in traditional organizations and Perceived Risk Theory in the new context of social media, which exams their effectiveness in the new context and combine these two theories to construct an integrated model on content sharing.

According to the findings, the study makes the following recommendations for information distribution and control in social media:

First of all, social media users should improve the quality of information they post. In this study, information quality plays a leading role in influencing users' willingness to forward information and will affect users' trust and risk in a long term. Information quality refers to the relevance, authenticity and timeliness of information content. So when publishing news, attention should be paid to the following problems. Firstly, users should post contents related to the topics and their accounts. If users publish some unrelated news, it will be difficult to attract active fans to join in the discussion and enhance their influence, as most of these fans are gathered together because of the relative topics and fields. Secondly, contents published should ensure the authenticity and accuracy. If an account often publishes some exaggerated, incorrect or untrue news, it will affect users' trust on the account and its contents, which reduces users' sharing intention. Thirdly, information timeliness is also an important aspect of information quality. No matter what the publishing announcements or clarifying rumors are, the timeliness of messages is important. Once the suitable time misses, the news' popularity will drop, so does users' sharing intention. It will dramatically affect the news' influence. Therefore, users of social media should check the quality of news they release and enhance others' trust and sharing intention through improving the quality of messages.

Secondly, weibo users should use a variety of means to strengthen others' perception of risk. On the one hand, it is better to spread news and clarify rumors with official certificated accounts. These accounts are perceived to be more credible, making the spread of news or clarification easier. On the other hand, the news can be spread with the help of "opinion leaders" (namely the bloggers having a lot of fans). Social media users generally have a higher sense of trust on opinion leaders, more willing to forward and share the messages from opinion leaders. So this channel brings larger social influence.

Finally, it is essential to create a social media atmosphere where everyone can speak out what they want to say. It is necessary to reduce users' uncertainty about the results of sharing content, namely perceived risk. Specifically, weibo should support users to express their

opinions freely and guide and encourage them to add their comments when forwarding contents, in order to form discussion chains, which would reduce the worries about sharing contents, stimulate sharing interesting and enhance sharing activeness.

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