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What Drives Users to Follow Companies' Microblogs?: An Elaboration Likelihood Model Perspective

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Abstract: Along with the prevalence of microblogging technology, many companies have been creating microblog accounts to promote their products/brands and communicate with customers. However, it is still unclear regarding what factors are critical and can drive users to follow companies' microblogs. To fill this gap, the present research develops a research model through the perspective of elaboration likelihood model. According to the elaboration level of information processing, we explicate users' following behavior through three levels of participation: reading messages, forwarding messages, and commenting on messages of companies' microblogs. We propose that information quality (the central route variable) and source credibility (the peripheral route variable) are two important antecedents in the research model. In addition, we extend the model by considering the role of similarity and examining its impacts on users' following behavior. We empirically test our research model by collecting data from an existing microblogging site in China. The results show that most of the proposed hypotheses are supported. We thereafter discuss these findings, point out limitations and opportunities for future research, and summarize this study with implications for both theory and practice.

Keywords: microblogging technology, company microblog, elaboration likelihood model, participation, information processing

1. INTRODUCTION

The prevalence of social media platforms, including social networking sites and microblogging sites, has provided considerable opportunities for companies to create online communities and promote customer engagement. As the most popular microblogging site on the Internet, Twitter has attracted many companies to set up microblog accounts. A recent study from Culnan et al. [12] found that this microblogging site was utilized by 53% of Fortune 500 companies, making it the most widely used social media site (other web sites included Facebook, blog, and client-hosted forums). Although more and more companies begin to take advantage of public microblogging sites (e.g., Twitter, Plurk, and Sina Weibo), merely creating microblog accounts cannot guarantee that users are attracted and want to interact with companies. Indeed, among the Fortune 500 companies that adopted Twitter, the number of their followers ranged from 1 to 1.6 million, while 58% had fewer than 1,000 followers [12].

To address the above concern of user participation, the present study aims at examining critical factors that affect users to follow companies' microblogs. In prior literature, research on users' behavior on microblogging sites is still limited. A few researchers apply technology acceptance perspectives to examine users' continuance intention of adopting microblogging technology [e.g., 2,30]. Ha and Ahn [16] shed light on users' information sharing behavior on microblogging sites. They found that argument quality and source credibility of received messages were critical in driving users to share the messages with other users. After analyzing a large amount of

microblogging messages from leading companies, Malhotra et al. [19] contended that users are more likely to forward certain kinds of messages. For example, users tend to forward messages with personal, relevant, and topical information. These studies have provided some understandings with respect to users' behavior on microblogging sites. However, much remains unknown regarding why users will follow companies' microblogs. In the following sections, we attempt to develop a research model and explicate salient factors that drive users' following behavior. The rest of this paper is organized as follows. We first review the theoretical background and develop our proposed hypotheses. Then, we empirically test the model using data collected from an existing microblogging site. Finally, we conclude this research with discussions on the findings, limitations, and implications for both theory and research.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 Participation in online communities

User participation is closely related to the sustainable development of online communities. Previous studies show that participation in online communities can produce a number of positive outcomes, including trust, brand loyalty, product recommendation, and product usage [e.g., 7,8,23]. Given the significance of participation, many researchers have shed light on exploring its antecedents. In Casaló et al.'s [8] work, they applied the theory of planned behavior and technology acceptance model to examine the determinants of participation. Sun et al. [26] suggested that communities' sustained participation are influenced by both intrinsic and extrinsic motivation. On the other hand, many inconsistent findings still exist among studies on the antecedents of users' participation [e.g., 4,29]. One possible reason may be related to different dimensions of participation [3]. A number of scholars refer to participation as a type of technology acceptance behavior or active participating behavior (e.g., posting messages) [e.g., 1,8,20,26]. However, lurking behavior in online communities is also important as many community members adopt this behavior [4]. Increasing efforts are being made to provide a more precise examination on participation. For instance, Shang et al. [23] divided participation into lurking and posting dimensions. Bateman et al. [3] operationalized participation with three activities, namely reading threads, posting replies, and moderating discussions. Consistent with these studies, we examine participation through different online practices. On microblogging sites, we observe that forwarding messages is a more commonly found practice than moderating discussions. Considering this, we employ three activities to demonstrate how users may follow companies' microblogs: intention to read messages, intention to forward messages to users' own networks, and intention to comment on the messages. Then, we attempt to bring new insights and account for what predicts different participating activities in companies' microblogs.

2.2 Elaboration likelihood model

The elaboration likelihood model (ELM) is a salient dual-process model in the information processing literature [13]. According to Bargh (2002), information processing involves three stages, namely attention, elaboration, and behavior. ELM is thus developed to understand the second stage. Elaboration is more than attention as it generates one's thoughts based on processing received information [28]. According to ELM, people apply two routes to elaborate information: the central route and the peripheral route [22]. The *central route* requires more cognitive effort to scrutinize the content of information. In contrast, the *peripheral route* emphasizes non-content cues and need less cognitive effort. Prior research has shown that central route and peripheral route variables are important in affecting individuals' depth of information processing [28].

Following the information elaboration perspective, this research interprets users' following behavior with different levels. Reading messages in companies' microblogs is at the lower level because it only shows that people want to process certain information. Forwarding and commenting on these messages are at the higher level as the two activities require more cognitive effort and occur only after people have already elaborated on

the information. In this study, we seek to investigate whether central route and peripheral route variables demonstrate different impacts on these following activities.

2.2.1 Information quality

In online communities, information quality pertains to the quality of messages that are posted [18]. Prior research often employs the quality of information or arguments as a key central route variable [e.g., 11,14,27]. Compared to low quality information, users are more likely to elaborate on information with higher quality. The influence of this central route variable will become stronger if users are more motived and capable to perform a high level of issue-relevant thinking [22,27]. From this perspective, we expect that users tend to read, forward, and comment on messages in companies' microblogs when they find these messages are of high information quality. The following three hypotheses are provided.

H1a: Information quality is positively associated with intention to read messages in companies' microblogs

H1b: Information quality is positively associated with intention to forward messages in companies' microblogs

H1c: Information quality is positively associated with intention to comment on messages in companies' microblogs

2.2.2 Source credibility

Source credibility emphasizes the credibility of information sources, rather than the content of information [9]. It is an important non-content cue, which reflects the sources' trustworthiness and expertise [22]. Thus, source credibility is often manipulated as a peripheral route variable in the information processing literature [e.g., 10,27]. In this research, we propose that users are more likely to read messages in companies' microblogs if they find these microblogs to be credible. However, we expect that source credibility demonstrates less influence on the other two following activities than information quality. Prior research has shown that the influence of this peripheral route variable will be less significant if users need to perform a higher level of information elaboration [14,27]. Given this concern, we provide the following three hypotheses.

H2a: Source credibility is positively associated with intention to read messages in companies' microblogs

H2b: The influence of source credibility is weaker than the influence of information quality on intention to forward messages in companies' microblogs

H2c: The influence of source credibility is weaker than the influence of information quality on intention to comment on messages in companies' microblogs

2.3 Similarity

In this study, we attempt to further extend prior work on ELM by considering the role of similarity. Similarity denotes the extent to which people are similar with respect to some characteristics [5]. These characteristics may include demographic information, preferences, and psychological traits [6]. In the context of this research, we employ similarity to capture the extent to which users find a match regarding the interests and value with the companies' microblogs. According to the homophily perspective , people like to interact with similar others. Thus, members in a social network often share some homogenous characteristics. The self-congruence theory in the marketing literature also shows that customers' responses toward companies/brands/products are influenced by whether customers find a match between their self-concept and the target objects [17,25]. Based on these perspectives, we expect that users are more likely to read, forward, and comments on messages if they perceived a high level of similarity toward companies' microblogs. The following hypotheses are provided.

H3a: Similarity is positively associated with intention to read messages in companies' microblogs

H3b: Similarity is positively associated with intention to forward messages in companies' microblogs

H3c: Similarity is positively associated with intention to comment on messages in companies' microblogs

3. METHODOLOGY

3.1 Sample

To empirically test our research model, we conducted an online survey on an existing microblogging site: Weibo.com. Weibo.com is the most popular microblogging site in China. Many companies have been creating microblog accounts on the website and attracting a large number of users to follow their microblogs. We posted comments with the questionnaire URL on messages of many companies' microblogs. Therefore, users who followed these companies' microblogs might be aware of our survey study and complete the questionnaire. To increase response rate, we also provided some prepaid mobile recharge cards as luck draw prizes. In total, we collected a sample of 259 valid respondents. The demographics of the sample are depicted as Table 1 below.

Table 1. Sample demographics (n=259)

Measure	Item	Frequency	Percent
Gender	Female	134	51.7%
	Male	125	48.3%
Age	<18	26	10.0%
	18-24	156	60.2%
	25-29	55	21.2%
	30-39	19	7.3%
	≥40	3	1.2%
Education	Secondary and high school	41	15.8%
	Diploma or relative course	45	17.4%
	University	144	55.6%
	Postgraduate or above	29	11.2%
Income (RMB)	<2000	150	57.9%
	2000-3999	59	22.8%
	4000-5999	22	8.5%
	6000-7999	10	3.9%
	≥8000	18	6.9%
Product possession	No	84	32.4%
	Yes	175	67.6%
Experience of using Weibo.com	<1 month	7	2.7%
	1-3 months	13	5.0%
	3-6 months	28	10.8%
	6-9 months	33	12.7%
	9-12 months	37	14.3%
	12-18 months	58	22.4%
	>18 months	83	32.0%
Experience of following the company's microblog	<1 month	34	13.1%
	1-3 months	65	25.1%
	3-6 months	74	28.6%
	6-9 months	36	13.9%
	9-12 months	30	11.6%
	12-18 months	16	6.2%
	>18 months	4	1.5%

3.2 Measures

We used multiple items to measure the independent variables of this research, including information quality, source credibility, and similarity. We adapted measures from Jang et al. [18] and used 5 items to measure information quality. Source credibility was operationalized with 4 items based on Sussman and Siegal's [27] study. The measure of similarity was developed from Shen et al.'s [24] study with 3 items. Finally, we employed self-developed items to measure users' following behavior. We used single item to measure users' willingness of reading, forwarding, and commenting messages in the company's microblog.

4. DATA ANALYSIS AND RESULTS

To analyze the collected data, we first examined the validity of measures, followed by testing the hypotheses. This process helps us ensure that results from hypotheses testing are drawn from a set of measures with sufficient psychometric properties.

4.1 Measurement validity

Since the independent variables of this research were measured using multiple items, we examined convergent and discriminant validity of their measures. Convergent validity was assessed through calculating composite reliability (CR) and average variance extracted (AVE) of the independent variables. It is deemed acceptable if CR values are greater than 0.7 and AVE values are greater than 0.5 [15]. As shown in Table 2, the CR and AVE values of information quality, source credibility, and similarity were all above the recommended benchmark, indicating that convergent validity was sufficient for this study.

Table 2. Convergent validity of independent variables

Construct	Item	Loading	Mean	StDev
Information quality (IQ) CR=0.91, AVE=0.68	IQ1	0.89	5.18	1.17
	IQ2	0.86	5.36	1.05
	IQ3	0.82	5.37	1.08
	IQ4	0.78	5.34	1.16
	IQ5	0.77	5.51	1.14
Source credibility (SC) CR=0.92, AVE=0.75	SC1	0.86	5.36	1.23
	SC2	0.86	5.20	1.33
	SC3	0.88	5.29	1.14
	SC4	0.85	5.23	1.13
Similarity (SIM) CR=0.92, AVE=0.78	SIM1	0.85	4.51	1.14
	SIM2	0.91	4.88	1.16
	SIM3	0.89	4.78	1.23

Discriminant validity examines whether different constructs can be discriminated as they are conceptualized differently. For each independent variable, we compared its square root of AVE value and correlations with other variables. If square roots of AVE values are greater than correlations with other variables, then discriminant validity can be confirmed [15]. As shown in Table 3, discriminant validity of this study was also sufficient.

Table 3. Correlations between independent variables

	Information quality	Source credibility	Similarity
Information quality	**0.82**		
Source credibility	0.65	**0.87**	
Similarity	0.43	0.43	**0.88**

Note: Diagonal bold elements are square roots of AVE.

4.2 Hypotheses testing

We applied hierarchical regression analysis to test our proposed hypotheses. The independent variables were first mean centered to minimize possible multicollinearity. Table 4 depicts the results of hypotheses testing. For each dependent variable, we entered control variables in model 1 and added independent variables further in model 2. We found that information quality significantly affected intention to read messages (β=0.203, t=2.860) and intention to forward messages (β=0.192, t=2.446). No significant relationship was found between information quality and intention to comment on messages (β=0.087, t=1.127). It suggested that *H1a* and *H1b* were supported, but *H1c* were not supported. Source credibility had a positive impact on intention to read messages (β=0.244, t=3.379). The impacts of source credibility on intention to forward messages (β=-0.030, t=-0.370) and intention to comment on messages (β=0.073, t=0.927) were much smaller than the impacts of information quality on these two dependent variables. It implied that *H2a*, *H2b*, and *H2c* were supported. Finally, similarly was found to produce significant impacts on intention to read messages (β=0.234, t=4.078), intention to forward messages (β=0.215, t=3.389), and intention to comment on messages (β=0.283, t=4.541). It showed that *H3a*, *H3b*, and *H3c* were supported in this study.

Table 4. Hypotheses testing

	Intention to read messages		Intention to forward messages		Intention to comment on messages	
	Model1	Model2	Model1	Model2	Model1	Model2
Control variables						
Gender	0.077	0.125*	0.066	0.090	0.104	0.124
Age	0.215**	0.195**	0.226**	0.206**	0.225**	0.211**
Education	-0.062	-0.006	-0.116	-0.083	-0.151*	-0.124*
Income	-0.106	-0.095	-0.008	0.002	0.072	0.072
Product possession	-0.161**	-0.005	-0.059	0.002	0.015	0.090
Experience of using Weibo.com	-0.111	-0.088	-0.260***	-0.234***	-0.195**	-0.180**
Experience of following the company's microblog	0.199**	0.092	0.213**	0.159*	0.174**	0.112
Independent variables						
Information quality	----	0.203**	----	0.192*	----	0.087
Source credibility	----	0.244***	----	-0.030	----	0.073
Similarity	----	0.234***	----	0.215***	----	0.283***
R^2	0.102	0.367	0.128	0.225	0.124	0.252

Note: *=p<0.05, **=p<0.01, ***=p<0.001

5. DISCUSSIONS AND CONCLUSION

Our findings provide strong empirical support to most of the proposed hypotheses. Information quality, source credibility, and similarity are found to be important determinants that demonstrate different impacts across the three types of following behavior. Surprisingly, information quality did not affect intention to comment on messages, which was only positively predicted by similarity. We believe that our findings will have important theoretical and practical implications. This study is one of first ones that shed light on users' following behavior toward companies' microblogs. We provide a new perspective through deriving from ELM to investigate this online practice. The ELM framework is also extended by adding similarity in the research model. Consistent with prior research [3], users' following behavior is examined more precisely by dividing into three different activities. The impacts of information quality and source credibility are congruent, in part, with Ha and Ahn's [16] work on users' information sharing behavior on microblogging sites. We expect that companies may apply our findings to further enhance users' engagement and participation in their microblogs. Special attention may be paid given that users' reading, forward, and commenting activities are determined by different antecedents. Finally, the findings of this research may be limited since we only collected data from one microblogging site. Another limitation is that other important factors may be missing in the model. In summary, future studies could improve this work and provide more comprehensive insights in the current research area.

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