The Empirical Research on the Willingness of Information Disclosure for Mobile Social Platform Users ---Taking Wechat as an Example

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Abstract: Based on the theory of privacy calculus and technology acceptance model (TAM), the study constructed the theoretical model on the impact factors of the information disclosure willingness of mobile social platform users. The study did the empirical study using Wechat, and chose activate Wechat users to do the research. The results showed that: perceived usefulness, perceived ease of use are positively related to the mobile social platform user information disclosure willingness , while privacy concerns is negative related to it; compared to the perceived ease of use and privacy concerns, perceived usefulness of information disclosure for users of mobile social platform is more significant; the moderating effect of privacy concerns for perceived usefulness, perceived usefulness and information disclosure willingness is not significant.

1. Introduction

In recent years, privacy leaks on various mobile social platforms have occurred from time to time. On April 10, 2018, US Facebook CEO Mark Zuckerberg was "stolen" because of Facebook's data of more than 87 million users. He attended the US Senate hearing and accepted 44 members of Congress for two consecutive days of cross-examination. Frequent privacy leaks have caused users to worry about the risk of privacy breaches caused by disclosure. Therefore, how to accurately grasp the willingness of mobile social users to disclose information, so that users no longer struggle with the choice between information disclosure and personalized services, how to encourage them to actively and openly share information and exchange [1].

2. Research Models and Assumptions

Based on the theory of privacy computing, users will conduct trade-off analysis between cost and benefit when they disclose information. The perceived cost as a restraining factor and the perceived benefit as a driving factor affect the decision of whether users disclose personal information. For example, Dinev and Hart proposed the impact of trust, interest and privacy concerns on users' willingness to use the Internet [2].

They divide privacy concerns into costs and trust, identify benefits as benefits, and point out that Internet users will weigh the two. In the mobile social context, the increase in privacy concerns due to concerns about information disclosure indirectly represents the perceived cost of people in social contexts. In the past, many studies have also measured the perceived cost of information disclosure through the degree of privacy concerns. Krasnova et al. applied the theory of privacy computing to the field of personal information disclosure in social networking sites, using hedonicity and selfexpression to measure expected returns, and using privacy relationships to measure privacy costs to explore the trust, expected benefits, and privacy costs of different cultures in the United States and Germany. The synergy between the three for personal information disclosure. Some scholars have applied the theory of privacy computing to the empirical research on the participation behavior of virtual community users. They measure the user's income by the connection of personalization and internal revenue of external income, measure the cost with privacy concerns, and at the same time, the perceived ease of use of mobile social platforms. Platform friendliness and ease of operation characterized by the usefulness of sex and perception Sexuality and the social identity and satisfaction gained on the platform constitute the perceived benefits of people. Therefore, under the framework of privacy computing theory, this paper constructs a hypothesis model of the influencing factors of mobile social users' information disclosure willingness [3].

2.1. Perceived Revenue

Perceived ease of use refers to the ease with which a user perceives the use of a new technology, where perceived ease of use affects the attitudes, motivations, and behaviors employed by the technology through perceived usefulness. Studies have shown that perceived ease of use is positively related to the user's willingness to disclose information. In this study, perceived ease of use can be measured in two dimensions, namely, perceived ease of operation and operational proficiency. Based on the TAM model, the easier the mobile social users perceive the operation, the higher the proficiency, the stronger the willingness to disclose information. At the same time, the perceived ease of use of the mobile social platform has a positive impact on the perceived usefulness, and further through the perceived usefulness. The willingness to disclose user information has an impact. Based on this, this paper proposes the following two assumptions:

Hypothesis 1 (H1): Perceived ease of use has a positive impact on the willingness of mobile social users to disclose information

Hypothesis 2 (H2): Mobile social platform perceived ease of use has a positive impact on perceived usefulness

Perceived usefulness is the core element that influences users' attitudes, motivations and behaviors toward technology adoption. It reflects the effectiveness and usefulness of technology for users and is the total value that users obtain with new technologies. Perceived usefulness is widely used in the empirical research of technology acceptance. For mobile social platforms, some scholars divide their perceived value into four dimensions, namely, relational value, communication value, information value and instrumental value. And verified the positive correlation between the perceived value of the four dimensions and the disclosure of user information on the social platform. Based on this, this study will also measure the perceived usefulness through the above four dimensions, and based on previous studies, make the following assumptions:

Hypothesis 3 (H3): Perceived usefulness has a positive impact on the willingness of mobile social users to disclose information

2.2. Perceived Cost

However, different users have different levels of attention to privacy, and their willingness to disclose personal information is different: For example, scholars such as Yun proposed the role of privacy concerns in regulating the use of services when researching location services; Yao Dongying is also studying mobile phone location services. The willingness to use privacy concerns about the willingness to use the service. In reality, mobile social users pay different attention to privacy. Users who are more concerned about privacy tend to release less personal information on mobile social platforms. Based on this, the following assumptions are made:

Hypothesis 4 (H4): Privacy concerns have a negative impact on the willingness of mobile social users to disclose information

Hypothesis 5a (H5a): Privacy concerns regulate the relationship between perceived ease of use of mobile social users and the willingness to disclose information. The higher the privacy concern, the weaker the impact of perceived ease of use on the willingness to disclose information.

Hypothesis 5b (H5b): Privacy concerns play a regulatory role in the relationship between perceived usefulness of mobile social users and willingness to disclose information. The higher the privacy concern, the weaker the impact of perceived usefulness on the willingness to disclose information.

3. Questionnaire Design and Data Collection

Based on the previous research and the actual needs of the study design questionnaire, the survey questionnaire uses the Likert 5 scale, of which 1 means "completely disagree" and 5 means complete agreement. The following criteria are used to screen the questionnaire: 1 complete answer, no missing items; 2 no inconsistent answers; 3 at least one WeChat per month; 4 no large-area identical options before and after the questionnaire. After eliminating the invalid questionnaire, a total of 176 valid questionnaires were collected, and the effective rate of the questionnaire was 96.2%.

4. Data Analysis and Model Building

4.1. Reliability and Validity Test

Reliability usually refers to the degree of consistency or stability of the survey data. This study uses the Cronbach's Alpha coefficient of the SPSS20.0 computational questionnaire to test the reliability. The results show perceived ease of use, perceived usefulness, privacy concerns, The Cronbach's Alpha coefficient of the four scales of information disclosure is greater than 0.7, which has good consistency. The Cronbach's Alpha coefficient of the four dimensions of perceived usefulness is greater than 0.8, and the four dimensions of privacy concern are greater than 0.7, which also has good stability.

4.2. Model Fitting and Construction

In this paper, the path model in the structural equation model is used to test the hypothesis. It is mainly tested by the path coefficient indicating the strength of the relationship and the T value indicating the significance of the relationship. The model path coefficient map is obtained by using SmartPLS2.0.

5. Conclusions

This study verifies the positive impact of perceived earnings on the willingness to disclose information of mobile social users and the negative impact of perceived costs through the relationship between perceived ease of use, perceived usefulness, privacy concerns and user information disclosure willingness. Since the model design of this study is based on the TAM model and the privacy calculation theory, the overall fit is higher. Hypotheses (H1-H4) based on the four latent variables of perceived ease of use, perceived usefulness, privacy concerns and willingness to disclose information are supported:

Both perceived usefulness and perceived ease of use can positively influence the willingness to disclose information. Compared with perceived ease of use, perceived usefulness has a more significant impact on the willingness to disclose information. This is in line with the perceived usefulness of Davis in 1989. The impact on behavioral intention is greater than the judgment of perceived ease of use, and is consistent with the research conclusions of scholars such as Wang Hao. As the basic construct of the technology acceptance model, the positive effect of perceived usefulness on individual attitudes and behavioral intentions has been repeatedly verified by a large number of studies. For example, in the field of information technology, Hu et al. found that doctors' perception of the usefulness of telemedicine technology is positively related to their acceptance attitude and intention to use; in the field of e-commerce, research shows that the perceived usefulness of online shopping sites is positively affecting consumer use. Willingness and repeated access behavior; in the social media field, the more useful the user perceives, the weaker the willingness to leave the social networking site (willingness to churn). Obviously, the positive impact of perceived usefulness on behavioral will is universal, and this study further validates the positive effect of perceived usefulness on the willingness of users to disclose information. From a realistic point of view, this shows that social social users are more concerned about social value than functional value in the process of information disclosure (release). According to the "six degrees of space" theory, the social platform maps the social relationships in reality with the social relationships in the network one-to-one, and expands the possibility of generating new contacts. People can learn about the current situation of their loved ones and friends from this platform, and let their own people know about their current situation through their own information release. It is in this process of mutual communication and sharing that the stickiness of social relations is enhanced. To enhance the social value of users and gain a sense of social satisfaction. Thus, from this perspective, perceived usefulness is more helpful for users to disclose (publish) more information on mobile social platforms.

Perceived ease of use has a positive impact on perceived usefulness and is significant, which verifies the classic TAM model. When the system can provide users with more user-friendly interface and navigation, more diverse functions and faster response speed, the smoother the consumer's use process, the lower the effort required, and the perceived ease of use. The higher. In addition, when users can easily find the required function entry, their perceived ease of use will be greatly improved. If the page load time or the system response time exceeds the threshold that the user is willing to wait, they will also terminate the ongoing operation and even switch to other competitors' platforms. Thus, a higher quality platform design makes it easier for users to find functional entry points that suit them, allowing users to better utilize the social attributes of the platform. For information disclosure, when people think that information disclosure (release) is simple and easy to use, they will naturally disclose more information (release), and thus feel the functional value.

The two hypotheses proposed in this study regarding the regulation of privacy concerns, that is, H5a and H5b are not significant enough to be supported, may be due to: the impact of perceived

ease of use and perceived usefulness on the willingness to disclose information by age The impact of many factors, such as the age of use, and privacy concerns is only one of them; at the same time, the role of regulation is also affected by the choice of samples, because of the limitations of time and energy. This study only uses WeChat as an example to study mobile social platforms, sample The number is not big enough, these factors will affect the significance of the privacy concern adjustment; of course, this phenomenon also reflects the ambivalence and behavior of many users, although the current privacy rules of various mobile social platforms are different, but the vast majority It is necessary for users to first agree to the various terms of the platform (including privacy terms) in order to use the resources and functions of the platform. Therefore, many times, users are forced to choose to disclose personal information under conscious and unavoidable circumstances. This is the phenomenon of privacy paradox that has been discussed in depth by more and more scholars in recent years.

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References

- [1] Wenshun Lv. (2017) Adaptive tracking control for a class of uncertain nonlinear systems with infinite number of actuator failures using neural networks. Advances in Difference Equations, 5, 96-108.
- [2] Lei Deng. (2017) A sparse autoencoder-based deep neural network for protein solvent accessibility and contact number prediction. BMC Bioinformatics, 6, 356-374.
- [3] Novanto Yudistira. (2018) Gated spatio and temporal convolutional neural network for activity recognition: towards gated multimodal deep learning. EURASIP Journal on Image and Video Processing, 1, 119-136.