Research on Influencing Factors of User Information Sharing Behavior in Travel Social Networking Sites: A Case Study of "Mafengwo" Travel Website Postprint

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Abstract

[Purpose/Significance] This study takes "Mafengwo" travel website as the research object to investigate user information sharing behavior and its influencing factors in travel social networking sites, aiming to provide theoretical references for platform construction and the optimization of mobile interface interaction design. [Method/Process] By incorporating perceived usefulness from the Technology Acceptance Model, self-efficacy from Social Cognitive Theory, and three additional factors—environmental mechanism, service quality, and expected reciprocity—derived from weak tie theory, this study constructs an influencing factor model of user information sharing behavior in travel social networking sites. Data were collected through questionnaire surveys, and the model was empirically tested using SPSS to establish regression equations. [Results/Conclusion] Through factor analysis and principal component extraction, information sharing behavior was categorized into collection/reposting and platform communication types. The results reveal that perceived usefulness, service quality, and expected reciprocity positively influence collection/reposting information sharing behavior, with perceived usefulness and expected reciprocity exerting significant positive effects on information sharing behavior.

Full Text

Preamble

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Abstract

[**Purpose/Significance**] This study examines the information sharing behavior of users on tourism social networking sites and its influencing factors, using "Mafengwo" as a research object, aiming to provide theoretical reference for the construction of tourism social networking platforms and the optimization of their mobile interface design. [**Method/Process**] Drawing from the perceived usefulness construct in the Technology Acceptance Model and self-efficacy from Social Cognitive Theory, and incorporating three additional influencing factors—environmental mechanism, service quality, and expected reciprocity—derived from weak ties theory, this study constructs a model of influencing factors for user information sharing behavior on tourism social networking sites. Data were collected through questionnaire surveys, and the model was empirically tested using SPSS to establish regression equations. [**Result/Conclusion**] Through factor analysis, principal components were extracted, dividing information sharing behavior into collection/reposting type and platform communication type. The findings reveal that perceived usefulness, service quality, and expected reciprocity positively influence collection/reposting information sharing behavior, while perceived usefulness and expected reciprocity significantly and positively affect information sharing behavior overall.

Classification Number: G203
Keywords: tourism social networking site; "Mafengwo" travel network; user; information sharing behavior; influencing factors

1 Introduction

With the rapid development of Internet technology, users' personalized and social needs have become increasingly strong, leading to explosive growth of social media in the new media environment. Social media, also known as social networking applications, refers to content production and exchange platforms on the Internet based on user relationships, where users rather than operators play the leading role [1]. As a product of the Web 2.0 era, different types of social media have emerged into public view and gradually integrated into people's daily lives. Currently, the social application market features increasingly rich and diversified product types, and a growing number of tourism social networking site users choose to share their travel dynamics on social networks, particularly travel guides and travelogues that are highly sought after by travel enthusiasts. Compared with ordinary social networks, tourism social networking sites place greater emphasis on travel-related content. Users are willing to share their travel experiences with others, often in the form of text, images, or videos, which constitutes information sharing behavior.

This sharing behavior facilitates cross-regional cultural exchange between origins

and destinations, forming a social ecosystem of travel "grass-planting" (recommendation) and "grass-pulling" (acting on recommendations). However, what are the influencing factors behind tourism social networking site users' information sharing behavior, and how significantly do these factors affect actual sharing behavior? These questions warrant further investigation. "Mafengwo," with its three core competencies of user-generated content (UGC), tourism big data, and independent travel transaction platforms, distinguishes itself from other online travel websites through its social DNA [3]. Its community products form a pyramid structure comprising "reviews, Q&A, itineraries, travelogues, footprints, and guides," covering the entire process of tourism content generation and meeting different user needs. By the end of 2017, Mafengwo's monthly travelogues reached 130,000, cumulative reviews exceeded 180 million, and independent users surpassed 120 million [4].

Information sharing behavior, as an important component of user information behavior research, has attracted widespread attention from researchers. Under the Web 2.0 environment and driven by contemporary development, social media has become an important channel for users to share information, enabling them to communicate, share, disseminate, and collaboratively organize information for efficient utilization across various real-world domains [5]. Previous studies have examined user information sharing behavior from different perspectives: Feng Xiuzhen [6] constructed a basic model of virtual team information sharing behavior based on the Theory of Reasoned Action; Wang Xiwei et al. [7] adopted an information ecology perspective; Li Chen et al. [8] focused on sharing motivations; and Zhang Min et al. [9] explored the impact of social relationship strength on college students' WeChat knowledge sharing behavior. Other studies have targeted specific user groups, such as mobile learning users [10], virtual community consumers [11], and Taobao consumers [12]. Overall, most information sharing behavior research emphasizes empirical validation of model rationality.

Foreign scholars have conducted extensive research on online communities, with some combining tourism social networking sites and user studies to explore relationships between tourism members and platforms. For instance, research analyzing the prerequisites and consequences of new members' integration into tourism social networking sites found that similarity and reciprocity affect user participation levels in tourism website communities [13]. Other scholars examined whether tourists' interactive participation levels can sufficiently promote user identification with tourism social networking sites [14]. Y.C. Wang [15] used structural equation modeling to evaluate tourism social networking sites, concluding that user participation is primarily driven by social and hedonistic motivations. Domestic researchers such as Guo Yingzhi et al. [16] and Wang Ping [17] have also studied tourism social networking site users. However, existing research has mainly focused on user participation motivation from a tourism management perspective or examined information behavior on mobile social media like WeChat and Weibo from an information science perspective, with relatively few studies specifically addressing influencing factors of information

sharing behavior on tourism social networking sites. Against this background, this study uses Mafengwo as a case to explore user information sharing behavior and its influencing factors on tourism social networking sites.

2 Model Design and Research Hypotheses

2.1 Theoretical Basis and Model Construction

On tourism social networking platforms, based on different information needs, motivations, or purposes, some users choose to publish tourism-related information, interact with others, and share travel experiences, generating proactive information sharing behavior. This study defines tourism social networking site user information sharing behavior as including: collecting or reposting platform information; uploading personal travel travelogues or updates in text, image, or video formats to share with other users as travel reference; or engaging in Q&A for tourism information exchange. In social networks, relationships among tourism social networking site users constitute weak ties characterized by breadth, heterogeneity, and unstructured nature, which play important roles in information transmission [19]. Examining information sharing behavior among weak tie actors based on a single traditional theoretical model is insufficient and requires consideration of multiple factors.

Therefore, using Mafengwo as an example, this study employs the Technology Acceptance Model and Social Cognitive Theory as theoretical foundations, selecting perceived usefulness and self-efficacy from these models. Considering weak ties theory [20] and the actual application context of tourism social networking sites, three additional factors—environmental mechanism, system service quality, and user expected reciprocity—are integrated into the model variables. Through questionnaire-based data collection, this study constructs and validates a model of influencing factors for user information sharing behavior on tourism social networking sites.

The Technology Acceptance Model (TAM), proposed by F.D. Davis in 1989 based on the Theory of Reasoned Action, suggests that perceived ease of use and perceived usefulness are two important factors affecting user attitudes and behavioral intentions toward information system acceptance [21]. G. Agag integrated Innovation Diffusion Theory (IDT) and TAM to examine user participation intentions in online travel communities [22]. Wen Liangming identified eight variables affecting information sharing in social media: user characteristics, social identity, media type, information content, perceived ease of use, perceived motivation, perceived usefulness, and information sharing [23]. This indicates that perceived usefulness and perceived ease of use from TAM are important factors for exploring user information sharing behavior. Synthesizing previous research and considering current user cognition and actual sharing behavior on tourism social networking sites, this study excludes perceived ease of use and introduces perceived usefulness into the model.

In Social Cognitive Theory, the three elements of subject, environment, and

behavior interact reciprocally. Lei Xue and Jiao Yuying argued that Wiki community members' knowledge sharing behavior is primarily determined by community environment and members' subjective cognition, where community environment includes technical mechanisms and community culture, and subjective cognition is reflected through self-efficacy outcome expectations [24]. Self-efficacy refers to an individual's subjective judgment of their capability to perform a specific behavior in a particular situation [25]. As subjects of information exchange and sharing, users possess self-efficacy in the information sharing process. This study posits that Social Cognitive Theory can provide theoretical support for examining tourism social networking site user information sharing behavior, with self-efficacy analyzed as an influencing factor.

Environmental mechanism represents the dynamic interaction state between information environment and users, where environmental conditions may influence behavior occurrence. System service quality refers to the richness of tourism information resources provided within a specific virtual space for user interaction. A. Bilgihan's research indicated that online social networks creating and providing tourism-related knowledge serve as primary information sources for tourists, and information completeness positively affects knowledge sharing behavior [26]. Drawing from Hu Changping et al.'s study on user interactive learning behavior in university library information commons [27], service quality is incorporated as an influencing factor.

Expected reciprocity refers to the mutual benefit users anticipate when sharing information in virtual communities [28]. In tourism social networking sites where users typically maintain weak tie relationships, the platform-generated content is more 亲和 (approachable) than commercial social platforms. Particularly in travel route planning across cities, different groups establish a sense of belonging in unfamiliar social environments due to shared travel plans or destinations, quickly connecting with strangers and gradually developing trust and dependence on the platform, thereby forming reciprocal relationships to some extent.

Based on these theoretical foundations and literature review, this study proposes a model of influencing factors for tourism social networking site user information sharing behavior, as shown in Figure 1 [Figure 1: see original paper].

2.2 Research Hypotheses

Based on the model constructed in Figure 1, the following hypotheses are established:

H1: Perceived usefulness positively influences tourism social networking site user information sharing behavior.
H2: Environmental mechanism positively influences tourism social networking site user information sharing behavior.
H3: Service quality positively influences tourism social networking site user information sharing behavior.

H4: Self-efficacy positively influences tourism social networking site user information sharing behavior.
H5: Expected reciprocity positively influences tourism social networking site user information sharing behavior.

2.3 Questionnaire Design

This study employs questionnaire surveys for data collection, targeting users of the Mafengwo tourism website. The questionnaire comprises three parts: (1) basic personal information; (2) measurement scales for information sharing behavior influencing factors; and (3) measurement scales for specific information sharing behaviors.

The first part includes a screening question to identify whether respondents have used Mafengwo, with only positive responses proceeding. Other items are closed-ended questions collecting demographic information. The second part constructs five variables with 19 measurement items (see Table 1), using a five-point Likert scale (1=strongly disagree to 5=strongly agree). The third part divides tourism social networking site user information sharing behavior into eight specific behaviors, also measured on a five-point Likert scale (1=never to 5=very frequently).

3 Empirical Research

3.1 Sample Basic Statistics

Data were collected through online questionnaires distributed via Wenjuanxing platform from June 19 to June 25, 2018. A total of 150 questionnaires were distributed, yielding 104 valid responses (69.3% valid response rate). Demographic characteristics are shown in Table 2 .

3.2 Reliability Test

Reliability refers to the stability and consistency of measurement results. This study used SPSS 22.0 to measure reliability via Cronbach's alpha coefficient. The overall Cronbach's alpha was 0.959, and as shown in Table 3 , all variables exceeded 0.7, indicating good scale reliability.

3.3 Factor Analysis

To explore the specific forms of user information sharing behavior on Mafengwo and relationships among influencing factors, factor analysis using principal component analysis was conducted. The KMO value was 0.868 (Table 4), exceeding the 0.7 threshold and indicating suitability for factor analysis. Bartlett's test of sphericity showed a significance probability $p<0.05$, confirming strong correlations among data.

As shown in Table 5 , rotation converged after three iterations, extracting two common factors with eigenvalues greater than 1. The first factor includes "collecting interesting tourism information on the platform," "reposting interesting tourism information to social circles," and "directly sharing interesting tourism information with friends," reflecting user behavior as information recipients. This factor is named "collection/reposting sharing." The second factor includes "sharing travel photos," "sharing travel videos," "sharing travel travelogues," "commenting on other users' travel updates," and "asking or answering tourism-related questions," reflecting active participation in information sharing. This factor is named "platform communication sharing."

3.4 Correlation Analysis

Pearson correlation analysis examined relationships between influencing factors and information sharing behavior forms. As shown in Table 6 , all five influencing factors showed significant positive correlations with both collection/reposting sharing and platform communication sharing.

Table 7 presents inter-variable correlation analysis. Since correlation coefficients below 0.85 indicate acceptable discriminant validity, and all coefficients were below this threshold, variables demonstrated good discriminant validity.

3.5 Multiple Regression Analysis

Regression analysis further explored the degree of influence of factors on information sharing behavior forms. A backward selection strategy allowed SPSS to automatically select explanatory variables, effectively observing changes at each step.

(1) Regression analysis of influencing factors on overall information sharing behavior. As shown in Table 8 , backward selection completed after four steps, with the final model (Model 4) including only perceived usefulness and expected reciprocity. The final regression equation is:
Information Sharing Behavior = -0.443 + 0.336*Perceived Usefulness* + *0.668*Expected Reciprocity (Equation 1).

(2) Regression analysis of influencing factors on collection/reposting sharing behavior. As shown in Table 9 , backward selection completed after three steps. The final model included perceived usefulness, service quality, and expected reciprocity. The regression equation is:
Collection/Reposting Sharing = 0.222 + 0.289*Perceived Usefulness* + *0.304*Service Quality + 0.282*Expected Reciprocity (Equation 2).

(3) Regression analysis of influencing factors on platform communication sharing behavior. As shown in Table 10 , backward selection completed after four steps. The final model included perceived usefulness and expected reciprocity. The regression equation is:

Platform Communication Sharing = -0.871 + 0.240*Perceived Usefulness* + *0.849*Expected Reciprocity (Equation 3).

3.6 Discussion of Research Results

Data analysis revealed that two of five hypotheses were supported: perceived usefulness and expected reciprocity significantly and positively influence tourism social networking site user information sharing behavior. The model was revised accordingly, as shown in Figure 2 [Figure 2: see original paper].

Factor analysis divided information sharing behavior into two distinct forms: "collection/reposting sharing" and "platform communication sharing," with different influencing factors affecting each. Service quality, perceived usefulness, and expected reciprocity significantly influence collection/reposting sharing, while only perceived usefulness and expected reciprocity significantly influence platform communication sharing.

The regression equations indicate that for collection/reposting sharing (Equation 2), the key factors are perceived usefulness, service quality, and expected reciprocity. Service quality shows the strongest influence, suggesting that user satisfaction with the platform's guides, travelogues, and other content drives collection and sharing behaviors. For platform communication sharing (Equation 3), perceived usefulness and expected reciprocity are key, with expected reciprocity showing the strongest influence. Items measuring expected reciprocity include "using Mafengwo helps me make more travel-loving friends," "I am always willing to reply to or answer other members' questions," and "I can receive timely responses from other members," indicating that users engage in platform communication sharing largely to connect with like-minded individuals and achieve mutual benefit.

4 Research Conclusions

This study examined user information sharing behavior on Mafengwo, constructing a research model based on established theories. Results show that among the five proposed influencing factors, perceived usefulness and expected reciprocity positively affect actual information sharing behavior. Users generate varying degrees of information sharing based on different needs, purposes, or social psychology. "Collection/reposting sharing" represents the platform's function as a "grass-planting" platform for browsing and collecting travel information, while "platform communication sharing" represents post-travel experience sharing and guide writing. Service quality significantly promotes collection/reposting sharing, suggesting that platform operators should focus on interface friendliness, service content, and quality to attract more users and expand their business.

Theoretically, this study integrates Social Cognitive Theory, weak ties theory, and TAM's perceived usefulness to construct an influencing factor model, analyzing factors that significantly affect tourism social networking site user information sharing behavior. The innovation lies in further categorizing information

sharing behavior and analyzing how different factors affect the two specific sharing forms. Practically, this research provides theoretical reference for optimizing tourism social networking site construction and mobile interface design, offering guidance for innovative design and technical improvements of social platforms to achieve truly user-centered information services. Limitations include insufficient sample size and the use of regression analysis rather than structural equation modeling to test model validity. Future research will increase sample size for further validation.

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Chai Huan: Responsible for research design, data collection and analysis, and manuscript writing.
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Note: Figure translations are in progress. See original paper for figures.