The Effect of Online Reviews on Application Discoverability in Mobile Application Stores: An Information Adoption Perspective

ZHUOYI REN

ABSTRACT

With the development of mobile Internet and the popularity of mobile smart devices, it achieved rapid development of mobile application in China. In order to attract consumers, mobile application stores provide a large number of mobile applications. At the same time, it becomes a major problem that quantity overload and homogeneity when users to find the APP. Based on information adoption model and the research achievements about online reviews, this article has explored the effects of online reviews on APP discoverability. It is concluded that the quality of online reviews and the quantity of online reviews had a significant influence on information usefulness, which affects application discoverability.

INTRODUCTION

With the development of 3G and 4G network technology, the rapid popularization of mobile intelligent devices, the mobile Internet era is surging. Mobile Internet has the advantage that connection with anytime, anywhere, easy to operate, personalized and so on. Most users can use the mobile APP in the fragmentation time, for example on a vehicle, before going to sleep, on the toilet. It can get rid of the shackles of traditional PC space, thus improve the user experience. Mobile APP has become an indispensable part of daily life which carries a variety of convenient mobile services. Therefore, the mobile Internet era is the era of APP. Mobile Internet has changed the human life, and mobile application stores provide

Zhuoyi Ren, Macau University of Science and Technology, Avenida Wai Long, Taipa, Macau, China.
different types of APP for users to download and use, in order to meet the needs and ideas of users. The number of mobile applications store is growing, and the number of APP is showing a trend of explosive growth. However, in the number of APP overload, users will spend more time and effort to find the application they need. So it becomes a difficult task to find a suitable APP.

Online reviews as a new form of word of mouth, is published in the network of consumers, in the form of text-based evaluation of goods. These reviews include the affirmation of goods, dissatisfaction or personal purchase and use of specific products and services experience. As mobile APP is an experiential network product, there is no corresponding offline entity product. Product features cannot be accurately evaluated before use, and the user perceived uncertainty is greater. Therefore, when the user search for a suitable mobile application, they need to use online information including the application itself, the recommendation of the platform operators, online reviews of other users and so on. At present, the online reviews on the impact of consumer purchasing decision-making research has made some progress, but it is the blank stage in the field of mobile applications research. Therefore, based on the reference research results at home and abroad, this paper analyses online review how to influence the user to find their own APP in the number of mobile APP overload environment.

THEORETICAL FOUNDATION AND LITERATURE REVIEW

Online Reviews

Word of mouth is defined as communication contents that analysis of brand, product, service or supplier of interpersonal, and not for commercial purposes [1]. With the vigorous development of the Internet and the improvement of information technology, the traditional word-of-mouth effect has been successfully copied to the Internet that we call the electronic word of mouth. The online comment is an important type of electronic word of mouth, and plays an important role in consumer behavior and purchasing decisions. In the past, consumers buy goods, often only with the offline of their own interpersonal relationships to get other users feedback information, and now, consumers are free to access the various platforms on the network information on goods from which to extract useful information to assist their own consumption decisions. Word of mouth is not only an important information resource for consumers to make purchase decisions, but also an important way for enterprises to gain competitiveness in the market competition and form brand effect.

Online comment is a new form of verbal communication. It is from the user's vision to provide new information about the purchase or use of the product. The
user's evaluation of products is posted on the company or third-party Web site [2], in the form of text on the Internet to evaluate and describe these products. These reviews include user experience, comments and opinions. It is seen as an informal, noncommercial interaction of the Internet, exchanging positive or negative consumer experiences. This consumer feedback in electronic form affects other consumer behavior, such as product awareness, beliefs, attitudes, purchase intentions, and other purchasing decisions.

However, there are some differences between online reviews and traditional oral communication. First, traditional oral communication is limited to local social networks; while online reviews can transcend local social networks, and can be viewed online in the world. Second, the product developer cannot control the traditional oral communication, but in the online comment, the product developers can decide whether to provide online user comments to other users. Finally, the traditional oral information provider is their own family members or friends, online reviews of the information from the previous download using the product around the world anonymous users. Compared with the information provided by the user's family members or friends, online reviews lack certain credibility.

At present, online reviews as an independent source of information in the application store are becoming increasingly popular and important [3]. Product information and online commentary information are showing explosive growth, highly fragmented and fast iterations. Therefore, online reviews are one of the most important ways for users to find what they need. Previous studies have found that positive user reviews have a significant relationship with purchase intentions. Most consumers think that online reviews have an important role in their purchase decisions when they enter the online store. Jaeki Song discussed the factors influencing APP discoverability and customer satisfaction for the first time. He thinks that the online reviews have a direct effect on the APP discoverability. Through the way of online reviews, there is a place that provides users to share their valuable point and experience to help users more clearly understand the details of the APP. And the user can determine whether the APP has a higher quality. It can help users get more effective recommendations and rational decisions to find a suitable application in the application store [4].

**Dimensions of Online Reviews**

As many available consumer reviews, there is a huge difference in quality and reputation when users search for a specific product on the web without hundreds of product reviews. The reliability of information is a very important concept in communication research. We define credibility as trusting someone or something [5]. Research shows that the quality of the comments and the source of the information are the main sources of information credibility. When a comment is
considered credible, it will affect the consumer's follow-up. Given the large number of online reviews, it is not possible for consumers to individually review the quality of each review. Instead, they may rely on clues to identify the information to confirm whether the comment deserves further reading.

Reviews on the Internet are divided into the quality and quantity of reviews. They affect the user's information processing. In the APP store, the number of online reviews represents the popularity of APP, and the number of users to download and use APP is closely related. The quality of online reviews is the content of the reviews. They are long or short, subjective or objective. A high-quality comment is logical and persuasive. When users think that online reviews are persuasive and logical, they will be more convinced of this comment. More, when most of the comments recommend this APP, other users will be more interested in this APP.

THE QUALITY OF ONLINE REVIEWS

Park, Lee and Han (2008) define information quality as the degree to which information satisfies the information receiver's needs [6]. The quality of the reviews has been identified as the main criterion for persuasion and communication. The quality of the reviews is the content of the comment. It is described from the perspective of the information characteristics, such as pertinent, understandable, sufficient and objective. Because these comments are logical, convincing, and based on the actual characteristics of the product gives the corresponding reasons. Low-quality comments are emotional, subjective, empty, and have no real information, but simply give a recommendation. These comments are considered by the user as an additional means of verbal communication of information.

It determines the information consumption of the influence that whether the online commentary is real, objective, relevant to the characteristics of the product, whether it provides sufficient information to the recipient, whether the information provided is of real value to the consumer, and whether the information is easy to read. False comment information will mislead consumers' purchase behavior or brand attitude. Many literatures show that users place more emphasis on the content of the comment in the market. High-quality reviews are understandable and objective. It is more efficient than low quality reviews [7]. Petty (1984) argues that high-quality reviews are specific, clear, and can use arguments to support their views, while low-quality reviews are more subjective or emotional, and lack rigorous discourse. When the user's comments contain sufficient reason for the recommendation, and easy to understand, objective to comment on the APP, then these comments are more persuasive than those who only express their feelings and recommendations of the use of comments. In the online reviews, the previous user comments are anonymous. If not get enough information, people will not quickly
accept or believe the application store reviews. Likewise, when comments are persuasive, they can positively impact the user. By reviewing the information, the user thinks that the information is useful to them, they are more likely to find the APP they need. Therefore, the higher the quality of online reviews, the user is more likely to find a need for their own APP.

THE QUANTITY OF REVIEWS

The quantity of reviews is a channel for online oral communication. It represents the amount of APP user downloads and the APP popular. The user can easily think that the more the quantity of reviews, the more important or more popular of APP. Therefore, it will enable more users to know and understand the APP.

Buttle (1998) argued that the quantity of reviews would make consumers rationalize their purchasing decision-making processes or brand attitudes, and ultimately perceive that they made the right buying decisions [8]. The Clemons’ also confirmed that the quantity of online reviews of consumers could predict beer sales, and that the quantity of online reviews was positively correlated with beer sales [9]. Consumers tend to buy products with more online reviews when making online purchases. The greater number of online reviews, the greater the probability that customers will get useful information from them. The better the customer will know and understand the product, the greater the impact on customer purchasing decisions and brand attitudes. Therefore, we conclude that the quantity of online comments has a positive effect on the user to find a need for their own APP.

Information Adoption Model

Adoption refers to acceptance and adoption by people of choice or approval. Adoption theory is based on knowledge transfer. When people intentionally take an act, they will be intention to adopt the idea or behavior advocated by the outside world. Sussman and Siegal (2003) think that the information adoption model (IAM) explains how people are influenced by computer-mediated communication through online users' research into e-mail message adoption. They point out that the quality of information and the credibility of the source affect the receiver's perceived usefulness of the information, and the perceived usefulness of the information further influences the information adoption [10].

Cheung, C. M. et al. (2008) developed a model of information adoption that explains the factors influencing members' opinions and recommendations on the online consumer opinion platform (see Figure 1). The results show that information usefulness is a significant mediator variable influencing the process and information adoption [11].
Cheung, CM (2008) pointed out that perceived usefulness refers to the use of new technologies to improve their performance view. The quality of the review and the credibility of the source were analyzed. The quality of the review includes relevance, timeliness, accuracy and comprehensiveness, and the credibility of the source includes the origin of the source and the credibility of the source. They directly affect the user's perceived usefulness of the information, thus determining whether the user to use this information [11]. Users get this information on a virtual platform to help them make decisions, and when they perceive the information useful, they take action.

Based on the information adoption model, we can conclude that the quality of online reviews and the quantity of online reviews are directly related to the usefulness of the information. When users think that the information provided is valuable, useful and helpful to them, they will have a stronger will to adopt this information, spend less time and effort to find their own.

**SUGGESTIONS FOR APP STORE AND DEVELOPER**

There are more and more online reviews on the mobile internet and it provides more reference for the decision of the user. However, a large number of good and bad comments information to the user has brought confusion. The results of this paper offer several suggestions for the domestic application store.

First, application stores and developers should focus on the quality and quantity of online reviews. Online review is the user to download mobile APP after the feedback. Other users can comprehensive understand applications through the online reviews, and understand how the popularity of the APP. The developers of application can better understand user needs through online reviews, in order to avoid homogenization of products and improve the quality of APP. With the number of blowout applications, online reviews have become one of the channels that consumers access to APP-related information. Therefore, it not only can achieve good publicity that the effective use of the value of online reviews, but also it is an important means to enhance APP rating.
Second, it should encourage users to comment through incentives. The app store can actively guide users to evaluate the APP when they download and use the mobile APP. Through the user's online reviews for the mobile APP, more users can faster to find the APP.

Finally, the application store should improve emergency response capabilities. As the online reviews will affect the user's download and purchase behavior, it is necessary to establish an online reviews mechanism and management program thus create a real online reviews environment for users.

CONCLUSIONS

Mobile application products not only change the user's lifestyle, but also have brought huge economic benefits for mobile application developers and mobile application store operators. Mobile application developers and application stores want to increase the amount of downloads for their applications, and the users want more and better applications. Therefore, it is great significance to identify relevant factors influencing mobile APP discoverability. Online reviews are one of the main ways for users to obtain information. In the APP store, the quantity of online reviews and the quality of online reviews have an important impact on the user to find their own APP. Users can quickly find their mobile APP through the online reviews, reduce the energy and time, and improve their satisfaction. At the same time, application stores and developers can get clearer understanding of user needs through online reviews, thereby help them to develop new applications and offer better services to users.

REFERENCES