Research on the influencing factors of knowledge sharing in online virtual community

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Abstract. Knowledge sharing is a new phenomenon which appears with the development of Internet and virtual community, accompanied by members of the community the exchange and communication in the virtual community, knowledge sharing more and more attention. On the social identity theory and social network theory as the foundation, the factors of the online virtual community knowledge sharing research, through the empirical analysis method of hypothesis model was verified. Found that the enhancement and maintenance of the virtual community members personal sense of fairness, belonging to the community and open consciousness in promoting the knowledge sharing willingness has an important role; the shared wishes of the strength for virtual community sharing behavior has a dominant position. The results verify The management of virtual community and its use has certain practical significance.

1 Introduction

In the indigenous to buy recently of a certain brand of headphones than before in the mall to buy, the headset to me, but a surprise surprise, because this is in I strolled through the micro channel, micro blog and Baidu Post Bar after make decisions in a more reasonable price, had made me ten minutes with headphones is a very satisfying online shopping, such as micro channel, micro blog and Baidu Post Bar, the online virtual community helped me a great favor. US 90 as the Internet era, the Internet we have is not only a tool, but a way of life. The online communication and exchange has become our daily life indispensable Some, especially in shopping, or in some sense of interest in the topic, we will through the micro Bo micro channel to share and exchange their experiences. In these, such as forums, microblogging and other virtual communities, we can on the basis of other people's experience and knowledge (knowledge sharing) to make their own judgment for a decision, also our views and experience may also have important influence on someone else's judgment.

Knowledge sharing is the key to knowledge management, it is refers to the employees of the organization or internal and external team between the organizations within or across organizations each other through various channels of knowledge exchange and discussion, the purpose is through the exchange of knowledge, expand the knowledge of the value in use and produce the effect of knowledge [1].Virtual community is a kind of social network based on Internet, which is composed of a group of individuals with common interests and aims through a particular medium.As a virtual community knowledge sharing and organizational learning is an important way, and the relevant research of online virtual community can be traced back to the early of distance education.Moore will distance education online interaction points to three types, respectively is the interaction between users and online content between the user interaction with the instructor, between the user interaction . With the online virtual community interaction to define as a "virtual community members in some sense topics of interest, through the post, reply and work together to complete the community to carry out to communicate with each other behavior." because of the virtual community members of the decentralized, distributed, online virtual community participants without Face to face communication, but only through the text and a limited picture of the exchange, the participants responded to both the timeliness and accuracy of the request is very high.

Previous research has made many beneficial achievements, but there are two problems. First, as a kind of new research object, research has only just started, so how accurate definition online

virtual community knowledge sharing factors still need to do further research. Secondly, online and offline interaction is customer based on virtual community activities, but the impact on the community relations between members and membership in the community of knowledge sharing is not clear, and the specific factors still need to do further exploration. In view of the above two questions, we will "online virtual community occurred what changes? Factor for the changes to shared produce effect is obvious Two questions as the focus of this paper, to explore the specific impact factors of online virtual community knowledge sharing.

2 Theoretical basis and research hypothesis

There are many factors that influence the knowledge sharing, but influence the development of information technology for knowledge sharing is particularly important. In recent years, virtual community as a new knowledge management tools are rapidly expanding, more and more professionals began by in the virtual community interaction to show their work, tracking the latest research progress of issued at the same time their views.Anderson and Ma pointed out that diversified information technology has become a virtual community communication and interaction mechanism based; make use of BBS, blog, Wiki, etc. can more flexible processing and performance information to promote the accumulation of knowledge . In addition, with the opportunity to share knowledge with others, more and more people tend to use these virtual communities .

Virtual community knowledge sharing as a social exchange behavior, influencing factor is psychological factors and organizational culture. Therefore, this paper mainly these two aspects of knowledge sharing behavior of theoretical discussion and empirical study.

2.1 Theoretical basis

2.1.1 Individual behavior from the perspective of social identity

By showing the interaction between communication between human themselves. Social identity theory is the social psychology of the important theory that people used to themselves and others belong to different social categories, such as members of the organization, religious affiliation, gender and age groups, and the social environment segmentation and reclassification, provides a system definition and distinguish between different groups in the social identity perspective, individuals tend to have some similar or the same classification, individual homoplasy . Social identity theory can be a very good interpretation of the user in the virtual community of users participate in the virtual community activities, will produce a kind of virtual Sense of community that belonging to the virtual community and sense of dependence, that is, user's attitude to the virtual community and cognition of the other members will affect the individual's behavior. This membership in the virtual community a sense of belonging the recognition attitude of community formation, which will significantly impact to virtual communities and on knowledge sharing behavior. Therefore, social identity theory in explaining the virtual community user knowledge sharing behavior has been a lot of applications.

2.1.2 Knowledge sharing from the perspective of social network

Social network is refers to between the individual members of the society because of the interaction and the formation of relatively stable relations system and social network is the interaction and contact between people and social interaction will affect people's social behavior[2]. In the virtual community there are a lot of knowledge search and sharing, knowledge of the demand and supply it happened relationship, the interaction between them also presented the morphology of the network, the individual in the community need to know the distribution within the community of knowledge, need their own knowledge and have their own individual knowledge and find their way, their behavior showing some rules and characteristics. Liao Liefa(2011),Li Zhihong(2011)found in the virtual community the existence information asymmetry and low embeddedness social network environment, among members of learning is more suitable for exploring the use of learning, virtual community should become employees obtain knowledge of an important way. More and more research began to regard social network theory as the study of the virtual community knowledge sharing from the perspective of the theory and analysis of community social networks in the network relationship and knowledge sharing.

Therefore, with the help of social identity theory and social network theory, it can be better to study what personal factors in the context of the complex social network to the virtual community members to have an impact on knowledge sharing.

2.2 Research hypothesis model

2.2.1 The influence of virtual community's personal consciousness on the willingness to share

On the basis of social identity theory, Bock(2005)Study of virtual community knowledge sharing behavior, get three factors influencing the willingness of sharing: a fair environment of mutual trust; is conducive to team interaction of altruism; innovative attitude. According to the social exchange theory, the relationship of community knowledge sharing of people expected results and among the members of the trust will affect knowledge sharing intention. And social cognitive theory think, personal SEER will affect people's motivation and behavior. On the basis of existing research, from personal influence knowledge sharing factors from the perspective of this paper will affect knowledge sharing behavior of individual factor to induce extension: Sense of justice; sense of community belonging; open consciousness. Among them, fairness, community sense of belonging, and open up a shared willingness. The relationship between these factors constitute the research hypothesis of this paper.

Huysman (2006)[3]Willingness to share is a virtual community knowledge sharing key factors. This is because sharing affect the willingness of members of the community the value idea and behavior. Sharing will consist of fairness, sense of belonging to a community, open the three aspects. Fairness is influence personal motives and behaviors of a main environmental factors. A sense of belonging in the community is the prerequisite of the cooperation within the community, the degree of openness of the community decided the community members' knowledge sharing degree. In this paper, we believe that the community of openness is a shared willingness in the key, this is because, generally, community participation and more people, knowledge sharing willingness to stronger[4].

Therefore, under the premise of openness as a shared will, this paper puts forward the following assumptions:

H1: the individual's sense of justice has a direct positive effect on the willingness of knowledge sharing;

H2: the personal sense of community belonging has a direct positive impact on knowledge sharing willingness;

H3: the individual's open consciousness has a direct positive effect on the willingness of knowledge sharing.

2.2.2 The influence of sharing willingness on knowledge sharing behavior

In the existing research, virtual community members sharing intention makes knowledge sharing has become a kind of effective knowledge management tools, and finally in sharing knowledge obtained benefits. In addition, sharing will encourage the flow of intellectual freedom, while encouraging members to share each other's knowledge, so as to increase the knowledge of the community.The research hypothesis of this paper is as follows:

H4: share will have a positive impact on knowledge sharing in virtual communities. The model is shown in figure 1;
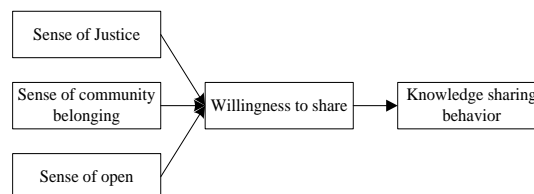

Figure 1 Hypothesis model

3 Research design

In view of the above research design and assumptions of the model, this paper uses case study method to carry on the examination, this paper selects the case is MI technology company MI

community forum the typical online virtual community as the research object, the birth and development in the Internet rapid development period of Internet companies can give our hypothesized model a more objective validation and interpretation.

3.1 Case profile

MI company was formally established in April 2010, is an independent research and development of intelligent mobile focused on mobile Internet company, positioning in high performance fever phone. MI mobile phone, MIUI, m chat is MI company's three core businesses. "Fever" is MI product concept. MI company pioneered the Internet model developed mobile operating system and enthusiasts to participate in the development of improved model.

MI mobile phone, MIUI, m chat is MI company's three core businesses. "Fever" is MI product concept, positioning in the low-end market. MI company pioneered the use the Internet to develop and improve the mobile phone operating system, 60 million fans involved in the development of improved. Officials have launched a variety of value-added products, official website to sell the TV box, travelling bag, mobile phone film, headphones, hats, men's clothing, women's clothing, shoes and other have been from the vast number of consumers, has laid a great foundation for the success of MI.

As an established just over five years the Internet phone business, its development speed is amazing; 2014 double eleven activities, MI lynx platform in mobile phone sales 116 million units, sales of 1.56 billion yuan, accounted for lynx day 3% of the total, successfully defending the first store.2014 on December 11, 1993, Youku potatoes group in Shanghai announced and MI company reached the capital and business aspects of strategic cooperation. Cooperative content includes two aspects, one is the two sides will carry out the technical content and the depth of cooperation in the field of Internet video, joint research and development of video mobile terminal play technology; second, MI, potatoes, Youku investment and In homemade content and CO production, produced and distributed in close cooperation.2014 in December of 14 evening, Midea Group issued a notice said, has signed a strategic cooperation agreement with the science and technology of MI, MI 12.7 billion shares of Midea Group.2014 in December 29,, Lei Jun, founder of MI technology today in micro Bo revealed that MI just last week completed the latest round of financing, valuation of $450 billion, the total amount of financing of $1.1 billion.2016, MI is launched its first laptop, foundries for British industry. Have to mention is that rice MI made so glorious [5].

3.2 Case analysis and model validation

MI mobile phone as an attention to the mobile phone R & D manufacturing of mobile.Internet business is what sustains the in such a short time rapid development and expansion of it? In addition to its reasonable commercial mode, a huge customer base is no doubt, now known as the "rice powder" is to support a strong foundation for the development of; where the rice community MI and MI forum is the MI is a huge customer base to a powerful online virtual community to maintain.

Strong rice groups and flow to the MI has created a huge customer base, and fans to spare no effort in the community and microblogging online virtual community of communication and exchange, and constantly promote the potential customers for MI company and product awareness and understanding, thus for MI brought huge sales revenue. As shown in the following table 1.

Table1 MI community traffic compared with the same kind of online virtualcommunity

	Daily posting	Post total	Total user number	alexa	On-line date
MI community	250000	130000000	9700000	3000	2011.08
Meizu community	20000	Not announced	4000000	4699	2006.06
OPPO community	20000	8000000	Not announced	100000	2005.02
HUAWEI community	3000	Not announced	160000	11000	2011.09
Lenovo community	2000	710000	470000	41949	2011.07
BBK community	18000	12080000	5800000	20600	2006.03

Note: Data from the Internet (statistics as of December 2015)

A larger resonance produced by MI community ahead of the flow data, it is shown that the table,

MI mobile phone "fever" declaration with the vast number of rice to its existing customers and potential customers individual can take the initiative to login to the MI, the opening of online virtual community, for MI enterprises and their products for the common hobby (Social Cognition), its customers a sense of fairness is consistent, so for on MI company and its products and its products and use of knowledge and experience sharing will have a positive role in promoting.

Firstly, it can be verified that H1: the individual's sense of justice has a direct positive effect on the willingness of knowledge sharing; this assumption is correct.

Secondly, the MI community has the characteristics of openness and inclusiveness, MI fans and potential fans can in community online virtual community freely, the slot and communicate freely and for knowledge sharing willingness has great role in promoting; the MI's fans can produce greater ownership feeling, and can keep a better sense of the open, so we can verify H2: personal belonging to the community sense on knowledge sharing intention has a direct positive impact; "and" H3: the open consciousness of the personal knowledge of willingness to share has a direct positive impact. "is correct.

According to statistics, MI community average official reply rate is 100 percent, and rice or potential customers of a single post reply a number higher than 100, to a large extent the preceding example card within the community, such as MI and MI's online virtual community personal willingness to share the strength, and for a direct positive impact knowledge sharing.

So the thirdly, by the community, such as MI and online virtual communities within the individual's sense of fairness, belonging to the community and opening consciousness for knowledge sharing willingness to have direct positive effect can be drawn: the willingness to share the virtual community knowledge sharing a direct positive impact; thus inspection certificate assumption model "H4: willingness of sharing in the virtual community knowledge sharing has a positive effect." is correct.

Based on the above case analysis and hypothesis verification can be obtained the enhancement and maintenance of the virtual community members personal sense of fairness, belonging to the community and open consciousness in promoting the knowledge sharing willingness has an important role; sharing the strength of will to virtual community sharing behavior has a dominant position.

4 Conclusions

Virtual community has become the Internet shopping, communication and knowledge acquisition a important platform; knowledge sharing can make the virtual community is full of vitality and bring greater vitality, and can meet the requirements of the members of the community interaction and experience. The purpose of this study is to explain why people share knowledge with others at the virtual community. The results of this study show that, enhancement and maintenance of the virtual community members personal sense of fairness, belonging to the community and open consciousness in promoting the knowledge sharing willingness has an important role; sharing wishes of the strength for the virtual community sharing behavior has a dominant position. Of course, this article on the online virtual community knowledge sharing. Study on the influencing factors: the first is based on personal factors, in the study may exist some shortcomings; second, using the method of case study is difficult to fully prove that the above for virtual community knowledge sharing factors proved. Therefore, for these two deficiencies, in future research, I will try to such as social network analysis and other research methods explored in detail the influence factors of online virtual community knowledge sharing.

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