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# The Influence of User Community's Innovative Climate on User Knowledge Sharing Willingness

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**Abstract.** This research combines the conception of Innovative Climate and Users community. At this basis, we construct a model to explain how Innovative Climate generated from community, supervisors do and users affect users anthropology knowledge sharing intention. In this way, we construct a SEM and verify it with 245 samples. The conclusion shows that Innovative Climate has positive impacts on users knowledge sharing intention, but Innovative Climate generated from different sources has different impact path. Subjective Norm has a full mediation effect between Community Support and users anthropology knowledge sharing intention, Supervisor Support and users anthropology knowledge sharing intention. Nonetheless, effects between Subjective Norm and User Support were partial mediated by Innovative Climate.

## 1. Introduction

With the increasingly fierce market competition, the diversified and personalized features of users' needs become more and more obvious. Product development cycle is forced to be shortened. Anthropological knowledge is the user's own experiences, thoughts, actions and feelings.The users anthropological knowledge sharing in the community will reflect the other users perception of community and expectations.Then how to access to user anthropology knowledge [1] rapidly and conveniently for improving the response capacity of the enterprise market is crucial. As a virtual community which relies on internet, user community arouses' many enterprises' attention because it provides a good communication platform for users and enterprises. So, how to promote user anthropology knowledge sharing in user community becomes an urgent problem. As the subject of knowledge transfer, users' psychological state, to a large extent, is a reflection of their living environment. Most of the existing studies on user anthropology knowledge sharing is based on behavior theory and focus on the subject and object of knowledge transfer, such as users' self motivation factor and usefulness of knowledge, etc. However, environment's influence on user anthropology knowledge sharing is seldom studied.

This paper aims to study the influence of innovative climate in user community on the willingness to share users anthropology knowledge. Theory of planned behavior holds that the three variables that influence individual innovation willing are individual's attitude towards behavior, perceived behavioral control and subjective norm. Among which, subjective norm is individual's perception of social pressure. It

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is the only variable that reflects external environment. Therefore, subjective norm is selected as the mediator to transmit innovation atmosphere and construct the conceptual model of the influencing mechanism innovative climate-subjective norm-user anthropology knowledge sharing willingness". Questionnaire is used to collect data to test related research hypotheses.

## 2. Literature Review

### *2.1. Innovative Climate*

Innovative climate refers to the atmosphere that can influence individual innovation behavior and organizational innovation performance. It is the product of climate study from general climate to specific climate. Nowadays, it is a common phenomenon that users are involved in product innovation [2]. Users community not only serves as a communication platform for users and enterprises, but also becomes a community which has specific culture and social norms. Users in this community can also feel its supports to innovation activities. Therefore, in this paper, the concept of innovative climate is connected with user community. Innovative climate is defined as, in users' community, the support degree of the related innovation activities which can be perceived by users. Such support contains three dimensions, i.e. users support, supervisor support and community support.

In the frequently-used scale of organizational innovative climate, i.e. KEYS, the phenomenon of public expression of new ideas and mutual assistance among the members in a team is called "team support". Supervisors' direction and support of teams' work and innovation is called "supervisor support". And the behavior that supervisors of all levels in an organization encourage staff's risk-taking and innovative thinking is called "organization support" [3]. According to access rights, members in the user community are divided into system administrator, community administrator and users. This is an interactive interface for enterprises and users. Enterprises can supervise the users on this interface. Tang Jindan points out those users in the community may also produce organizational socialization phenomenon. Hence, the users can be treated as temporary employees and users community, to some extent, belongs to the extension of enterprises or organizations. Therefore, by reference to the related definition in KEYS, "user support" is similar to "team support". They are both the perception of users' mutual trust, communication, cooperation and assistance. "Supervisor support" refers to the perception that whether users can manage the community and support users' creative thinking with tolerant attitudes". Similar to "organization support", "community support" refers to users' perception of enterprises encouraging users to deal with uncertain problems by innovative methods and awarding sharing and innovative behaviors.

### *2.2. Subjective Norm*

Norms are principles that are abided by when individuals carry out or are forbidden to carry out a certain action. They are a kind of attribute of a team. The influence of norms is rooted in the relationship of individuals or members of other teams. As a type of norms, social norm refers to behavior principles that should be observed by the whole society and all social organizations and the members. It is a basic principle to determine and adjust people's joint activities and relationships. Compared with objective social norms, subjective norms have greater influence on behaviors. Subjective norm refers to the social pressure perceived by individuals when they are deciding whether to perform a certain behavior or not. It reflects others' or teams' influence on individuals' decisions. For community users, subjective norm refers to the pressure perceived when users are deciding whether to conduct users innovation. Such pressure is jointly influenced by the attitude of other users and administrators towards a users' innovation and the agreement degree of such attitude.

### *2.3. Willingness of user anthropology knowledge Sharing*

Users possessing corresponding knowledge are a requirement of user anthropology knowledge sharing. Generally speaking, users anthropology knowledge [4, 5] includes the following three types. The first type is users' expectation of products and services, which shows users' own needs. The second one is users' perception of products and services. The third one is users' own background information, such

as users' preference, education levels, etc. Whether educated users are willing to share knowledge in the community is the key to achieving knowledge sharing, which refers to users' internal responding tendency of their knowledge and is a kind of preparing state before individuals carry out a behavior [6]. It depends on three major predictive variables. First, the attitude of actors, namely individuals' assessment of their like or dislike degree of a certain behavior. Second, actors' subjective "social norms", that is individuals' perception of social expectation of a certain behavior. Third, "perceived behavioral control" as the indicative variable of behavior willingness, which reflects the influence individuals' ability to carry out behaviors on individuals' behavior decisions. Based on the above statement, this paper defines user anthropology knowledge sharing willingness as users' willingness to share their knowledge, which is the determinant of user anthropology knowledge sharing behaviors. Compared with the previous studies, selecting "user anthropology knowledge sharing willingness" rather than "user anthropology knowledge sharing behavior" as the dependent variable, can visually disclose the process of environments' influence on user behaviors and also can provide theoretical basis for enterprises' involvement in the formation process of user anthropology knowledge sharing behaviors.

### *2.4. Theoretical Hypotheses*

Innovative climate is usually regarded as an important contributing factor of enterprises' innovation. And a lot of empirical studies prove that innovative climate has positive impact on innovation behavior and innovation performance [7–9]. Good innovative climate will encourage information sharing and team cooperation. Team members' information and interpersonal communication is quite frequent, which helps team members share and integrate all kinds of implicit and explicit knowledge in their communication, thus promoting individual innovation behaviors [10].

Referring to "organization support", "community support" considers that enterprises support and promote community user innovation by community culture, rewards and innovation sources supply. Perceived organizational support has some impact on individuals' behaviors. A lot of researches on educated staff show that organizational support has a significant impact on implicit knowledge sharing. According to the reciprocity theory and social exchange theory, when staff perceives organization's support for their work, no matter material support or psychological support, both will encourage them to work harder. The stronger the perception is, employees will be more willing to share their knowledge [11]. Hence, we think that, users' perception of community support will have influence on knowledge sharing willingness.

The concept of "supervisor support" derives from "perceived supervisor support". It refers to employees' overall feeling of supervisors' concern of their welfare and sharing degree. When discussing perceived support and emotional commitment relationship, found that supervisor support serves as an absolute intermediary between intrinsic satisfaction working conditions and supervisors' emotional commitment relationship [12]. In user community, many enterprises institution regulations and traditions are conveyed or continue by the community administrators. For the users in community, administrators are equivalent to supervisors in enterprises. Community administrator is a more specific existence. Their attitudes, to a great extent, represent the enterprises attitudes. Therefore, the supports from community supervisors are an important part of user community innovative climate. When the supervisor encourage community users to express their opinions, suggestions and new methods to solve problems, it creates a relaxing, friendly and trusting environment, where users are more willing to share using feeling, new opinions and solutions to problems with administrators and other users.

"User support" is similar to "team support" in organizational innovative climate. Liu Yun points out that groups' smooth communication and mutual trust and cooperation between individuals as well as constructively challenges all belong to team support, which has a predictive effect on innovative climate [13]. In this paper, "users support" refers to other users' support. Subjectively, it mainly refers to the consistency of the attitude towards innovation, the expectation for innovation behavior and trust with other users in the community. Objectively, it mainly refers to the smooth communication and mutual supports of other users in the same community. In user community, relationship between users is a kind of intimate partnership, which has an influence on individuals' behaviors. For instance, supports from colleagues can ease employees' insecurity sense, raise working satisfaction and even relieve working

pressure's influence on employees' working performance, because when community users encourage and support individuals' innovation, present their willingness of cooperation or directly offer helps, individuals' judgment of external environment's "supports for innovation" is more obvious [14]. In user community which has a good innovative climate, users show a partnership among them. They all agree with and advocate knowledge sharing and solve problems with innovative thinking. And they are willing to discuss that they have found and have high expectation for innovative solutions and results. In daily life, if users can communicate smoothly and each user are glad to try their best to help others, knowledge sharing will become a habit and users knowledge sharing willingness will be higher. Based on the above analysis, some hypotheses are proposed as follows.

H1-1: Community support has a positive impact on users anthropology knowledge sharing willingness.

H1-2: Supervisor support has a positive impact on users anthropology knowledge sharing willingness.

H1-3: User support has a positive impact on users anthropology knowledge sharing willingness.

Subjective norms are divided into injunctive norms and descriptive norms. The former, based on the perspective of "what should be done", refers to individuals' perception of the expectations that most people agree or disagree with its implementation of a behaviors; the latter, based on the perspective of "what has been done", refers to individual's perception of the pressure brought by some important reference men's perform of certain acts [15]. Based on this, this paper divides users' subjective norms into the following types: injunctive norms (users' perceived expectations from their community in which the head of the community or other users to share knowledge) and descriptive norms (users perceived demonstration effect produced by some important reference individuals' knowledge sharing). When innovative climate becomes stronger, it shows that the whole community atmosphere has a high expectation for users' exploration of new solutions and users' knowledge sharing, thus promote the creation of injunctive norms. In the meantime, in the user community that possesses good innovative climate, users will share the problems and new demands found in the using process. They also will put forward new solutions and ideas according to their own abilities, thus promotes the production of descriptive norms. Hence, some hypotheses are proposed as the follows.

H2-1: Community support has a positive impact on user subjective norms.

H2-2: Supervisor support has a positive impact on user subjective norms.

H2-3: User support has a positive impact on user subjective norms.

Theory of Reasoned Action (TRA) holds that individuals' behavior willingness is the most direct influencing factor of individuals' behaviors. The behavior willingness is affected by subjective norms and behavioral attitudes. This is also retained by the Theory of Planned Behavior, which regards subjective norms as one of the factors that directly affect the willingness of individual behaviors. Among the studies of college students' gambling behavior, Mary's study shows that both injunctive norms and descriptive norms have a predictive effect on individuals' gambling behavior [16]. In the studies of college students' innovation behaviors, Zhang Min analyzes such behavior with the help of ERP (Enterprise Management Simulation with Sand Table). She found that in a certain context, students' perceived importance of their team or other people's expectation of their participation in the innovation can more greatly influence their behavior willingness than college students themselves [17]. All of these studies in different degree confirm that subjective norms have a positive impact on behavioral willingness. Based on the above analysis, a hypothesis is provided as follows.

H3: User subjective norms have an impact on user anthropology knowledge sharing willingness.

By investigating 123 students' entrepreneurial willingness and participant in entrepreneurship courses at a college in America, found that individual entrepreneurial experience, family background in business and ethnic cultural backgrounds can influence students' entrepreneurial willingness through subjective norms [18]. Innovative climate essentially is users' sense of support obtained from users community. Such perceived support is originated from participating members' supports of innovation activities. Therefore, innovative climate conveys the information of organizations' expectation of innovation activities and potential innovation results [19]. And users will interpret this information. If the interpreting result show that organization supports innovation, then such perception will arouse individual's innovative thinking and the subjective psychological factors on knowledge sharing. It is thus clear that if innovative climate will have an impact on users' behavioral willingness, it should be perceived by users. The perceived content can

better predicate their behavioral willingness. Subjective norms transfer social expectation into individual's behavior in three steps: (1) internalization, i.e. accepting external information and integrating it into the perception system; (2) identification, i.e. comparing the internalized information with the similar reference or reference organizations; (3) obedience, i.e. individual or organization controls the implication of individuals' behaviors by rewards and punishments [20]. Therefore, in the user community which has a good innovative climate, if innovation supports from other users, community administrators and community system management, after being perceived and identified by users, will have an impact on behavioral willingness by producing subjective norms. Based on this, some hypotheses are provided as follows.

H4-1: User subjective norms serve as an intermediary between community support and user anthropology knowledge sharing willingness.

H4-2: User subjective norms serve as an intermediary between supervisor support and user anthropology knowledge sharing willingness.

H4-3: User subjective norms serve as an intermediary between user support and user anthropology knowledge sharing willingness.

## 3. Methodology

### *3.1. Subjects and Sampling*

In this paper, SPSS19.0 and AMOS17.0 software are used. Structural Equation Modeling (SEM) is used to test the influencing paths of innovative climate, subjective norms and user anthropology knowledge sharing willingness. On the basis of the good fitting of the modeling and the collected data, hypotheses are tested according to the significance of path coefficients among the variables.

The subjects of the questionnaires in this paper are the users in the community. The questionnaires are issued in some famous user communities, such as Millet Community and Android Forums. Totally, 278 questionnaires are collected. After rejecting the invalid ones, 245 are kept. So, the effective rate is 88.1%. The distribution of the sample is shown in Table 1. The sample size also reaches the standard that each variable needs 5 ˜10 samples.

Table 1: Statistical Characteristics of the Sample

| Characteristic | Categories | Frequency | Rate | Characteristic | Categories | Frequency | Rate |
|---|---|---|---|---|---|---|---|
| Age | 21~25 | 126 | 51.4% | Sex | Male | 148 | 60.4% |
| | 26~30 | 89 | 36.3% | | Female | 97 | 39.6% |
| | >30 | 30 | 12.3% | Commonly used BBS | Saipan | 30 | 12.2% |
| Using time/day | <1hour | 83 | 33.9% | | Android | 74 | 30.2% |
| | 1~2 hours | 85 | 34.7% | | PCPOP | 30 | 12.2% |
| | 2~3 hours | 37 | 15.1% | | Autohome | 12 | 4.9% |
| | >3 hours | 40 | 16.3% | | Gfan | 43 | 17.6% |
| | | | | | Other professional BBS | 56 | 22.9% |

### *3.2. Measuring of Research Variables*

To ensure the validity and credibility, the questionnaire is designed by referring to the scales which have been used and tested by the existing literature. For the scales from English literature, they were translated by some doctor graduates who had the translating experience of English scales in this field. Then the translated scales were checked and amended by the teachers who at our college.

The potential variables involved in the questionnaire includes "community support", "supervisor support", "user support", the mediator "subjective norm", and the dependent variable "user anthropology

knowledge sharing willingness". Among which, "community support", "supervisor support", "user support" consist of 16 measuring items, mainly consulting the scales from Yun & Jintao [14] and Yun et al. [13]. "Subjective norm" has 6 items, mainly consulting the scales from Rhodes & Courneya [21] and Le [22]. "user anthropology knowledge sharing willingness" has 6 items, mainly consulting the scales from Jiewen [23] and Casimir et al. [24]. All of the measuring items use Likert scales, of which, "1" represents "totally inconsistent", "5" represents "totally consistent", 2 ˜4 represents the progressive increase of consistence degree.

### 3.3. Analysis of Scale Reliability and Validity

The result of validity and reliability test is shown in Table 2. Reliability is tested by Cronbach $\alpha$ coefficient. From the table, the minimum Cronbachs $\alpha$ of each variable is 0.858, and all of Cronbachs reach the standard of "$> 0.8$", which means that the questionnaire has a high reliability. For the validity, on the one hand, the questionnaire has a high content validity as we consulted some experts and made several amendments when designing it. On the other hand, in the SEM analysis, composite reliability and average variance extraction (AVE) are used as validity testing index of the latent variables. From Table 2, we can see that all the composite reliability of each variable is greater than 0.60, and the average variance extraction is greater than 0.50, which shows that the observational variable can effectively reflect the specific features of the common elements. The potential quality of the model is very good, which has good construction validity.

Table 2: Result of Reliability and Validity Analysis

| Latent variable | Observational variable | Standard factor loading | Composite reliability | Ave | Cronbachs $\alpha$ |
|---|---|---|---|---|---|
| Community support | CS1 | 0.716 | 0.864 | 0.514 | 0.863 |
| | CS2 | 0.721 | | | |
| | CS3 | 0.672 | | | |
| | CS4 | 0.751 | | | |
| | CS5 | 0.729 | | | |
| | CS6 | 0.712 | | | |
| Supervisor support | SS1 | 0.701 | 0.879 | 0.594 | 0.877 |
| | SS2 | 0.829 | | | |
| | SS3 | 0.795 | | | |
| | SS4 | 0.768 | | | |
| | SS5 | 0.753 | | | |
| User support | US1 | 0.763 | 0.860 | 0.552 | 0.858 |
| | US2 | 0.718 | | | |
| | US3 | 0.780 | | | |
| | US4 | 0.771 | | | |
| | US5 | 0.679 | | | |
| Subjective norms | SN1 | 0.786 | 0.900 | 0.600 | 0.900 |
| | SN2 | 0.765 | | | |
| | SN3 | 0.794 | | | |
| | SN4 | 0.783 | | | |
| | SN5 | 0.760 | | | |
| | SN6 | 0.759 | | | |
| User anthropology knowledge sharing willingness | KSI1 | 0.827 | 0.905 | 0.615 | 0.905 |
| | KSI2 | 0.841 | | | |
| | KSI3 | 0.803 | | | |
| | KSI4 | 0.737 | | | |
| | KSI5 | 0.765 | | | |
| | KSI6 | 0.725 | | | |

*3.4. Structural Equation Analysis*

This paper uses AMOS17.0 to construct structural equation modeling and analyzes the path effect of the variables with the method of maximum likelihood. The result is shown as Table 3. For the index of goodness-of-fit, $\chi 2$/df is 1 ˜3, RMSEA is smaller than 0.08, both the values of TLI and CFI are greater than 0.90. Even though NFI and GFI values are smaller than 0.90, they are both in 0.80 0.90, which approximate 0.90. After a comprehensive measure, the goodness-of-fit of the model is good.

Table 3: Significance Testing of Path Coefficient

| Hypotheis | Path | Standardized path coefficient | C.R. | P | Support or not |
|---|---|---|---|---|---|
| H1-1 | User anthropology knowledge sharing,willingness <—Community support | 0.089 | 0.909 | 0.363 | Nonsupport |
| H1-2 | User anthropology knowledge sharing willingness <—Supervisor support | -0.002 | -0.020 | 0.984 | Nonsupport |
| H1-3 | User anthropology knowledge sharing,willingness <—User support | 0.244 | 2.341 | 0.019* | Support |
| H2-1 | Subjective norms <—Community support | 0.178 | 1.968 | 0.049* | Support |
| H2-1 | Subjective norms <—Supervisor support | 0.340 | 3.402 | *** | Support |
| H2-3 | Subjective norms <—User support | 0.390 | 4.302 | *** | Support |
| H3 | User anthropology knowledge sharing willingness <—Subjective norms | 0.490 | 4.492 | *** | Support |

Note:$\chi^2$=666.660, df=340, $\chi^2$/df=1.961, RMSEA=0.063, NFI=0.856, TLI=0.915, GFI=0.838, CFI=0.923, $*p < 0.05$, $**p < 0.01$, $***p < 0.001$, N=245

Path coefficient estimates got from AMOS output result is shown in Table 3. $p < 0.05$ means that the path coefficient has statistical significance. From the table, we can see that, there is a positive correlation between community support and user anthropology knowledge sharing willingness, but they do not have statistical significance ($\beta$=0.089, p=0.363), so H1 is not supported. There is a negative correlation between supervisor support and user anthropology knowledge sharing willingness, and they do not have statistical significance ($\beta$=-0.002, p=0.984), so H1-2 is also not supported. The standardized path coefficient between user support and user anthropology knowledge sharing willingness is 0.244 ($p < 0.05$), which means that user support has a significant positive impact on user anthropology knowledge sharing willingness, so H1-3 passes the testing.

In addition, all the other 4 paths pass the significance testing, which shows that the three innovative climate dimensions, i.e. user support, supervisor support and community support, influence user anthropology knowledge sharing willingness through the mediator function of user's subjective norms. According to the indirect effect shown in Table 4, user support influences user anthropology knowledge sharing willingness through the mediator function of user's subjective norms and the indirect effect of this path is 0.191 and H4-3 passes the testing. Supervisor support influences user anthropology knowledge sharing willingness through the mediator function of user's subjective norms and the indirect effect of this

path is 0.166, so H4-2 passes the testing. Community support influences user anthropology knowledge sharing willingness through the mediator function of user's subjective norms and the indirect effect of this path is 0.087, so H4-1 passes the testing.

Table 4: The Indirect Effect

| | User support | Supervisor support | Community support | Subjective norms |
|---|---|---|---|---|
| Subjective norms | .000 | .000 | .000 | .000 |
| User anthropology knowledge sharing willingness | .191 | .166 | .087 | .000 |

## 4. Results

### 4.1. Experimental result

Table 5: The Testing Results of Research Hypotheses

| Hypothesis | Hypothesis Content | Empirical results |
|---|---|---|
| H1-1 | Community support has a positive impact on user anthropology knowledge sharing willingness. | Nonsupport |
| H1-2 | Supervisor support has a positive impact on user anthropology knowledge sharing willingness. | Nonsupport |
| H1-3 | User support has a positive impact on user anthropology knowledge sharing willingness. | Support |
| H2-1 | Community support has a positive impact on user subjective norms. | Support |
| H2-2 | Supervisor support has a positive impact on user subjective norms. | Support |
| H2-3 | User support has a positive impact on user subjective norms. | Support |
| H3 | Subjective norms have an impact on user anthropology knowledge sharing willingness. | Support |
| H4-1 | Subjective norms serve as a mediator of the relationship between community support and user anthropology knowledge sharing willingness. | Support |
| H4-2 | Subjective norms serve as a mediator of the relationship between supervisor support and user anthropology knowledge sharing willingness. | Support |
| H4-3 | Subjective norms serve as a mediator of the relationship between user support and user anthropology knowledge sharing willingness. | Support |

Seen from the result, **H1-1** does not pass the significance testing, which means that enterprises' advocating and encouragement of innovation and sharing cannot significantly influence user anthropology knowledge sharing willingness. After a deep consideration, the authors think that it may be because community support refers to support from "system administrator", but these members do not indirectly participate community communication and interaction. As a result, the advocating and encouragement of innovation and sharing from "system administrator" cannot be perceived fully by users. **H1-2**'s result opposites the original hypothesis, that is to say, supervisor support has a negative impact on user anthropology knowledge sharing willingness, which shows that community supervisors' help and encouragement will decrease user anthropology knowledge sharing willingness. It can be explained like this: the assistance and ideas of community supervisors is more authentic than those of common users, which in a certain degree will influence common users' enthusiasm of information exchange and innovative thinking, thus making common users' knowledge sharing willingness decreased. **H1-3** is supported, which shows that

assistance and information exchange among users will stimulate users in the community to share their own constructive comments and innovative ideas. This is similar to Frank & Shah's finding of "most innovation users get the help and supports from other community members in the process of innovation" [25].

This paper also found that user subjective norms serve as a mediator among the relationship between community support and user anthropology knowledge sharing willingness, the relationship between supervisor support and user anthropology knowledge sharing willingness and the relationship between user support and user anthropology knowledge sharing willingness. That means supports from external environment need to experience a psychological transfer process so that they can have an impact on the final user anthropology knowledge sharing willingness. And this also support Jin Namchoi's viewpoint, i.e. individual's psychological process has an impact on innovation behavior decision .

## 5. Discussion

This paper studies innovative climate's influence on user anthropology knowledge sharing willingness, which has some implications for enterprises to promote user anthropology knowledge sharing with user community as the interface. It will be explained from the following three aspects:

1. Paying attention to the construction of "management team" of user community. Among the three dimensions of innovative climate, community support and supervisor support are the part that is the most easily controlled. But their carriers -system administrator and community supervisor constitute the "management team" of user community. As the most basic agent of user community, community administrator's agreement degree of product concept and enterprises' culture and its innovation ability and the enthusiasm for innovation will directly influence the innovative climate in the user community. If enterprises can select some community supervisor that has strong communication, tolerance and innovation ability, it will can inject vitality into the knowledge-sharing user in the community. In addition, to make all policies effectively carried out, enterprises should appoint someone who agrees with cooperate culture and strengthen the establishment and perfect of relative norms of the post.
2. Increasing the number of community users and improving their innovation ability. As important participants of user anthropology knowledge sharing and the main constituter of community members, the professional knowledge level, innovation enthusiasm and communication abilities of users and community supervisors play a key role in the process of user innovation. A user community which is small and has low innovation abilities would not have achievements in user innovation. Enterprises can identify and cultivate leading users, provide learning opportunities and avoid the outflow of high quality users.
3. Strengthening communication and promoting the formation of subjective norms. Subjective norms play a key role in the influence of user community innovative climate on user innovation willingness. To promote the formation of subjective norms, enterprises should make user community innovative climate perceived by users. Communication can narrow the distance of enterprises, users and community among executives, which promotes users to receive information of this aspect. The establishment of communication platform should be strengthened and perfected, "common innovation" should be created and the publicity of the existing knowledge sharing behavior should also be reinforced.

## 6. Conclusion

Through this empirical research, we get the conclusion that user support and subjective norms have a positive impact on user anthropology knowledge sharing willingness, while community support, supervisor support and user support have a positive impact on user subjective norms. In addition, we also know that subjective norms serve as a significant mediator between user community innovative climate and user anthropology knowledge sharing willingness.

Based on the above findings, if Enterprises want to mobilize the user's anthropology knowledge sharing willingness, they should pay attention to management of user community, working to increasing the number of community users, promoting the formation of subjective norms and so on. There are still a lot of knowledge left for us to study and explore in depth.

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