INFLUENCING FACTORS OF TACIT KNOWLEDGE SHARING BEHAVIOR OF TEACHERS IN COLLEGES AND UNIVERSITIES BASED ON THE THEORY OF PLANNED BEHAVIOR AND KNOWLEDGE TRANSFER

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ABSTRACT

Title of Dissertation	INFLUENCING FACTORS OF TACIT KNOWLEDGE SHARING BEHAVIOR OF TEACHERS IN COLLEGES AND UNIVERSITIES BASED ON THE THEORY OF PLANNED BEHAVIOR AND KNOWLEDGE TRANSFER
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Nowadays, China has entered the era of knowledge economy. As the most important resource element for the survival and development of organizations, knowledge is the key source for individuals and organizations to acquire their core competitiveness. As the gathering place of a large number of advanced knowledge and knowledge-based talents, as well as the cradle of knowledge creation and innovation, colleges and universities are the bases of knowledge exchange, knowledge dissemination, knowledge sharing, knowledge application and personnel training, and are the most typical knowledge-based organizations. As senior intellectuals, the individual and overall knowledge level of teachers in colleges and universities largely determines the stock of knowledge resources and knowledge management level of a college or universities. The tacit knowledge of teachers in colleges and universities is an important part of knowledge management in colleges and universities. How to effectively improve the tacit knowledge sharing level among teachers in colleges and universities is the core proposition of knowledge management. Tacit knowledge sharing among teachers in colleges and universities is the key link to effectively improve teachers' knowledge level and realize the promotion of knowledge management between teachers and school organizations.

In view of the influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities, this paper uses literature survey, questionnaire survey and empirical research methods to study the following five aspects: The first part is the introduction. This paper mainly introduces the research background, research problems, research purpose and significance, core concepts, research

framework. The second part is theoretical basis and literature review. This part mainly introduces the important theoretical basis on which this research is based, such as the theory of planned behavior, knowledge transfer and knowledge sharing motivation. Then, it makes a literature review on tacit knowledge, tacit knowledge sharing, tacit knowledge sharing behavior influencing factors of teachers in colleges and universities, and then puts forward the research hypothesis of this paper. The third part is research method. Firstly, the research scope and object of this paper are defined, and then the measurement dimensions and methods of variables such as tacit knowledge sharing behavior, knowledge sharing intention, sharing attitude, motivation and policy perception are put forward. Finally, the pretest data of tacit knowledge sharing among teachers in colleges and universities are analyzed by data analysis method. The fourth part is empirical analysis. By means of questionnaire survey and empirical statistical research, the main factors that affect the tacit knowledge sharing among teachers in colleges and universities and their mechanism are found out. By means of descriptive analysis, reliability analysis, validity analysis, normality analysis, correlation analysis, path analysis and mediation effect analysis, the hypothesis proposed in this paper is verified, and the research results are further discussed in depth. The fifth part is conclusion. The main research results of this paper are further discussed and summarized, and the theoretical contribution and management enlightenment are summarized, and the future research direction and proposition are further prospected.

To sum up, in order to effectively improve the performance of tacit knowledge sharing and knowledge management level of teachers in colleges and universities, this paper puts forward a research framework of influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities based on the theory of planned behavior and knowledge transfer theory, and focuses on the influencing mechanism of tacit knowledge sharing intention, attitude, motivation and policy perception on tacit knowledge sharing behavior of teachers in colleges and universities, with a view to further enriching and expanding relevant theories and achievements in the field of knowledge management of teachers in colleges and universities.

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Ling Xu

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CHAPTER 1

INTRODUCTION

1.1 Background

At present, in the era of rapidly developing knowledge economy, knowledge has replaced production factors such as land, capital and equipment as the most important resource factor for the survival and development of organizations, leading and promoting the continuous change and development of production and lifestyle of organizations and individuals. Regarding the importance of knowledge, Francis Bacon, a famous British philosopher in 17th century, put forward that "knowledge is power". Drucker (1994) emphasized that "we are entering a knowledge society. In the era of rapid growth of knowledge economy, knowledge will replace the factors of production such as land, labor and capital, and become the most important factor of production for organizations. Knowledge is the source for organizations to maintain sustainable competitive advantage". "The typical organizations in the future should be called an informative organization, and the most valuable asset for the organization of the 21st century is the knowledge and knowledge-based employees owned by the organization." The accumulation, sharing and integration of knowledge is a core embodiment of individual value and organizational value. Under effective coordination and management, individual knowledge can be transformed into collective wisdom and knowledge resources of an organization, which is crucial to the development of a modern organization. (Abubakar, Elrehail, Alatailat, & Elçi, 2019; Akram, Lei, Haider, & Hussain, 2020; Antunes & Pinheiro, 2020). Therefore, in this context, knowledge management has emerged and has received a lot of attention from the management and academic communities.

The connotation of knowledge covers a very wide range, and different scholars have different understandings and definitions of it. There are many definitions and classifications of knowledge, but all of them are based on Polanyi's (Polanyi, 2015) tacit and explicit two-dimensional division of knowledge, and are constantly expanding. Explicit knowledge is the extrinsic application or expression of individual tacit knowledge, which is rooted in the tacit knowledge owned by individuals, and tacit knowledge has unique situational, personalized and empirical characteristics. To a certain extent, tacit knowledge is the root or foundation of all knowledge. Explicit knowledge depends on tacit knowledge, and the knowledge owned by individuals cannot be completely separated and clearly defined. Tacit knowledge is the core of human knowledge, just like an iceberg that is not exposed to the sea. It has more, greater and stronger energy and is the source and foundation of human progress and development (Cong & Weng, 2011; Haldin-Herrgard, 2000; Smith, 2001). As the gathering place of scientific and technological forces and high-tech talents, as well as the cradle of knowledge output, colleges and universities are the bases of knowledge innovation, knowledge dissemination, knowledge sharing and talent training. In China, colleges and universities, especially research universities, have become important contributors of various knowledge innovation achievements in China and main components of national knowledge innovation system (Li, Du, & Lin, 2017; Liu, Du, & Li, 2018) In order to effectively enhance the strategic position of colleges and universities in China's national knowledge innovation system, in addition to strengthening the innovation ability of colleges and universities, promoting the innovation culture and perfecting the innovation system, it is also necessary to further deepen the reform of knowledge innovation resource allocation system and mechanism at the national level. The individual and overall knowledge level of teachers in colleges and universities largely determines the school-running ability, school-running level and development level of a college or university, and it also determines the talent training ability (Fuentes-Abeledo, González-Sanmamed, Muñoz-Carril, & Veiga-Rio, 2020; Vold, 2017). The main object of knowledge management in colleges and universities is its tacit knowledge, which depends on the individual teachers and the overall organization of colleges and universities, and is hidden in the human brain or organizational practice. Promoting teachers' tacit

knowledge sharing in colleges and universities is positively related to reducing the cost of knowledge management and accelerating the efficiency of knowledge innovation (Kaya & Erkut, 2018; Maravilhas & Martins, 2019). How to make full use of the valuable tacit knowledge in the individual minds of teachers in colleges and universities and carry out effective knowledge sharing and integration in colleges and universities, so that it can become knowledge resources at the organizational level of colleges and universities to enhance the core competitiveness and innovation ability of colleges and universities, is the core problem facing the practice of knowledge management in colleges and universities.

As a professional profession and a senior intellectual, teachers in colleges and universities need to learn, master, and accumulate a lot of knowledge as support and backing if they want to obtain professional development, vocational development, career development and support the development of the school. Teachers in colleges and universities need to reserve discipline knowledge, education and teaching methods knowledge, general cultural knowledge before joining the post. After joining the post, they still need to constantly update and accumulate this knowledge to meet the needs of education and teaching. However, a realistic question facing university administrators is: Why do teachers in colleges and universities have all this knowledge, but still can't become a good teacher that students like, and leaders and peers recognize? Why do they still feel obstacles on the road to professional development? Many studies have pointed out that the reason for the embarrassing phenomenon of teachers' professional development is the lack of adequate communication and sharing of teachers' valuable tacit knowledge, which prevents individual tacit knowledge from becoming explicit and becoming a knowledge resource for other teachers and the organization (Chugh, 2017; Deng, 2006). Teachers are the soul of the development and progress of colleges and universities. Only when teachers are fully developed and their professional quality and professional practice ability are constantly improved, can a school develop continuously. The development of a school needs to rely on numerous resources, among which the obvious resources such as human, financial, and material are easily attached importance to by school administrators. Of course, the important role of these resources cannot be denied. However, the most remarkable feature of teachers in colleges and universities is that

teachers themselves are the direct carriers of their tacit knowledge, and this tacit knowledge together constitute another resource of the school-tacit knowledge resources. These resources are invisible and intangible at ordinary times, but they actually exist and affect the overall level and sustainable development of the school (Kaya & Erkut, 2018; Sternberg, Wagner, & Okagaki, 2018). Teachers' tacit knowledge in colleges and universities can be fully shared and enriched day by day and can be continuously applied in school education and teaching activities, so schools can naturally achieve better development; otherwise, schools will lose their development advantages day by day. Therefore, the tacit knowledge of teachers in colleges and universities is not only the knowledge base for teachers' personal professional development, but also the resource base for the sustainable development of the school.

Tacit knowledge sharing is to accelerate the application of tacit knowledge that can bring more benefits to the organization, so that the organization can gain more competitive advantages. It is a concentrated expression of the knowledge management level of an organization (Cavusgil, Calantone, & Zhao, 2003; Sheerin, Hughes, & Garavan, 2020). For colleges and universities, it is hoped that teachers in colleges and universities can fully communicate and exchange knowledge, cooperate with the knowledge management strategies of colleges and universities and engage in knowledge sharing activities, so as to turn teachers' individual knowledge into the knowledge stock owned by the school and provide an inexhaustible source of power for improving the school-running level and core competitiveness (Maravilhas & Martins, 2019). From the perspective of individual teachers in colleges and universities, tacit knowledge sharing has become a demand for teachers' personal development and growth. With the deepening development of knowledge-based economy society, the knowledge structure of teachers in colleges and universities is also constantly changing, and the nature of work is becoming more complicated. Only by mastering richer and deeper experience and knowledge can teachers effectively solve the problems that may be encountered in teaching and scientific research and realize the transformation and creation of knowledge. Therefore, the exchange and sharing of tacit knowledge is also an important way for teachers in colleges and universities to improve themselves (Kaya & Erkut, 2018). According to the research

of Andersen, an international management consulting company in 2016, the efficient knowledge management function is $KM = (K+P)^S$. In this formula of knowledge management function, KM refers to knowledge management; K refers to knowledge; P represents the individual who has mastered knowledge; S stands for knowledge sharing. By analyzing the efficient knowledge management function, it can be seen that the essential meaning of knowledge management is to make the knowledge owned by individuals play an "exponential" multiplication effect through sharing, so as to make the greatest use of knowledge.

At present, the Chinese government and society are making great efforts to stimulate the innovation of researchers and educators. The whole society respects knowledge, talents and creativity, encourages full and effective knowledge sharing within colleges and universities, and vigorously protects the intellectual property rights of individual teachers. In 2018, the newly released Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements and Several Provisions on the Implementation of the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements protect the research results. Thus, intellectual property rights and ownership will be protected, and even if others benefit from knowledge sharing among teachers, ownership will not be lost. Second, researchers and teachers are allowed to take part-time jobs according to law. Allowing teachers to take part-time jobs in society can not only increase the intimacy of academic practice, but also share teachers and their resources (Tuckman, 1978). In today's social environment in China, allowing teachers and researchers to take part-time jobs can encourage teachers, a group of highly knowledgeable people, to actively participate in society. Meantime, teachers can be given some economic supplements to promote the flow of high-quality resources and social sharing. Encouraged by these positive policies, some high-quality teaching resources (such as network teaching platform, high-quality experimental platform, and excellent courses, etc.) are widely promoted. In the investigation and case study of knowledge sharing behavior of teachers in Fujian, Guangdong, Guangxi, Shanxi, Henan and other provinces and cities (Yao, 2015; Zhang, Yang, & Zhang, 2019; Zou, 2011), the teachers in colleges and universities who participated in the survey all said that tacit knowledge sharing is the most

difficult and critical content in knowledge sharing. Compared with the sharing of explicit knowledge such as documents, teaching courseware, teaching videos and audio, tacit knowledge sharing among teachers in colleges and universities through communication, sharing, salon discussion, learning imitation and apprenticeship can enrich teachers' own knowledge structure more effectively and avoid "detours" in teaching and research activities. For colleges and universities, the effective sharing of tacit knowledge among teachers in colleges and universities can improve the innovation ability and overall competitiveness of colleges and universities, so as to realize the sound development of colleges and universities.

With the popularization of the encouragement policy of tacit knowledge sharing among teachers in colleges and universities, many problems are gradually emerging. Taking the relevant policies of Beijing as an example, according to the feedback after the implementation of the Implementation Measures on Supporting and Encouraging the Innovation and Entrepreneurship of Professional and Technical Personnel in Municipal Colleges and Universities in 2017 in Beijing, it is pointed out that in order to implement the motivation policy of tacit knowledge sharing among teachers in colleges and universities in Beijing, the system must be improved. According to the general provisions of the employment contract between colleges and universities and teachers, the research results and teaching resources during the school period belong to the school. Teachers are required to clarify their ownership, that is, to systematically manage teachers and register their schools, all resources, all intellectual property rights and achievements with management information system. However, due to the limitation of the contract between colleges and universities and teachers, it is difficult for teachers to maintain the cross-college part-time job status and share their property, knowledge and achievements after the registration regulations are issued by the state. The floating staff and shared achievements that teachers can actively grasp cannot be disseminated and shared. Teachers and resources can't flow freely or increase the cost of knowledge sharing. The policy of encouraging teachers to share teachers' knowledge gradually began to blur, and even made teachers feel that the government's policy was suppressing teachers' knowledge sharing behavior. The effect of government policies on knowledge sharing behavior of teachers in colleges and universities depends on the perception, understanding and

explanation of relevant policies by individual teachers. As an extrinsic stimulus, relevant government policies directly act on the perception of teachers in colleges and universities, and on this basis, teachers' support or opposition to knowledge sharing behavior due to the benefit or damage of policies is formed. From the starting point of policy formulation to the end point of policy implementation, teachers' knowledge sharing behavior interacts with the closed-loop system of policy operation. Therefore, teachers' perception and attitude towards policies are directly manifested in implicit and explicit emotions and behaviors towards policies, which further affects their tacit knowledge sharing behavior. In other words, policy perception is an indispensable prerequisite to influence the tacit knowledge sharing behavior of teachers in colleges and universities (Pierce, Willy, Roncace, & Bischoff, 2014).

In addition, in the practice of knowledge management in colleges and universities, knowledge sharing activities within colleges and universities often face many difficulties, mainly because: First, although knowledge sharing plays an important role in promoting the core competitive advantage of colleges and universities, acquiring knowledge requires a higher cost, and teachers who share knowledge may bear a higher risk of knowledge loss after sharing knowledge. In many cases, fully sharing teachers' tacit knowledge is the hope of college and university administrators, but it is difficult to accomplish it smoothly. Second, tacit knowledge as a valuable resource, sharing tacit knowledge means that individual teachers will probably lose their special advantages in the school. Worse still, if other teachers in the school do not approve tacit knowledge shared by a certain teacher, the reputation of the knowledge sharers in the school may be endangered, which will bring adverse effects to the development of individuals (Fan, 2010; Ye, 2018; Zhang & Han, 2008). Therefore, it is of great theoretical and practical significance to explore the influencing factors of tacit knowledge sharing among teachers in colleges and universities and to analyze the concrete relationship between different influencing factors.

1.2 Problem Statement

In China's higher education, colleges and universities are mainly self-contained internal closed teaching operation, that is, teachers in colleges and universities don't have to go out to teach, coupled with administrative policy restrictions, such as the launch of the national teacher resources registration system in 2018, which has hindered the multi-school's suspend duties of teachers in colleges and universities and the sharing of knowledge and achievements. Cross-school communication and knowledge exchange among teachers in colleges and universities are extremely difficult, which limits the full sharing of tacit knowledge resources among teachers (Chen, 1999). Since 1999, China's colleges and universities have started the road of expanding enrollment. With the rapid increase of the number of students, the rising rhythm of the number of teachers in colleges and universities has not kept up, resulting in the imbalance of teacher-student ratio. Therefore, tacit knowledge sharing among teachers in colleges and universities has once again been put forward, and it is considered as an excellent solution to relieve the pressure on teachers and promote tacit knowledge sharing (Liu & Jing, 2017). However, when the tacit knowledge sharing of teachers in colleges and universities is once again valued and encouraged by the government's policies, many practical problems emerge, and the main factors that promote tacit knowledge sharing become the focus of research on tacit knowledge sharing of teachers in colleges and universities. Such as:

The intention of tacit knowledge sharing may be the biggest obstacle to tacit knowledge sharing behavior. Especially in China, traditional education is centered on academies, teachers set up academies to attract students to study in academies, and few teachers teach in other academies. Therefore, teachers' tacit knowledge sharing consciousness is weak, which still has a great influence on modern educational ideas, and the academic thought of traditional sense of responsibility seriously hinders the tacit knowledge sharing behavior of teachers in colleges and universities (Guan & Zhu, 2006).

In addition, teachers in colleges and universities have vague perception of China's current encouraging knowledge sharing policy. Although the Chinese government introduced policies and provisions to encourage teachers' knowledge sharing in 2016, the current strict attendance system and performance evaluation specifically in colleges and universities, and even in the internal management departments in colleges and universities, have prevented teachers from being freed from the traditional class time of Monday to Friday, 9:00 a.m. to 5:00 p.m. as well as research pressure, while the concept of talent cultivation, such as teachers guarding college students all the time, greatly weakened teachers' tacit knowledge sharing time (Oztok, 2013; S. Zhao & Liao, 2013). Even if there are good ways and sharing models, the belief in tacit knowledge sharing and the realization of tacit knowledge sharing behaviors of teachers in colleges and universities cannot be firmly established due to the protection policies or soft policies of their universities and the government for their own teachers' intellectual property rights (Qi, 2009).

Teachers' cognitive failure of tacit knowledge sharing behavior in colleges and universities, and obstacles to intentions and attitudes. When teachers' psychological expectation of tacit knowledge sharing is different in understanding in the planning and practice of sharing, teachers' cognition based on their own knowledge will be in trouble. When the cognition of knowledge sharing fails, that is, people's cognition of something changes or becomes blurred, people's attitude will also be blurred. Then their intention and behavior of knowledge sharing are not firm enough (Dudley, 2013; Fey & Furu, 2008). In addition, the traditional teaching philosophy of "Benefits should always be kept for one's own people." makes teachers hold a protectionist attitude towards tacit knowledge sharing (Xinming Wu, 2017). So, do teachers have a protectionist attitude towards tacit knowledge sharing? Are Chinese teachers' attitudes towards tacit knowledge sharing vague or negative? Is it true that their negative attitudes prevent the formation of knowledge sharing intentions and the generation of knowledge sharing behaviors?

Supervisors' norms also have a significant impact on the intention of tacit knowledge sharing of teachers in colleges and universities. With the development of teaching and scientific research in modern universities, the system construction of open sharing is becoming more and more standardized, and the atmosphere of

knowledge sharing is getting stronger and stronger. More and more knowledge sharing platforms are being built (for example, campus massive open online courses, Netease open class, teachers' internal training system and Hundun Academy, etc.), which leads to the increasing influence of online courses with typical knowledge sharing significance, and more and more feedback to teachers, and more and more institutional support and others' support that can influence tacit knowledge sharing intention. As a result, these knowledge sharing intentions and behaviors of teachers in colleges and universities are gradually influenced by subjective norms in depth and breadth. However, the specific influence mechanism of subjective norms on tacit knowledge sharing behaviors of teachers in colleges and universities is not very clear (Li, Lai, & Bai, 2011).

With the encouragement of relevant government policies and the influence of the platform and the crowd, more and more teachers in colleges and universities are sharing their courses and teaching materials, such as teachers from Tsinghua University, Peking University, Renmin University of China, and other universities are sharing their excellent courses and teaching and research experience in MOOC of Chinese universities. However, in many cases, due to the lack of strong self-control, such as time management ability, self-monitoring ability, emotion regulation ability and self-reflection ability, even if required or motivated, teachers in colleges and universities can't share tacit knowledge effectively or update tacit knowledge very slowly. Therefore, self-control is likely to be the key factor that affects the smooth implementation of tacit knowledge sharing among teachers in colleges and universities (Heatherton & Tice, 1994; Yu & Zhou, 2015).

To sum up, tacit knowledge sharing among teachers in colleges and universities is an urgent need of knowledge management in colleges and universities at present, but some extrinsic factors are contradictory, for example, on the one hand, the national policy encourages tacit knowledge sharing among teachers in colleges and universities, on the other hand, there is a requirement of registration system, which limits teachers' tacit knowledge sharing behavior. At the same time, other extrinsic factors, such as colleagues and family members, will also have an impact on teachers' tacit knowledge sharing attitude. While intrinsic factors of teachers, for example, whether self-control is really the key factor of tacit knowledge sharing,

therefore, the intrinsic and extrinsic factors that affect tacit knowledge sharing among teachers in colleges and universities and their mechanism are worthy of further in-depth study and discussion.

1.3 Research Purpose and Significance

1.3.1 Research Purpose

In order to find the intrinsic and extrinsic influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities, and to analyze the influencing mechanism of these factors on tacit knowledge sharing behavior of teachers under different policies and social environments, this research is divided into five specific research purposes.

Objective 1: Analyze the influence of tacit knowledge sharing intention of teachers in colleges and universities on knowledge sharing behavior.

Lee and Gyogi (2018) and Puterisari and Wening (2019) consider that sharing intention has influence on sharing behavior, and encouraging teachers' tacit knowledge sharing intention may effectively motivate their knowledge sharing behavior. One of the purposes of this research is to analyze the influence of tacit knowledge sharing intention of teachers in colleges and universities on knowledge sharing behavior, and to clarify the relationship and mechanism between tacit knowledge sharing intention and knowledge sharing behavior.

Objective 2: Analyze the influence of policy perception on tacit knowledge sharing intention and behavior of teachers in colleges and universities.

Teachers' different perceptions of government policies in colleges and universities lead to different attitudes and intentions of teachers towards their knowledge sharing. Encouraging policies can stimulate the attitude and intention of knowledge sharing, while restrictive policies will weaken the attitude and intention of knowledge sharing (Liu, 2018; McNally, Blake, Corbin, & Gray, 2008). The second purpose of this research is to analyze whether teachers' different understanding of government policies will interfere with their tacit knowledge sharing attitude and intention, and influence teachers' knowledge sharing behavior, based on the difference of policy perception and teachers' different understanding of policy restrictions.

Objective 3: Analyze the influence of personal attitude and self-control on tacit knowledge sharing among teachers in colleges and universities.

Fujita and Han (2009) consider that teachers' personal attitude and self-control towards knowledge sharing have influence on knowledge sharing behavior. Self-control has the ability to eliminate interference. Self-control plays a vital role in tacit knowledge sharing among teachers in colleges and universities. It can not only effectively control their attitudes and intentions towards knowledge sharing, but also effectively deal with the imbalance of policy understanding. The purpose of this study is also to study the influence of teachers' personal attitude, self-confidence and self-control on knowledge sharing. De Ridder, Lensvelt-Mulders, Finkenauer, Stok, and Baumeister (2012) consider that studying teachers' self-control will affect teachers' behavior. Teachers with enough self-control can influence and control their own behavior. When other conditions of knowledge sharing may change, teachers can eliminate the influence from policies, others and material resources and insist on knowledge sharing. The third purpose of this research is to study the relationship between personal attitude and self-control of teachers in colleges and universities on tacit knowledge sharing intention, and the mechanism of their ultimate influence on sharing behavior.

Objective 4: Analyze the influence of knowledge sharing motivation on tacit knowledge sharing among teachers in colleges and universities.

Zhong, Jin, and Zhao (2015) think that teachers' knowledge sharing opportunities affect the intention and behavior of teachers' knowledge sharing. Although the extrinsic environment is constantly changing, the personal motivation of teachers in colleges and universities can always influence their intention and behavior of knowledge sharing. The fourth purpose of this research is to study whether teachers' personal knowledge sharing motivation affects their knowledge sharing intention and behavior, and its influencing mechanism.

1.3.2 Research Significance

1) Theoretical Significance

Hofstede (2011) classifies China as a collectivist country. Under China's traditional culture, individual consciousness and behavior are often required to conform to the norms and responsibilities of the social collective, thus suppressing or ignoring individual interests, needs, wishes and attitudes. This leads to the theory of planned behavior (TPB) being widely used even in western academic systems, especially in the United States. When it is used in China, more attention should be paid to the characteristics of collectivism proposed by Hofstede. Researchers are more inclined to study intention and behavior prediction under group norms or policies (Chan & Lau, 2002). Therefore, some scholars have come to the conclusion that in China's social and management scenarios, the use of theory of planned behavior (TPB) will be affected by social behavior norms, namely policy perception, specifically, the use of attitudes and intentions to explain behavior, its explanatory power is not enough (Bagozzi, Wong, Abe, & Bergami, 2000). This point of view points out that the depth of the research on the theory of planned behavior in China is insufficient. This research will verify and improve the adaptability of the theory of planned behavior in China. Based on this, this research takes TPB theory as the research framework, and combines with knowledge transfer theory to help explore and explain the influencing factors and the mechanism of tacit knowledge sharing in universities, in order to further supplement and expand the traditional TPB theoretical model under the management situation in China.

At the same time, in countries with collectivist culture, government policies have a great influence on individual intentions and behaviors (Tong, 2006). Xie, Wei, and Zhou (2012) believe that the government can influence teachers' behaviors from the aspects of economy, culture and social influence. Government policy can not only influence the intention of tacit knowledge sharing among teachers in colleges and universities, but also influence the behavior of knowledge sharing. However, many scholars, such as Qu, Li, and Feng (2014); Zhai (2004), etc., only study the perception of teachers in colleges and universities on relevant government policies as the background or objective environment. This paper studies the policy perception as an important influencing factor of tacit knowledge sharing among

teachers in colleges and universities, and explores whether government policies will directly affect the intention and behavior of tacit knowledge sharing among teachers in colleges and universities, so as to complement and expand the research results of policy perception and knowledge sharing behavior in the context of Chinese collectivism culture.

2) Practical Significance

Cao, Long, and Yang (2008) conducted a research on enterprise organizations in the Pearl River Delta region of China based on the theory of planned behavior at the organizational level, and found that the organizational atmosphere would affect the knowledge sharing attitude, sharing willingness and perceived behavior control of the members of the organization, which in turn would affect the knowledge sharing among the members. The pity of the existing researches is that although these researches focus on organizations, the survey samples are limited to enterprise organizations, and it is meaningful to study teachers' sharing behavior in school organizations. Therefore, this research is also a supplement and expansion to the existing research on knowledge sharing behavior, and will perfect the research on the theory of planned behavior at the organizational level in China.

Stahl (1999) put forward that "knowledge is power" makes people pay special attention to the protection of knowledge, and even some people regard the protection of knowledge as the chip of promotion and the source of interests, which is that people are used to taking knowledge for themselves. However, China's traditional educational concept of "Benefits should always be kept for one's own people" has a great influence, even in the school system, it constitutes a performance appraisal system for teachers, and there is even an atmosphere of infighting between teachers for intellectual property rights and intellectual achievements, which have caused serious obstacles to knowledge sharing and expansion in the long construction of knowledge system. Based on teachers' attitude, others' support and teachers' self-control, this study tries to clarify the problems of teachers' attitude towards tacit knowledge sharing, whether others support knowledge sharing and whether teachers have self-control to complete knowledge sharing in reality, and tries to clarify the relationship among the major factors in the process of tacit knowledge sharing among teachers in colleges and universities, so as to provide targeted suggestions for

improving the problems existing in tacit knowledge sharing among teachers. In addition, increase the initiative and enthusiasm of tacit knowledge sharing among teachers in colleges and universities, avoid "false cooperation" among teachers, and get rid of the dilemma faced by teachers' tacit knowledge sharing in university knowledge management in China at present, so as to realize the optimal allocation of university knowledge resources, improve the knowledge ability of teachers in colleges and universities and the knowledge management level of colleges and universities, and provide beneficial decision support for cultivating first-class teachers in colleges and universities.

1.4 Research Questiones

The research results of previous scholars and relevant data show that, the research results of tacit knowledge sharing intention and behavior of teachers in colleges and universities are abundant, which has laid a solid foundation for the previous research of this paper. By combing the research results of influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities, the author finds that the research on tacit knowledge sharing by scholars at home and abroad, on the one hand, takes primary and secondary school teachers as research objects, while the research on teachers in colleges and universities is relatively less; On the other hand, from the rare research on teachers in colleges and universities, the research on influencing factors of teachers' knowledge sharing behavior at the individual level is neglected, especially, the research on the influence of government-related policy perception on tacit knowledge sharing behavior of teachers in colleges and universities is rare. Therefore, it is necessary to understand the status quo of tacit knowledge sharing among teachers in colleges and universities, clarify the influencing factors of tacit knowledge sharing among teachers in colleges and universities from the individual level, and find out the influencing mechanism of policy perception factors on tacit knowledge sharing among teachers in colleges and universities. Researches have shown that the theory of planned behavior provides strong theoretical support for explaining the occurrence of individual behavior, and has strong theoretical inclusiveness. In order to carry out this research work smoothly, the

author used electronic databases, network libraries and other means to consult and sort out a large number of documents and materials in this research field. At the same time, relevant experts and authorities were interviewed and asked, and based on the previous research results, the problems of this research are summarized and clarified as follows:

1) Explore the effect of behavior attitude on tacit knowledge sharing intention of teachers in colleges and universities.

2) Reveal the effect of subjective norms on the tacit knowledge sharing intention of teachers in colleges and universities.

3) Explore the effect of sharing motivation on tacit knowledge sharing intention and behavior of teachers in colleges and universities.

4) Explore the effect of self-control on tacit knowledge sharing intention and behavior of teachers in colleges and universities.

5) Reveal the effect of sharing intention on tacit knowledge sharing behavior of teachers in colleges and universities.

6) Explore the moderating effect of policy perception on the tacit knowledge sharing intention and behavior of teachers in colleges and universities.

1.5 Definition of Core Concepts

1.5.1 Teachers in Colleges and Universities

The concept of "college and university" was initiated in China and then widely used, and it has become a familiar concept in the field of higher education in China. "college and university" is the abbreviation of higher education institution, and it's a general term for implementing institutions of higher education. In the west, there is no concept of "college and university", only the appellation of university and academy. In Japan, the institutions called colleges and universities are not institutions of higher education, but equivalent to senior middle schools in China (Lu & Yu, 2008). With the development of society and higher education, the connotations of higher education and institutions responsible for implementing higher education are constantly changing. Higher education and institutions have different titles such as post-secondary education (institutions) and tertiary education (institutions) (Fleisher, Hu,

Li, & Kim, 2011). In view of the established concept of colleges and universities in China, colleges and universities in this paper refer to specialized educational institutions engaged in post-secondary professional education, and specifically refer to junior colleges and undergraduate in China.

"Teacher" is a special profession in society. China Encyclopedia Dictionary defines teachers as follows: Teachers are professionals who transfer cultural and scientific knowledge and skills to students and conduct ideological and moral education. In the process of education, teachers are in the position of educators and organizers, and play a leading role in students' learning and development. Teachers are the inheritors and disseminators of human cultural and scientific knowledge, and play a bridge and link role in the continuation and development of society. The latest revised Teachers Law of the People's Republic of China in 2020 stipulates that "teachers are professionals who perform educational and teaching duties, undertake the mission of teaching and educating people, cultivating socialist builders and successors and improving national quality, and teachers should be loyal to people's education." Therefore, teachers in colleges and universities refer to those who teach in colleges and universities. According to Article 47 of the Higher Education Law of the People's Republic of China, colleges and universities implement the system of teachers' posts, and teachers' posts in colleges and universities are set according to the needs of teaching, scientific research and other tasks undertaken by the schools. Teachers' positions include teaching assistants, lecturers, associate professors and professors. Teachers in colleges and universities should meet the following basic conditions: obtain the qualification of teachers in colleges and universities; Master the basic theory of this discipline systematically; Have the education and teaching ability and scientific research ability of corresponding positions; Take the courses of corresponding duties and the teaching tasks of specified class hours. According to different standards, teachers in colleges and universities can be classified in different ways. According to the full-time and part-time situation, it can be divided into full-time and part-time teachers; According to different professional titles (academic titles), it can be divided into professors (senior), associate professors (junior), lecturers (intermediate), teaching assistants (primary), teachers without professional titles, etc. According to different academic qualifications (degrees), it can be divided

into those with doctor's educational background (doctor's degree), master's educational background (master's degree), undergraduate's educational background (bachelor's degree), teachers with junior college degree and teachers with below junior college degree, etc. According to the background of the first-class disciplines, it can be divided into twelve categories, such as philosophy, economics, law, education, literature, history, science, engineering, agriculture, medicine, management and military teachers.

Professor Yang (2007) summarized the position and role of teachers in colleges and universities as follows: 1) Teachers in colleges and universities are inheritors, disseminators, developers and creators of new scientific and cultural knowledge of human science, technology and culture; 2) Teachers in colleges and universities play an important role in promoting the development of human history by cultivating talents, developing science and technology, serving the society and promoting the development of social material production; 3) Teachers in colleges and universities play an important role in the formation of school spirit through words and deeds, and promote the construction of social spiritual civilization; 4) The position and role of teachers in colleges and universities is mainly determined by the leading role of teachers in teaching, scientific research and teaching and educating people. It can be seen that the analysis of the category of teachers in colleges and universities should be based on sociological sense and social role theory. The connotation of teachers in colleges and universities depends on their social roles, their cognition of their roles, and the formation of a set of rights, obligations and behavior patterns consistent with them, which is the behavior expectation of society for those who assume this social role.

Due to the continuous expansion of the functions of higher education, modern colleges and universities have three functions of talents training, scientific research and social service. Therefore, teachers in colleges and universities often undertake two or even three kinds of tasks at the same time (Zhu & Feng, 2012). Teachers in colleges and universities can be divided into two categories: administrative post teachers and teaching and research post teachers. Administrative post teachers mainly receive and sort out all kinds of documents, write manuscripts such as leaders' speeches, work summaries and work plans, prepare for the meetings and provide

logistics services, clean conference rooms and leading offices, send and receive all kinds of materials, as well as answering calls. Teaching and research post teachers mainly do students' teaching and academic research, and they will deal with a large amount of tacit knowledge in teaching and research work. Therefore, the college teachers in this paper refer to the teachers who are engaged in teaching and academic activities in colleges and universities (including the sharing of teaching and scientific research tasks, teaching management tasks, scientific research and management tasks and teaching service tasks, etc.).

1.5.2 Knowledge

1) Connotation of Knowledge

Bacon, a British philosopher, pointed out that "people who understand the intrinsic causality of things are happy, and people with practical experience can handle individual affairs, but if they want to survey and plan the overall situation and know the whole, they can only do it after acquiring and absorbing knowledge". Yu (2000) research pointed out that the exploration and understanding of the nature of knowledge is the starting point of knowledge management research. Researchers generally pay attention to how to clearly define the concept of knowledge, divide the types of knowledge in detail, and deeply explore and analyze the characteristics of knowledge (Corso, Martini, Paolucci, & Pellegrini, 2001; Goffin & Koners, 2011).

In China, there are hundreds of related records and detailed explanations of "knowledge" in The Analects of Confucius. By summing up, it can be seen that when the Analects of Confucius understands "know" as a noun, it means "knowledge". Treating "know" as a verb it means "I see" or "I got"; Explain "know" as a pronoun, which means "wisdom". It is defined in The Chinese Word Dictionary that "knowledge is people's understanding of objective things and their movement process and laws through practice".

Table 1.1 Concept and Definition of Knowledge

Scholars	Related Elaboration
Starbuck (1992)	Knowledge is the stock of professional skills.
Purser et al. (1992)	Knowledge is a collection of facts, patterns, concepts, opinions and intuition used for decision-making.
Nonaka (1994)	Knowledge is true belief.
Liebowitz et al. (1998)	Knowledge is a situation, fact, example, event, rule, assumption, or model
Elliott et al. (1998)	Knowledge is information in action.
Davenport et al. (1999)	Knowledge is a complex of flowing nature.
Tiwana et al. (2004)	Knowledge is a dynamic mixture of structured experience, values, etc., which is generated in human brain and embedded in organizational practices and norms.
Ruggles (2009)	Knowledge is a mixture of information, experience, value standards and conventions.

In the west, as early as ancient Greece, western philosophers began to use the concept of knowledge to define, explain and explore epistemological disputes. In view of the understanding of knowledge concept and knowledge connotation, western philosophers can be divided into rationalism and empiricism, and the division of schools caused by this difference in understanding is similar to materialism and idealism in eastern culture to a certain extent. Rationalism specifically corresponds to materialism while empiricism corresponds to idealism (Wang, 2010).

With the development of social economy, after entering the era of knowledge economy, researchers in the field of knowledge management have given different interpretations of knowledge based on their own understanding of the connotation and extension of knowledge, as shown in Table 1.1.

Since 1990s, the research on data management and information management in the field of management science has been in-depth and many scholars have defined knowledge by distinguishing data, information and knowledge. For example, Alavi and Leidner (Alavi & Leidner, 2001) pointed out in their research:

data refers to numbers and facts that have not been processed and handled by people; Information refers to the data after processing; Knowledge refers to verified information. Davenport et al. (Davenport, De Long, & Beers, 1998) believe that data, information and knowledge are interrelated with each other, and they cannot be exchanged equivalently. Boisot & Canals (2004) studied the relationship among data, information and knowledge, as shown in Figure 1.1:

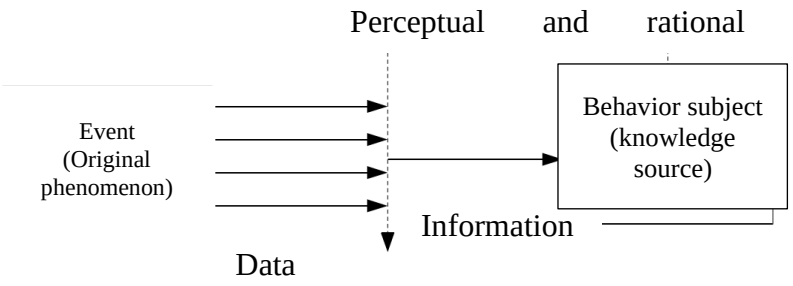

Figure 1.1 Relationship among Data, Information and Knowledge

After that, in order to further describe the relationship among data, information and knowledge, Wang (2015) put forward the relationship diagram among data, information, knowledge and intelligence, as shown in Figure 1.2.

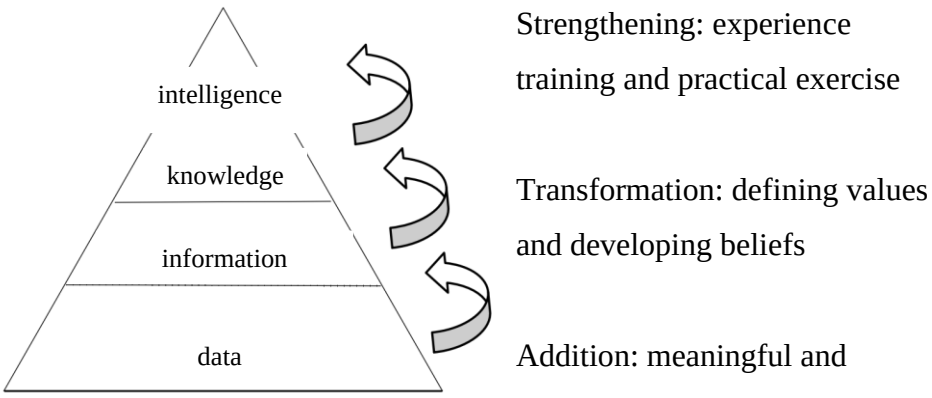

Figure 1.2 Relationship Diagram among Data, Information, Knowledge and Intelligence

It can be seen from Figure 1.2 that data plays a fundamental role in the relationship among data, information, knowledge and intelligence, that is, through in-depth interpretation and mining of data, the potential meaning contained in data can be extracted, and then information, that is, message flow, is formed. For the extraction of potential significance of data, relevant theories and methods such as data mining and statistical analysis can be adopted.

Relevant scholars have made a comparative analysis of data, information and knowledge, as shown in Table 1.2.

Table 1.2 Comparison of Data, Information and Knowledge Connotations

Category	**Scholar**	**Related Elaboration**
Data	Davenport et al. (1998)	Specific and objective facts of relevant events
	Clarke (1998)	Collected facts or figures
	Tuomi (1999)	Isolated phenomenon
	Spek et al. (1999)	Observed characterization
	Hertog et al. (2000)	Observed result
	Raisinghani (2000)	Primitive phenomenon
	Zhu (2000)	Original, irrelevant facts
Information	Nonaka and Takeuchi (1995)	Meaningful information flow
	Wigg (1997)	Organized data
	Davenport et al. (1998)	News
	Raisinghani (2000)	Formatted data
	Clarke (12000)	Logical storage data
	Hertog et al. (2000)	Data with more precise meaning
	Zhu (2000)	Data that has been processed and given clear meaning
knowledge	Wigg (1997)	Beliefs, opinions and concepts, judgments and expectations, methods and tricks.

Category	Scholar	Related Elaboration
	Sveiby (1997)	Ability to act
	Clarke (1998)	Regarding the understanding of the laws of how things work, it is predictable.
	Zack (1999)	Accumulated information with certain value and credibility
	Hertog et al. (2000)	Planning and information set for performing specific functions
	Raisinghani (2000)	Formatted information
	Zhu (2000)	Reasoning and verifying information, and the experience and rules gained from it.

Based on the above related research, this paper holds that knowledge refers to the synthesis of the structured experience, value and experts' understanding of things of research institutions or organizations, including tangible patents, documents and systems, as well as intangible individual experience and organizational practices, which has the general characteristics of knowledge.

2) Characteristics of knowledge

The main characteristics of knowledge include: tacitness, embeddedness, accumulation, distribution, public goods and transfer characteristics.

(1) Tacitness

The understanding of the tacitness characteristics of knowledge is mainly based on the fact that knowledge can be divided into explicit knowledge and tacit knowledge according to the degree of expressiveness difficulty. Among them, explicit knowledge can be easily expressed and expounded, such as the organization's text materials, workflow, business status information, etc. Compared with explicit knowledge, tacit knowledge is difficult to be clearly and completely expressed by people. It is acquired by individuals through specific exploration and perception, for example, management decision-making response, market sense, etc. It is rooted in personal work experience, internalized in people's beliefs, cognition and values, and it is difficult to express it in a textual way by writing (Mcadam, Mason, & Mccrory, 2007; Ryan & O'Connor, 2009). From the point of view of acquiring tacit knowledge,

it is through personal long-term perceptual experience and practical knowledge that one can form his specific mental model or cognitive structure. Therefore, tacit knowledge is often difficult to communicate, transfer, spread, share and absorb widely among individuals through clear explanation and quick words and deeds.

(2) Embedability

The characteristics of knowledge embeddedness are largely due to the tacitness characteristics of knowledge. Embedded knowledge mainly exists in the daily operation practices of enterprises and the subjective norms of knowledge sharing in the form of tacit knowledge. Relationships, situational dependence and distribution are the important characteristics of embedded knowledge. The embeddedness of knowledge is embodied in the fact that people use different kinds of knowledge in different work scenarios and task processing, and even if they leave specific work scenarios, people may not be able to solve related problems with the same knowledge. Scholars mostly agree with this view that almost all knowledge is embedded, but there is a certain difference between the embedding degree and level of knowledge (Hsiao, Tsai, & Lee, 2006; Nielsen, 2005). It is precisely because of the embeddedness of knowledge that knowledge is deeply rooted in the individual behavior itself and is constrained by the individual environment, such as a certain process or expertise, a certain specialized technology or product market, and the business activities of working groups or teams.

(3) Accumulation

The accumulation of knowledge is one of the important characteristics of knowledge, and the accumulation of knowledge can determine the effectiveness of knowledge integration and sharing. Whether individuals or organizations, the increase of knowledge stock is based on the existing knowledge, which is constantly accumulated and precipitated. As knowledge is gradually expressed in the form of standardized documents, the sharing effect and efficiency of knowledge will be continuously improved (Henning, Stam, & Wenting, 2013).

(4) Distribution

The distribution of knowledge mainly refers to the fact that knowledge is scattered in the individual's brain, and it is impossible for a person to master and store all relevant knowledge, even experts in a certain field are only have some

professional knowledge. The distribution of knowledge is one of the driving forces of knowledge sharing. Recognizing the distribution of knowledge is undoubtedly of great significance to the allocation of decision-making power and the design of organizational structure. Everyone in the organization is the subject of knowledge and the master of specific knowledge, and they have the advantage of specific knowledge (Rulke & Galaskiewicz, 2000). At the same time, every member of the organization also has knowledge that only he knows but can't say it, that is, tacit knowledge. This part of knowledge is difficult to upload or issue for communication anyway, and can only be owned by individual members of the organization (Chen, Liang, & Lin, 2010). Therefore, tacit knowledge sharing among members of an organization is of great significance.

(5) Public goods characteristics of knowledge

It has the general attributes of knowledge public goods, that is, non-exclusiveness and non-competitiveness of benefits. Knowledge can be shared among subjects, and knowledge absorbed from other subjects can be internalized into own knowledge, and knowledge innovation can be carried out on this basis. When an organization consumes knowledge products, it can't be excluded that other organizations also consume this product at the same time. Increasing the consumption of knowledge won't cause the increase of knowledge cost (d'Aspremont, Bhattacharya, & Gérard-Varet, 1998). Knowledge is the dominant resource in the operation of an organization. In the process of production, sharing and use, knowledge will not lead to a decrease in the average personal income because of too many people using it. The value of knowledge will increase as the scope of use expands because knowledge gradually replaces traditional resources. That is to say, the input of knowledge resources is directly proportional to the marginal benefits obtained, and the more input, the more benefits, which is essentially different from the traditional law of diminishing returns based on scarce resources. The increasing benefits of knowledge make knowledge sharing sustainable (LaRiviere et al., 2014). The publicity of knowledge is the basis of knowledge sharing.

(6) Transfer of knowledge

Knowledge should be comprehended through practical learning. No matter what form of encoded knowledge can be expressed, it is because organizations or individuals get some kind of encouragement. The practical characteristics of knowledge increase the difficulty of knowledge transfer between different subjects (Szulanski, Ringov, & Jensen, 2016a). The essence of organization is the collection of knowledge, and effective knowledge transfer is the basis of exerting and possessing the advantages of sustainable competitiveness. Knowledge transfer, including knowledge transfer and knowledge acceptance, which is a continuous process. Whether within or between organizations, knowledge transferability is a very important issue. Knowledge transfer is an important basis for distinguishing knowledge categories. It is generally believed that easy communication and exchange is explicit knowledge, and it is tacit knowledge that is not easy to express and communicate (Joia & Lemos, 2010). Knowledge transfer is the premise of knowledge sharing.

3) Classification of knowledge

On the basis of understanding and defining the concept of knowledge, in order to better understand the connotation of knowledge, researchers at home and abroad further divided the types of knowledge in detail from different research perspectives.

(1) Explicit knowledge and tacit knowledge

Polanyi (2015); Nonaka and Takeuchi (1995) divided knowledge into explicit knowledge and tacit knowledge according to the presentability of knowledge. This classification method is an important classification principle in the field of knowledge management, and a lot of research work is carried out on this basis. Explicit knowledge means that it can be expressed by written language, figures, charts and mathematical formulas. Usually, various media can effectively and widely spread explicit knowledge and be accepted by everyone. Documents, product shapes, database systems, product manuals and software programs are important carriers of explicit knowledge. Tacit knowledge refers to knowledge that is difficult to express or can not be expressed by conventional means, and can only be shared by means of communication and interaction between individuals. Tacit knowledge can spread only

by learning from others for a long time. It contains intangible factors such as belief, metaphor, intuition, thinking mode and so-called "know-how" (Cong & Weng, 2011). As Polanyi said, "We know much more than we say." If the knowledge we have is an iceberg, the explicit knowledge we can discover is only the tip of the iceberg (Figure 1.3). From the definition of explicit knowledge and tacit knowledge, this paper summarizes the main differences between explicit knowledge and tacit knowledge, as shown in Table 1.3:

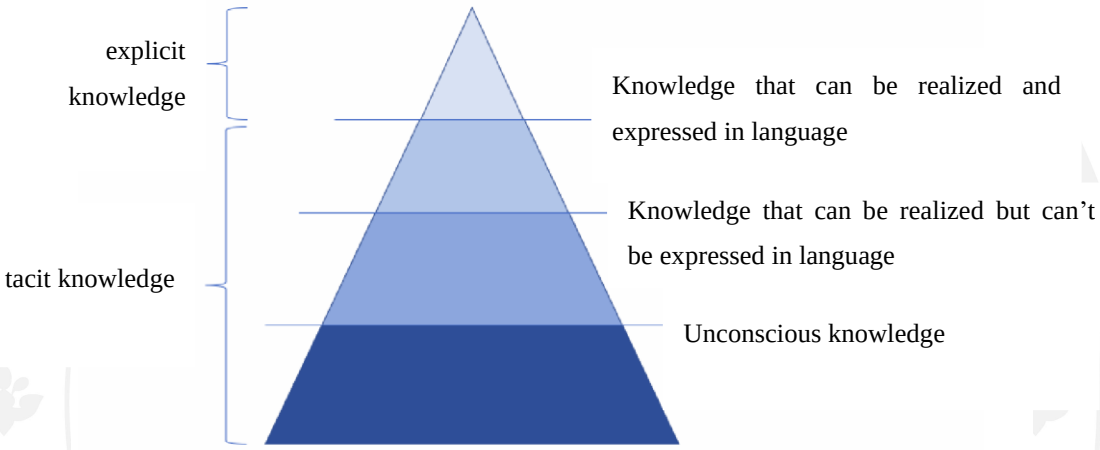

Figure 1.3 Difference between Explicit Knowledge and Tacit Knowledge

Table 1.3 Main Differences between Tacit Knowledge and Explicit Knowledge

Tacit Knowledge	**Explicit Knowledge**
Subjective.	Objective.
Experiential knowledge.	Rational knowledge.
Parallel knowledge, representing present and current.	Sequence knowledge, representing there and then.
Practical analogy knowledge.	Theoretical data knowledge.

(2) Individual knowledge and organizational knowledge

Faraj, Jarvenpaa, and Majchrzak (2011); Jarvenpaa & Majchrzak (2008) divide knowledge into individual knowledge and organizational knowledge according to different subjects. Among them, individual knowledge refers to professional knowledge, skills and know-how, patented inventions, personal experience and higher-level thoughts and values, and it is the knowledge formed by individuals in long-term social practice and theoretical study, which belongs to their own wisdom and understanding. Individual knowledge is characterized by fluidity, dynamics, complexity, etc. It is not static, but it accumulates and grows with the individual's practical experience or learning efforts. Organizational knowledge refers to the organizational culture and team coordination and cooperation within the organization, which is contained in the knowledge owned by the organization and members collectively, conducive to the creation of organizational value and easy to share with others. It is similar to organizations and individuals, and also has the ability of continuous learning and absorption (Kumar & Ganesh, 2011). Focusing on the goal of organizational development, the organization can effectively absorb and integrate the knowledge inside and outside the organization, and promote the knowledge innovation and development of the organization (Maruta, 2014).

Individual knowledge is the source of organizational knowledge, and some individual knowledge is transformed into organizational knowledge through sharing in the process of organizational growth and development. In the process of knowledge sharing, individual knowledge and organizational knowledge are interrelated and interact with each other, which is manifested by knowledge transfer and sharing among different subjects.

1.5.3 Tacit Knowledge

Tacit knowledge, as an indispensable component of individual knowledge structure system, is a kind of knowledge that is difficult to explain or has not been explained as opposed to explicit knowledge or clear knowledge. Scholars at home and abroad have their own understanding of the definition and connotation of tacit knowledge. Their research perspectives are different, so are the conclusions and understandings.

Polanyi (1958) put forward the concept of tacit knowledge in Personal Knowledge, and proposed a kind of uncoded knowledge to people. He believes that people have two kinds of knowledge, one is explicit knowledge, which can be expressed in writing and words. One kind can not be expressed, that is, tacit knowledge. Tacit knowledge exists in the individual's mind or in a specific environment, and becomes the key part of knowledge innovation, which is difficult to formalize and communicate. The main source of tacit knowledge is the individual's judgment and perception of the outside world, which comes from experience.

Nonaka and Takeuchi (1995) deeply discussed Polanyi (1958) knowledge viewpoint, and put forward SECI model of knowledge transformation according to the actual characteristics of Japanese enterprises, and analyzed the process of mutual transformation between explicit knowledge and tacit knowledge within organizations. He believes that tacit knowledge is highly personalized knowledge, deeply rooted in the behavior itself, rooted in the individual environment, such as a certain process or expertise, a certain specialized technology or product market, the business activities of working groups or teams, etc. Because it is closely related to the knowledge subject, it embodies strong individual characteristics. As he said, tacit knowledge includes individual thinking patterns, belief views and mental patterns, etc. These patterns and belief views are so ingrained that people have become accustomed to their existence unconsciously and are greatly impacted by them when observing the world. Nonaka also pointed out that tacit knowledge explicating means finding a way to express things that can only be understood but cannot be expressed. One of the most powerful management tools to achieve this goal is to express intuition and inspiration with metaphor and symbolic language. He also thinks that explicit (converting tacit knowledge into explicit knowledge) and internalization (expanding one's tacit knowledge with explicit knowledge) are the key steps of knowledge spiral, and the main methods of tacit knowledge explicating.

This paper selects other domestic and foreign scholars' representative researches on the definition of tacit knowledge, as shown in the following table:

Table 1.4 Summary of Tacit Knowledge Research

Scholars	Related Elaboration
Ellie (1998)	Tacit knowledge is the knowledge with special background that exists in individuals, including specific skills and specialized technologies, as well as experience from practice.
Drucker (1990)	Tacit knowledge, such as a skill, can't be explained by words, it can only be demonstrated to prove its existence, and the only way to learn this skill is comprehension and practice.
Rajan (2002)	Tacit knowledge is empirical knowledge that exists in one's mind.

1.5.4 Knowledge Sharing

1) Connotation of knowledge sharing

Knowledge that cannot be shared can only be owned by individual members of the organization as personal knowledge assets, rather than shared by all members in the form of organizational knowledge assets. Therefore, in order to improve the efficiency of knowledge utilization, an organization needs to effectively promote knowledge sharing among its members (Hwang, Singh, & Argote, 2015). It is precisely because of the importance of knowledge sharing that it is considered as the core link of organizational knowledge management, and it is highly concerned by scholars at home and abroad. However, due to different viewpoints and perspectives, scholars have not formed a completely unified understanding of the connotation of knowledge sharing, but put forward different understandings of knowledge sharing from different perspectives. The main related connotations of this paper are listed in Table 1.5.

Table 1.5 Connotation of Knowledge Sharing

Scholars	Connotation
Nonaka and Takeuchi (1995)	Knowledge sharing is the four interactive steps of externalization, combination, internalization and socialization, which make the knowledge complete the transformation of form, thus realizing the transfer from one party to the other.
Senge (1997)	Knowledge sharing is a process in which the sender of knowledge helps the receiver of knowledge fully understand and transform the connotation of information, and then develop the individual's new action ability.
Davenport et al. (1998)	Knowledge sharing can be regarded as a knowledge market transaction within an enterprise, in which market participants pay the transaction cost, while obtaining the corresponding benefits through market transactions.
Kaser & Raymond (2002)	Enterprise knowledge sharing is a systematic project, and the interaction of various factors should be comprehensively considered.
Kautz & Kjoergaard (2007)	Knowledge sharing is a two-way process of social exchange of knowledge between individuals and groups.
Wang & Noe (2010)	Knowledge sharing is to provide relevant information about tasks and technologies to help others solve problems and develop new ideas.
Wang (2012)	Knowledge sharing is the transfer and diffusion of knowledge among members.

Some scholars believe that the essence of knowledge sharing is learning new knowledge. According to this view, knowledge sharing can be regarded as charity and dedication from one party to the other, but this charity and dedication is not simply to pass the information of one party to the other (Seonghee & Boryung, 2008). In order to effectively transfer knowledge, the sender of knowledge must help

the receiver of knowledge to fully understand the connotation of information and help him to transform information into his own information content, so as to develop the individual's new thinking and action ability (Sheerin et al., 2020; Sundaresan & Zhang, 2016). Therefore, the extrinsic manifestation of knowledge sharing can be regarded as a knowledge transfer process or a knowledge sharing model. Dixon (Dixon, 2000) divided the modes of knowledge sharing into expert model and distributed model according to the degree of concentration and dispersion of knowledge sources. The former emphasizes the authority, position and legitimacy of experts. The way of knowledge transmission is usually one-way transmission from top to bottom. Organizing training or the transmission of upper-level ideas is a typical example of sharing their knowledge by expert mode. The latter emphasizes the equal sharing of autonomy among group members, and knowledge is determined not by authority but by practical experience and word of mouth. In this model, the trend of knowledge is bidirectional or even multi-directional, and intrinsic knowledge exchange and group discussion within the organization are its common manifestations.

Some scholars pay more attention to the flow and change of knowledge in the process of knowledge sharing. Jiuhe Wang and Liu (2019) believed that knowledge sharing must involve the deep communication between two subjects-knowledge owner and knowledge seeker. The former must be based on the willingness to share knowledge and have the ability to communicate with others by externalization such as explanation, demonstration or other means; The latter mainly recognizes and understands this knowledge through internalization such as imitation, experience, listening or reading. On this basis, Nonaka and Takeuchi (1995) developed the well-known knowledge sharing spiral (SECI) model, which holds that the process of knowledge sharing consists of four steps: externalization, combination, internalization and socialization. In this process, the two sides of knowledge sharing make the knowledge transfer from tacit knowledge to explicit knowledge and then to tacit knowledge through full interaction, so as to realize the transfer from one side to the other.

The process view of knowledge sharing focuses on the description and management of the process of knowledge sharing, but it fails to give a reasonable explanation for the formation of knowledge sharing willingness. Davenport and Prusak (1998) emphasized the importance of will formation for knowledge sharing. They explain the formation process of knowledge sharing willingness from the perspective of knowledge market, and think that knowledge sharing can be regarded as the knowledge market transaction within the ancestors in essence, in which market participants pay the transaction cost and obtain corresponding benefits through the market transaction at the same time. Considering that the value of knowledge is relatively constant, if the benefit of knowledge sharing is regarded as a fixed value, then the core of knowledge sharing management is the management of transaction costs. All inefficiencies in the knowledge market can be explained by transaction costs. The research of (Teece, 1998) found that successful knowledge sharing is always associated with lower cost of knowledge transfer. This transfer cost includes not only the direct cost in the process of knowledge sharing, such as time, energy and economic cost, but also the indirect cost caused by the loss of knowledge monopoly value.

2) Characteristics of Knowledge Sharing

Based on the connotation of knowledge sharing, the characteristics of knowledge sharing can be analyzed from the following different perspectives (Hong, Suh, & Koo, 2011).

(1) Look at the characteristics of knowledge sharing from the perspective of knowledge transfer

Knowledge sharing includes two processes: knowledge transfer and knowledge absorption. Knowledge sharing is realized by the intrinsic and extrinsic knowledge transfer mechanisms of the organization, with special emphasis on the transfer and absorption capabilities of knowledge providers and knowledge receivers.

(2) Look at the characteristics of knowledge sharing from the perspective of knowledge learning.

Knowledge sharing is a dynamic process of continuous learning. Individual, team and organization are three levels of interactive learning, which

emphasizes the process that knowledge recipients internalize new knowledge and become new knowledge and new capabilities of the organization on the basis of their own knowledge.

(3) Look at the characteristics of knowledge sharing from the perspective of knowledge transformation

Knowledge sharing is a process in which individual knowledge is transformed into organizational knowledge and tacit knowledge and explicit knowledge are constantly transformed (socialized, externalized, integrated and internalized). It is considered that only when the individual's potential knowledge needs and abilities are similar can the knowledge spiral rise be realized, and the knowledge can be continuously added and innovated.

(4) Look at the characteristics of knowledge sharing from the perspective of technology dependence

Knowledge sharing depends on the perfection and application of information technology. It is pointed out that it is necessary to set up data, language and other reserve places to convey knowledge, and individuals and organizations can share knowledge together through the knowledge reserve.

(5) Look at the characteristics of knowledge sharing from the perspective of knowledge communication.

Knowledge owner and knowledge reconstructor are two subjects of knowledge sharing. It is considered that knowledge owners externalize knowledge and knowledge rebuilders internalize knowledge, which is a necessary process to realize knowledge sharing.

1.5.5 Tacit Knowledge Sharing of Teachers in Colleges and Universities

Based on the previous discussion on the connotation of knowledge and tacit knowledge, the "tacit knowledge of teachers in colleges and universities" to be discussed in this paper is the knowledge value, concept, cognition and even emotion hidden in teachers' minds, which is expressed in the form of tacit, potential and difficult to express and spread clearly in teachers' individual minds. The understanding and application of this knowledge can undoubtedly form reflection on teaching practice for teachers in colleges and universities, and it is also an

interpretation of teachers' professional values and outlook on life (Elliott, Stemler, Sternberg, Grigorenko, & Hoffman, 2011). From the teaching point of view, tacit knowledge depends on teachers' experience background, and in a complicated and uncertain teaching situation, the educational concept, teaching experience and skills are formed through continuous reflective activities. Tacit knowledge acquired by teachers in teaching is actually a combination of general teaching methods and tacit knowledge of related disciplines. Besides tacit knowledge of teaching, there are some self-reflection contents unrelated to teaching. From the management point of view, teachers' tacit knowledge is not only popular, but also distinctive, because it comes from teachers' practical activities, which is intrinsic and hard to describe, including tacit control methods and students' management skills and knowledge content. Teachers' tact performance in teaching management is mostly the performance of skills and knowledge prompted by tacit knowledge. From the perspective of teaching and research work, teachers must constantly improve their professional level and quality, combine what they see, feel and reflect from the process of teaching education and professional knowledge management, record it in diary, especially for some new teachers, it is necessary to have the habit and consciousness of reflection, in order to ensure that the habit and consciousness of daily reflection can support them to give full play to their subjective initiative in teaching and research activities, that is, to mobilize tacit knowledge and make use of tacit knowledge to make breakthroughs in teaching, management and research work (Yu & Zhou, 2015).

In the teacher's knowledge system, part of knowledge belongs to explicit knowledge, part of knowledge belongs to tacit knowledge, and tacit knowledge is more than explicit knowledge (Elliott et al., 2011; Yu & Zhou, 2015). Compared with the management of explicit knowledge in colleges and universities, such as lesson plans, teaching materials, manuscripts and video images, colleges and universities have formed a mature management system. However, teachers' tacit knowledge is acquired through long-term teaching practice and has situational dependence, so it is often difficult to effectively share tacit knowledge. Therefore, knowledge about the context of the educational environment, teachers' knowledge of controlling and managing students in an implicit way, the skills and knowledge in teaching tact, teachers' personal research methods and research strategies are all the categories of

teachers' tacit knowledge. Based on this, Chen Xiangmin summarized the teachers' tacit knowledge into six aspects (Chen, 2009b):

(1) Teachers' educational beliefs

Teachers' educational beliefs are teachers' educational ideas, which are mainly reflected in teachers' understanding of educational value, educational purpose, educational methods, educational process and educational evaluation. Teachers' educational beliefs will influence teachers' behavior in a subconscious state, and teachers' behavior is often a reflection of teachers' educational beliefs.

(2) Teachers' self-knowledge

Teachers' self-knowledge is reflected in their cognition of self-concept, self-assessment and self-regulation. This kind of knowledge mainly shows whether teachers can teach according to the characteristics of "self", whether they can correct their wrong behavior and adjust their teaching attitude in time.

(3) Teachers' interpersonal knowledge

Teachers' interpersonal knowledge is mainly reflected in whether teachers care about and understand students, whether they can answer students' questions in time and communicate with students. Moreover, teachers' interpersonal knowledge can also be reflected through classroom management, including grasping students' psychology in the classroom, the principles of class management and the overall arrangement of the classroom, etc.

(4) Teachers' situational knowledge

Teachers' situational knowledge is mainly expressed through teaching tact. Teaching tact is a behavioral tendency for teachers to make instant judgments, which depends on the sensitivity of teachers to situations, the sensitivity of teachers' thinking, the accuracy of judging events and the degree of perception of students.

(5) Teachers' strategic knowledge

Teachers' strategic knowledge mainly refers to teachers' understanding and grasping of theoretical knowledge in teaching practice. Such knowledge includes: teachers' understanding of subject content, subject teaching method and pedagogy theory; The specific strategy of integrating the knowledge of teaching disciplines in the above fields and applying the principle knowledge to teaching; Knowing and understanding of the subjects taught and their objectives; Selection and arrangement

of course contents and teaching methods; Planning and implementation of teaching activities; The adoption of teaching methods and techniques; Handling of special cases; Selection of the standards and means of student evaluation.

(6) Teachers' critical reflection knowledge

Teachers' critical reflection knowledge is a kind of practical knowledge, which is reflected in teachers' daily behaviors. Teachers can reflect on their own teaching behaviors by means of educational narrative, and sort out their own teaching experience, so as to achieve the goal of "reflecting in action and promoting thinking by action".

On the basis of the ternary structure model and the three-dimensional structure model of tacit knowledge, some scholars (Li, 2019). put forward that teachers' tacit knowledge structure can be discussed from the three dimensions of cognition, skill and emotion (Figure 1.4).

Cognitive tacit knowledge, that is, tacit knowledge related to cognition. Intrinsic cognitive tacit knowledge affects the process and speed of information transmission and information extraction, and plays an important role in the process of forming individual unique information cognition and regeneration. In the teaching process, the cognitive tacit knowledge of teachers in colleges and universities includes mental models, teaching beliefs, teaching ideas and teaching methods. This kind of tacit knowledge is deeply rooted in teachers' minds, which is not easy to be detected by teachers and difficult to express clearly. However, this part of tacit knowledge plays an important role for teachers in colleges and universities to know their own profession, think about education issues and organize subject knowledge, and it is the basis for the formation of the latter two types of tacit knowledge.

Tacit knowledge in skill category includes skills, experience, handicraft, know-how that cannot be easily expressed, as well as inspiration, intuition, perception and other content. This type of tacit knowledge includes teaching experience, teaching wit and teaching style. At the same time, it also covers the understanding of subject knowledge, unique views, and the way of thinking about a specific subject knowledge or teaching problems. This part of tacit knowledge often comes from the personal experience of teachers in colleges and universities and is stored in teachers' minds in the form of specific scenes. It presents theoretical knowledge in teachers' knowledge

structure after experiencing, and often exists in the form of cases. When the same or similar scenes happen again, these educational experiences will quickly play a role, solve problems and provide decisions for teachers. It can be seen that this type of tacit knowledge plays a decisive role in teaching efficiency and effect, and it is precious for teachers' personal development. If these tacit knowledge can be expressed correctly and effectively, it will be beneficial to the improvement of teachers' professional ability.

Emotional tacit knowledge mainly refers to the knowledge that individuals experience and comprehend how to adjust or utilize their emotions in their work and life. Teachers' emotional tacit knowledge is manifested in professional images and interpersonal communication. How do teachers think about their own profession, whether they are full of enthusiasm or gradually entering a period of job burnout? These emotions greatly affect the teaching quality of teachers. Meantime, these "positive energy" or "negative energy" also have a great influence on students' learning, and positive emotions will encourage students to actively treat learning. In addition, the ways and means of communication between teachers and students also affect students' attitudes towards learning, and the easy-to-understand and accepted ways of communication can make students love learning; otherwise, it will lead to students' rebellious attitude and dislike learning.

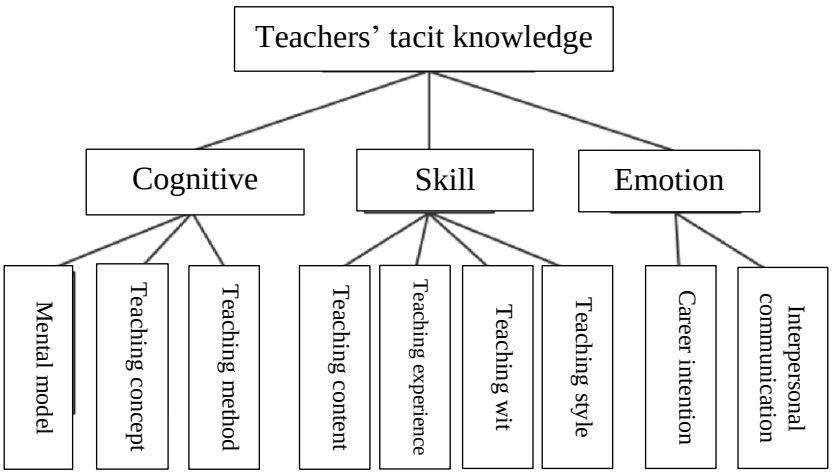

Figure 1.4 Three-dimensional Structure of Teachers' Tacit Knowledge

1.6 Research Content and Research Framework

The main contents of this research include:

Part I: Introduction. This paper focuses on the analysis of the reasons for choosing the topic and the research issues, defines and analyzes the core concepts of "teachers in colleges and universities", "tacit knowledge", "knowledge sharing" and "tacit knowledge sharing of teachers in colleges and universities", and expounds the research purpose, theoretical and practical significance, research content, research methods and research technical route of this study.

Part II: Literature review. Firstly, this paper focuses on the theory of planned behavior and knowledge transfer, and makes a systematic and in-depth overview and analysis of the related research on the connotation and characteristics of teachers in colleges and universities, tacit knowledge, tacit knowledge sharing, tacit knowledge sharing of teachers in colleges and universities and the influence of tacit knowledge sharing behavior of teachers in colleges and universities, and then puts forward the research hypothesis and theoretical model of this paper.

Part III: Research methods. Determine the research object; On the basis of the existing literature and assumptions, the questionnaire scale of influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities is designed to be closer to the actual situation of tacit knowledge sharing of teachers in colleges and universities and improve the content validity of the questionnaire. Prepare the questionnaire, carry out the pre-survey, and delete the items of the scale by analyzing the items, reliability and validity of the predicted sample data to form a formal questionnaire; and clarify the research ethics.

Part IV: Research results and discussion. SPSS24.0 statistical software is used to make descriptive statistical analysis on the collected formal questionnaire data to describe the relationship between the influence of tacit knowledge sharing behavior of teachers in colleges and universities and tacit knowledge sharing behavior.

Part V: Conclusion. According to the data analysis results, the research conclusions are drawn, and accordingly, suggestions are given to improve the tacit knowledge sharing behavior of teachers in colleges and universities, and the shortcomings of this study and future research prospects are put forward.

In view of the above research contents, the research framework of this paper is shown in the figure below:

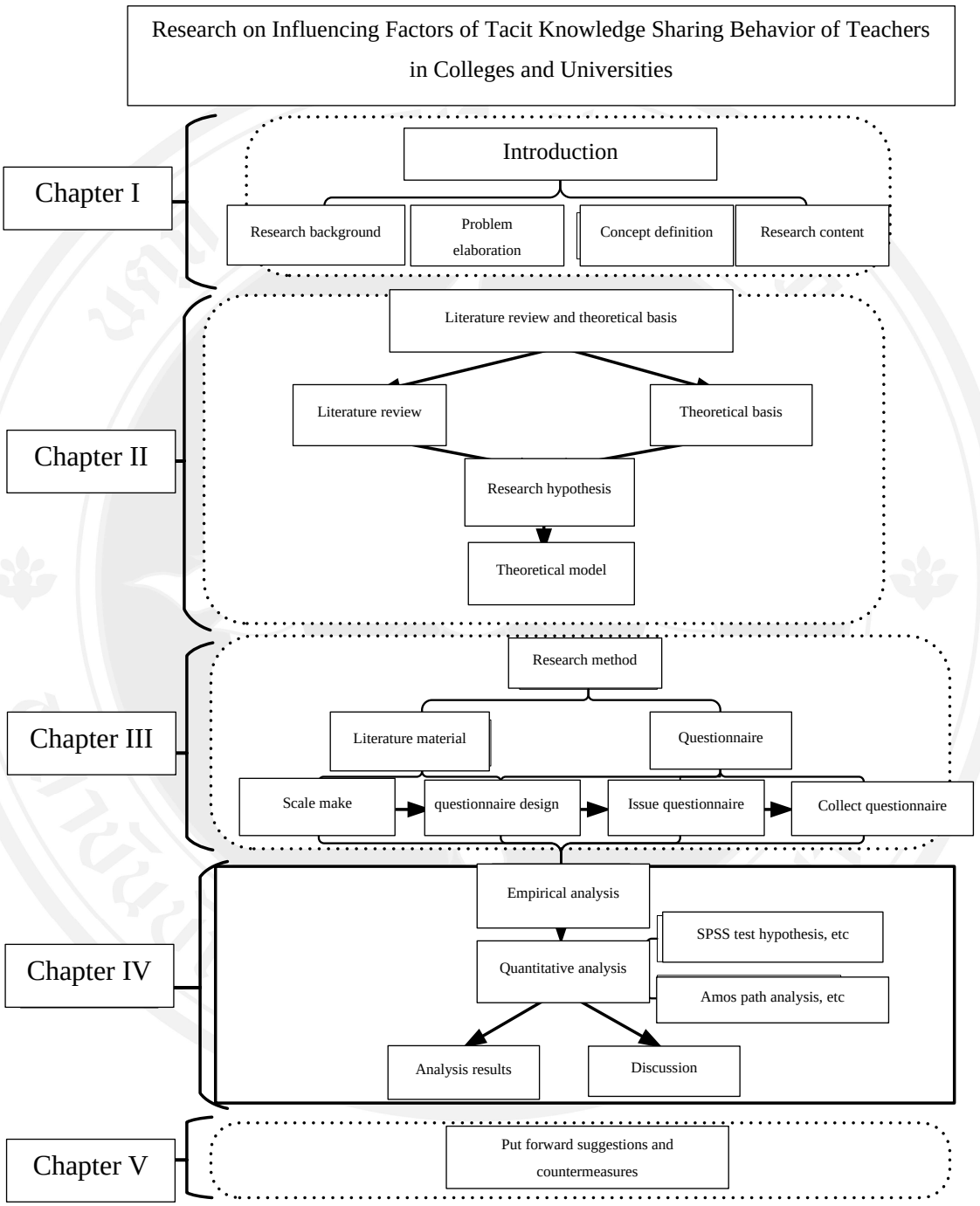

Figure 1.5 Research Framework of the Paper

CHAPTER 2

LITERATURE REVIEW

Firstly, this chapter makes a detailed discussion and analysis of the important theories on which the thesis is based, namely, the theory of planned behavior, knowledge transfer theory and knowledge sharing motivation theory. Then, it makes an in-depth literature review on teachers in colleges and universities, tacit knowledge, tacit knowledge sharing, tacit knowledge sharing behavior of colleges and universities and the influence of tacit knowledge sharing behavior of teachers in colleges and universities. Finally, the core research hypothesis and theoretical model of this paper are put forward.

2.1 Theoretical Basis

2.1.1 Theory of Planned Behavior

1) Connotation of the Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a behavioral decision model mainly used to predict and understand human behavior (Ajzen, 1985). The theory of planned behavior was first put forward by Icek Ajzen and Martin Fisher Bay in 1980. The model mainly includes behavioral beliefs, attitudes, normative beliefs, subjective norm, control beliefs, perceived behavioral control, behavioral intentions and behavior (Ajzen, 1985). At present, the theory of planned behavior has been applied to various fields related to research and life, such as advertising, marketing, medical care, public affairs, sustainable development, and environmental protection, etc.

Ajzen (1985) developed the theory of planned behavior based on Martin Fisher Bay's theory of rational action (TRA). At first, in the concept of theory of rational action, it was emphasized that individual's specific behavior depended on behavior intention, which in turn depended on the actor's attitude and subjective norm (Flanders, Fishbein, & Ajzen, 1975). However, theory of rational action ignores

individual inner decisions, such as morality, ethics, and the concept of controlling behavior ability. In many cases, even if people have a positive attitude and have a strong behavioral intention, they may not necessarily produce specific behaviors (Norberg, Horne, & Horne, 2007; Sheppard, Hartwick, & Warshaw, 1988). Therefore, Ajzen improved the theory of rational action in 1988. He added the element of perceptual behavior control, and further put forward the theory of planned behavior. Ajzen further improved the theory of planned behavior in 1991, adding three influencing factors of behavior belief, norm belief and control belief in front of attitude, subjective norm, and perceived behavior control, thus forming the basic model of the current theory of planned behavior.

As shown in Figure 2.1, the theory of planned behavior starts from behavior, mainly including several basic elements of behavior intention, attitude, subjective norm and perceived behavior control (Ajzen, 1991). The purpose of establishing the theory of planned behavior is to study the actual behavior of individuals, and behavior refers to certain behaviors produced by individuals. Behavior intention refers to the subjective probability or intention of an individual to decide whether to take a specific behavior, which reflects the degree of the individual's intention to take a specific behavior (Armitage & Conner, 2001). Ajzen and Fishbein (1980) think that behavior intention is the tendency of an individual to take a specific behavior, and it is also the expression of whether an individual needs to take a specific behavior in the process of deciding, which is a necessary process of a specific behavior. Attitude refers to a person's positive or negative feelings about a particular behavior and refers to the psychological state formed by the personal evaluation of a particular behavior and subjective conceptualization of the individual, so the components of attitude are often regarded as a function of the individual's significant belief in the result of a particular behavior. Subjective Norm refers to the social pressure that individuals feel about whether to take a specific behavior, and it can also be regarded as the role played by influential individuals or groups when they take a specific behavior for personal decision-making when predicting the behavior of others. Perceived behavioral control refers to the judgment based on personal perception of experience and obstacles in taking expected behaviors. When an individual thinks that the more resources and opportunities he has, the less obstacles

he expects, the stronger his control over perceived behaviors of a particular behavior. There are two elements of its influence, one is that it may have a motivational influence on the behavior intention; Second, it can also directly predict or influence actual behavior (Ajzen, 2002).

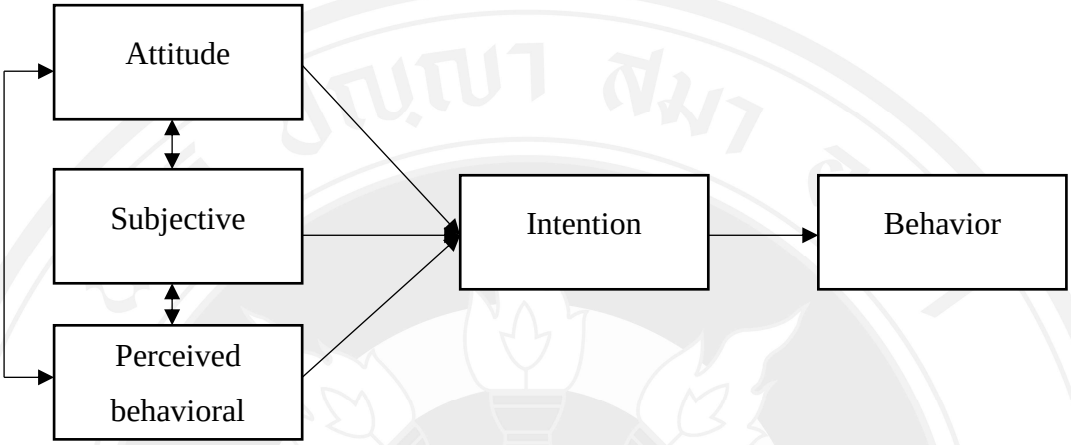

Figure 2.1 The Model of the Theory of Planned Behavior

In the theory of planned behavior, it is necessary to distinguish several key elements in concept and operation (Ajzen, 1991). Firstly, it is the discrimination between Perceived Behavioral Control and self-efficacy. In Ajzen's (1991) statement of the theory of planned behavior, the knowledge about perceptual behavior control itself comes from Ajzen and Fishbein (1977) concept of self-efficacy. At the beginning of early research, Fishbein and Cappella (2006) equated perceptual behavior control with self-efficacy in their integration model. Secondly, the discrimination between attitude towards behavior and outcome expectancy. In the theory of planned behavior, the actor's attitude towards behavior is mainly determined by the belief about this behavior. However, in the evaluation of expected behavior, attitude can only contribute to the subjective proportion of the actors' behavior, that is, it cannot determine the nature of inherent predictive behavior (Ajzen & Fishbein, 1977). Outcome expectancy comes from expectation and value model, that is, value behavior is not only related to beliefs, but also related to attitudes, opinions, and expectations. In the theory of planned behavior, the expected estimation of behavior tends to be more optimistic, that is, it is more like expected good behavior. In the

expectation of results, negative results will also be included, that is, blocking behavior will be expected (Oliver, 1974). Finally, it is the discrimination of social influence on subjective norm. In the theory of planned behavior, subjective norms are influenced by the society, or in other words, the actor's prediction of whether a certain behavior can be accepted by friends, family, and society (Ajzen, 1991). Therefore, social influence can be measured by social norm and normative belief. Social norms and normative beliefs are closely related to social organization and social network (Deutsch & Gerard, 1955), such as associations, families, schools, and workplaces.

The theory of planned behavior is mainly divided into three stages to analyze people's behavior patterns: first, people's behavior depends on people's behavior intention; Secondly, people's behavior intention depends on the attitude of behavior, people's subjective norms and people's cognitive behavior control ability. Finally, the attitude of people's behavior, subjective norms of behavior and control of cognitive behavior are finally influenced by extrinsic factors (Ajzen, 2002). Ajzen (1991) put forward that all the factors that influence behavior affect the performance of behavior through behavior intention. The influence of behavior intention mainly comes from three factors, one of which is the attitude of the individual to take a specific behavior; The second is that people's scruples about taking a specific action, which are influenced by extrinsic factors such as society, are subjective norms. The third is based on the expectation of experience and future obstacles, people's perception of whether behavior can be realized (Flanders et al., 1975). In the theory of rational behavior, Flanders et al. (1975) found that the better an individual's attitude towards a certain behavior, the higher his behavior intention, and the more likely he is to produce a certain behavior. At the same time, other people's positive evaluation of a particular behavior, that is, subjective norms, will also have a positive impact on the performance of a particular behavior (Ajzen & Fishbein, 1980). This strong correlation has also been confirmed many times in subsequent studies (Sheppard et al., 1988).

The theory of planned behavior is based on several basic viewpoints (Chen, 2009a). First of all, an individual's behavior intention can only affect the behavior of a person with full will, that is, the interference of other factors such as personal ability, opportunities and resources cannot be excluded. Moreover, the

behavior intention directly determines the individual's actual behavior under sufficient conditions (Ajzen & Fishbein, 1977). Secondly, the accuracy of perceptual control directly reflects an individual's ability to control actual conditions to generate behaviors, and the accuracy or degree of perceptual control directly predicts the possibility of behaviors (Norberg et al., 2007). In addition, behavior attitude, subjective norms and perceived behavior control are the factors that determine behavior intention. The more positive attitude, the greater support from others and the greater ability of perceptual perception control, the greater the degree of behavior intention, and vice versa (Fishbein & Ajzen, 1977). Thirdly, many beliefs owned by individuals are the cognitive and emotional basis of people's attitude, subjective norms, and perceptual behavior control. In general, only some beliefs can be acquired, which is also called prominent beliefs (Ajzen, 1985). Fourthly, personal, and socio-cultural background factors (such as personality, experience, age and gender, etc.) indirectly influence behavior attitude, subjective norms and perceived behavior control through influencing beliefs, thus ultimately influencing behavior intention and actual behavior (Chen, 2009b). Finally, behavior attitude, subjective norms and perceived behavior control are independent bodies based on beliefs, which are conceptually distinguished. They have no inclusive relationship with each other, but they are interrelated with each other (Ajzen, 1991).

At present, the theory of planned behavior has been applied to the research on the acceptance of mobile learning in higher education, college students' network behavior, and the behavior intention of international students choosing to study in China, etc. (Duan & Jiang, 2008). Especially, more and more scholars in the field of knowledge sharing rely on this theory to conduct in-depth research (Kuo & Young, 2008; Park, Joy Saplan-Catchapero, & Jaegal, 2012). Kuo and Young (2008) took the rational action theory as the research framework, and through empirical research, they find that knowledge sharing attitude, organizational atmosphere and subjective norms affect personal knowledge sharing willingness. Chen, Chen, and Kinshuk (2009) used the theory of planned behavior to explain the influencing factors of knowledge sharing among members of virtual learning community, and divided the cognitive theory of behavior control into two sub-dimensions of learners' knowledge creation self-efficacy and specific network self-efficacy to better explain online

knowledge sharing behavior in virtual learning community. Based on the theory of planned behavior, Lei and Lei (2010) put forward an integrated framework model of influencing factors of tacit knowledge sharing willingness among teachers in colleges and universities from the perspective of empirical speculation. They think that the attitude factors that affect the tacit knowledge sharing willingness of teachers in colleges and universities include interpersonal trust, psychological ownership and knowledge perception value, the subjective normative factors include leadership support and innovative campus culture, and the control factors of perceived behavior include self-efficacy and convenience.

To sum up, the theory of planned behavior provides a good theoretical support for explaining the behavior of individual tacit knowledge sharing in a specific context, and has a strong theoretical inclusiveness and integration, which can absorb the above basic elements of the theoretical research perspective on influencing factors of knowledge sharing (Iqbal et al., 2011; Radaelli, Lettieri, & Masella, 2015). Therefore, this theory can provide a suitable research conceptual framework for establishing the influencing factor model of tacit knowledge sharing among teachers in colleges and universities from the individual level.

2) Application and Expansion of the Theory of Planned Behavior

Since the theory of planned behavior was put forward in 1980, it has been applied to all fields of society for nearly 40 years, and has been constantly adjusted, applied, proved by practice, and expanded and supplemented.

Table 2.1 Literature Review of Theory of Planned Behaviour

Scholar	**Year**	**Application Area**	**Result**	**Suggestion to Future Research**
Reuven Sussman	2019	Back test of TPB	TPB	A correlational study, a lab-based experiment, and a quasi-	TPB should include reciprocal causal relations.

Scholar	Year	Application	Area	Result	Suggestion to Future Research
				experimental field study support reciprocal causal relation from intention to three components.	
Maryhope Howland	2016	Totally applied TPB	Physical Activity	TPB is the predictor of behavioral intention. Attitudes, subjective norms, and perceived behavioral control are the factors to predict intentions and behaviors.	The TPB have more potential applications in this area.
Alex Kopelowicz	2015	haven't applied intention	Treatment Adherence	Attitude, subjective norms, and perceived behavioral control are	Should detail the efficiency of TPB factors

Scholar	Year	Application	Area	Result	Suggestion to Future Research
				three metavariables to behaviors.	
Kelly Cue Davis	2015	haven't applied behaviors	Condom Use Resistance	There is strong relationship among condom use resistance (CUR) attitudes, normative perceptions, intention, and self-efficacy.	Are there some similar situations to other areas?
Kevin Askew	2014	change perceived behavioral control to ability to hide	Cyberloafing	Studies consistently support the TPB model, the model explained 32% of the variance in behavior.	
Aine McConnon	2012	totally accepted TPB and measure attitude in cognitive	Weight control	The TPB explained 27% of variance in expectation, 14% of intention, and	Should consider individual likely behaviors.

Scholar	Year	Application	Area	Result	Suggestion to Future Research
		and affective		20% of desire. No relationships among expectation, intention and behaviors.	
Andrew Lac	2012	added peer and maternal attachment to TPB	Underage Drinking	Alcohol attitudes, norms, and behavioral control each exclusively explained alcohol intentions and alcohol behavior. TPB also be designed to curtail risky levels of underage drinking.	Future research should corroborate the use of TPB.
Chih-Chung Chen	2011	totally accepted TPB	Knowledge-sharing	Exogenous variables identically influence the	

Scholar	Year	Application	Area	Result	Suggestion to Future Research
				knowledge sharing behaviors.	
Alyssa C. Milton	2011	apply as prediction model for safety food behavior of young adults	Food safety	The TPB variables at baseline predicted observed food safety behaviors. TPB is useful to improve food safety behavior.	Further research should focus on translating TPB variables to behaviors
Heesup Han	2010	haven't test behavior	Green hotel	TPB is totally fit to the data and good to predict power for intention. Attitude, subjective norm, and perceived behavioral control positively contribute for intention to	Environmentally conscious behaviors should be considered.

Scholar	Year	Application	Area	Result	Suggestion to Future Research
				choose green hotel.	
Ryan J. Martin	2010	divide norms into peer and family	Gambling	Results support the utility of the TPB theory to explain gambling behaviors through intention, attitude, subjective norms, and perceived behavioral control. Intention mediated the relationships among them.	
Paul A. Pavlou	2006	Extension of TPB	Commerce Adoption	The variables of TPB are important beliefs for predicting e-commerce adoption.	TPB model should explore and predict the application of variables.

Scholar	Year	Application	Area	Result	Suggestion to Future Research
Mark Conner	2003	totally applied TPB	Dietary Supplements	Belief by users is strongly explain the behavior of using dietary supplements. Findings also highlight the potential of TPB to explain planed behaviors through motivation.	Confirm the potential use of TPB.
Susan M. Moore	1997	added Cognitive Biases and detail the gambling behaviors	Gambling	30% of the variance of each of gambling behavior and problem gambling accounted for by intentions, attitudes, and subjective norms.	The cognitive bias variables should be predicted in further.
Icek Ajzen	1990	Application	Leisure Choice	TPB totally explained	Need to multiple

Scholar	Year	Application Area	Result	Suggestion to Future Research
			behaviors through psychological aspects of behaviors. Findings confirmed belief, attitude, subjective norm, and perceived behavioral control are useful to explain behaviors.	confirm.

For example, Edwards, Gidycz, and Murphy (2015) combined the investment model with the model of theory of planned behavior to study the relationship between early design and abusive dating, and found the predictive effect of personal intention, personal attitude, ethics, and perceived behavior control on planned behavior. The research of theory of planned behavior in many fields are shown in Table 2.1.

This study will build its own theoretical framework model based on the theory of planned behavior. Like most scholars, this study will adopt the influence relationship of attitude, intention, and behavior. The influence of others' support (OS) in subjunctive's ethics is extremely important (Scott, 2008), and the policy perception (PP) is also very important. In perceptual behavior control, self-control (SC) is the

key to behavior execution (Corno & Mandinach, 1983).

2.1.2 Theory of Knowledge Transfer

1) Concept and Connotation of Knowledge Transfer

With the rapid development of knowledge economy era, knowledge has become the key resource for organizations to obtain innovation advantages and competitiveness. Organizations must own, create, transfer and share knowledge if they want to establish and maintain their competitive advantage in the torrent of knowledge economy (Wang & Noe, 2010). Under this background, knowledge sharing provides an effective way for organizations to integrate intrinsic and extrinsic knowledge resources, to rapidly improve the organization's own knowledge ability. How to organize and manage knowledge resources has become an important research topic in the field of organizational management. For knowledge resource management, one of its key tasks is how to effectively transfer and share knowledge in the organization, so as to make full use of existing knowledge resources and avoid repeated development of knowledge (Huang, Chiu, & Lu, 2013). Among them, knowledge transfer is considered by many scholars to be one of the effective ways to enhance knowledge ability and enhance the core competitiveness of organizations. Therefore, how to make knowledge transfer successfully is an important issue in the current knowledge management practice.

Knowledge transfer is the premise and foundation for an organization to acquire information and knowledge resources and realize innovation. It can enhance the competitive advantage of the organization by improving the knowledge management ability of the whole organization (Szulanski et al., 2016a). Therefore, how to effectively transfer knowledge between knowledge source and knowledge receiver has attracted people's attention. Since 1990s, scholars at home and abroad have done a lot of research on knowledge transfer activities within organizations and among different organizations. Gilbert and Cordey-Hayes (1996) believe that knowledge transfer is a process of continuous learning of the organization itself, which is embodied in the dynamic process that the knowledge absorber assimilates the transferred knowledge into a part of itself, and then realizes the utilization and innovation of knowledge. Alavi and Leidner (2001) put forward that knowledge

transfer is the process of knowledge transfer from one subject to another, the process of one subject accepting the accumulated experience of another subject, and the unity of the two processes of knowledge transfer and absorption. However, knowledge transfer is not a simple transfer of knowledge from subject A to subject B, but the continuous improvement of knowledge itself the process of knowledge transfer is a process of knowledge innovation, knowledge transformation and knowledge appreciation. Huber (2001) called the process of knowledge transfer between organizations "knowledge grafting". Through this process, organizations can acquire knowledge that was previously unavailable within the organization and increase the knowledge stock of the organization. In the process of inter-organizational knowledge learning, there are three main types of knowledge that organizations may acquire (Lu, Yue, & Liao, 2006): the first type is that organizations can acquire knowledge for designing and managing inter-organizational cooperation, which is mainly used to manage the inter-organizational cooperation that organizations will participate in in the future; The second category is that the knowledge acquired by the organization may not be combined with the operation of the organization; The third category is the knowledge acquired through cooperation, which can be applied to the organizational strategy and daily operation unrelated to the cooperation. This knowledge will bring private benefits to the organization, which is a unilateral benefit to the organization through the knowledge acquired by the organization partners.

Domestic scholars have also explored the connotation of knowledge transfer. Xiaobo Wu, Gao, and Hu (2009) think that knowledge transfer and innovation are a series of activities that run through all levels of the organization, and knowledge transfer between different levels is the result of the interaction of knowledge management activities within each level. From the perspective of expanding the value of knowledge, Dong Xiaoying believes that knowledge transfer is a process of applying proven knowledge or skills to different environments to improve the output and application scale of knowledge (Dong, 2002). Ma, Qing, Liao, and Zhang (2006) defined knowledge transfer as the process of knowledge transfer from knowledge sender to knowledge receiver. Knowledge receivers receive knowledge through knowledge transmission and transform it into their own new knowledge and guide their own behavior through learning. Tan and Huo (2006)

introduced situational factors into the concept of knowledge transfer. They believe that knowledge transfer is the process of knowledge transmission from knowledge owner to knowledge receiver in a controlled environment. Zuo, Zhao, and Liu (2010) believe that knowledge transfer is that two subjects transfer knowledge through a certain transfer mechanism under certain circumstances and achieve corresponding effects. At the same time, the transfer effect will also affect these two subjects. The knowledge transfer mechanism they put forward is shown in Figure 2.2.

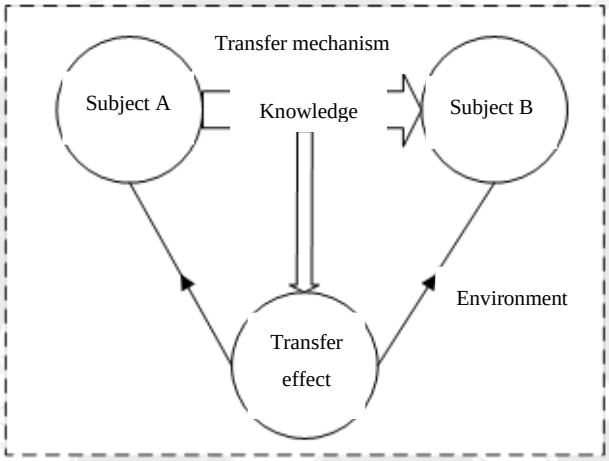

Figure 2.2 Consider Specific Environment Knowledge Transfer Mechanism

2) Knowledge Transfer Model

Since the concept of knowledge transfer was put forward, scholars have been studying the model of knowledge transfer. Scholars at home and abroad have studied the process of knowledge transfer between different subjects from different perspectives. Only by understanding the process mechanism of knowledge transfer can we deeply discuss the influencing factors and transfer effects in the process of knowledge transfer. Up to now, scholars have put forward many process models of knowledge transfer. The classic models of knowledge transfer include SECI growth model proposed by Japanese scholar Nonaka (1991), five-stage model proposed by Gilbert and Cordey(1996), four-stage model proposed by Szulanski, Ringov, and Jensen (2016b), etc. The following will analyze and discuss the classic models of knowledge transfer.

(1) Four-stage model of knowledge transfer

The model holds that knowledge transfer is the knowledge flow within the organization and divides the process of knowledge transfer within the organization into four stages: the initial stage, the implementation stage, the adjustment stage, and the integration stage, as shown in the part below the dotted line in Figure 2.3. In the initial stage, the organization finds the knowledge gap and knowledge gap, so it generates knowledge demand, and then makes the decision of knowledge transfer, which decides whether knowledge transfer could happen or not. The implementation stage is the stage in which both parties of knowledge transfer subjects choose knowledge transfer channels, disseminate information and exchange knowledge, which involves the communication ability and transfer input of both parties. Next is the adjustment stage, in which the recipient organization begins to adjust the transferred knowledge and use it in the new situation. This stage is the key stage for the success of knowledge transfer. Finally, in the integration stage, the organization integrates the new knowledge into the present knowledge system, making the knowledge transfer as an integral part of the organization's knowledge base and daily practice (Kwan & Cheung, 2006).

Based on the four-stage model of knowledge transfer, Lam (2014), a British scholar, improved the model by introducing the concept of knowledge embeddedness. This improved model considered the environmental problems in the process of knowledge transfer, and the environment of knowledge exchange and transfer, such as policy environment, organizational atmosphere, support from others and other environmental factors, had an important influence on knowledge sharing behavior. However, as the process of knowledge transfer is continuous rather than discrete, the boundaries between stages in this classification are not easy to be identified.

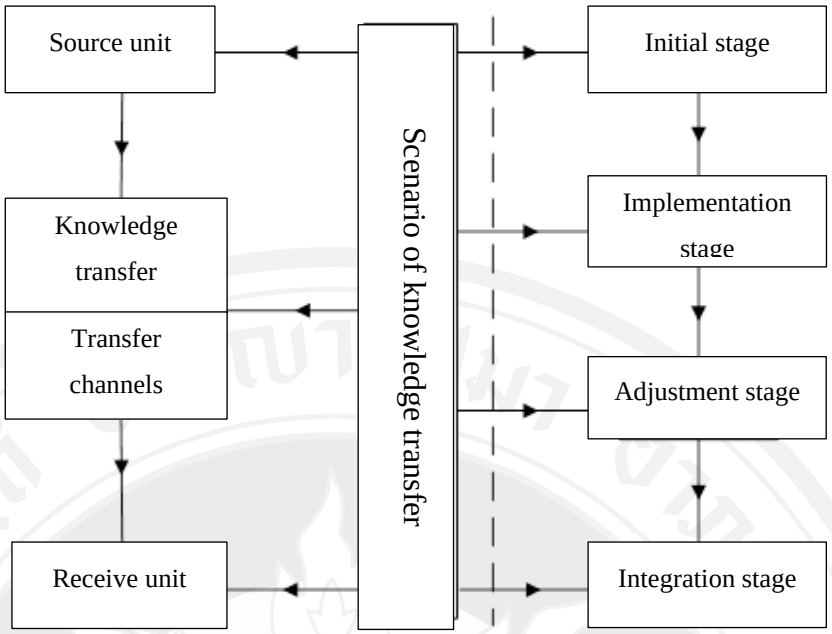

Figure 2.3 Four-stage Model of Knowledge Transfer

SEIC model of knowledge transfer

In 1991, Japanese scholar Nonaka (1991) pioneered the SEIC (socialization-externalization-internalization-combination) model of knowledge transfer. He believed that knowledge creation was realized through the continuous transformation of four levels of individuals, teams, organizations and tacit knowledge and explicit knowledge of organizations, as shown in Figure 2.4. Tacit knowledge and explicit knowledge are constantly transformed and reconstructed through the interaction of internalization, socialization, externalization and combination, thus realizing the cycle of knowledge creation. Among them, socialization refers to a process of knowledge sharing that flows from tacit knowledge of organizations to tacit knowledge of individuals, that is, the process of gathering tacit knowledge by sharing experiences. Externalization is the transformation from tacit knowledge to explicit knowledge. It is a process of expressing tacit knowledge and translating tacit knowledge into understandable form. In this process, tacit knowledge is usually expressed by simulation and other means. Combination is the process from tacit knowledge to explicit knowledge, that is, the isolated components of explicit knowledge are combined into explicit knowledge system. In this process, combination

is to systematize ideas to form a knowledge system, which is reflected in product design. Internalization refers to the transformation from explicit knowledge to tacit knowledge, that is, the process that individuals absorb explicit knowledge and turn it into personal tacit knowledge. It promotes the internalization of knowledge by means of "learning by doing" such as practical operation and repeated trial and error.

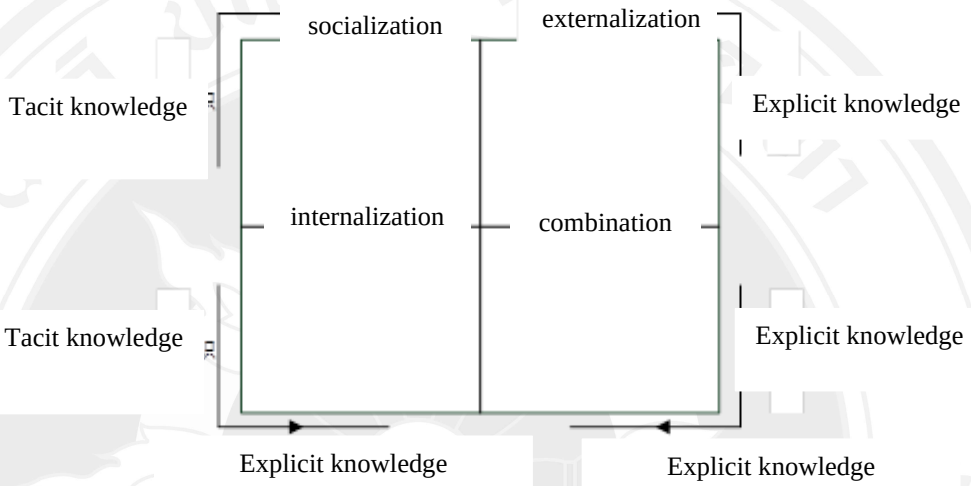

Figure 2.4 SEIC Model of Knowledge Transfer

2.1.3 Motivation Theory of Knowledge Sharing

In the practice of organizational knowledge management, motivation is an important driving force of individual knowledge sharing behavior in an organization, and individual knowledge sharing behavior is a process of realizing the consistency between individual knowledge management objectives and organizational knowledge management objectives. In motivation theory, the behavior of individual knowledge sharing without motivation is blind and meaningless; Individual knowledge sharing behavior with motivation but no effect indicates that there is something wrong with organizational motivation policies or strategies. More precisely, the mismatch between organizational motivation and individual needs leads to individuals' unwillingness to carry out the behavior expected by the organization. Therefore, the realization of effective knowledge sharing depends on scientific and reasonable motivation theory, and effective motivation schemes and strategies are based on a

series of motivation theories and hypothetical models. "How to customize the matching motivation measures according to the individual needs of different individuals, and then catalyze the occurrence of individual knowledge sharing behavior" is the key to the research of knowledge sharing motivation theory.

Motivation theory is the core theory in behavioral science to study the relationship among human needs, motives, goals and behaviors. By summarizing the research of related scholars, motivation has different definitions, but no matter how it is defined, motivation refers to a kind of motivation, which makes individuals spontaneously take a specific behavior to achieve the organization's expected goals. Yuan and Li listed university research teams as research objects and discussed whether researchers will be influenced by team and individual motivation. The research results show that university researchers will be influenced by team motivation, their cooperation enthusiasm will be greatly enhanced, and employees' knowledge sharing behavior will be promoted by using individual motivation. Wei, Li and Kang fully considered the characteristics of organizations, knowledge transferers and knowledge receivers. They found that knowledge sharing can be achieved to the greatest extent only through the effective combination of various motivation. This paper mainly discusses the motivation of tacit knowledge sharing behavior of teachers in colleges and universities, that is, through the support of targeted motivation theories and methods, according to the individual needs of teachers in colleges and universities, mobilize them to actively participate in tacit knowledge sharing behavior, and achieve the process that individual knowledge resources rise to organizational knowledge resources. The so-called knowledge sharing motivation theory is to use various motivation theories to make individuals actively participate in knowledge exchange and sharing behavior for valuable knowledge resources. For a long time, many western management scientists or psychologists have carried out research from their respective fields, but most of the research contents will not go beyond these three ranges, that is, what motivates or drives behavior, what guides the direction of behavior and what sustains behavior? To study the motivation of knowledge sharing behavior, it is necessary to study the driving reasons, guiding reasons and maintaining reasons of knowledge sharing behavior, to complete the research of the whole knowledge sharing motivation. This paper aims at the motivation of knowledge

sharing behavior of teachers in colleges and universities. It is necessary to combine the individual and group characteristics of teachers in colleges and universities and the willingness of teachers in colleges and universities to share knowledge to realize the effective motivation of tacit knowledge sharing behavior of teachers in colleges and universities.

Through the research and summary of motivation theory, it is found that there are currently three mature motivation theories about driving individuals to produce specific behaviors, namely, hierarchy of needs theory, two-factor theory and achievement motivation theory:

1) Hierarchy of Needs Theory

Maslow's hierarchy of needs theory is to pay attention to people's needs, dividing people's needs into five levels: physiology, safety, socialization, respect and self-realization (as shown in Figure 2.5), specifically: physiological needs, which are the most basic needs for people to survive, such as clothing, food, shelter, transportation and so on; safety needs, including material and psychological security, such as not being threatened and frightened, preventing accidents and dangerous accidents, having job security, medical insurance, social welfare and other security; Social needs, as society is made up of people, everyone is the member of social. People need to have friendship and a sense of belonging to the group. In the process of interpersonal communication, people need mutual help, mutual recognition and mutual approval. Respect needs, including requiring others' respect and inherent self-esteem; Self-realization needs refer to the realization of one's own wishes and expectations for all aspects of life through one's own efforts, so as to feel that work and life are more meaningful and fuller of confidence in the future work and life. Maslow's hierarchy of needs studies the relationship between human needs and motivation from the perspective of human psychology and reveals the development law of human needs: from low level to high level. Maslow's theory provides direction and content for managers to mobilize individual's behavior enthusiasm and shows that encouraging individual behavior should be carried out from both material and spiritual aspects.

Therefore, in order to motivate the tacit knowledge sharing behavior of teachers in colleges and universities, it is necessary to combine the hierarchy of needs, the characteristics of university platform and the characteristics of individual teachers' needs, considering that individual university teachers' needs are mainly social needs, respect needs and self-realization needs, except for part of safety needs, that is, the requirements for individual intellectual rights and intellectual property protection, so as to ensure that teachers in colleges and universities will not weaken their competitiveness while sharing knowledge, which requires policy makers related to university knowledge management to formulate some motivation measures and intellectual property measures to ensure individual teachers. For high-level needs, such as social needs, respect needs and self-realization needs, it is necessary for individual college teachers to perceive themselves or obtain them through self-efforts. In terms of self-perception, as an endogenous motivation factor, colleges and universities and related management can't operate. However, in providing convenience and comfort for knowledge sharing, colleges and universities can formulate corresponding motivation measures to meet the high-level needs of teachers in colleges and universities, such as material or honor motivation. From the above, it can be seen that when encouraging the tacit knowledge sharing behavior of teachers in colleges and universities, it is necessary to classify the individual needs of teachers in colleges and universities according to five levels, so that corresponding motivation measures can be formulated according to the needs of different levels, and the tacit knowledge sharing behavior can be more efficiently stimulated.

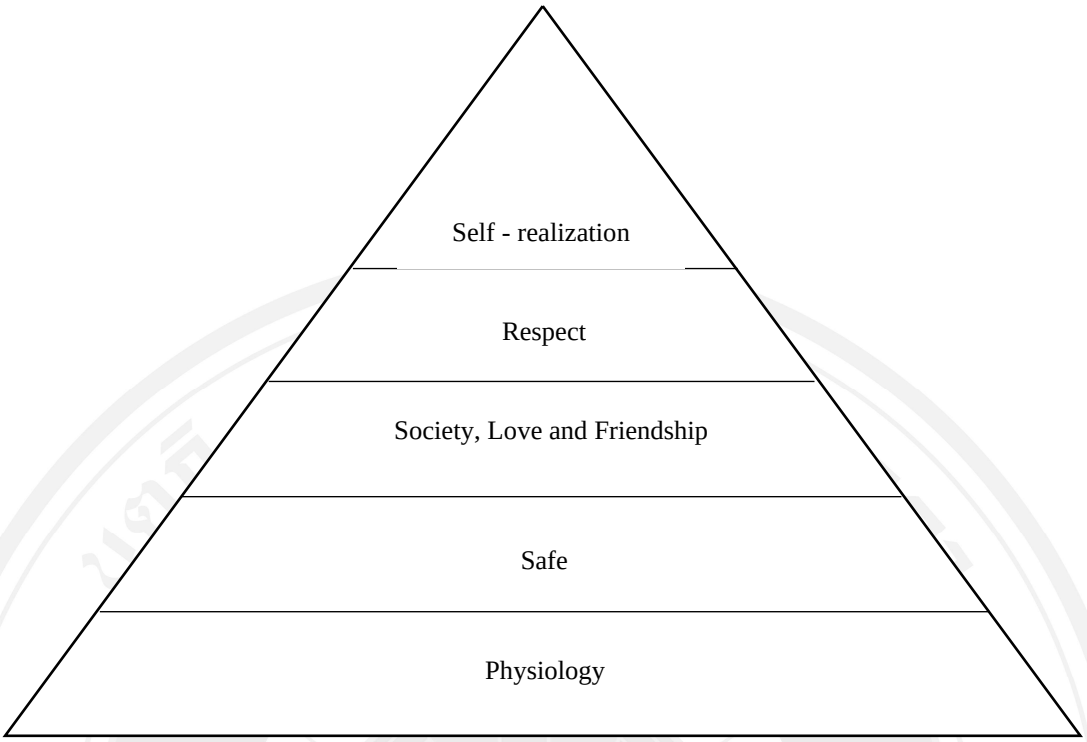

Figure 2.5 Maslow's Hierarchy of Needs

2) Two-factor Theory

The two-factor theory was put forward by Frederick Herzberg, an American psychology professor, based on Maslow's theory. In 1950s, Herzberg investigated 200 engineers and accountants in 11 industrial and commercial organizations in Pittsburgh and asked them to answer the sequence of events that made them feel happy and unhappy, so as to investigate the reasons why employees were satisfied and dissatisfied with their jobs. The results show that there are five main factors leading to satisfaction: achievement, recognition, attraction of work itself, responsibility, and development. The factors leading to dissatisfaction are enterprise policy and administration, supervision, salary, interpersonal relationship and working conditions. Thus, the main factor of job satisfaction is participation in growth and development, that is, motivation factor, and the factor of job dissatisfaction is environment, that is, hygiene factor, so this theory is also called the motivation-hygiene theory. Motivation factors are internal factors that affect people's work, and the essence is the content of work itself, which can improve work efficiency and inspire people to do their best. If these factors exist, it will bring great

satisfaction to people. Hygiene factor is also called maintenance factors. These factors have no motivation effect, but they can keep employees' positive state and prevent employees from being dissatisfied with their work and reducing their work enthusiasm. This shows that both motivation factors and hygiene factors play a role in motivating employees' enthusiasm, but the degree of influence is different. Sometimes, motivation factors are regarded as strong motivation, while hygiene factors are regarded as weak motivation.

Two-factor theory classifies the reasons that motivate individuals to share knowledge into two types, namely, motivation factors and hygiene factors. The combination of two-factor theory and tacit knowledge sharing behavior can further motivate tacit knowledge sharing behavior of teachers in colleges and universities, using both motivation factors and hygiene factors. When using motivation factors in colleges and universities, it is necessary to make motivation measures stimulate teachers in colleges and universities to a certain extent, to further maintain teachers' knowledge sharing behavior. These motivation measures with obvious effects are closely related to the support provided by organizations, such as improving knowledge sharing policies and measures, providing smooth knowledge sharing platforms and ways, etc., which will directly affect teachers' investment and satisfaction in tacit knowledge sharing behavior, and make them continue to actively participate in tacit knowledge sharing behavior. Hygiene factors require colleges and universities to always pay attention to teachers' unpleasant experiences in the process of tacit knowledge sharing and encourage teachers to share tacit knowledge smoothly through the extrinsic effects of relevant policies and measures of colleges and universities, and to quickly modify and remedy unpleasant sharing experiences through relevant measures. Therefore, in the design of relevant motivation policies and strategies in colleges and universities, it should strictly follow the two-factor theory. In order to increase the investment and satisfaction of teachers in colleges and universities in tacit knowledge sharing, it should not only improve the policy environment and exchange of knowledge sharing in colleges and universities, but also use hygiene factors when making relevant policies to ensure that teachers' intellectual property protection needs are met, so that they can easily and happily share tacit knowledge without any worries.

3) Achievement Motivation Theory

Achievement motivation theory is a conclusion drawn by American professor McClelland in 1950s when he studied people's motivation and needs. In the iceberg model he designed, the human quality is compared to an iceberg, in which the water part is the representation feature, which is easy to be perceived or measured, just like the knowledge and skills that people have mastered. The underwater part is a potential feature, which is not easy to be excavated, but it can influence people's behavior motivation to the greatest extent, such as social role, self-cognition, and potential. These potential characteristics are summarized as achievement demand, belonging demand, affinity demand and power demand. The theory also draws the conclusion that the achievement motivation is strong and then the leadership ability is relatively weak. Even if there is a strong achievement motivation to stimulate their entrepreneurial passion, among these figures, leaders who can lead the people forward are rare. In general, people with a strong sense of accomplishment tend to manage their own work and concentrate on doing it better, and they don't like to involve others. However, affinity needs, and power needs are closely related to the knack of successful management. Often, the best managers have lower affinity needs but higher power needs. Motivation can clearly distinguish the source of motivation from inside and outside, which also produces two motivation theories: Intrinsic motivation and extrinsic motivation. According to the theory of intrinsic motivation, people's behavior itself can get self-satisfied feedback. For example, people like a sport, such as basketball. People may just like the experience it brings, not the extrinsic material stimulation (Ryan & Deci, 2000a). Deci, Koestner, and Ryan (1999). Some activities have their own reward mechanism, which means that there is no need for extrinsic material to motivate them. The motivation of intrinsic pursuit can be roughly divided into two aspects, on the one hand, self-affirmation, and on the other hand, the ability to enhance cognition. Kruglanski, Friedman, and Zeevi (1971) proved that the representative spiritual motivation would enhance people's self-affirmation and then the intrinsic motivation. The extrinsic motivation theory is complementary to the intrinsic motivation theory, which holds that extrinsic causes are important factors for motivation. Intrinsic motivation is usually a stimulus that intrinsic motivation can't get from outside (Ryan & Deci, 2000a). Like extrinsic material rewards and competition,

they all create expectations for specific behaviors.

Achievement motivation theory is also of great application value in the practice of stimulating tacit knowledge sharing behavior of teachers in colleges and universities. First of all, in the setting of motivation strategies for individual teachers in different colleges and universities, we can measure and evaluate the motivation characteristics of tacit knowledge sharing behaviors of different teachers, so that teachers in different colleges and universities can respond to different demands, so as to design motivation strategies and means in a targeted and scientific way. Furthermore, different motivations of tacit knowledge sharing behavior can be stimulated or cultivated. Through the honor reward mechanism, the demand motivation of individual teachers in colleges and universities for tacit knowledge sharing behavior motivation can be enhanced, so that the knowledge sharing behavior motivation can be more effective and the tacit knowledge sharing behavior level of the whole colleges and universities can be effectively improved.

2.2 Literature Review

2.2.1 Research Status of Teachers in Colleges and Universities

With the accelerated development of China's socialist market economy and the strategy of strengthening the country by talents and education, a large number of highly educated talents are needed to enter the national, social and economic construction. From the first enrollment expansion of higher education in 1999 to the expansion of postgraduate enrollment and undergraduate promotion scale pointed out by the State Council executive meeting on February 25th, 2020, the scale of students in higher education has been expanding. In order to meet the development needs of higher education, the number of teachers in colleges an universities is also increasing. As shown in Figure 2.6, the data obtained from the website of the Ministry of Education shows that the total number of full-time teachers in colleges and universities was 860,000 in 2005, which increased to 1,740,000 in 2019, more than twice the number of full-time teachers in colleges and universities in 2005. During the fifteen years from 2005 to 2019, the average annual growth rate of the total number of full-time teachers in colleges and universities was 4.8% (Gao & Hu, 2019). The

increasing number of teachers has promoted the development of higher education in China. As the first resource of colleges and universities, especially those with outstanding competence and outstanding performance, the overall quality of teachers is not only related to the cultivation of high-quality innovative and entrepreneurial talents and technological innovation, but also determines and restricts the speed and quality of building an innovative country.

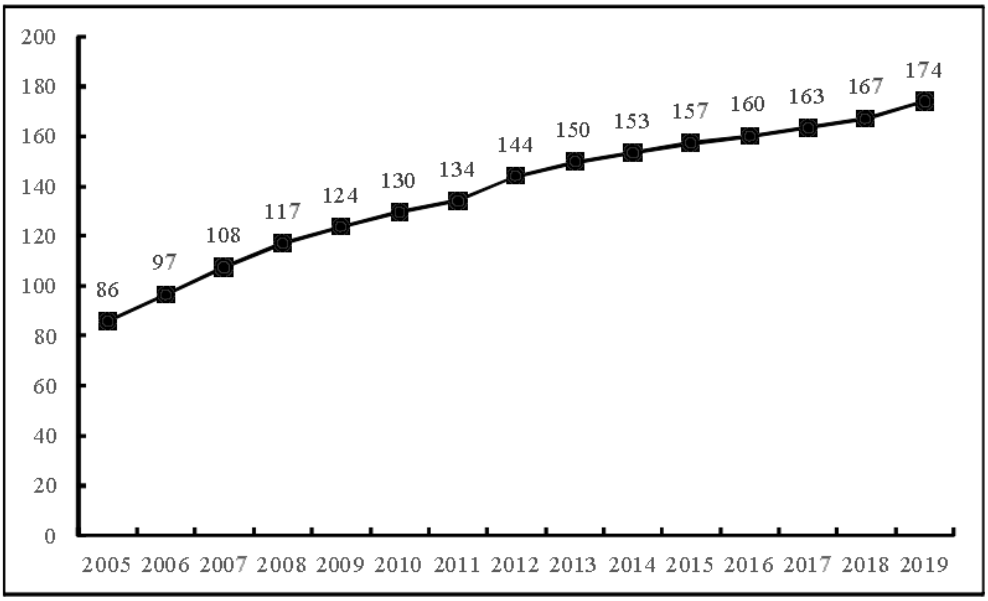

Figure 2.6 Changes in the Number of Teachers in Colleges and Universities in China Over the Years

Note: The data originayes from the website of the Ministry of education of the people's Republic of China, unit (10000 people).

1) Personality Characteristics of Teachers in Colleges and Universities

Simply put, personality is a person's overall mental outlook. American personality psychologist Carter believes that "personality is a tendency that can be used to predict a person's behavior in a given environment, and it is related to the explicit and implicit behavior of individuals." In the huge faculty of colleges and universities, everyone has unique personality characteristics.

Have a strong sense of independence. Teachers in colleges and universities are no longer just a screw of the big machine of colleges and universities, but a vibrant cell body. Teachers have a strong desire to learn, they often consciously update their knowledge, are keen on challenging and creative tasks, try their best to pursue perfect results, are eager to fully display their personal talents through this process, and require greater autonomy and decision-making power in their work. They can't passively adapt to the needs of machine operation like the operators on the production line. With specialized knowledge and skills, they can give full play to their personal qualifications and inspiration in a changeable and uncertain system, they can cope with various possible situations, have strong independent attributes, are not superstitious about authority, as well as have the spirit of criticism, questioning and academic seeking differences (Zhang & Han, 2008). As academic influence requires unique insights, teachers like to pursue ideological "differences" and the "three noes" world of academic "no forbidden zones, no idols and no peaks". Therefore, they hope that they can flexibly complete their work through self-guidance, self-management, self-supervision, and self-restraint. However, to satisfy their sense of accomplishment, they often take academic status and authority as their lifelong pursuit. Therefore, on the one hand, they are not superstitious about authority; on the other hand, they try their best to gain influence and establish authority for themselves in the academic field.

Teachers' labor in colleges and universities is creative, long-term, and invisible. It is very important and necessary for teachers to keep a conscious, active, and enterprising mental state. Because of the high-quality attribute of teachers in colleges and universities, teachers are more sensitive than other groups, and have a higher sense of social responsibility of "Everyone being responsible for the fate of his country". Moreover, the complexity and difficulty of knowledge innovation determine that teachers in colleges and universities must form work teams and use collective wisdom to complete work tasks (Verloop, Van Driel, & Meijer, 2001). In the work, in fact, only a small part of knowledge is explicit, and teachers often "know more than they can teach".

Teachers in colleges and universities have the motivation to accumulate knowledge. Individuals not only have the motivation to store knowledge, but also have the motivation to shape the development of knowledge (Hogan & Gopinathan, 2008; Kereluik, Mishra, Fahnoe, & Terry, 2013). They like to work through creative activities and tend to arrange their own working time, place and way independently. They are unwilling to be controlled by machinery and equipment, rules and regulations, management, and supervision. Teachers' work is mainly a kind of thinking activity, and the renewal and development of knowledge often changes with the change of environmental conditions, with great flexibility, which requires teachers to be creative and rely on their own knowledge and inspiration to adapt to the challenging work in the complex and uncertain environment. Teachers engaged in teaching and scientific research in colleges and universities are creative mental work. Only teachers with high knowledge and intellectual quality can undertake the task of cultivating talents and promote the innovation and development of science and technology. The effects of these tasks are often hidden, and their achievements are long-term, some of which may last for decades or even hundreds of years.

2) Professional Characteristics of Teachers in Colleges and Universities

The professional characteristics of teachers as a professional group in colleges and universities can be summarized as "the main energy and focus of life are teaching and research, pursuing knowledge for the purpose of knowledge itself, establishing reputation through domestic and international professional associations, and the professional reward and professional mobility increase with the continuous strengthening of professional degree" (Hativa, Barak, & Simhi, 2001). The specific professional characteristics are as follows:

(1) Intelligence-intensive, large upfront investment. Teachers in colleges and universities are highly intelligence-intensive industries, and few other industries can match their employees' high average educational background and profound knowledge. In China, if you want to be a teacher in a better university, you must have at least a master's degree. To achieve this, practitioners need to pay a lot of time and capital investment. At present, the proportion of doctoral degrees among teachers in most key universities is as high as over 40%, and new teachers are

required to have doctoral degrees. Because of their long study time, they invested a lot of human capital in the early stage. After work, facing a group of young students, they are under great pressure to update their knowledge, and they have more experience and money to invest in on-the-job study.

(2) Low professional risk and high freedom of work. Low professional risk is mainly reflected in stable work. Compared with other professions, the work in colleges and universities is quite stable, and if there are no major mistakes, teachers generally won't lose their jobs. The reasons are as follows: firstly, the current employment system of colleges and universities still has a strong color of planned economy era; Second, this profession has higher requirements for practitioners and high entry threshold; Thirdly, from the perspective of asset specificity, the skills acquired by teachers in colleges and universities are highly specialized, and it will be difficult to use them when they leave the stage of colleges and universities, which objectively requires certain professional security for teachers in colleges and universities. Otherwise, few people will feel at ease to develop in the profession of teachers. In addition, no matter from the perspective of working time or working process, teachers in colleges and universities have greater freedom and strong autonomy. Teachers' work depends more on the sense of responsibility and dedication to work independently, and it is difficult for the outside world to supervise it.

(3) Mental work is the mainstay, and the results of labor are difficult to measure. The main work of teachers in colleges and universities is teaching and scientific research. The result of teaching is the quality of students, and students' growth is influenced by many factors, so it is difficult to measure the teaching effect of teachers. At present, most colleges and universities use students to score teachers' lectures, experts to attend lectures and competitive courses to evaluate teaching quality. However, due to the complicated factors of students' scoring and course selection, it is difficult to evaluate teachers' teaching quality fairly. After all, the time for experts to attend lectures is limited, and it is difficult to check the whole process of teachers' teaching. Therefore, the evaluation is inevitably unfair. Although scientific research can be measured by the number of published papers, scientific research results, etc., scientific research is a process, especially major inventions need

inspiration, opportunities, and time, so excessive pursuit of the number of scientific research results will affect the quality of scientific research.

The tacit of knowledge makes it difficult to measure the labor of teachers in colleges and universities. Teachers in colleges and universities are mainly engaged in mental work, the process of labor is often invisible, and the time of labor is often random. There is no pre-established same and unchangeable workflow, no reference work standard, and it is difficult to count by simple time, especially for the major and high-level innovative research work process, it is difficult to supervise and control, and the work results are difficult to be directly measured and evaluated, and it is difficult to quantify. It is difficult to measure the results of labor. It depends on many factors, including the cooperation of colleagues and teams. The results are mostly the crystallization of team wisdom and efforts. Individual work performance is difficult to measure, and the income generated by the work itself is also difficult to evaluate due to the influence of various factors. Work efficiency is often long-term and complex.

(4) Higher social status and non-monetization of work motivation. Non-monetization of work motivation is mainly determined by the following three aspects: as performance cannot be effectively measured, it is difficult for colleges and universities to effectively motivate them based on performance. This determines that monetization motivation will not have too many markets in colleges and universities.

Teachers in colleges and universities belong to knowledge workers, and what knowledge workers have in common is that the work itself can provide them with good motivation. Specifically, for teachers in colleges and universities, they are proud of the growth of their students, the recognition of their scientific research achievements, and the sense of accomplishment they have in overcoming difficulties in the process of scientific research, etc.

(5) Mainly engaged in the production of spiritual products, with strong innovation. From the concrete form, the main work of teachers in colleges and universities is teaching and scientific research. From the abstract level, the main work of in colleges and universities is knowledge innovation, integration, and dissemination. No matter from which level, the work of in colleges and universities needs a lot of mental energy. Moreover, with the accelerating speed of knowledge

updating and the interaction of various cultures and academic viewpoints, it is objectively required that teachers in colleges and universities constantly and rapidly update their own knowledge system. On the one hand, it adds a lot of invisible pressure to their work, on the other hand, it also puts forward higher requirements for the knowledge updating ability and innovation ability of teachers themselves.

Work is innovative, and the teaching profession is a profession that needs innovative spirit and consciousness. The tacit, unmodifiable and untransferable nature of knowledge makes teachers' work complicated and innovative. Teaching needs innovation, and all the students taught are full of vitality. Students have strong self-identification ability and thirst for knowledge. No matter for the experienced teachers who have been teaching for many years or the new teachers who have just stepped onto the platform, every class is new and challenging. Scientific research is a game of high knowledge and wisdom, and scientific research can't be done well without innovation ability.

3) The Demand Characteristics of Teachers in Colleges and Universities

Based on rich and complex personality characteristics, each individual will form corresponding completely different multi-level needs. Colleges and universities are no longer "ivory tower"-style land of idyllic beauty, and their connection with society has become inseparable. Various expectations and demands of teachers in colleges and universities for universities and society are also reflected in teaching and scientific research activities, which are complicated (Xiang, 2002).

The richness and high-level characteristics required by teachers in colleges and universities (Boardman, Darling-Hammond, & Mullin, 1982; Xu, 2019). The needs of teachers in colleges and universities can be divided into two categories: material needs and spiritual needs. The difference is that ordinary people generally focus on material needs, supplemented by spiritual needs. While for the teachers in colleges and universities, are the intersection of material needs and spiritual needs. Under certain conditions, the spiritual needs may be more prominent, richer, and higher-level. For example, they have a strong sense of belonging, attach great importance to achievement motivation and spiritual motivation, and have strong spiritual needs such as social respect and self-realization. As high-quality and high-

level talents in society, teachers in colleges and universities have higher value pursuit. They are no longer just satisfied with the acquisition of physiological needs and safety needs but pay more attention to the pursuit of social needs, respect needs, especially the satisfaction of self-realization needs. They are keen on challenging work, pursuing perfect results, eager to win the respect of others and social recognition, taking the realization of self-worth as the highest goal of life struggle. Compared with ordinary people, they are more independent, self-respecting, and self-loving. Therefore, the material needs of teachers in colleges and universities are closely related to spiritual needs and have rich spiritual factors. Their need for material living conditions is mainly for better teaching and scientific research activities. For example, improving living conditions is mostly to obtain an independent space for studying, researching, preparing lessons and writing.

The needs level of teachers in colleges and universities is characterized by transcendence (Brownell, Bishop, & Sindelar, 2005). Maslow divided people's needs into five categories: physiological needs, safety needs, social needs, respect needs and self-realization needs, which developed from a lower level to a higher level in turn. However, as teachers themselves colleges and universities belong to the intellectual group, their needs characteristics are not simply to follow the progressive law of orderly development from lower level to higher level, but to show transcendental characteristics. On the one hand, under specific conditions, the unity of opposites can be achieved in different forms of teachers' satisfaction of their own needs or social needs. On the other hand, the process of teachers' development from lower levels to higher levels in colleges and universities is not a simple linear increase, but a spiral progression, that is, there are higher requirements on the original same level of need. With the development of society, the material source of opposition will gradually disappear, and the relationship between individual and society, material and spiritual will be more harmonious. At that time, the needs of teachers in colleges and universities will more easily surpass some low-level need stages and transform to high-level needs. Self-motivation of teachers in colleges and universities will become the dominant driving force, and their working potential will be released to a greater extent (Malik, Björkqvist, & Österman, 2017).

The needs of teachers is characterized by complexity (Jaramillo-

Baquerizo, Valcke, & Vanderlinde, 2019). Teachers not only have high requirements on basic needs, but also have strong needs on higher levels such as respect and self-realization. The need structure of teacher is completely a mixed and alternating need structure. The basic material needs of teachers should be solved first. In addition, in addition to the high salary representing personal achievements and personal prestige and status in society, they are also very concerned about opportunities for their ability improvement and career development. They not only pay attention to updating and supplementing knowledge, but also pay more attention to the development of their own career. They have a strong sense of accomplishment, often pursue personal achievements, hope to realize their own values, and are recognized and respected by society. They are keen on creative and challenging work as an interest. A way of pursuing self-realization, they are more eager for democracy and freedom, and demand more decision-making participation and work autonomy. They hope that the workplace and time will be more flexible, and the whole organization will have a relaxed and tolerant atmosphere. They will be able to work in ways that they think are effective. While achieving the school goals, they will receive a reward and recognition commensurate with their contributions, and they will be able to share the wealth created by their labor (Wilson Kasule, Wesselink, Noroozi, & Mulder, 2015).

4) Knowledge Characteristics of Teachers in Colleges and Universities

Scholars at home and abroad attach great importance to the knowledge characteristics of teachers in colleges and universities and discuss it with their own research. Meijer, Verloop, and Beijaard (2002) summarized the knowledge characteristics of teachers in colleges and universities as follows: 1) individual and unique; 2) Situational; 3) Based on experience and reflection on experience; 4) It is mainly tacit; 5) It is to guide teachers' teaching practice; 6) It is closely related to the subject content taught. There are also many scholars in China who have discussed the knowledge characteristics of teachers in colleges and universities. The more representative ones are Bao (2002) believes that teachers' knowledge is characterized by action, routinization and life-oriented and follows the logic of practice rather than the logic of simple understanding, which is the "specialization" of teachers' work and the foundation of teachers' demands for "teacher autonomy". He and Zhang (2006) think that the knowledge of teachers in colleges and universities has three

characteristics: unity of individuality and publicity, unity of context and universality, unity of inaccuracy and verifiability. Chen (2009b) believes that the knowledge of teachers in colleges and universities is usually reflected in the process of solving specific problems, which is characterized by value orientation, situational dependence, and rich background. Teachers' knowledge also has the characteristics of action, materialization, and tacit understanding, and must be "made". Wang (2009) thinks that the knowledge of teachers in colleges and universities has four characteristics: fuzziness, action, reflection, and generation.

The author believes that these different understandings of the knowledge characteristics of teachers in colleges and universities in academic circles are basically due to the differences in expression (language richness) and cognitive emphasis. For example, tacit understanding, fuzziness, and uncertainty basically express the same meaning, while practicality and action are basically synonymous. Based on this, and combining the views of the above scholars, this study holds that the main characteristics of teachers' knowledge can be summarized as follows:

(1) Practicality

Practicality is the primary characteristic of knowledge of teachers in colleges and universities. In the field of educational research, whether at home or abroad, teachers' personal knowledge is called teachers' tacit knowledge, which has been unanimously recognized. The reason why such an academic concept comes into being is to highlight the tacit characteristics of teachers' personal knowledge. Maxvan Manen interprets the relationship between educational theory and practice in this way. He said, "Theory itself cannot control practice, and any scientific theory of education always develops in practice. Theory has its own space only at the end of practice". It is on this basis that teachers in colleges and universities analyze problems, solve problems and reflect on ways and means to solve problems that tacit knowledge is formed (Zhang & Han, 2008). Therefore, without practice, there is no formation of tacit knowledge.

(2) Individuality

The knowledge of teachers in colleges and universities varies from person to person, which just shows the individual characteristics of teachers’ knowledge. Teachers' family environment, growth process, education status,

individual beliefs, values, personality characteristics, hobbies, etc. are all influencing factors of teachers' tacit knowledge formation. In recent years, many researchers have focused on the study of teachers' tacit knowledge from the perspective of teachers' life history. Through research, they found that "the construction of teachers' knowledge is closely related to teachers' private and professional life history" (Du, 2008; Sun, Li, & Yu, 2015). The individual characteristics of teachers' knowledge make teachers have different ways to solve problems even if they are in the same educational and teaching situation. Just as there are no two identical leaves in the world, no two teachers in the world have identical tacit knowledge.

(3) Situational

The knowledge of teachers in colleges and universities always comes into being in specific situations, that is, teachers show flexible problem-solving methods based on a specific problem at a specific moment, a specific space, facing a specific student or student group (Hu, 2020). If teachers ignore the situation of education and teaching and always mechanically and rigidly use a set of fixed formulas to solve every problem they encounter, it is obviously not feasible. As Maxvan Manen said, "It is impossible to create a set of rules and skills for pedagogical understanding, because the requirements of each situation are different." The contingency of a situation comes from the incredibly rich significance of the constituent elements in the situation: people often care about one or a group of specific students, who have a special life experience, a specific mind or a series of problems and live in a specific situation. This specific situation has a set of specific relationships and is dominated by a specific emotional atmosphere.

(4) Tackiness

Chen (2009a) divides teachers' tacit knowledge into three parts: 1) Expressible; 2) Conscious but unable to express; 3) Unconscious and tackiness. Teachers' educational belief is an integral part of teachers' tacit knowledge. It is a value concept accumulated in teachers' personal mind. Sometimes it can be stated clearly, but more often it dominates teachers' behavior as an unconscious empirical hypothesis. Teachers' educational behaviors in specific educational and teaching situations are often expressed in the form of intuition or epiphany, but teachers can't explain why they did this and didn't do that. Therefore, the tacit knowledge of

teachers in colleges and universities is a kind of knowledge form based on "tackiness" knowledge.

(5) Generativity

Although the knowledge of teachers in colleges and universities is individual, tackiness and depends on individual practice and specific teaching situation. However, as a type of knowledge, it can be reflected, imitated and used for reference (Kereluik et al., 2013). This kind of knowledge can also be acquired through learning. General experience is divided into direct experience and indirect experience. Teachers can build their own knowledge system by accumulating experience and reflecting experience from their own teaching practice, which is tacit knowledge obtained from direct experience. At the same time, teachers can also gain indirect experience by learning from others, such as listening to lectures, interpreting teaching cases, etc., and integrate the indirect experience with their own education and teaching situations, practice and revise them. In this process, teachers can also build their own knowledge system. Therefore, both direct experience and indirect experience can generate teachers' tacit knowledge. As Dewey said: "Education is the constant transformation or reorganization of experience. This kind of transformation or reorganization can not only increase the significance of experience, but also increase the ability of later experience process". Therefore, generative Ness is an important characteristic of teachers' knowledge, and it is also the value of tapping tacit knowledge of teachers in colleges and universities.

2.2.2 Research Status of Tacit Knowledge

1) Concept and Connotation of Tacit Knowledge

The concept of "tacit knowledge" first appeared in Personal Knowledge published in 1958. Michael Polanyi proposes that "this is an unspecified and uncoded tackiness information, which exists between what an individual expresses and what he knows". Nonaka and Takeuchi (1995) explained the objective existence of tacit knowledge in the article "The knowledge creating company: how Japanese companies create the dynamics of innovation", pointing out that tacit knowledge not only includes the existing experience and skills of individuals. At the same time, it also includes personal cognition, belief, values and mind, which is

highly personalized, difficult to standardize, difficult to express and communicate, and it roots in personal behavior and specific situations, and difficult to transfer to others. Nonaka (1998) proposed that tacit knowledge can be analyzed from two dimensions, namely cognitive dimension, and technical dimension. Kogut and Zander (1993) believe that tacit knowledge can be defined as the knowledge of how to do it, or the "knowledge or experience" usually expressed by people, which is difficult to compile and teach, and difficult to share and transfer within the organization. Wu and Shanley (2009) think that tacit knowledge refers to a special skill acquired by people in action. Tacit knowledge is of great value, but it is difficult to obtain and express, resulting in the phenomenon that "knowledge is greater than words". Davenport and Prusak (1997) pointed out that tacit knowledge needs to be internalized, absorbed and applied by individuals for a long time, and it can't be automatically generated in documents and databases, which is closely related to the knowledge owner's cognition, values and experience. According to the research of Ambrosini and Bowman (2001), tacit knowledge is not easy to record or express, and has the characteristics of tackiness, situational and fuzzy. Tacit knowledge is scarce and difficult to communicate, and it is expensive to understand or master it.

Drucker (1991) pointed out that individual experience and skills are the source and foundation of tacit knowledge, which can't be explained by words or language, and the only way to acquire or possess such knowledge is understanding and practice. Leonard and Sensiper (1998) research shows that tacit knowledge is often expressed in a way that people don't know themselves, which is closely related to the owner's experience, knowledge background, values and other factors. It is knowledge that individuals learn, accumulate, and innovate for a long time, and it is difficult to describe or express in words. Based on the analysis of psychology, some scholars have explored the relationship and development between tacit knowledge and individual psychology, cognition, and skills, and think that tacit knowledge has the characteristics of initiative, procedure and difficulty in imparting. Tacit knowledge is the expression of employees' personal learning ability and the ability to use knowledge to achieve personal value goals (Davis & Wagner, 2003). Busch and Richards (2000) research is different from these scholars. They believe that real tacit knowledge should exist in two forms: one is tacit knowledge that is learned through

skills, copied, and spoken, and the other is tacit knowledge that is not easy to be proved, shared, exchanged and transferred. Spender and Grant (1996) research found that there are tacit personal knowledge and organizational knowledge in enterprises. In the process of tacit knowledge sharing among employees, it is necessary to eliminate the non-expressiveness between the two sides of knowledge sharing. Many scholars believe that tacit knowledge, also known as "intrinsic tacit knowledge", is the intuition or experience acquired by human beings through sensory acceptance through long-term accumulation in natural transformation and social practice.

Zhang (2002) defined tacit knowledge as intrinsic tacit knowledge that is difficult to express and imitate. This kind of tacit knowledge is difficult to be copied or shared by different knowledge subjects such as individuals or groups. Research shows that tacit knowledge is individual empirical knowledge that comes from specific situations and practices, and it is difficult to describe, encode, share and transfer, etc., and is easy for people to use instantly and unconsciously. Yu (2003) believes that tacit knowledge is knowledge that is difficult to express clearly, or even if expressed, it is not easy to understand and absorb. Situational, culture and hierarchy are the main characteristics of tacit knowledge, which are difficult to accumulate, store and share. Cheng and Wu (2005) believe that tacit knowledge has the characteristics of individuality, situational dependence, unstructured and coexistence from the perspective of knowledge subject. Zhao, Fu, and Xi (2020) research shows that in enterprises, tacit knowledge is generally embedded in the organization's norms and has the characteristics of stability, potential, value-added, transfer and exclusion. Tacit knowledge is a very broad, complex, abstract, and even vague concept.

This paper holds that the carrier of tacit knowledge includes two dimensions: individual and organization. The tacit knowledge at the individual level has obvious personalized characteristics. It comes from the integration of intrinsic factors such as individual cognition, thinking and experience. It is rooted in individual cognition and behavior, exists in specific situations and is difficult to express, collect, communicate, and share. The organizational dimension of tacit knowledge refers to various rules, procedures, practices, and norms that are difficult to express in the organization. These rules, procedures or practices are formed in the long-term operation and development of the organization. Based on reviewing the definition of

tacit knowledge, this paper holds that tacit knowledge refers to the knowledge, experience, ideas, facts, expertise, skills and judgments related to the performance of individuals, teams and organizations, which are mastered by organizational members.

2) Characteristics of Tacit Knowledge

According to the connotation of tacit knowledge, this paper summarizes that tacit knowledge has the following characteristics:

(1) Tacitness. Tacit knowledge is a kind of "pre-linguistic knowledge", which is the result of human non-verbal intelligence activities. It is hidden in people's specific practical activities, and it is difficult to express and present it clearly by language, graphics or other symbolic forms. This is the basic characteristic of tacit knowledge (Haldin-Herrgard, 2000). People often don't realize that they have this kind of knowledge, but they unconsciously use it in life practice. In the classic metaphor of Polanyi, "We recognize someone's face in the vast crowd, but under normal circumstances, we can't clearly express how we recognize this face." However, being difficult to express does not mean that it cannot be expressed at all, but requires some special ways, such as reflection and epiphany, to logically sort out and express tacit knowledge. Polanyi (1991) repeatedly stressed that tacit knowledge should not be understood as a mysterious experience. He once said: I have unspeakable knowledge. You can't deny that I can express it, but you can only deny that I can fully express it. "

(2) Individuality. Individuality refers to the highly individualized color of tacit knowledge. On the one hand, knowledge must be based on individuals, so individuals and tacit knowledge cannot be separated. If the two are separated, tacit knowledge will lose its original meaning and it will no longer exist (Hau, Kim, Lee, & Kim, 2013). On the other hand, the acquisition and manifestation of tacit knowledge requires every individual to participate wholeheartedly. It can be said that tacit knowledge is personal experience and understanding of individuals in practice.

(3) Irrationality. The irrational characteristic of tacit knowledge means that it exists in people's thoughts without conscious modification and processing of thoughts, and it is potential, fragmentary, scattered and unsystematic knowledge (Gu & O'Connor, 2019). This is determined by the unique existence of tacit knowledge (Patterson, Pierce, Bell, & Klein, 2010).

(4) Situational. Situationally means that the acquisition of tacit knowledge must be in a certain situation or solve special tasks and problems. If tacit knowledge wants to play its role, it needs to be carried out under the hard condition of reappearing situations, problems, and tasks. Therefore, tacit knowledge is gradually formed by individuals in specific practical experience, which is closely related to the situation. The complexity of the situation will also affect the complexity and difficulty of acquiring tacit knowledge (Oztok, 2013).

3) Research on the Measurement of Tacit Knowledge

Tacit knowledge and its measurement are a new research field with the development of western innovation theory. Sternberg (Sternberg et al., 2018) pointed out the relationship between tacit knowledge and human thinking and psychological process from the psychological point of view, and he believes that many knowledge of the organization exist in employees' subjective opinions, intuition, premonition, ideals, values and imagination, and develops the managers' tacit knowledge scale through many experiments and revisions. Nancy Leonard et. al (Leonard & Insch, 2005) put forward a six-factor multidimensional model of tacit knowledge, from which the tacit knowledge scale was derived, and the related indicators included cognitive skills (self-motivation and self-organization), technical skills (personal tasks and organizational tasks) and social skills (task-related and general-related). The tacit knowledge scale composed of 542 questions and answers was distributed and tested, which verified the effectiveness of the scale. L. Grigorenko et al. (Grigorenko, Sternberg, & Strauss, 2006) used the distance square method to study the tacit knowledge level of the United States and Israel as samples in the study of tacit knowledge prediction and measurement of teachers' efficacy and practical intelligence in primary schools, and empirically concluded that tacit knowledge stock was positively correlated with teachers' ratings. Ryan and O’Connor (2013) developed and verified the measurement of tacit knowledge (TTKM) of software development teams through three empirical studies in specific areas. Anand, Ward, and Tatikonda (2010) developed the conceptual model based on the six sigma management project, and found that knowledge innovation practice can affect the success of project process improvement, and the new scale can be used to measure the creation of explicit and tacit knowledge in the process of project process improvement.

Domestically, Tang (2004) revised TKKM according to the actual situation of our country. This scale can be used to comprehensively test the tacit knowledge of managers in managing themselves, others and work. Shan and Zhang (2006) generally analyzed the key influencing factors of enterprise tacit knowledge management, and established matter-element model of enterprise tacit knowledge management performance evaluation based on matter-element theory, extension mathematics and correlation function theory, and gave quantitative numerical evaluation results by calculating its comprehensive correlation degree, which provided decision-making basis for enterprise tacit knowledge management activities. In the research of knowledge-intensive industries and enterprises, Wang (2007) found that the closeness and validity of team members are important factors that affect the team tacit knowledge learning. Li and Wang (2009) pointed out that tacit knowledge is an important part of enterprise technology from the perspective of social capital. In the actual technology transfer activities, the technical know-how hidden in the minds of R&D personnel, such as the R&D principles of key product components, the methods conceived by R&D personnel to solve problems and other tacit knowledge, is the key to realize the digestion and absorption of imported technologies, and is influenced by the dimensions of structure, cognition, and relationship.

2.2.3 Research Status of Tacit Knowledge Sharing

1) Transformation and Sharing Process of Tacit Knowledge

The research on transformation and sharing of tacit knowledge at home and abroad is influenced by SECI knowledge transformation model, which is based on SECI model or enriched and applied in practice. SECI model accurately reveals various forms of knowledge in the organization, clearly identifies the main links of knowledge transformation, powerfully explains the process of knowledge activities within the organization and provides an effective model and tool for studying the circulation process of tacit knowledge within the organization. While dividing tacit knowledge into true tacit knowledge and pseudo-tacit knowledge, Yingluo Wang and Li (2002) pointed out that there are two transfer processes of "language modulation" and "link learning" and calculated the conditions for the change of knowledge transfer mode between the two subjects by establishing the transfer model of pseudo-tacit

knowledge. Based on the theoretical model of knowledge creation, Juanru Wang and Luo (2015) analyzed the process of mutual transformation of different types of knowledge in enterprise project management from the perspectives of epistemology and ontology, and thus established a spiral three-dimensional model of knowledge transformation. Xiong and He (2005) put forward the knowledge fermentation model within the organization and think that the mechanism of most knowledge activities in organizational learning can be explained by the knowledge fermentation theory. Zhou and Xiang (2004) think that there are three process modes of tacit knowledge transfer, namely, the mode based on the mutual transformation of explicit knowledge and tacit knowledge, the mode based on information transmission and the mode based on the action-result relationship. On this basis, they analyzed the intrinsic factors that affect organizational tacit knowledge transfer. Xu, Xu, and Gu (2003) think that the transfer of tacit knowledge can be divided into two types: similarity transfer and adaptive transfer according to different situations. When the transferred knowledge is in the overlapping area of both situations, it can be called similarity transfer, while when the transferred knowledge is outside the overlapping area of both situations, it is adaptive transfer. Zhang and Zhu (2016) applied the system dynamics method to establish the micro-dynamic model of tacit knowledge dissemination within the organization, analyzed the main parameter control that affected the gradual solution of tacit knowledge dissemination within the organization, and pointed out some ways to improve the efficiency of tacit knowledge dissemination within the organization.

2) The Subject and Operating Mechanism of Tacit Knowledge Sharing

Relevant scholars have studied the subject and operation mechanism of tacit knowledge sharing. Wang and Luo (2015) think that tacit knowledge sharing in enterprises is the sharing of individual knowledge, team knowledge, enterprise knowledge and inter-enterprise knowledge at the same level and at different levels, and put forward the organizational mechanism, communication mechanism and team operation mechanism of tacit knowledge sharing. Wang and Zhuo (2005) pointed out that economic benefits and social recognition are two factors that affect tacit knowledge transfer behavior and put forward two-factor motivation mechanism to encourage tacit knowledge sharing among organizations. Zhu, Yu, and Shi (2011) think that strengthening performance appraisal, establishing motivation and

punishment mechanism, reducing the cost of knowledge sharing, establishing organizational learning culture, and sharing channels are effective mechanisms to improve the efficiency of tacit knowledge sharing in learning organizations. Wang and Guo (2012) think that tacit knowledge sharing should form a good communication mechanism, establish an effective learning mechanism and a perfect motivation mechanism, establish a long-term trust mechanism and a learning atmosphere of sharing and competition, and establish a standardized knowledge transfer system. Yang (2012) analyzed the influencing factors of tacit knowledge sharing in informal organizations within enterprises, and put forward the tacit knowledge sharing mechanism of communication mechanism, motivation mechanism, trust mechanism and collaboration mechanism. By analyzing the connotation and classification of tacit knowledge in enterprises, Li and Cheng (2014) built the tacit knowledge sharing model among individuals, teams and enterprises as a whole, and put forward the guarantee mechanisms of tacit knowledge sharing, such as building flat organizational structure, building learning organization, strengthening information construction, building trust mechanism, adopting motivation measures and building tacit knowledge sharing culture.

3) Influencing Factors of Tacit Knowledge Sharing

The research on tacit knowledge sharing mostly focuses on the field of enterprise knowledge management. By combing the literature, it is found that the existing research mainly discusses the influencing factors of tacit knowledge sharing from the following three perspectives.

(1) The perspective of motivation theory. Motivation is the key determinant of behavior. Based on the social learning theory, Yang and Shi (2007) believe that tacit knowledge sharing is a kind of conscious and active social learning behavior, and the motivation of tacit knowledge sharing is not only from people's cognition, but also regulated by the environment. Wang (2010), thinks that the tacit knowledge sharing behavior of university research team members is driven by Maslow's five hierarchy of needs based on Maslow's hierarchy of needs theory and Porter-Lawler's comprehensive motivation model, but members' needs do not follow Maslow's hierarchy of needs step by step, and cross-level needs may occur. Porter-Lawler's comprehensive motivation theory regards the motivation process of tacit

knowledge sharing as a process in which extrinsic motivation, individual internal conditions, behavior, and results are mutually unified, so it is necessary to provide targeted and accurate motivation measures for knowledge team members. Lin (2007) analyzed the influence of intrinsic and extrinsic motivation on employees' tacit knowledge sharing intention. Organizational reward and mutual benefit are extrinsic motivation of tacit knowledge sharing. Knowledge self-worth and pleasure of helping others are the intrinsic motivation to promote tacit knowledge sharing. Wu, Hsu, and Yeh (2007) think that motivation theory can well explain employees' tacit knowledge sharing behavior from the perspective of tacit knowledge sharing satisfaction. When employees expect their tacit knowledge sharing to get relatively good returns, and members are highly satisfied with their tacit knowledge sharing both inside and outside, then they will be more motivated to participate in tacit knowledge sharing. Bartol and Srivastava (2002) analyzed the role of the organization's monetary reward system in four forms of tacit knowledge sharing. (Individual contribution to the organization database; Share knowledge in formal interaction within the team or work unit or across departments; Share the knowledge of informal interaction between individuals and practice community knowledge). To sum up, most scholars believe that the motivation of tacit knowledge sharing is the key factor influencing tacit knowledge sharing behavior. The motivation theories of tacit knowledge sharing mainly include social learning theory, Maslow's hierarchy of needs theory, Herzberg's two-factor theory, achievement motivation theory and so on. Intrinsic and extrinsic motivation is the power source of tacit knowledge sharing, and the motivation of tacit knowledge sharing mainly comes from human and environmental factors.

(2) From the perspective of social capital theory. Tacit knowledge sharing is a social interaction process between two or more sharing parties in a certain social network. Social capital is the system, relationship and norm that shapes the quality of social communication. Social capital includes three important aspects: social structure, relationship, and cognition. Structure refers to the general structure of social relations between individuals; Relationship refers to the nature of individual connections in social networks, including trust, normative principles, obligations, and identities; Cognition refers to the resources that help members form common views and understandings (including common goals and languages). The factors of these

dimensions jointly promote individual interaction. Through empirical research, Sun and Liu (2007) found that social capital's relational resources (trust, norm) and individual behavior ideas (self-worth perception, expected reward) significantly promoted tacit knowledge sharing intention though empirical research, but the relevant assumptions of social capital structure resources were not supported. Scholars of Chiu, Hsu, and Wang (2006) have combined social capital theory with social cognitive theory to construct the motivation model of tacit knowledge sharing in virtual learning community. This study has proved that social interaction, trust, reciprocity, identity, shared vision and common language in social capital influence the tacit knowledge sharing of individuals in virtual community, and the result expectation (community-related result expectation and personal result expectation) can make the virtual community generate tacit knowledge sharing. Hao Ping derived relational capital from social capital, focused his research on the influence of relational capital on cooperation effectiveness in knowledge alliance, and discussed the influence of trust, reciprocity and identity factors in relational capital on cooperation effectiveness through the intermediary variable of tacit knowledge sharing. Some scholars (Lee & Hong, 2014; Levin & Cross, 2004; Olaisen & Revang, 2017) have further discussed the influence of trust in knowledge sources, organizational factors and other related factors on tacit knowledge sharing behavior. Trust is in the continuum of economic orientation and behavior orientation, and the reason for its generation is based on rational analysis, natural tendency or emotional recognition based on understanding. The dimensions of trust between knowledge providers and receivers mainly include emotional, cognitive, and institutional trust. To sum up, the research on individual tacit knowledge sharing behavior from the perspective of social capital mainly includes three levels of research. 1) Analyze the influencing factors of tacit knowledge sharing behavior from the perspective of social capital structure, cognition and relationship; 2) Discuss tacit knowledge sharing behavior based on any one of the three dimensions of social capital; 3) Study tacit knowledge sharing behavior from a specific variable of any dimension of social capital. The focus of these three levels is getting smaller and smaller, and the research level is getting deeper and deeper.

(3) From the perspective of social exchange theory. Social exchange is produced by social attraction (intrinsic reward and extrinsic reward), which will cause the power differentiation of both parties in the exchange process. Trust and reciprocity are the cornerstones of maintaining social exchange. Social exchange is obviously different from pure economic exchange because the obligations of all parties in social exchange are often not clearly defined, and the standards for measuring contributions are not clear. Tacit knowledge sharing is a process of social exchange (Oztok, 2013), and the conditions affecting social exchange mainly include: "the development stage and characteristics of the relationship between exchange partners; The characteristics of the benefits of entering the transaction and the costs caused by providing them, as well as the social situation in which the exchange takes place ". Niedergassel and Leker (2011) developed the tacit knowledge sharing model based on this analysis framework. At the initial stage of tacit knowledge sharing, there is a need for knowledge complementarity between the two sides, and acquiring new knowledge is the potential driving force of tacit knowledge sharing. Once entering tacit knowledge sharing, the trust relationship between exchange partners and the original relationship will have an impact on tacit knowledge sharing. At the same time, under the uncertain benefits and costs, the interdependent partnership has become the driving factor of tacit knowledge sharing. Of course, the partnership of tacit knowledge sharing is also influenced by the social environment, including the role and status of exchange partners, power differences, the overall sharing level in the organization and other influencing factors. Tsai and Cheng (2012) discussed the nature of social exchange environment and divided it into three structures (perception of organizational support, organizational trust and expected reciprocity) to verify their influence on individuals' attitudes towards tacit knowledge sharing system. Wang, Tseng, and Yen (2014) further put forward that trust is the basis of social exchange. When people realize that they are in an environment of mutual trust, they tend to cooperate and share with others, and divide trust into trust in organizations, supervisors, and colleagues according to the objects of trust. The rewards and costs of social exchange are not limited to material costs, but also may be the consumption of time and energy. The rewards may also be spiritual wealth and social wealth besides material wealth. The nature of rewards of tacit knowledge sharing reflects the basic

characteristics of social exchange. To sum up, tacit knowledge sharing is a kind of social exchange process, in which one side of tacit knowledge sharing provides knowledge to its partners, so that the knowledge receiver has a sense of mutual obligation, and the knowledge provider expects to meet the future knowledge demand (Panahi, Watson, & Partridge, 2012; Sanford, Schwartz, & Khan, 2020; Yan, Wang, Chen, & Zhang, 2016). However, both parties or each party of tacit knowledge sharing have not clearly defined the proportion and nature of sharing costs and benefits, which requires the parties of tacit knowledge sharing to trust each other, take reciprocity as the core principle of sharing, and the leaders of the organization should give members the appreciation and support for tacit knowledge sharing behavior appropriately.

4) Realization of Tacit Knowledge Sharing

Because tacit knowledge is highly personalized, abstract, difficult to encode and highly dependent on the environment, the sharing of tacit knowledge within an organization is not as easy as information exchange. As for the realization of tacit knowledge sharing, Davenport et al. (1998) put forward that it is helpful to promote the realization of tacit knowledge sharing through face-to-face in tea rooms, chat rooms, knowledge exhibitions and other occasions, or through mentoring and reviewing afterwards. Woo, Clayton, Johnson, Flores, and Ellis (2004) research pointed out that the tacit knowledge mastered by experts can be partially extracted by establishing case base, reasoning demonstration, drawing knowledge map and other technical means. Shu-Chen and Farn (2010) believe that the best way to transfer potential knowledge from one individual to another is not through databases, but through interpersonal relationships, and point out that tacit knowledge can only be transmitted in the organization in a "perceptual" way. Because tacit knowledge contains a lot of unsystematic information, it can't be expressed directly by language, words, or diagrams. Aiming at this kind of obscure knowledge, we can guide the knowledge owners to express it unconsciously like "storytelling" by assigning professionals to ask questions or expert interviews. In practice, there are many well-known working and thinking methods, which can promote tacit knowledge transfer to a certain extent if used properly. For example, scenario demonstration and brainstorming are practical methods to make tacit knowledge explicit, which are of

great benefit to the individual's ability to comprehend tacit knowledge and the cultivation of team's innovative thinking (do Rosário, Kipper, Frozza, & Mariani, 2015; Ngah & Jusoff, 2009).

In China, Zhu, Jiang, and Zhang (2009) built a flow chart of tacit knowledge transformation in enterprise technological achievements after in-depth research on the transformation of tacit knowledge in the process of technology transfer. Shen (2006) proposed that to promote the explicit of tacit knowledge and improve the teaching quality and effect, case teaching should be fully used to promote the flow and sharing of tacit knowledge. Gao (2003) put forward three ways to make tacit knowledge explicit from the perspective of psychology: process recall, introspection, and situation simulation. In view of the fuzziness and artistry of tacit knowledge semantic expression, intuition, and difficult coding of tacit knowledge, Hou, Guo, and Yang (2019) put forward four levels of tacit knowledge sharing mode: "observing things to obtain images", "standing images to express their meaning", "being proud of forgetting images" and "expressing images". Lu and Wang (2011) put forward that the organizational culture of tacit knowledge sharing, the establishment of trust mechanism of tacit knowledge sharing, the establishment of practical community, the establishment of effective incentive mechanism, the establishment of organizational structure conducive to tacit knowledge sharing, the establishment of knowledge supervisor and the establishment of mental model of tacit knowledge sharing are seven core countermeasures to promote tacit knowledge sharing. Guo (2004) summarized the problems of tacit knowledge transformation ways, and summarized the ways of learning history, hindsight, community of practice, foresight, metaphor, overlapping knowledge, activities, responsibility design, thinking collision, knowledge domain synthesis and so on. Li et al. (2011) thinks that university scientific research teams should make full use of resources, create a good innovative atmosphere, and shape the innovative style of team leaders, to fully share the tacit knowledge of researchers in colleges and universities. To sum up, scholars have put forward a variety of ways and means of knowledge sharing to help individuals express and understand tacit knowledge that is easy to be explicit, but it must be seen that how much can be effectively transferred depends on individuals' sensitivity to their own tacit knowledge and their psychological preparation for the difficulty of

explicit tacit knowledge.

2.2.4 Research Status of Tacit Knowledge Sharing Behavior of Teachers in Colleges and Universities

1) Characteristics of tacit knowledge of teachers in colleges and universities

The tacit knowledge of teachers in colleges and universities exists in the subconscious of teachers in colleges and universities, and it is an empirical knowledge generated according to their own personality and environment in the long-term practical activities of teachers in colleges and universities. This study believes that the typical characteristics of tacit knowledge of teachers in colleges and universities include (Crowley, 2001; Elliott et al., 2011; Yu & Zhou, 2015; Zhang & Han, 2008):

(1) Individuality. The acquisition of tacit knowledge of teachers in colleges and universities is closely related to their own abilities. Teachers in colleges and universities acquire new knowledge through continuous learning, reorganize knowledge through their own understanding, and internalize it into their own individual knowledge. In the process of teaching practice, teachers in colleges and universities show their theoretical knowledge through their own behavior. Because teachers in different colleges universities have different degrees of understanding of knowledge, they use knowledge in different ways and behave differently.

(2) Practicality. In the process of teaching practice, teachers in colleges and universities need to adjust the way of imparting knowledge at any time according to the different needs of students. This process is also a process in which the tacit knowledge of teachers in colleges and universities comes into play. Moreover, in the long-term teaching practice, teachers in colleges and universities have accumulated a great deal of experience in solving problems. It is these experiences that make teachers in colleges and universities have a deeper understanding of "teaching without a fixed method", so that their knowledge can be developed.

(3) Situational. Teaching situation includes time, space, teachers in colleges and universities, students, atmosphere, teaching purpose, teaching materials and other factors. In this environment, teachers in colleges and universities can develop their rational and irrational intelligence, and in this specific situation, teachers in colleges and universities can think about practical problems and generate instant inspiration.

(4) Dynamic. Tacit knowledge of teachers in colleges and universities is a dynamic development process. With the accumulation of teaching practice experience and the change of environment, the cognitive structure of teachers' minds in colleges and universities is constantly changing. The change of cognitive structure promotes knowledge reorganization, thus quantifying new tacit knowledge, which is a process of knowledge rising.

2) The Connotation of Tacit Knowledge Sharing of Teachers in Colleges and Universities

At present, it is found that the research on knowledge sharing in the education industry is increasing in the early years of this century, but there are few researches on knowledge sharing among teachers, mainly focusing on the role and status of teachers' knowledge in teachers' professional development, and the domestic research on how to effectively share teachers' tacit knowledge and its influencing factors is even less involved (Budge, 2016; Edge, 2013; Jian & Mei, 2010).

Knowledge sharing is an important part of knowledge management, and any research on knowledge sharing cannot be separated from the elaboration of knowledge management. In the field of education, Hargreaves of the University of Cambridge in England first introduced the knowledge management theory (Hargreaves, 1999; Hargreaves & Hargreaves, 2006). In 1999 and 2000, the scholar published "Schools for Creating Knowledge" and "Production, Media Transmission and Application of Professional Knowledge of Teachers and Doctors: A Comparative Analysis", which are important documents to discuss the application of knowledge management in education.

The understanding of teachers' tacit knowledge sharing has its own merits, and the representative ones are as follows: Shim and Roth (2009) research found that teachers in colleges and universities feel limited by professional and

personal cultural background, which makes them prefer informal knowledge sharing activities such as peer assistance. Maravilhas and Martins (2019) believe that the exchange and sharing of tacit knowledge can be effectively realized among researchers in professional laboratories in colleges and universities through mutual evaluation and suggestions for improvement during the implementation of scientific research cooperation projects. Kurdi and other research (Al-Kurdi, El-Haddadeh, & Eldabi, 2020) put forward a good organizational atmosphere and cooperative relationship, which is conducive to more efficient sharing of tacit knowledge among university researchers. Alshehri and Cumming (2020) believe that the mobile Internet technology facilitates and deepens the communication and cooperation between students and teachers, and between teachers and teachers, thus helping to realize the convenient communication and sharing of tacit knowledge. Zhang (2011) believes that teachers' tacit knowledge sharing should include three meanings: reciprocity, development, and reflection. "Reciprocity" means the two-way transmission of practical knowledge; "Development" means that sharing is intended to improve teachers' ability to acquire knowledge and solve problems; "Reflection" means that teachers should understand the profound connotation behind each other's teaching through reflection, to achieve vision integration. Li and Lu (2008) think that under the network environment, knowledge sharing among teachers in colleges and universities becomes easier. This paper establishes a theoretical model of knowledge sharing among teachers in colleges and universities under the network environment, analyzes the main factors that affect knowledge sharing among teachers in colleges and universities, and verifies the theoretical model through empirical research. Liu (2012) explained the tacit knowledge sharing of teachers in colleges and universities from four aspects. First, the process of tacit knowledge being recognized by others in various ways; Secondly, interactive practice among teachers; Thirdly, tacit knowledge sharing should be realized through teachers' subjective construction; Fourthly, tacit knowledge sharing aims at teachers' professional development.

Zhou (2006) believe that teacher knowledge sharing refers to the process of externalization, transmission, internalization, and reconstruction of teachers' professional knowledge by means of diversified communication media such as words, symbols, and multimedia technology. Yu and Zhou (2015) believe that

teacher knowledge sharing means that teachers share their practical knowledge with each other, so that teachers' personal knowledge can be spread to organizations. Oztok (2013) believes that knowledge sharing means that teachers share their own knowledge with other teachers through relevant technologies and means, and acquire the knowledge they need in the process of sharing with other teachers, so as to promote their professional development. Deng (2006) believes that teachers' knowledge sharing means that teachers, as knowledge disseminators and knowledge reconstructions, promote the circulation and transfer of knowledge among teachers, and finally achieve knowledge sharing. Based on the above viewpoints, this paper holds that "tacit knowledge sharing of teachers in colleges and universities" is: taking teachers in colleges and universities as the main body of knowledge sharing, taking teachers' knowledge as the object of sharing, and aiming at promoting their professional development, teachers use various tools and ways to transfer their tacit knowledge to other teachers, so as to realize the innovation and development of the original knowledge in the process.

Teachers' tacit knowledge sharing first pays attention to communication opinions. Knowledge sharing needs communication. Those who have a need for knowledge ask for and acquire knowledge from those who own it, share other people's knowledge, and externalize knowledge into internalized behaviors, such as giving speeches and building databases. Secondly, there is a learning point of view. There is a difference between knowledge sharing and information sharing. The former is not a simple knowledge acquisition activity, but focuses on learning, which is different from information sharing and information transmission. It is necessary to ensure that others know what is and know why (Ipe, 2003). Knowledge sharing is two major actions, namely, knowledge is transmitted to potential recipients and absorbed and internalized by individuals or teams that receive knowledge; Furthermore, it is the view of knowledge interaction. Some scholars divide knowledge into tacit knowledge and explicit knowledge. The former is personal knowledge that cannot be explained and not systematized, while the latter is rational knowledge obtained through careful observation and can be expressed by words, numbers and so on. It also involves the commonality of the two, that is, creating tacit knowledge through the sharing of experience; Finally, it is the view of knowledge base system, which looks at

knowledge sharing from another perspective. It is different from the two-way interaction mechanism of learning view. The view of knowledge base system takes less account of the absorption position of the knowledge receiver, and makes knowledge independent of the subject, which belongs to an individual one-way behavior (Yu & Zhou, 2015).

3) The Characteristics of Tacit Knowledge Sharing of Teachers in Colleges and Universities

The knowledge resources owned by an organization are not a simple combination of knowledge resources owned by all its members. A flexible organization should have the ability to spread tacit knowledge within the organization, so that individual knowledge can be shared by the whole organization and the overall knowledge advantage of the organization can be formed.

Tacit knowledge is a series of understandings about personal beliefs and personal values, which has the vertical connection of ideological inheritance and knowledge from shallow to deep. Because of the differences in each person's values, even if the holders of tacit knowledge are willing to share their knowledge with others, tacit knowledge is not as easy to be acquired by a third party as explicit knowledge. If tacit knowledge is personal opinion, it can only be acquired through personal experience. The tacit characteristics and private nature of individual knowledge hinder the transformation and sharing of knowledge (Maravilhas & Martins, 2019). The process of tacit knowledge sharing has the following characteristics: exchange dependence. A large number of research evidences show that many inter-organization and intra-organization sharing behaviors are created and maintained based on exchange. By exchanging their tacit knowledge, people also rely on others in the organization to develop and supplement knowledge, thus reducing everyone's burden on knowledge learning (Hau et al., 2013; Oztok, 2013). If, when people or organizations find that their exchange is no longer rewarding, or when there are new or more competitive individuals in the organization that offer higher profits in the exchange, the previously established knowledge sharing relationship ends. Specifically, tacit knowledge sharing of teachers in college and universities has the following significant characteristics (Chugh, Wibowo, & Grandhi, 2015; Edge, 2013; Yu & Zhou, 2015; Zhong & Qu, 2012).

(1) Cognitive consistency

Tacit knowledge may be distorted to some extent in the process of sharing, which affects the differences in understanding tacit knowledge of teachers in college and universities and their accuracy in knowledge understanding. Under this premise, the individual's desire for the consistent identity of tacit knowledge becomes the ultimate goal of sharing. American social psychologists believe that the attitude of different individuals towards knowledge is regarded as a function of their cooperative relationship. When the cooperative relationship between individuals and sharing partners is maintained in a balanced state (the identity of shared objects is consistent), people may have a higher sense of sharing responsibility and mission. Therefore, the cognitive consistency of teachers in college and universities on shared knowledge can be used to express the individual's satisfaction with tacit knowledge sharing activities.

(2) Reflection Exclusivity

When using a new technology or accepting a new kind of tacit knowledge, individual teachers in college and universities often have the strength of individual opinions and the degree of aversion to social isolation risks, which are used to express the influence of participants on the opinions of other knowledge sharers. When teachers are exposed to different tacit knowledge, their attitudes and behaviors will not tend to be the same as time goes by but will evolve based on their understanding of their own individual environment, thus forming the differences of individual knowledge sharing attitudes and behaviors of teachers in college and universities.

(3) Behavior selectivity

Behavioral selectivity means that individual teachers in college and universities have behavioral preferences in the process of tacit knowledge sharing, and their knowledge sharing behaviors often have a certain purpose. For example, based on the theory of "members who are most likely to contribute or may contribute the most" in social networks, the behavior of knowledge sharers is divided into two types of knowledge sharing: high-arrival and high-connection, and low-arrival and high-connection. Choosing an arrival strategy means that the sharers are looking for sharing partners who are most likely to contribute; Choosing the arrival strategy means that the sharers are looking for sharing partners who are most likely to

contribute. Choosing a connection strategy means that the sharing subject looks for the sharing partner who may contribute the most. Teachers choose tacit knowledge sharing methods based on their own needs.

(4) Resource Heterogeneity

The structure and stock of tacit knowledge resources owned by teachers in colleges and universities are different. The resource heterogeneity leads to the existence of knowledge difference among different teachers, which is a stimulating factor for dynamic knowledge sharing from the perspective of dynamics. At the same time, if teachers with high tacit knowledge resources are committed to promoting tacit knowledge exchange, dissemination and sharing in the whole university, it will often lead to changes in knowledge sharing mode and path, and then the efficiency of tacit knowledge sharing will also be affected.

4) The Current Situation and Dilemma of Tacit Knowledge Sharing among Teachers in Colleges and Universities

In the research field of tacit knowledge sharing among teachers in colleges and universities, there is a phenomenon that teachers' teaching experience is confused with teachers' tacit knowledge, and more related research is based on the perspective of teachers' experience sharing, while the related research on tacit knowledge sharing among teachers in colleges and universities is relatively neglected (Chugh, 2017; Kaya & Erkut, 2018).

Deng (2006) pointed out that there are six problems in tacit knowledge sharing among teachers in colleges and universities, namely, teachers' lack of willingness to share; Lack of learning opportunities for teachers; Lack of trust relationship among teachers; Lack of space for communication and dialogue; Lack of shared common topics; Lack of sharing channels. Chugh (2017) believes that insufficient communication, lack of trust, confidentiality, organizational norms and lack of support and rewards are the main reasons for the ineffective sharing of tacit knowledge among teachers in colleges and universities. Bao, Luo, and Wang (2015) pointed out that the present situation of teachers' tacit knowledge sharing is mainly as follows: low sharing willingness; Single sharing method; Low sharing satisfaction; Unclear motivation of sharing; Lack of sharing mechanism. Through empirical research, Cao (2009) found that there are three problems in teachers' tacit knowledge

sharing: 1) School leaders and teachers have insufficient awareness and attention to tacit knowledge sharing; 2) The ways and means of teachers' tacit knowledge sharing are relatively simple; 3) The role of teachers' tacit knowledge sharing is insufficient. Kaya and Erkut (2018) put forward that the fuzziness and practicality of teachers' tacit knowledge are the important reasons why it is difficult to realize efficient knowledge sharing. Sun (2017) pointed out the problems of teachers' tacit knowledge sharing from three aspects: the weak motivation of teachers' tacit knowledge sharing, the low level of trust among teachers and the outdated and single way of tacit knowledge sharing. Therefore, there are many obstacles and problems in the process of teachers' tacit knowledge sharing. However, these studies simply describe the present situation of teachers' individual sharing in the process of teachers' tacit knowledge sharing, and lack the investigation and exploration of school organization, management, and technology.

5) Tacit Knowledge Sharing Strategies of Teachers in Colleges and Universities

In order to effectively improve the level of tacit knowledge sharing among teachers in colleges and universities, scholars actively offer suggestions on strategies of tacit knowledge sharing among teachers in colleges and universities, and put forward targeted strategies to promote tacit knowledge sharing among teachers based on different dimensions (Ramadhan, Soesanto, Rizana, Kurniawati, & Wiratmadja, 2017; Yu & Zhou, 2015). At present, the obstacles, and problems in the process of tacit knowledge sharing among teachers in colleges and universities have affected the professional development of teachers to varying degrees. Worthington, Stanley, and Lewis Sr (2014) proposed to promote the sharing of teaching experience and knowledge by establishing sustainable partnership and teacher alliance. Zhou (2006) put forward four strategies for sharing teachers' tacit knowledge: the strategy of "collective reflection on key events"; the strategy of "talk card technology"; the strategy of "nominal team member technology"; the strategy of "Group metaphor analysis". Li (2018) puts forward the ways to promote teachers' tacit knowledge sharing from three aspects: teachers' psychology, school culture and motivation mechanism: 1) advocating organizational learning and forming teachers' mental model of sharing; 2) building a campus culture conducive to teachers' sharing; 3)

implementing an effective motivation system. From the perspective of school management, Li and Xiao (2005) put forward strategies to promote the sharing and transmission of teachers' tacit knowledge, such as building a technical platform for teachers' tacit knowledge sharing, reconstruction the school value system, optimizing the organizational design of teachers' groups, and establishing cooperative and mutual trust peer relationships. Zhou (2006) pointed out the strategies from five dimensions: individual factors of teachers, nature of knowledge, organizational factors, cultural factors and time and technology factors: motivation stimulation and attitude adjustment; Create an organizational atmosphere of trust and a school culture of teachers' knowledge sharing; Optimize the organizational structure of the school and create a teacher learning community; introduce the mechanism of teachers' knowledge sharing. Deng (2006) proposed not only to create a harmonious and shared school culture and cultivate the psychological foundation of teachers' mutual trust, but also to promote teachers' knowledge sharing with the help of strategies such as establishing the management mechanism of reward and performance and a good information network system. Cao (2009) proposed a fair strategy based on the organizational level of teachers, which mainly refers to the principle of reciprocity in the sharing process and the knowledge compensation mechanism; Based on the individual level of teachers, the subjectivity strategy is proposed, which requires schools to respect teachers' subjective status and implement people-oriented management measures for teachers and students.

In the research of tacit knowledge sharing strategies among teachers in colleges and universities, different researchers put forward targeted strategies based on different problems. However, in a comprehensive view, each viewpoint has different emphases and dimensions. Some scholars focus on reconstruction campus culture, while others prefer to use information technology to promote the effective sharing of teachers' knowledge. These countermeasures and opinions lack systematic and integration, and the research needs further in-depth analysis.

2.2.5 Research Status of Influencing Factors of Tacit Knowledge Sharing Behavior among Teachers in Colleges and Universities

The research results of influencing factors of teachers' tacit knowledge sharing at home and abroad are abundant, and the research perspective and basis are different. According to the different roles of teachers, such as teachers in colleges and universities, primary and secondary school teachers and preschool teachers, that is, different sharing subjects, some researchers analyze and study the influencing factors of teachers' tacit knowledge sharing from the aspects of individual, organization, culture, and technology. Shim and Roth (2009) found through investigation that teachers' individual factors, organizational environment factors and technical factors are the main influencing factors to promote tacit knowledge sharing among teachers in colleges and universities. Shim and Roth (2009) found through empirical investigation that due to the limitation of disciplines and majors and the difference of personal cultural background, these teachers are more inclined to choose informal tacit knowledge sharing and exchange activities such as peer assistance and mentoring. Through empirical research, Zou (2012) concludes that intrinsic motivation factors, teachers' ability to share knowledge, ideas and organizational culture have an important influence on tacit knowledge sharing among teachers in colleges and universities, among which intrinsic motivation factors have a significant effect on teachers' sharing behavior. Zhang and Zhang (2009) proposed to share knowledge through knowledge maps and exchanges and cooperation among teachers; Huang (2006) proposed to build a knowledge sharing and dialogue mechanism in colleges and universities to share knowledge efficiently. Zhu (2010) proposed to build a learning-type scientific research innovation team, interdisciplinary academic research center, knowledge base and knowledge supervisor positions to share teachers' teaching and scientific research knowledge through the construction of "mentoring" and lecture system. Ma and Li (2015) put forward that knowledge sharing among teachers in colleges and universities refers to the process that teachers expand their knowledge scope and form new knowledge through knowledge exchange based on platform. Wang (2010); Yang (2013); Zhu (2010) proposed that teachers should share teaching plans, videos, teaching experiences and other knowledge through knowledge Blog and knowledge sharing platforms in colleges and universities.

Based on the research results of the theory of planned behavior and knowledge transfer, this paper holds that the most direct factor affecting the tacit sharing behavior of teachers in colleges and universities is the intention of knowledge sharing. Secondly, attitude influences knowledge sharing behavior by influencing tacit knowledge sharing intention. In addition, the tacit knowledge sharing behavior of teachers in colleges and universities is also influenced by many factors and will influence the knowledge sharing behavior through knowledge sharing intention, such as knowledge sharing attitude, self-confidence, self-control, sharing motivation and relationship closeness. Other factors will indirectly affect the tacit knowledge sharing intention of teachers in colleges and universities through relationship closeness, sharing attitude and sharing motivation, such as other people's support, capital, reputation, self-achievement, and policy perception.

Teachers' tacit knowledge sharing intention in colleges and universities will directly affect knowledge sharing behavior. Based on the theory of planned behavior and its model, intention directly affects behavior, and tacit sharing intention also directly affects knowledge sharing behavior. Chen et al. (2009) found in the research of virtual learning groups that there is a positive relationship between knowledge sharing intention and sharing behavior. Jolaee, Nor, Khani, and Yusoff (2014) also found that the intention of knowledge sharing has a positive impact on sharing behavior when studying knowledge sharing among teachers in collegess and universities. Xue, Liang, Hauser, and O'Hara (2012) found that the intention of knowledge sharing has a great influence on the behavior of knowledge sharing. Thus, knowledge sharing intention is a factor that affects sharing behavior.

Tacit knowledge sharing attitude is the influencing factor of knowledge sharing intention. The theory of planned behavior suggests that attitude affects behavior intention, and knowledge sharing attitude also affects knowledge sharing intention. Zhang and Ng (2013) found that the attitude of knowledge sharing would affect the intention of knowledge sharing when studying the knowledge sharing in the construction industry. Stankosky, Calabrese, Dong, Liem, and Grossman (2010) found that the attitude of sharing will affect the intention of sharing when studying the knowledge sharing consciousness of Vietnamese educational organizations. When the attitude of knowledge sharing is more positive, the sharing intention will be stronger.

The research of Jolaee et al. (2014) also found that sharing intention will be influenced by sharing attitude and having good knowledge sharing attitude among colleagues in colleges and universities will stimulate sharing intention.

Teachers' self-control is the influential factor of tacit knowledge sharing intention. Chen, Chang, Tseng, Chen, and Chang (2013) found in the research on enhancing self-control that strengthening self-control can strengthen intention, and teachers with good self-control can focus more on intention of knowledge sharing and realize sharing behavior. Bagozzi et al. (2000) holds that teachers with good self-control can self-discipline their sharing attitudes, intentions, and behaviors.

Teachers' knowledge sharing motivation in colleges and universities is the influencing factor of knowledge sharing intention. Xing Zhang, Liu, Chen, and Gong (2017) found that motivation and social capital can influence the intention of knowledge sharing in the study of communities or healthy groups. While capital, reputation and self-achievement affect shared motivation.

Policy perception affects tacit knowledge sharing intention and sharing attitude. When teachers think that the policy supports tacit knowledge sharing among teachers, teachers' sharing intention and attitude will be strengthened, while on the contrary, it will weaken the sharing intention and attitude (Yue, 2012). The policies in colleges and universities will also affect teachers' sharing intentions and attitudes. Encouraging policies and resource sharing models can promote and enhance teachers' sharing intentions and attitudes (Kong, 2016).

1) Behavioral Intention

Intention/consciousness: It represents a mental state that will take expected actions in the future. It involves a certain plan and anticipation of many future behaviors (Bratman, 1987). From the perspective of popular psychology, people's consciousness is based on certain expectations or beliefs about goals. Therefore, intention/consciousness is a kind of desire to fulfill the behavior with specific expectations, so that people can be satisfied (Malle & Knobe, 1997). According to Astington (1993), human behavior is caused by human desire, and intention is the intermediate medium between them. Therefore, it defines intention as a psychological state caused by desire, which can make people achieve their behavior goals. With the continuous development of understanding of the concept of intention,

intention is gradually recognized as a psychological state similar to belief or desire possessed by people to complete certain behaviors. Hall (2001) thinks that the intention of behavior is just a concept of probability, and the stronger a person's subjective willingness to do an act, the more likely he is to perform it. However, to make tacit knowledge sharing behavior, teachers in colleges and universities should first change their intention of knowledge sharing. Teachers' job in colleges and universities is the creation and dissemination of knowledge and wisdom. Knowledge sharing means sharing their academic achievements, special economic benefits (knowledge copyright fees, lecture fees and expert fees, etc.) and core ideas, which requires great sacrifices (Hsu & Chang, 2014). Among them, the intention of knowledge sharing is very important, and the traditional "teaching disciples, starving masters" and "knowledge protectionism" have seriously hindered knowledge sharing (Cao, 2010). Holding this sense of sharing is not a unique phenomenon in China. An investigation of Iranian higher education institutions shows that due to the "individualism" academic intention of scholars, the degree of knowledge sharing among scholars is very low, which hinders academic sharing. The main reason is that related academic institutions only pay attention to individual academic achievements, which leads to this awareness (Dokhtesmati & Bousari, 2013). However, the study of teachers' intention in Taiwan pointed out that the phenomenon of "one-time employment and seldom resignation" caused teachers' low sense of achievement, and could not drive teachers to make great contributions, while most of them were only willing to stay where they were (Wang & Fwu, 2014). However, in China, due to the influence of staffing of government affiliated institutions, teachers who enter the establishment can enjoy long-term protection from the system and policies. Therefore, teachers' tacit knowledge sharing enthusiasm is greatly affected. Because it is rarely influenced by the competition mechanism, the projects or behaviors with short economic benefits in the near future will not be considered in the absence of a strong competitive environment (Liu & Chen, 2009). As such, many scholars believe that teachers in colleges and universities have a negative attitude towards tacit knowledge sharing.

2) Motivation

Motivation: Motivation is considered to be the fundamental factor that induces people's behavior and inspires individuals to make progress (Jodai, Zafarghandi, & Tous, 2013). It refers to people's desire or expectation for certain things (such as lifestyle, social and cultural identity and general behavior, etc.), and it is also the inducement for people to repeat certain behaviors (Ryan & Deci, 2000a). Motivation may be self-motivation within individuals, or conscious or unconscious factors, such as elite sports, drugs or music (Van Mullem, 2016). Motivation is the cause of human behavior, will and goal (Ryan & Deci, 2000a). Robbins and Everitt (1996) analyzed this cause from the perspective of neurology, and believe that the main inducement of motivation to behavior is two parts, one part is the pursuit of positive aspects, the other part is the avoidance of negative aspects. From the point of view of natural theory, McGregor (1960) thinks that compared with the rational motivation theory that people don't like work and only respond to rewards and punishments, people's behavior is more based on the satisfaction of physiology, safety, society, self-awareness and self-realization. Herzberg (1968) two-factor theory holds that the needs does not need to be divided into many levels. Needs motivation that drive behavior are mainly divided into two categories. One category is the element that improves people's satisfaction, that is, satisfying this need can improve people's satisfaction, but not satisfying it will not affect the basic life. The other category is hygiene factors, that is, when these factors are not satisfied, they will affect people's feelings about health, while when these factors are sufficient, they will not significantly improve the satisfaction. However, the division according to the hierarchy of needs is relatively vague, and it is difficult to distinguish the specific needs of people under specific circumstances, and people's motives or needs are often complicated and mixed, so it is difficult to completely distinguish the hierarchy (McLeod, 2007).

Motivation can clearly distinguish the source of motivation from intrinsic and extrinsic, which also produces two motivation theories: intrinsic motivation and extrinsic motivation. According to the theory of intrinsic motivation, people's behavior itself can get self-satisfied feedback. For example, if people like a sport, such as basketball, people may just like the experience it brings, rather than the

external material stimulation (Ryan & Deci, 2000a). Deci et al. (1999) explained the intrinsic motivation theory that some activities have their own reward mechanism, which means that there is no need for external material to motivate them. The motivation of internal pursuit can be roughly divided into two aspects, on the one hand, self-affirmation, and on the other hand, the ability to enhance cognition. Kruglanski et al. (1971) proved that in terms of intrinsic motivation, the representative spiritual motivation will enhance people's self-affirmation, thus enhancing intrinsic motivation. The extrinsic motivation theory is complementary to the intrinsic motivation theory, which holds that extrinsic causes are important factors for motivation. Intrinsic motivation is usually a stimulus that intrinsic motivation can't get from extrinsic (Ryan & Deci, 2000b). Extrinsic material rewards and competition, etc., will all cause people's expectations for specific behaviors. The stimulation of extrinsic substances will greatly affect the stimulation of a certain behavior. Therefore, it is found that the motivation of tacit knowledge sharing among teachers in colleges and universities can be analyzed from three major factors: extrinsic material reward (money) and reputation (reputation), and intrinsic self-achievement.

3) Attitude

Attitude: it is a psychological concept, which refers to a person's mental, emotional or personality characteristics or an existence (Perloff, 1993). It is a kind of psychological state that people intentionally make to people, things, substance and places. In social psychology, the definition of attitude is an evaluation of objective things. Its range is between extreme positive and extreme negative (Wood, 2000). It can also be understood as a positive or negative evaluation of others, substance, things, activities and ideas (Eagly & Chaiken, 1993). In addition, according to Carl Gustav Jung's definition, attitude is a certain way of behavior and reaction to mental will. Attitudes are often paired, such as conscious and unconscious, extroverted and introverted, rational and irrational, personal and social. Therefore, Jung believes that attitude is the fusion of abstract thoughts and feelings (Main, 2004). To sum up, attitude can be regarded as a psychological evaluation or state of people about things, substance, people and other factors. Rosenberg (1960) holds that attitude includes cognitive, emotional and behavioral abilities in his "Three-Part Theory". However, the results of this empirical study do not distinguish clearly between

thoughts, emotions, behavioral awareness and attitudes, so this kind of thought is considered unreliable. Critics point out that attitude cognition is the core of emotional and behavioral ability, and the guidance of attitude cognition is faith (Fazio & Olson, 2007). Although this theory is controversial, the influence of attitude on emotional control and behavior ability can be recognized. Attitude can transform negative emotions and behaviors into positive ones (Visser, Bizer, & Krosnick, 2006). For example, people's attitude towards money will help to understand people's emotions towards money, the behavior and cognition of the person in charge of work (Tang & Liu, 2012). As a result, there are two attitude models, one is attitude component model, the other is motivation opportunity decision model (MODE model). Attitude model holds that attitude is influenced by emotion, behavior and cognition (Breckler, 1984). However, the motivation opportunity decision model holds that attitude is influenced by motivation, attitude decision opportunity and behavior. Attitude has two measurement standards: explicit and implicit. Implicit measurement mainly refers to the level of consciousness and feeling, while explicit is the level of behavior (Long-Crowell, 2014).

On the relationship between attitude and behavior, the theory of reasoned action (TRA), the theory of planned behavior (TPB) and the theory of motivation and opportunity as determinations (MODE) have been widely developed and used in various fields. Ajzen and Fishbein (1980) put forward the theory of reasoned action holds that attitude can be used as a criterion to predict intention and behavior. This theory opened up the related research on the relationship among attitude, intention and behavior, and laid the foundation for future research, especially for the theory of planned behavior. But this theory ignores the strong relationship between attitude measurement and will behavior (Hale, Householder, Greene, Dillard, & Pfau, 2003). The measurement of attitude and the determination of the relationship between will and behavior are important elements to study the relationship among attitude, intention and behavior. Therefore, Ajzen (1985) developed the theory of planned behavior on the basis of theory of reasoned action, referring to learning theory, expected value theory and consistency theory. On the basis of theory of reasoned action, this theory adds subjective norm, taking into account the important influence of others on action execution. Perceived behavioral control also takes into

account the obstacles encountered in the expected execution behavior and the expected behavior ability. The theory of planned behavior enhances the ability of attitude to predict behavior (Madden, Ellen, & Ajzen, 1992). In addition, Fazio, Sanbonmatsu, Powell, and Kardes (1986) put forward a selective theory-motivation opportunity decision theory. Its theory holds that because people's judgment has a prudent step, individuals have the motivation to respond to attitudes and behaviors. However, driven by simple motives, invalid judgments on attitudes and behaviors will be avoided. However, its theory can not fully reflect the relationship among motivation, attitude, intention and behavior. Therefore, in the subsequent research on the influence of attitude on behavior, the control of intention, subjective behavior norms and perceived behavior in the theory of planned behavior has been widely accepted (Chaiken & Trope, 1999).

The influence of attitude on teachers' tacit knowledge sharing behavior is self-evident. A good attitude will profoundly affect teachers' knowledge sharing intention and behavior. For example, teachers will share more good books and books that children can understand by pursuing the attitude of making students feel interesting in class (Applegate & Applegate, 2004). In another study on students' achievement, when students show more active learning and task-based learning, teachers' attitudes are more positive. When teachers have a positive attitude, their influence is greatly enhanced. Under its influence, the awareness of cooperation between students and teachers, the ability to apply theories and methods and the ability to solve problems are also greatly enhanced (Flanders, 1960). Thus, attitudes have a great influence on the intentions and behaviors of teachers and other individuals, and the degree of influence is different in different situations.

4) Subjective Norms

In the theory of planned behavior, subjective norms refer to the perception of the social expectation of the behavior subject whether to perform a certain behavior, which mainly includes demonstration norms and mandatory norms. Demonstration norm means that organizations, important others and other peer groups have already implemented a certain behavior or have benefited from the behavior, which will play an demonstrative role in the behavior subject; The mandatory norm mainly refers to the mandatory guidance, restriction or encouragement of the behavior

of the subject by the organization or important others through rigid rules and regulations. Ajzen (2013), a scholar, believes that subjective norms are individuals' comprehensive perception of the organizational environment in which they live, and have an important influence on behavior intention. Existing researches mostly subdivide subjective norms from two levels: institutional regulation and others' support. Considering that tacit knowledge sharing needs external encouragement and promotion, rather than institutional enforcement mechanism, this paper mainly discusses subjective norms from the support level of others. In the economic field, support comes from many aspects (Amiri, Zandieh, Vahdani, Soltani, & Roshanaei, 2010). For example, technical support means that others give help in data technology analysis; Customer support means that customers are given help before, during and after purchasing products; Income support means giving money to people below a certain income level. In the field of psychology, support mainly focuses on psychology and morality. For example, moral support means giving help and support to people when they are faced with moral difficulties; Social support means helping or enlightening people when they are faced with social difficulties or confusion, such as helping to build a sense of belonging, financial support, personal advice and education, etc (Vaux, 1988). Emotional support is to enlighten people when they are depressed so that they can change into positive emotions. According to the Cambridge Dictionary, others means other people. All in all, others' support is emotional encouragement or material help from others.

Others' support is considered to be the most important influencing factor of teachers' tacit knowledge sharing behavior (Tan, 2016). Teachers in colleges and universities are in an extremely complicated social network environment, and their attack intention and behavior are greatly influenced by others (Blau, 2017). First of all, teachers in colleges and universities have a certain prestige and social status, and they are easily concerned by society and others. Secondly, there will also be some people with high prestige and authority around teachers in colleges and universities, whose support and attitude will greatly influence teachers' behavior and consciousness. Finally, teachers in colleges and universities also have the problem that their subjective willingness to share conflicts with realistic constraints. In this case, the support of others will be the key factor affecting the balance.

Among the support of many related personnel, the support of colleagues plays an important role (Gore & Aseltine Jr, 1995). Colleague's support will make individuals feel a great sense of belonging, resulting in motivation and behavior consistent with group opinions. Secondly, it can help individuals improve their willfulness and self-control. More importantly, in the process of teaching and scientific research of teachers in colleges and universities, colleagues are the closest group, and their support directly determines the surrounding academic atmosphere and potential behavior standards. Therefore, the support of colleagues will directly affect the behavior and consciousness of teachers (Hsu & Chang, 2014). In addition, family support greatly influences teachers' intentions and behaviors, and the most direct one is the adjustment of time. When family members influence teachers' behavior consciousness, if they give support, they should first give time convenience or create a relaxed family environment (Epstein, 1995). In the working environment, the most difficult to coordinate is the conflict between family and work, the conflict between family culture and work culture or the conflict between family culture and organizational culture. Therefore, family's support to teachers, whether in spirit or material, will have a great influence (Bragger, Rodriguez-Srednicki, Kutcher, Indovino, & Rosner, 2005). Female teachers, in particular, play an extremely important role in work and family, so family support will greatly relieve the pressure of teachers (Cinamon & Rich, 2005). Finally, the support of friends and society is also extremely important. With the development of social media, individuals can't avoid the influence from the society and the surroundings (Sugisawa, Liang, & Liu, 1994). The surrounding environment of the society is the most direct pressure on individuals, and social support will greatly alleviate the pressure of individual execution behavior and intention (Cobb, 1976). To sum up, this paper holds that subjective norms have influence on the knowledge sharing intention and behavior of teachers in colleges and universities, but the degree of influence of different groups or individuals on teachers is not very clear.

5) Self-control

Drawing lessons from the concept of perceptual behavior control in the theory of planned behavior, this paper introduces the factor of self-control to reflect the self-control ability of teachers in colleges and universities on tacit knowledge

sharing behavior. Specifically, self-control refers to the control ability of forbidding to do something, in other words, it is the control ability of people to their emotions, thoughts and behaviors when faced with temptation and impulse (DeLisi, 2014). There are many similarities in connotation between the concept of self-control and the concept of perceived behavior ability. This paper uses self-control instead of perceived behavior ability in the theory of planned behavior. From the executive level, self-control is a cognitive process, in which people realize that only by controlling themselves can they achieve specific goals (Diamond, 2013). Psychologically speaking, self-control mainly refers to people's ability to adjust their emotions (Burman, Green, & Shanker, 2015). To sum up, from the executive level, self-control in this study can be defined as the ability of people to control their emotions, thoughts and behaviors to achieve specific goals.

When people establish certain goals and behavior intentions, but people can't guarantee the implementation of actions and intentions, they need self-control to ensure them. Self-control is the ability to control yourself (Corno & Mandinach, 1983). Self-control can help people change and control their own thoughts, behaviors and feelings (Barkley, 1997). Self-control can delay satisfying people's desires, and help people regulate some reasonable and favorable behaviors and avoid bad behaviors (Hayes, Gifford, & Ruckstuhl Jr, 1996). When people have no self-control, their behavior will not develop in the direction expected by people, and their behavior will be arbitrary, even beyond the moral and normal standards (Baumeister, Bratslavsky, Muraven, & Tice, 1998). However, in real life, people often encounter many difficulties to achieve certain behaviors and goals, and to restrain unreasonable behaviors, emotions and desires requires people to have strong self-control (Shallice & Burgess, 1993).

Kuhl (1984) believes in his theory of behavior control that there are two orientations for people to control themselves. First, action-oriented, individuals focus their attention on the planning, execution and implementation of practical actions, and when faced with actions, they will not hesitate, so they have strong action ability. One is state-oriented. Contrary to action-oriented, individuals focus on state, and hesitate to meet things and hinder their ability to act. Based on the behavior control theory, Corno and Mandinach (1983) established a self-control model for

learning behavior as shown in Figure 2.7 below. Personal memory network (including personal experience, knowledge, interests and skills, etc.) influences learning tasks, attention, self-efficacy, result expectation, learning plan, learning monitoring and learning results. The monitoring and results of learning will be fed back to the memory network, and at the same time, it will regulate the selective modification of activities and competitive tasks.

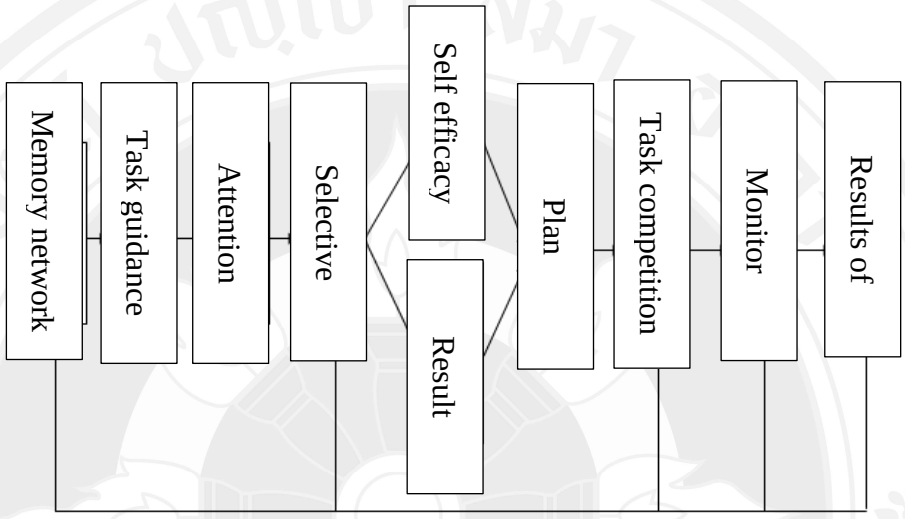

Figure 2.7 Self-control Model for Learning Behavior

Under the self-control model for learning behavior, planning and task type are the core (Kuhl, 1984). Muraven and Baumeister (2000) also confirmed this point in his research on self-control, believing that completing some self-control tasks is helpful to strengthen self-control and thus more conducive to controlling spontaneous emotions, suppressing impulses and regulating thoughts and feelings. In addition, among the constituent elements of self-control, Klinger (1982); Schneider (1987) put forward that emotion is crucial. Emotion is the most relevant to self-control in psychology. Self-control of emotion directly determines the occurrence of behavior (Burman et al., 2015). On the whole, the influence of self-control on teachers' tacit knowledge sharing behavior in colleges and universities is relatively clear, but its specific path is relatively vague.

6) Policy Perception

Yue (2004) thinks that under the totalitarian state, education policy can adjust teachers' income distribution, and directly affect the intention and behavior of tacit knowledge sharing among teachers in colleges and universities. Sun (2004) even further pointed out that policies can affect teachers' income and influence the tacit knowledge sharing intention and behavior of teachers in colleges and universities from the aspects of economy, culture and society. Policy is related to people's understanding and attitude towards policy, which is the perception of policy (Federico & Schneider, 2007). Most people's perception of policies is relatively simple, that is, there are only encouraging or prohibiting policies (Alper, 2018). The public's perception of policies is also a research topic that attracts much attention (Converse, Campbell, Miller, & Stokes, 1961). Although some people have complex and inconsistent perceptions of policies, their perceptions of policies are generally simple and consistent (Converse, 2006). The reason lies in personal belief in policies and being in a certain policy environment for a long time, and individuals will avoid the trouble caused by the change of attitude towards policies unless the surrounding objective environment changes (Zaller, 1992). In explaining the reasons of different policy perceptions, the construal level theory is an explanatory perspective (Eagly & Chaiken, 1993). According to its theory, the consistency of people's perception of policies is influenced by the psychological distance (Liberman & Trope, 2008). The psychological distance is influenced by many factors, such as time, familiarity and policy possibility (Liberman & Trope, 2014). When the policy is highly integrated with the surrounding environment, that is, when the psychological distance is close, people's perception of the policy is more consistent (Ledgerwood, Wakslak, & Wang, 2010). However, different perceptions will profoundly affect behaviors, for example, when people's perception of policies is good, that is, when they think that policies are more friendly to the people, and at the same time, driven by social morality, people will make more friendly behaviors (Eyal & Liberman, 2012b).

Policy perception plays an important role when personal intention influences actions. When the perception of policy is good, it can be the driving force of intention to generate behavior (Xue & Zhao, 2016). However, in the research, the influence path and degree of policy perception on behavior are relatively vague (Su & Geng, 2014). From the perspective of rational behavior, policy perception affects both behavior and intention, and both behavior and intention have reasonable feedback on policy perception (Pierce et al., 2014). From the perspective of demand perception, when behavior and intention generate needs for policy perception, that is. when individuals feel the need to respond to policies, behavior and intention will be affected by policy perception (Wang, Mao, & Long, 2012). From the perspective of need resources, in the process of "stimulus-response", the content design, response threshold and actual utility of policy resources will all lead to different policy perceptions, behaviors and intentions (Wang, Mao, & Long, 2012). As for the acceptability of policies, the policy acceptance model (PAM) explains it from the theory of planned behavior. As shown in Figure 2.8, in order to accept a certain policy, individuals need to have a certain perception of the policy and judge whether the policy supports the tacit knowledge sharing behavior of teachers in colleges and universities, thus influencing teachers' attitude, intention and behavior towards the knowledge sharing policy. Therefore, based on this theory, policy perception affects the tacit knowledge behavior intention of teachers in colleges and universities.

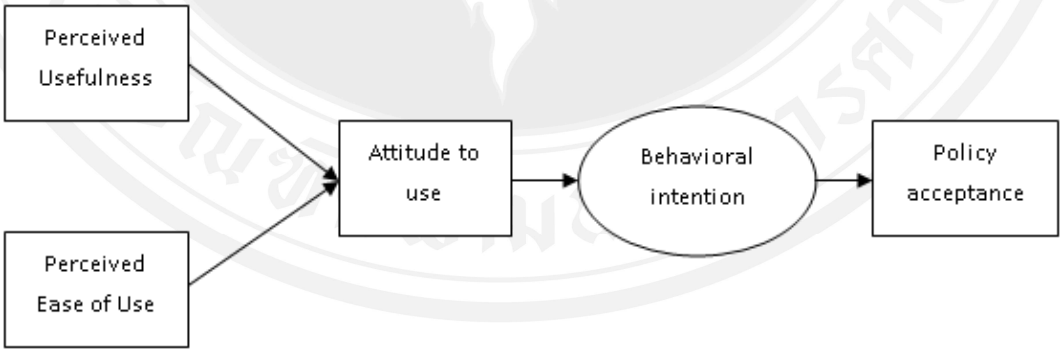

Figure 2.8 Policy Acceptance Model (PAM)

Generally speaking, although policy perception affects the effect of tacit knowledge sharing intention of teachers in colleges and universities on knowledge sharing behavior, its specific action path and mechanism are still vague and need further analysis (Havas & Weber, 2017).

2.3 Research Hypothesis and Theoretical Model

According to the above theoretical basis, personal attitude, subjective norms, sharing motivation and self-control are independent variables, the willingness of teachers in colleges and universities to share tacit knowledge is intermediary variable, policy perception is moderating variable, and teachers' tacit knowledge sharing behavior is dependent variable. The theoretical framework is as follows (Figure2.8).

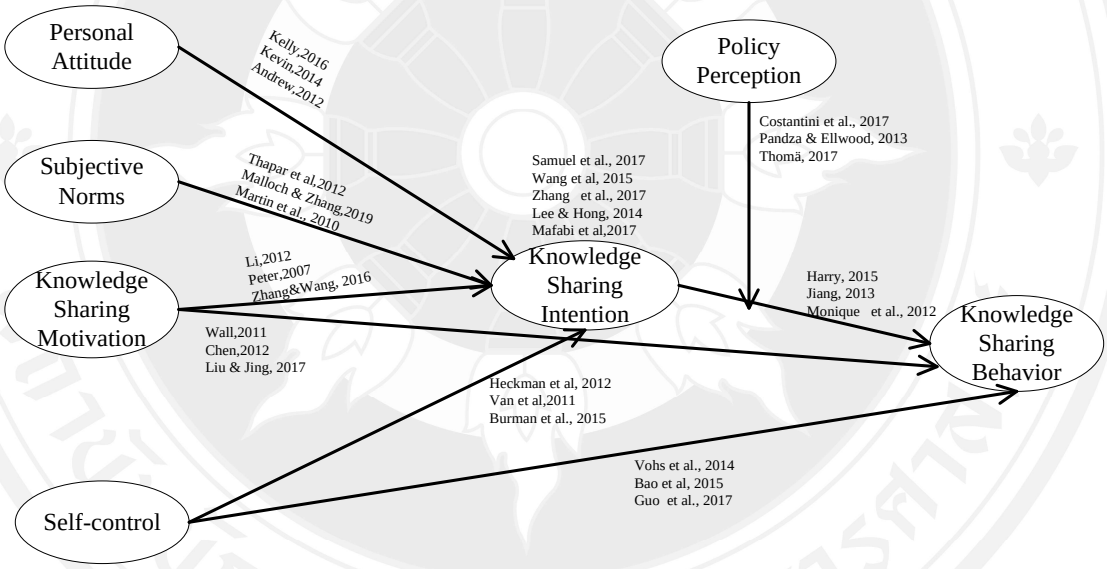

Figure 2.9 Theoretical Framework

At the beginning of the establishment of the theory of planned behavior, the positive relationship between attitude and consciousness has been confirmed. Many subsequent studies have repeatedly verified its positive influence, but the degree of influence of attitude on consciousness is different in each study. For example, Askew et al. (2014) studied the job evasion behavior of Internet loitering based on the theory

of planned behavior, and the results showed that employees' attitudes towards work behaviors significantly influenced their job evasion intentions. Han, Hsu, and Sheu (2010) pointed out that customers' knowledge and attitude towards green hotels directly determine whether they will choose to stay in green hotels and have in-depth tours. Martin et al. (2010) applied the theory of planned behavior to reveal the mechanism of gambling intention and behavior, among which the attitude towards gambling plays an important role. To sum up, the positive influence of attitude on consciousness in different fields has been confirmed in many fields, but its degree of influence is different due to various factors. Therefore, this study puts forward the following confirmatory hypothesis:

H1: Personal attitude has a positive impact on the tacit knowledge sharing intention of teachers in colleges and universities.

In the theory of planned behavior, the support of others in subjective norms will affect behavior intention, thus affecting behavior. "A person's efforts to gain social recognition in a group are largely driven by the approval of those highly respected members, because their approval of him influences others' views, so there is a product properties." For example, in a study on gambling, it is found that the support from friends and family can help the parties resist the temptation of gambling. Positive support from friends and family members can reduce gambling intention, thus reducing gambling intention (Martin et al., 2010). Another example: In a study on stress perception and youth depression, the support of peers and family members has a great influence on the normal growth and development of teenagers. Positive encouragement and support from peers and family members negatively affect the degree of perceived stress and the possibility of adolescent depression behaviors (such as autism, reticence and indifference, etc.) (Thapar, Collishaw, Pine, & Thapar, 2012). In a medical research, online support from others will enhance individual health awareness. This study was conducted among 280 overweight people. It studied that when others shared their overweight experiences online with others, and at the same time, based on their own experiences, they gave advice and support to the helped people to lose weight and stay healthy. This online help and support from others greatly strengthened the individual's health intention. Moreover, the closer the situation between supporters and supportees is, the more obvious its influence is

(Malloch & Zhang, 2019). From the above examples, we can find that the support of others may have a positive impact on the intention. In colleges and universities, the support of leaders and colleagues is very important. By actively promoting the structural cooperation among teachers and providing sufficient resource support, an open atmosphere can be created for the tacit knowledge exchange and sharing among teachers in colleges and universities. Besides, in knowledge management, other people's supportive anomie behavior is considered as an important factor affecting teachers' tacit knowledge sharing. For example, teachers/college presidents, department heads, colleagues actively show their knowledge sharing behavior and guide other influential teachers to openly share their knowledge, which is an important driving force for tacit knowledge sharing behavior. This study holds that the support attitude of senior scholars, academic leaders, leaders and colleagues in colleges and universities to tacit knowledge sharing behavior of teachers will gradually form a general consensus, which will influence other teachers' cognition of tacit knowledge sharing behavior and help teachers in colleges and universities to form behavioral norms and standard of tacit knowledge sharing. Therefore, this study puts forward the following exploratory hypothesis:

H2: Other people's support in subjective norms has a positive impact on tacit knowledge sharing intention of teachers in colleges and universities.

According to the theory of planned behavior, individuals will first have the intention related to this behavior before trying to take a certain behavior, which is manifested in the tacit knowledge sharing behavior of teachers in colleges and universities, that is, teachers will consider what I am participating in this activity or behavior for before participating. Whether it's interest or to accomplish one's own purpose, these potential behavioral motives will affect the occurrence of subsequent behaviors. However, the intensity of this individual intrinsic motivation or needs will have a positive impact on the intention of knowledge sharing. Of course, this potential dynamic opportunity is affected differently by different individuals.

Economic motivation comes from the economic exchange theory, and knowledge, especially the knowledge owned by organizations, generally follows the operating mechanism and laws of the market, and only when they feel profitable will they take the knowledge they own to the market to share ". There are great differences

in the relationship between economic motivation and knowledge sharing in some literature studies, which are mainly manifested in the following three aspects: 1) Organizational rewards have a significant positive impact on employees' knowledge sharing behavior. WaIl (2011) et.al analyzed the interaction of ability, salary and reward on knowledge sharing by building the relationship model between social capital and knowledge sharing. When employees feel that knowledge sharing behavior is less rewarded or not recognized by the organization, employees with strong ability are even more reluctant to share knowledge. Wen (2010) found that the positive and important impact of material motivation on knowledge sharing is stronger than that of non-material motivation. 2) Organizational rewards have no significant influence on knowledge sharing behavior. Stott and Walker (2000) believe that knowledge workers are unwilling to share knowledge for money or to improve the relationship among colleagues, and their motivation for knowledge sharing mainly comes from three higher levels of demand: self-belonging, self-esteem and self-realization. Chen and Huang (2012) studied the relationship between perceived organizational reward and knowledge sharing behavior under the framework of planned action theory, and finally concluded that the correlation coefficient between them was 0.28, with no significant influence. 3) Organizational rewards have a negative impact on knowledge sharing behavior. Bock and Kim (2003) built the motivation model of knowledge sharing behavior on the basis of rational action theory, and through the investigation of 467 government employees, it was found that bonuses actually destroyed employees' interpersonal relationships and intrinsic motivation. In other words, they think that organizational rewards will have a negative impact on knowledge sharing behavior. Therefore, this study puts forward the following hypotheses:

H3: Tacit knowledge sharing motivation of teachers in colleges and universities has a positive impact on tacit knowledge sharing intention.

H3b: Tacit knowledge sharing motivation of teachers in colleges and universities has a direct positive impact on tacit knowledge sharing behavior.

Although there is no clear literature to study the relationship between self-control and sharing intention, there are many studies on the relationship between self-control and intention, and most studies prove that self-control has a positive impact on

intention. For example, in a study on smoking, the researchers studied 132 smokers who had quit smoking. Firstly, they measured their ability to control their own reaction behavior, and then tracked their response to smoking. Finally, they found that nearly half of them had resumed smoking. And the study found that people with high self-control have stronger intention to quit smoking repeatedly (Heckman, Ditre, & Brandon, 2012). In a study on the development of culture and self-control, it is pointed out that personal intention is influenced by cultural background, and there is mutual influence between personal intention and self-control development. Personal intention may control behavior through self-control, and self-control may also strengthen personal behavior (Trommsdorff, 2009). van Koningsbruggen, Stroebe, Papies, and Aarts (2011) put forward in their research that individuals often forget their long-term intentions due to some influences or temptations in the environment. Self-control can enable individuals to aim at long-term goals and persist in their efforts, so as to achieve long-term and persistent personal behavior. Thus, self-control can help individuals to strengthen their intentions.

Many historical documents show that self-control has a significant influence on behavior. In the theory of control behavior, (Kuhl, 1984) holds that the self-control ability of individuals has a positive impact on learning behavior directly. DeWall, Baumeister, Stillman, and Gailliot (2007) think that self-control will consume human resources in the short term, no matter in the influence of emotion, intention or behavior. But in the long run, enhancing self-control will be positive for both emotional and substantive behavior. From the perspective of regulatory depletion theory, the application of self-control will consume regulatory resources, so excessive self-control will have a negative impact on behavior (Vohs et al., 2014). For example, Baumeister et al. (1998) research in the experiment of letter inversion, the group with strong self-control invested more energy and resources. Although the accurate interest rate was higher, the time for continuous recognition of letters was obviously shorter than that of the group with weak self-control. From the above examples, it can be seen that self-control may have influence on behavior; Therefore, the exploratory hypotheses in this study are as follows:

H4a: Self-control has positive intention on tacit knowledge sharing intention of teachers in colleges and universities.

H4b: Self-control has a positive effect on tacit knowledge sharing behavior of teachers in colleges and universities.

The influence of intention/consciousness on behavior was put forward in the theory of planned behavior, and it was repeatedly verified in subsequent studies. In the theory of planned behavior, individual consciousness is considered as the direct influencing factor of behavior from the very beginning (Fishbein, Triandis, Kanfer, Becker, & Middlestadt, 2000). Before Flanders et al. (1975) put forward the theory of planned behavior, it had confirmed that there were 10 research documents that reported the relationship between intention and behavior, and accurately calculated the value of its influencing factors as 0.63. Subsequently, Sheppard et al. (1988) verified that its influence value was about 0. 63. Subsequent scholars have repeatedly confirmed the positive influence of intention on behavior in their respective studies, but their influence values are somewhat different from those of previous studies.

In some studies, it is verified that intention has a strong influence on behavior, while in other studies, intention has only a small influence on behavior. What's more, Van den Putte, Hoogstraten, and Meertens (2000) got different influence values of 0.66 and 0.68 in the verification test of Fishbein. Therefore, many scholars analyzed the reasons and put forward their own views and opinions. The main point of view is that although intention has a positive influence on behavior, intention itself is not static. Affected by environmental changes, especially by attitudes, the intention itself is inherently uncertain (Eagly & Chaiken, 1993). However, in view of the complex tacit knowledge sharing behavior, when the tacit knowledge sharing intention of teachers in colleges and universities has an impact on the sharing behavior, it cannot completely exclude the influence of other potential factors, such as personal experience, environmental change and self-generating ability. Therefore, the degree of influence of tacit knowledge sharing intention of teachers in colleges and universities on sharing behavior cannot be completely determined (Albarracin, Johnson, Fishbein, & Muellerleile, 2001). Therefore, this study puts forward the following confirmatory hypothesis:

H5: Tacit knowledge sharing intention of teachers in colleges and universities has a positive impact on knowledge sharing behavior.

Chenguang Li, Zhang, and Wang (2018) believe that policy perception will have an impact on people's behavior and intentions. For example, in SBIR (Small Business Innovation Research Program) of the United States, the implementation subject, application scope, participating institutions and fund management contents of its policies are very clear, highly targeted, and the stages are also clear, thus giving participants positive policy perception. Finally, enterprises and individuals responded positively and achieved good results (Tu & Li, 2006). Policy perception also has a great influence on behavior decision-making. For example, an environment conducive to survival and development, abundant internal and external resources, efficient utilization and low cost will be beneficial to the improvement of technological performance of innovative behavior (Costantini, Crespi, & Palma, 2017). Perceiving a good policy environment will stimulate the innovation enthusiasm of enterprises and individuals, strengthen the innovation intention of enterprises and individuals, and improve the innovation path (Pandza & Ellwood, 2013). Different policy preferences will also respond to different policy perceptions, thus affecting behavior intention and behavior. For example, when the policy gives positive perception, entrepreneurs with positive bias will have more innovative intentions, increase investment in innovation, and dare to break down innovation barriers, so as to achieve enough innovative behaviors and performance (Thomä, 2017). Thus, the policy perception has a considerable influence on the tacit knowledge sharing intention and behavior of teachers in colleges and universities. Therefore, this study puts forward the exploratory hypothesis as follows:

H6: Policy perception plays a moderating role between tacit knowledge sharing intention and knowledge sharing behavior of teachers in colleges and universities.

Teachers' willingness to share tacit knowledge in colleges and universities reflects a degree of teachers’ intention to exchange, transfer and share their valuable tacit knowledge. According to the theory of planned behavior, individual intention can reasonably infer and directly determine their behavior to some extent. In particular, the behavior intention also plays a certain intermediary role between individual

behavior influencing factors and individual behavior results. Based on the knowledge transfer theory, the intention of tacit knowledge sharing behavior of individual teachers is an important intermediary variable, which plays an intermediary role in the path of knowledge sharing behavior factors (individual attitude, sharing motivation, self-control, subjective norms and other factors) (Mafabi, Nasiima, Muhimbise, Kasekende, & Nakiyonga, 2017; Zheng, Sun, & Wang, 2014). The research by Lee and Hong (Lee & Hong, 2014) pointed out that the knowledge sharing intention of hospital staff plays an intermediary role in the process of knowledge reciprocity, trust relationship and behavior control affecting knowledge sharing behavior. Mafabi et al. (2017) used the theory of planned behavior to verify the significant mediating effect of knowledge sharing intention among sharing attitude, subjective norms, self-control and knowledge sharing behavior. Jolaee et al. (2014) studied the knowledge sharing behavior of researchers in colleges and universities, and put forward that self-efficacy, organizational support, interpersonal trust and other factors have a positive impact on the knowledge sharing behavior among researchers, and knowledge sharing intention plays an intermediary role in the middle. Gong, Zhu, and Fang (2012) found through empirical research that when studying the knowledge sharing behavior of virtual teams, it was found that the knowledge sharing intention of team members played a significant moderating role among members' sharing attitude, sharing ability and knowledge sharing behavior. Zhang, Liu, and Bi (2017) put forward that in the virtual community, social factors, expectation of results, emotions, habits, convenience conditions and other factors will have a significant impact on knowledge sharing behavior, and deeply discussed the mediating effect of knowledge sharing behavior intention between the above factors and the results of knowledge sharing behavior. Wang, Guo, Wei, and Zhao (2015) verified that WeChat users' willingness to share information had a significant positive impact on their sharing behavior, and played an intermediary role between knowledge sharing enthusiasm and knowledge sharing behavior. Guo, Wang, Li, and Duan (2017) have conducted an empirical study on the information sharing behavior of mobile learning users. The empirical results show that users' willingness to share information in mobile learning has a mediating effect between the information sharing behavior in mobile learning and its influencing factors. Through the above research results, it can be seen that under the condition of

good subjective norms of others' support, teachers in colleges and universities have a positive sharing attitude, sharing motivation and self-control of sharing behavior towards tacit knowledge sharing, which will help to generate strong knowledge sharing intention and promote knowledge sharing behavior to a great extent (Zhang & Wang, 2016; S. Zhong et al., 2015). Therefore, in this study, the author proposes that the tacit knowledge sharing intention of teachers in colleges and universities plays an intermediary role in the path of knowledge sharing attitude, knowledge sharing motivation, subjective norms and self-control based on the theory of planned behavior and knowledge transfer. This paper puts forward the following hypotheses around the mediating role of tacit knowledge sharing among teachers in colleges and universities:

H7: The tacit knowledge sharing intention of teachers in colleges and universities plays an intermediary role between individual attitude and knowledge sharing behavior.

H8. The tacit knowledge sharing intention of teachers in colleges and universities plays an intermediary role between subjective norms and knowledge sharing behavior.

H9: The tacit knowledge sharing intention of teachers in colleges and universities plays an intermediary role between sharing motivation and knowledge sharing behavior.

H10. The tacit knowledge sharing intention of teachers in colleges and universities plays an intermediary role between self-control and knowledge sharing behavior.

To sum up, the above hypothesis and relationships constitute the conceptual framework of this study, as shown in Figure 2.9. Personal attitude, subjective norms, shared motivation and self-control are independent variables; Tacit knowledge sharing intention is an intermediary variable; Tacit knowledge sharing behavior is the dependent variable; Policy perception is a regulatory variable.

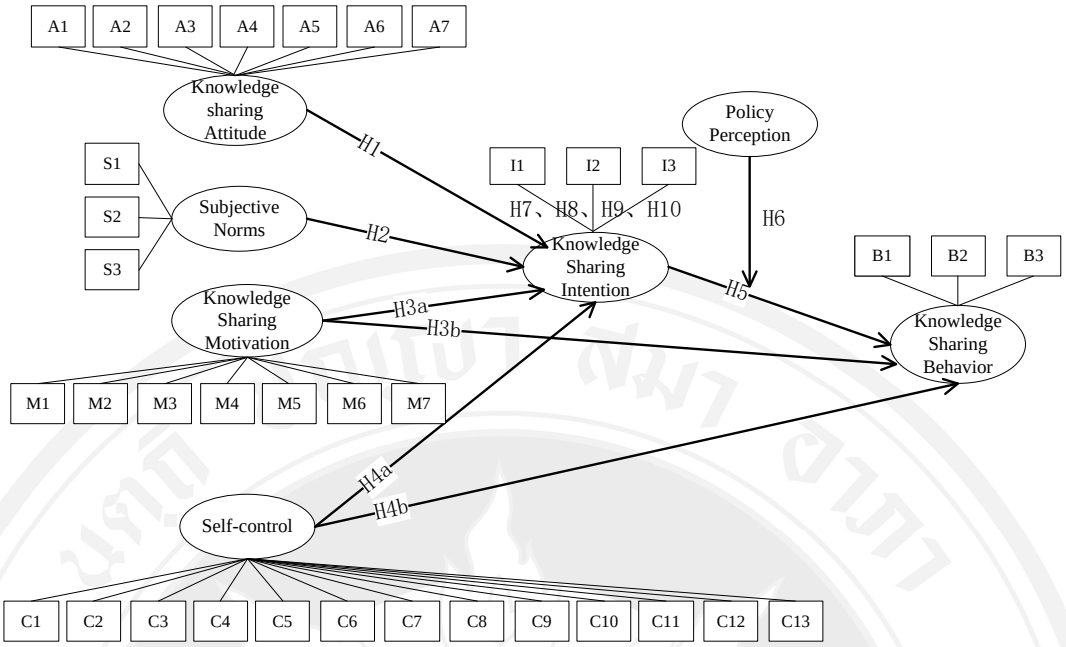

Figure 2.10 Theoretical Framework

CHAPTER 3

RESEARCH METHODS

Firstly, this chapter introduces the research object and sampling quantity of the paper, then discusses the variable dimension and measurement method of the paper, and further puts forward the data analysis method used in this paper. Finally, the pre-test method is used to improve the survey content, and then measures the validity and reliability of the data information.

3.1 Scope of Investigation

3.1.1 Brief Introduction of Research Object

Teachers in colleges and universities are the most direct participants in tacit knowledge sharing, and also the direct investigation objects of this study. According to the latest statistics of the Ministry of Education of the People's Republic of China, as of 2019, there were 100 colleges and universities in Jiangxi Province, among which 98 were listed as national colleges and universities in 2016. In which, there are 36 public undergraduate institutions, 14 private undergraduate institutions, 34 public junior colleges and 14 private junior colleges. According to the data of Jiangxi Education Department, the number of students receiving higher education in Jiangxi Province is 1,261,400, and the number of teachers in colleges and universities in Jiangxi Province is 70,900. The teacher-student ratio is 1: 17.8, which is very close to the national standard of 1: 18, and the teacher-student ratio is very representative. In this paper, the teachers of colleges and universities in Jiangxi Province are selected as the research objects and sampling objects. As a major education province in China, the scale of higher education development, the number of colleges and universities, the number of teachers of colleges and universities and the number of students in colleges and universities are in the upper-middle level in China. Besides, the system structure and level of colleges and universities in Jiangxi Province are very typical.

Therefore, it is very representative to select colleges and universities in Jiangxi Province as the most sampled object, which can well reflect the overall situation of colleges and universities in China.

3.1.2 Sampling Quantity

Yamane (1967) proposed a method to calculate the number of samples, which is based on 95% confidence level and sampling error of 0.05. The formula is as follows:

$$n = \frac{N}{1 + N \times (e)^2}$$

N is the population, n is the sample size, and e is the sampling error level. As the total sample size is 168,547 people and the general sampling error level is 0.05, therefore

$$n = \frac{168{,}547}{1+168{,}547 \times (0.05)^2} = 399.05$$

Therefore, the sample size of this study is 400 questionnaires, but in most studies, the sample size will be as large as possible to reduce the sampling error, and 10% will be reserved as a backup (Israel, 1992). The optimal sampling quantity of this study is 440 questionnaires. In order to make the samples more representative, this study adopts the convenient sampling method, and 600 questionnaires were distributed offline through colleagues and friends, and 560 valid questionnaires were actually recovered.

As the number of public undergraduate institutions, private undergraduate institutions, public junior college and private junior college is 36, 14, 34 and 14, respectively, this study distributed 600 questionnaires to various types of schools according to the proportion of various types of schools, for example, there are 36 public undergraduate institutions, accounting for 36.734%, so the number of questionnaires distributed in public institutions in this study was 220. Actually, 204 valid questionnaires were collected, and by analogy, 86,208,86 questionnaires were distributed by other three types of schools, while 80,193,83 valid questionnaires were

actually collected.

3.2 Variable Dimension and Measurement

3.2.1 Tacit Knowledge Sharing Behavior

Bock, Zmud, Kim, and Lee (2005), after integrating the viewpoints of Constant, Kiesler, and Sproull (1994); Dennis (1996); Feldman and March (1981); Fishbein and Ajzen (1981), they think that tacit knowledge is "The degree to which one believes that one will engage in a tacit knowledge-sharing act." Meantime, two questions are used to measure tacit knowledge, and its Cronbach's Alpha is 0.9237, which has good internal consistency. As follows:

1) I always share my work reports and official documents with members of my organization more frequently in the future.

2) I always provide my manuals, methodologies, and models for members of my organization.

Tang, Ai, and Gong (2011) put forward the measurement items for measuring tacit knowledge sharing based on them, as follows:

1) Share ideas and inspiration frequently.

2) Always share each other's work experience or know-how.

3) Always provide the source or insider of the knowledge they know.

The questions are aimed at the enterprise team environment. When measuring teachers' tacit knowledge sharing, appropriate improvements should be made as shown in Table 3.1 below. Likert's seven-point scale can be used, and its options are: completely disagree/strongly disagree/disagree/generally agree/very agree/completely agree.

Table 3.1 Measurement of Tacit Knowledge Sharing Behavior

No.	Questions	Options
B1	You (teacher) often share ideas and inspiration with colleagues.	Completely disagree/strongly disagree/disagree/generally /agree/strongly agree/strongly agree.
B2	You (teacher) often share knowledge, experience, or know-how with colleagues.	
B3	If a colleague asks, you (teacher) often provide the source or insider of the knowledge you know.	

Source: Tang et al. (2011).

3.2.2 Intention of Tacit Knowledge Sharing

Bock et al. (2005) developed an update sharing scale for tacit knowledge. The internal consistency of the scale, namely Cronbach's Alpha (α value), is 0.9326.

1) I intend to share my experience or know-how from work with other organizational members more frequently in the future.

2) I will always provide my know-where or know-whom at the request of other organizational members.

3) I will try to share my expertise from my education or training with other organizational members in a more effective way.

According to Bock et al. (2005) scale for measuring the intention of tacit knowledge sharing. Tang et al. (2011) believes that tacit knowledge contains a lot of personal insights and experiences, which can bring heterogeneous knowledge needed in the creative process.

1) Team members are willing to share ideas and inspiration.

2) Team members are willing to share their work experience or know-how.

3) If other team members request, team members are willing to provide the knowledge source or insider they know.

However, the sharing measurement of tacit knowledge sharing intention is based on the enterprise team, and appropriate improvements should be made when measuring teachers' tacit knowledge, as shown in Table 3.2. There are seven options available: completely unwilling/ strongly unwilling/ unwilling/ general/ willing/ completely willing/ strongly agree.

Table 3.2 Intention of Tacit Knowledge Sharing

No.	Questions	Options
I1	You (teacher) are willing to share ideas and inspiration with colleagues.	Completely unwilling/strongly unwilling/unwilling/general/willing/completely willing/strongly willing.
I2	You (teacher) are willing to share knowledge, experience or know-how with colleagues.	
I3	When a colleague asks, you (teacher) are willing to provide the source or insider of the knowledge you know.	

Source: Tang et al. (2011).

3.2.3 Sharing Attitude

Based on Ajzen (2002)' s view that people's attitude towards behavior depends on their liking for results, many scholars have put forward similar measurement questions, Alpha = 0.9184.

1) My knowledge sharing with other organizational members is is good.

2) My knowledge sharing with other organizational members is harmful.

3) My knowledge sharing with other organizational members is an enjoyable experience.

4) My knowledge sharing with other organizational members is valuable.

5) My knowledge sharing with other organizational members is a wise move.

Chen (2011) adopted the question form of "I feel ……" in the attitude measurement, and took four levels as the answers: good, beneficial, valuable and pleasant. Neighbors et al. (2007) divided attitudes into emotion and cognition, and measured attitudes from two directions: emotional attitude and cognitive attitude. In this study, many scholars' attitude measurement questions and scales mentioned above were integrated, and seven questions A1, A2, A3, A4, A5, A6 and A7 were put forward to measure the attitude of tacit knowledge sharing, as shown in Table 3.3 for details.

Table 3.3 Sharing Attitude Measurement Scale

No.	Questions	Options
A1	For you, tacit knowledge sharing is	Completely negative/ strongly negative/ negative/general/positive/strongly positive/completely positive.
A2		Completely disappointing/ strongly disappointing/ disappointing/ general/pleasure/strongly pleasure/completely pleasure.
A3		Completely disgusting/ strongly disgusting/ disgusting/general/strongly enviable/completely enviable.
A4		Completely stupid/strongly stupid/stupid/general/wise/strongly wise/ completely wise.
A5		Completely useless/ strongly useless/ useless/general/helpful/strongly helpful/ completely helpful.
A6		Completely bad/strongly

No.	Questions	Options
A7		bad/bad/general/good/strongly good/completely good. Completely worthless/strongly worthless /worthless/ general/ valuable/strongly valuable/completely valuable.

Source: Chen (2011); Neighbors et al. (2007).

3.2.4 Subjective Norms

Bock et al. (2005) put forward the measurement item for knowledge sharing, whose Cronbach's Alpha value is 0.8230 based on the measurement of subjective norms in the theory of planned behavior put forward by Ajzen (2002). The numerical results show that these three subjective norms of knowledge sharing have high internal consistency. However, these three questions are aimed at the measurement of subjective norms of knowledge sharing in the company atmosphere, and it needs to be improved when applied to the measurement of subjective norms among teachers, as shown in Table 3.4. There are seven options available: completely disagree/strongly disagree/disagree/general/agree/strongly agree/completely agree.

1) College leaders believe that teachers should share tacit knowledge with colleagues.

2) Teachers' families think that teachers should share tacit knowledge with colleagues.

3) Colleagues in universities think that teachers should share tacit knowledge with colleagues.

Table 3.4 Subjective Norms Measurement Scale

No.	Questions	Options
S1	College leaders believe that teachers should share tacit knowledge with colleagues.	Completely disagree/strongly disagree/disagree/general/strongly disagree/completely agree
S2	Teachers' families think that teachers should share tacit knowledge with colleagues.	
S3	Colleagues in universities think that teachers should share tacit knowledge with colleagues.	

Source: Bock et al. (2005).

3.2.5 Sharing Motivation

The measurement of motivation has long been a topic of concern in psychology (Carver, 2004). Researchers have adopted such methods as explicit cognition (such as recall and feeling), emotional investigation (such as subjective experience), behavioral research (such as behavioral expression), physiological research methods (such as brain stimulation) and self-report (Touré-Tillery & Fishbach, 2014). But no matter which way to measure motivation, it must be based on the understanding of the motivation to be measured. The measurement of intrinsic motivation and extrinsic motivation can be distinguished as to whether motivation depends on extrinsic material (Brehm & Self, 1989). Pelletier, Rocchi, Vallerand, Deci, and Ryan (2013) gave the problem of intrinsic motivation and extrinsic motivation, the Cronbach's alpha value of intrinsic motivation is 0.85, and the Cronbach's alpha value of extrinsic motivation is 0.83. Questions items are measured from the feeling of intrinsic happiness and extrinsic happiness care, encouragement and reward. Bock et al. (2005) put forward the obedience motivation of knowledge sharing. It includes three questions items, and its Cronbach's alpha value is 0.832, which has good intrinsic consistency. On the whole, the motivation for sharing tacit knowledge mainly comes from self-happiness, hope for extrinsic care,

encouragement, reward and obedience. There are seven options available: completely disagree/strongly disagree/disagree/general/agree/strongly disagree/completely agree.

Table 3.5 Measurement Scale of Sharing Motivation

No.	Questions	Options
M1	Sharing tacit knowledge with colleagues can make me happy.	Completely disagree/strongly disagree/disagree/general/agree/strongly disagree/completely agree
M2	Sharing tacit knowledge with colleagues makes me feel very interesting.	
M3	Sharing tacit knowledge with colleagues can get my attention.	
M4	Sharing tacit knowledge with colleagues is to obey the arrangement of leaders.	
M5	Share tacit knowledge with colleagues because it can pay me.	
M6	Sharing tacit knowledge with colleagues will be a sense of accomplishment.	
M7	Sharing tacit knowledge with colleagues will be encouraged by others.	

Source: Pelletier et al. (2013).

3.2.6 Self-control

Many scholars have put forward various measurement methods of self-control in practical research. Tangney, Baumeister, and Boone (2004) put forward five dimensions for the measurement of self-control, namely, thought control, emotion control, impulse control, performance control and habit breaking. The Cronbach's alpha value of the measurement questionnaire is 0.89. On the other hand, Tan and Guo (2008) improved the measurement dimension table of self-control based on the self-control model of Corno and Mandinach (1983) through material collection and questionnaire data analysis. The scale is mainly divided into three parts; The first part is the sense of self-control (Cronbach's alpha is 0.84), which is measured from four aspects: task efficacy, time efficacy, consciousness and self-supervision. The second part is self-control tendency (Cronbach's alpha is 0.84), which is measured from five aspects: planning, activity selectivity, persistence, summarization and self-study tendency. The third part is self-control strategy (Cronbach's alpha is 0.75), which is measured from four aspects: emotional control, remedial, environmental control and help-seeking strategy. Self-control consists of these three parts, and its Cronbach's alpha value is 0.91. Self-control strategy (Cronbach's alpha is 0.75) is measured from four aspects: emotional control, remedial, environmental control and help-seeking strategies. Self-control consists of these three parts, and its Cronbach's alpha value is 0.91. In this study, many scholars' attitude measurement questions and scales mentioned above were integrated, and thirteen questions from C1 to C13 were put forward to measure self-control, as shown in Table 3.6. There are seven options available: completely disagree/strongly disagree/disagree/general/agree/strongly disagree/completely agree.

Table 3.6 Self-control Measurement Scale

No.	Questions	Options
C1	You will do things in the form of completing tasks.	Completely disagree/strongly disagree/disagree/general/agree/strongly disagree/completely agree
C2	You pay special attention to the concept of time.	
C3	You don't need to be reminded of your behavior.	
C4	You will monitor your own behavior.	
C5	You will make a behavioral plan for what you want to accomplish.	
C6	You will choose meaningful actions to do.	
C7	You will always insist on some behaviors.	
C8	You will summarize your spontaneous behavior.	
C9	You can learn by yourself.	
C10	You can adjust your mood.	
C11	You can take remedial measures for your misconduct.	
C12	You can maintain personal behavior in different environments.	
C13	You will need help from others as appropriate.	

Source: Tan and Guo (2008).

3.2.7 Policy Perception

The measurement of policy perception, that is, to measure the individual's mood or attitude towards the policy. The policies that influence tacit knowledge sharing behavior mainly come from two aspects, one is related policies of the government (Loeb & Reininger, 2004a), the other is related policies of schools (Cohen, McCabe, Michelli, & Pickeral, 2009). At the government level, that is, public policy, it mainly regulates and controls the education industry and teachers' groups macroscopically, deals with the relationship between teachers and society and market, and also restricts and encourages the overall welfare and behavior of teachers' groups (Robinson, 2003). The school policy can mainly build the campus atmosphere. When the campus atmosphere is built, many behaviors and intentions of teachers will be restricted or encouraged. Therefore, this study puts forward two questions, P1 and P2, for the measurement of government and school's perception of policies, see Table 3.7 for details. The options can be Likert's five-point scale: encourage/discourage/general/no objection/objection.

Table 3.7 Measurement Scale of Policy Perception

No.	Questions	Options
P1	What kind of policy does the government hold on tacit knowledge sharing?	Encourage/discourage/genera/no objection/objection
P2	What kind of policy does the school hold on tacit knowledge sharing?	

Source: Loeb and Reininger (2004b); Cohen et al. (2009).

3.3 Data Analysis Method

In this study, SPSS 23.0 and AMOS 23.0 software are used as statistical and data analysis tools in data processing and statistical application. It can perform descriptive analysis, reliability and validity test of items, normal distribution test of data, exploratory factor analysis, confirmatory factor analysis, correlation analysis, path analysis and intermediary test.

3.3.1 Descriptive Analysis

In this study, Likert's seven points were used as the answer items of the scale. In the description stage, the first step is to analyze the maximum and minimum values of question data, so as to analyze whether there are outliers. If there are outliers, it is necessary to adjust or delete them. Descriptive statistical analysis should make a statistical description of the relevant data of all variables in the survey population, mainly including data frequency analysis, data concentration trend analysis, data distribution, and some basic statistical charts.

3.3.2 Reliability and Validity Test

Reliability represents the reliability and consistency of data, which can reflect the stability and concentration of data. The reliability of the questionnaire is to evaluate whether the collected data is true and reliable, that is, to check whether the person filled out the questionnaire seriously. The reliability test mainly includes the following methods:

Test-retest reliability: the same measuring tool is used to repeatedly measure the same group of subjects at regular intervals, and the correlation degree of the two measurement results can be investigated. Correlation analysis can be directly used, and the obtained correlation coefficient is the test-retest reliability coefficient. Repetitive reliability can test the data error caused by time difference. This error is not caused by the fact that the measuring tool does not have a measuring tool directly, and it measures the same group of subjects, so it is called external reliability.

Alternate-form reliability means that the same group of subjects fill out two parallel questionnaires at a time and calculate the correlation coefficient of the two data. Alternate-form reliability requires that the two questionnaires should be completely consistent in other aspects except for different questions, which is difficult to operate.

Split-half reliability refers to dividing a questionnaire into two parts, and calculating the correlation coefficient of these two parts, that is, split-half reliability coefficient, so as to measure the reliability of the whole questionnaire.

α coefficient, also known as Cronbach's coefficient, is the most commonly used method to measure the reliability of internal consistency. The calculated Cronbach α coefficient is the average of all possible split-half reliability, and its value is between 0 and 1. The higher the coefficient, the better the consistency, indicating the higher the authenticity of the data. α coefficient is the most important index to test the authenticity of questionnaire data.

Validity refers to the ability of measuring tools to accurately measure the real situation of things, which can reflect the accuracy of data. The validity of the questionnaire is used to study whether the question setting can effectively measure the original intention of the questionnaire designer, that is to say, to test whether the design of the questionnaire questions is reasonable. If the question is reasonable, then it can effectively measure the design purpose and original intention of the questionnaire designer. The test method is as follows:

3.3.3 Normality Test

Kurtosis: It is an index describing the degree of sharp whistle peak of curve peak in normal distribution. When kurtosis coefficient is greater than 0, there is less extreme data on both sides, which is higher and thinner than normal distribution, showing sharp whistle peak distribution; When kurtosis coefficient is less than 0, there are more extreme data on both sides, which are shorter and fatter than normal distribution, showing flat and broad peak distribution.

Degree of skewness: It is an index describing data symmetry based on normal distribution. When skewness coefficient is be equal to 0, the distribution is symmetrical; When the skewness coefficient is greater than 0, the peak of frequency

distribution shifts to the left and the long tail extends to the right, showing a positive skewness distribution. When skewness coefficient is less than 0, the peak of frequency distribution shifts to the right, and the long tail extends to the left, showing a negative skewness distribution.

Wang & Wei (2009) pointed out that the statistical values of skewness and kurtosis were within 1.96, which indicated that the samples obeyed normal distribution. Among them, generally speaking, the standard error of skewness and kurtosis should be regarded as approximate normal within ±2, strictly speaking, the positive and negative level should be within 1.

3.3.4 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a technology used to find out the essential structure of multivariate observation variables, and to reduce the dimension. Principal component analysis is used in factor extraction. While orthogonal rotation and oblique rotation are two kinds of methods of factor rotation. The most commonly used method is the maximum variance orthogonal rotation method. KM test: it is used to investigate the partial correlation between variables, with a value between 0 and 1. The closer KM statistic is to 1, the stronger the partial correlation between variables and the better the effect of factor analysis. Generally, statistics above 0.7 are used for factor analysis for adaptation, while statistics below 0.5 are not suitable for factor analysis.

3.3.5 Confirmatory Factor Analysis

Confirmatory factor analysis is a statistical analysis of social survey data. It tests whether the relationship between a factor and the corresponding measure item accords with the theoretical relationship designed by researchers. Confirmatory factor analysis is often tested by structural equation modeling. The fitting test standard is shown in Table 3.8 below.

Table 3.8 Criterion of Confirmatory Factor Analysis Fitting Degree

Index	Standard
Chi-square/df (CMIN/df)	<3 good; <5 sometimes permissible
p-value for the model	>.05
TLI	>.95 great; >.90 traditional; >.80 sometimes permissible
CFI	>.95 great; >.90 traditional; >.80 sometimes permissible
AIC	
RMSEA	<.05 good; .05-.10 moderate; >.10bad
PCLOSE	>0.5

The convergence validity can be judged by knowing the factor load, combined reliability (CR) and mean variance extraction (AVE). If CR value is greater than 0.7, AVE value is greater than 0.5, and each factor load exceeds 0.5, it means that the convergence validity is good and the reliability of the scale is high.

3.3.6 Validity Analysis

Validity test can reflect whether the research scale can correctly reflect the evaluation purpose, and then get the accuracy degree of the characteristics needed by the measurer's purpose. In this study, confirmatory factor analysis (CFA) was used to estimate the construct validity. The test of construct validity is divided into the following two parts:

Firstly, test convergent validity, using composite reliability (CR) > 0.6 (Hair et al., 2006) and average extracted variance (AVE) of each construct > 0.5 (Fornell & Larcker, 1981).

Secondly, test the discriminant validity, this study uses two methods to verify it. One is the square root of AVE value of each construct is greater than the correlation between the corresponding construct and other constructs (Fornell & Larcker, 1981); The other is to add or subtract 1.96 standard errors from the normalized correlation coefficients of the two constructions. If the confidence interval does not contain 1.00, it means that there is evidence to show that there is a discriminant validity between the two constructions (Anderson & Gerbing, 1988).

3.3.7 Correlation Analysis

Correlation analysis refers to the analysis of two or more variable elements with correlation, so as to measure the close correlation between the two variable elements. Correlation analysis can only be carried out if there is a certain connection or probability between the elements of correlation. Generally, product-moment correlation coefficient, that is, Pearson correlation coefficient, is used. Its value is between -1 and 1. When the correlation between the two variables reaches the maximum, the scatter points are in a straight line, and the value is ±1, and the sign indicates the related direction. If the two variables are irrelevant, the value is 0. Strictly speaking, product-moment correlation coefficient is only applicable to linear relationship between two variables, and it has certain applicable conditions. When the data does not meet the applicable conditions, Spearman rank correlation coefficient can be considered to solve the problem.

3.3.8 Path Analysis

Path analysis, also called pathanalysis (Sometimes it is also called structural equation model. Generally, it is called structural equation model if it includes measurement model and structural model. If only the structural model is included, it is called path analysis). The path analysis is to study the model influence relationship, which is used to verify the model hypothesis.

3.3.9 Mediating Test

When the variables do not meet the normal distribution, the traditional parameter method cannot be used to estimate the confidence interval and make statistical inference, but the Bootstrap method is adopted, but the premise is that the samples can represent the population. Bootstrap method repeatedly samples from a given sample to produce many samples, usually 1000-5000 samples. To put it simply, from the original sample, the returned samples are sampled 1000 times, one at a time, and a new sample is obtained, with a sample size of 1000.

3.3.10 Hypothesis Test

The main purpose of hypothesis testing is a statistical inference method used to judge whether the differences between samples and between samples and population are caused by sampling errors or essential differences. Significance test in quantitative research is a common method in hypothesis test, and it is also the most basic form of statistical inference at present. In order to achieve the research goal, this study uses AMOS and SPSS to test the hypotheses proposed in this study. Firstly, make a hypothesis for the overall characteristics of this study. Then, through the statistical reasoning of sampling research and using AMOS to build a measurement model for hypothesis testing, we can infer whether this hypothesis should be rejected or accepted. Secondly, using SPSS analysis tool to carry out logical regression, and test the influencing factors of each variable on tourists' willingness to revisit.

3.4 Pre-test Data Analysis

3.4.1 Prediction of Pre-test Sample Distribution

In this study, the subjective sampling method in non-probabilistic sampling was used to distribute pre-test questionnaires. The pre-test began on April 20th, 2021, and the survey objects were teachers in colleges and universities. There were 38 items in the pre-test questionnaire, including 3 items for teachers' tacit knowledge sharing behavior in colleges and universities, 3 items for teachers' tacit knowledge sharing intention in colleges and universities, 7 items for tacit knowledge sharing attitude, 3 items for subjective norm of knowledge sharing, 7 items for tacit knowledge sharing motivation, 13 items for self-control and 2 items for policy perception. A total of 196 questionnaires were distributed, and 154 valid questionnaires were recovered, with a questionnaire recovery rate of 78.57%.

Table 3.9 Basic Information of Samples

Indicators	Options	Frequency	Percent
Gender	Male	66	42.86%
	Female	88	57.14%
Age	30 years old and below	27	17.53%
	31-39 years old	89	57.79%
	40-49 years old	25	16.24%
	50 years old and above	13	8.44%
Professional Title	None	43	27.92%
	Primary	15	9.74%
	Junior	64	41.56%
	Senior	32	20.78%
University Nature	Public undergraduate institutions	59	38.31%
	Private undergraduate institutions	44	28.57%
	Public college	13	8.44%
	Private college	21	13.64%
	Other	17	11.04%
Academic degree	High school and below	2	1.30%
	Bachelor	60	38.96%
	Master	78	50.65%
	Doctor	14	9.09%
Teaching experience	3 years and below	48	31.17%
	4-9 years	33	21.43%
	10-14 years	31	20.13%

Indicators	Options	Frequency	Percent
	15 years and above	42	27.27%

The pre-test sample distribution of this research sample is shown in Table 3.9. In terms of gender, among the 560 valid samples, 42.86% of male and 57.14% of female; In terms of age, 17.53% are aged 30 and below, 57.79% are aged 31-39, 16.24% are aged 40-49, and 8.44% are aged 50 and above. From the perspective of professional titles, the proportion of non-professional titles is 27.92%; Primary titles account for 9.74%; Junior titles account for 41.56%; The proportion of senior titles is 20.78%; According to the nature of the university teachers are engaged in, the proportion of public undergraduate institutions is 38.31%, that of private undergraduate institutions is 28.57%, that of public colleges is 13.64% and that of private colleges is 11.04%. From the perspective of academic qualifications of teachers in colleges and universities, the proportion of senior high school education and below is 1.30%, the proportion of bachelor’s degree is 38.96%, the proportion of master's degree is 50.65%, and the proportion of doctoral degree is 9.09%. From the teaching experience of teachers in colleges and universities, the teaching experience of 3 years or less accounts for 31.17%, the teaching experience of 4-9 years accounts for 21.43%, the teaching experience of 10-14 years accounts for 20.13%, and the teaching experience of 15 years or more accounts for 27.27%. It can be seen that the samples are widely distributed and diverse in various groups.

3.4.2 Descriptive Statistical Analysis

Table 3.10 Descriptive Statistical Analysis

	N Statistic	Minimum value statistic	Maximum value statistic	Mean value statistic	Standard deviation statistic	Skewness		Kurtosis	
						Statistic	Standard error	Statistic	Standard error
B1	154	1.00	7.00	5.7013	1.19438	-.918	0.095	1.789	0.190
B2	154	2.00	7.00	5.9156	1.01590	-.549	0.095	-.055	0.190
B3	154	1.00	7.00	5.7597	1.15501	-.936	0.095	1.045	0.190
I1	154	1.00	7.00	5.9675	1.04424	-.912	0.095	1.751	0.190
I2	154	1.00	7.00	6.0195	.99325	-1.012	0.095	1.600	0.190
I3	154	1.00	7.00	5.8247	1.10928	-.694	0.095	.971	0.190
A1	154	1.00	7.00	5.5195	1.16720	-.985	0.095	1.377	0.190
A2	154	1.00	7.00	5.5584	1.06634	-.941	0.095	1.009	0.190
A3	154	1.00	7.00	5.4221	1.05893	-.646	0.095	1.467	0.190
A4	154	1.00	7.00	5.4416	1.07245	-.764	0.095	1.396	0.190
A5	154	1.00	7.00	5.5649	.99624	-1.287	0.095	1.425	0.190
A6	154	1.00	7.00	5.6039	1.09913	-1.435	0.095	1.351	0.190
A7	154	1.00	7.00	5.5325	1.01729	-1.146	0.095	1.924	0.190
S1	154	1.00	7.00	5.7922	1.08871	-.685	0.095	1.032	0.190
S2	154	1.00	7.00	5.7597	1.07894	-.582	0.095	.886	0.190
S3	154	1.00	7.00	5.7727	1.05113	-.593	0.095	1.182	0.190
M1	154	1.00	7.00	5.9675	1.01246	-.968	0.095	1.247	0.190
M2	154	1.00	7.00	5.9416	1.06174	-.812	0.095	1.386	0.190
M3	154	1.00	7.00	5.0130	1.31848	-.371	0.095	.360	0.190
M4	154	1.00	7.00	3.4026	1.51040	.374	0.095	.082	0.190
M5	154	1.00	7.00	2.9545	1.64234	.675	0.095	.167	0.190
M6	154	1.00	7.00	5.5260	1.07374	-.277	0.095	.741	0.190
M7	154	1.00	7.00	4.9870	1.21530	-.108	0.095	.406	0.190
C1	154	1.00	7.00	3.6753	1.41367	-.026	0.095	.073	0.190
C2	154	1.00	7.00	5.5519	1.06054	-.421	0.095	.925	0.190
C3	154	1.00	7.00	4.9221	1.23422	-.231	0.095	.072	0.190
C4	154	1.00	7.00	5.5779	.98871	-.343	0.095	1.633	0.190
C5	154	1.00	7.00	5.4351	1.06596	-.353	0.095	1.196	0.190
C6	154	1.00	7.00	5.4805	1.02403	-.298	0.095	1.233	0.190
C7	154	1.00	7.00	5.4805	.95808	-.192	0.095	1.961	0.190
C8	154	4.00	7.00	5.5065	.95826	.275	0.095	-.934	0.190
C9	154	1.00	7.00	5.6753	1.00900	-.509	0.095	1.696	0.190
C10	154	1.00	7.00	5.4545	1.06084	-.395	0.095	1.285	0.190
C11	154	1.00	7.00	5.5195	1.01763	-.468	0.095	1.980	0.190
C12	154	1.00	7.00	5.4156	1.07071	-.214	0.095	.776	0.190
C13	154	1.00	7.00	5.4416	.96329	-.232	0.095	1.019	0.190
P1	154	1.00	7.00	5.6234	1.13228	-.968	0.095	.680	0.190
P2	154	1.00	7.00	5.6494	1.13490	-.879	0.095	.481	0.190

SPSS is used for descriptive statistical analysis of latent variables in this paper. The results are as shown in the table. The maximum and minimum values are between 1 and 7, which indicates that the samples selected in this paper are quite extensive. In the 7-level scale, the mean values are all higher than level 5, and the statistical values of kurtosis and skewness are within the range of (-1.96, +1.96), which indicates that the samples obey normal distribution. Therefore, it can be concluded that the

distribution of samples in this study is reasonable (Wang & Wei, 2009).

3.4.3 Reliability Analysis

In this study, 154 samples of tacit knowledge sharing behavior, tacit knowledge sharing intention, tacit knowledge sharing attitude, subjective norms, sharing motivation, self-control and policy perception were analyzed by SPSS with corrected item-total correlation (CITC) and reliability analysis. The internal consistency of the scale can be judged by investigating Cronbach's Alpha value, total Cronbach's Alpha value, the correlation coefficient between each observed variable and its latent variable, and Cronbach's Alpha if Item Deleted. According to the description of Wu (2010), there are three main standards to purify and revise the scale: if the CITC is less than 0.5, delete the item; If the Cronbach's Alpha value of the reliability coefficient after deleting the item is greater than the Cronbach's Alpha value of all latent variables, delete the item; If the reliability coefficient of latent variables cannot reach above 0.7, the questionnaire needs to be redesigned. According to reliability analysis, Cronbach's alpha of each scale is greater than 0.5, and Cronbach's alpha of total scale is greater than 0.7; The CITC value of each item should be greater than 0.5, and Cronbach's Alpha if Item Deleted should be less than the Cronbach's Alpha value of the middle scale, which means that the scale has high reliability and can be used as a research tool.

Table 3.11 Reliability Statistics

	Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**N of Items**
Tacit knowledge sharing behavior	.813	.816	3
Tacit knowledge sharing intention	.919	.922	3
Sharing attitude	.962	.963	7
Subjective norm	.938	.938	3
Sharing motivation	.729	.759	7
Self-control	.919	.931	13
Policy perception	.881	.881	2

SPSS is used to analyze the reliability of tacit knowledge sharing behavior, tacit knowledge sharing intention, sharing attitude, subjective norms, sharing motivation, self-control and policy perception, and the Cronbach's Alpha value of each variable and Cronbach's Alpha value based on standardized items are calculated. It can be seen from the results in Table 3.11 that Cronbach's alpha = 0.813, Cronbach's alpha based on standardized items = 0.816 and Cronbach's Alpha of tacit knowledge sharing intention=0.919. Cronbach's alpha based on standardized items = 0.922, Cronbach's alpha of sharing attitude = 0.962, Cronbach's alpha based on standardized items = 0.963. The Cronbach's Alpha of subjective norm = 0.729, Cronbach's Alpha based on standardized items = 0.938, Cronbach's Alpha of sharing motivation = 0.729. Cronbach's Alpha based on standardized items = 0.759, Cronbach's alpha of self-control = 0.919, Cronbach's alpha based on standardized items = 0.931, Cronbach's alpha of policy perception = 0.881, Cronbach's alpha based on standardized items = 0.881, and the reliability of each variable is greater than 0.7, which indicates that the data has high internal heterogeneity and the reliability of the scale is high.

Table 3.12 Reliability Analysis of Sample Scale

Variable	**Item**	**CITC**	**Cronbach's Alpha if Item Deleted**	**Total Cronbach's Alpha**
Tacit knowledge	B1	.715	.688	.813
sharing behavior	B2	.715	.701	
	B3	.576	.833	
Tacit knowledge	I1	.849	.874	.919
sharing intention	I2	.888	.846	
	I3	.781	.934	
Sharing attitude	A1	.719	.968	.962
	A2	.901	.953	
	A3	.866	.956	
	A4	.915	.952	
	A5	.920	.952	
	A6	.841	.958	

Variable	Item	CITC	Cronbach's Alpha if Item Deleted	Total Cronbach's Alpha
	A7	.919	.952	
Subjective norm	S1	.874	.909	.938
	S2	.910	.880	
	S3	.834	.940	
Sharing	**M1**	**.420**	**.704**	.729 (Cronbach's
motivation	**M2**	**.468**	**.693**	Alpha coefficient
	M3	.620	.651	is.770 after deleting
	M4	**.311**	**.734**	M1, M2, M4 and
	M5	**.263**	**.755**	M5)
	M6	.524	.682	
	M7	.632	.652	
Self-control	**C1**	**.025**	**.946**	.919 (Cronbach's
	C2	.684	.912	Alpha coefficient
	C3	**.462**	**.922**	is.953 after C1 and
	C4	.832	.907	C3 are deleted)
	C5	.789	.908	
	C6	.796	.908	
	C7	.721	.911	
	C8	.717	.911	
	C9	.816	.907	
	C10	.809	.907	
	C11	.809	.907	
	C12	.774	.908	
	C13	.733	.910	
Policy perception	P1	.787	.854	.881
	P2	.787	.869	

It can be seen from the above table that the CITC coefficients of the three items of tacit knowledge sharing behavior are 0.715, 0.715 and 0.576, all higher than 0.5, the Cronbach's Alpha value of tacit knowledge sharing behavior is 0.813, higher than 0.7, and Cronbach's Alpha if Item Deleted are 0.688, 0.701 and 0, respectively. After deleting the items, the reliability coefficients were not significantly improved, so all three items were retained. Total Cronbach's Alpha is 0.813, which is greater than the standard of 0.7, so the reliability of tacit knowledge sharing behavior is high.

From the above table, we can see that the CITC coefficients of the three items of tacit knowledge sharing intention are 0.849, 0.888 and 0.781, which are all higher than 0.5; the Cronbach's Alpha value of tacit knowledge sharing intention is 0.919, which is greater than 0.7; and the Cronbach's Alpha if Item Deleted are 0.874, 0.846 and 0 respectively. After deleting the items, the reliability coefficients were not significantly improved, so all three items were retained. Total Cronbach's Alpha is 0.919, which is greater than the standard of 0.7, so the reliability of tacit knowledge sharing intention is high.

It can be seen from the above table that the CITC coefficients of the seven items of sharing attitude are 0.719, 0.901, 0.866, 0.915, 0.920, 0.841 and 0.919, all higher than 0.5, and the Cronbach's Alpha value of sharing attitude is 0.962, higher than 0.7. Cronbach's Alpha if Item Deleted were 0.968, 0.953, 0.956, 0.952, 0.952, 0.958 and 0.952, respectively. After deleting the items, the reliability coefficients were not significantly improved, so all seven items were retained. Total Cronbach's Alpha is 0.962, which is greater than the standard of 0.7, so the reliability of sharing attitude is high.

From the above table, we can see that the CITC coefficients of the three items in the subjective norm are 0.874, 0.910 and 0.834, all higher than 0.5, the Cronbach's Alpha value of the subjective norm is 0.938, higher than 0.7, and the Cronbach’s Alpha if Item Deleted are 0.909, 0.880 and 0.940, respectively. After deleting the items, the reliability coefficients were not significantly improved, so all three items were retained. Total Cronbach's Alpha is 0.938, which is greater than the standard of 0.7, so the reliability of subjective norms is high.

From the above table, we can see that the CITC coefficients of the seven items of sharing motivation are 0.420, 0.468, 0.620, 0.311, 0.263, 0.524 and 0.632,

respectively. Except that the CITC values of M1, M2, M4 and M5 are less than 0.5, others are higher than 0.5. Furthermore, the Cronbach's Alpha of items M1, M2, M4 and M5 were 0.704, 0.693, 0.734 and 0.755, respectively, and the Cronbach's Alpha of the total scale is increased from 0.729 to 0.770, which indicates that the internal consistency of the scale would be improved after items M1, M2, M4 and M5 are deleted. Therefore, items M1, M2, M4 and M5 are deleted. Total Cronbach's Alpha is 0.770, which is greater than the standard of 0.7, so the reliability of sharing motivation is high.

It can be seen from the above table that the CITC coefficients of 13 items of self-control are 0.025, 0.684, 0.462, 0.832, 0.789, 0.796, 0.721, 0.717, 0.816, 0.809, 0.774 and 0.733, respectively, except that the CITC values of C1, C2 are less than 0.5, others are higher than 0.5. And when items C1 and C3 are deleted, Cronbach's Alpha is 0.919 and 0.922, respectively, and the Cronbach's Alpha the sacle is increased from 0.915 to 0.953, indicating that the internal consistency of the scale will be improved after items C1 and C3 are deleted. Therefore, items C1 and C3 are deleted. Total Cronbach's Alpha is 0.953, which is greater than the standard of 0.7, so the reliability of self-control is high.

It can be seen from the above table that the CITC coefficients of the two items of policy perception are 0.787 and 0.787, both higher than 0.5, the Cronbach's Alpha value of policy perception is 0.881, higher than 0.7, and Cronbach's Alpha if Item Deleted are 0.854 and 0.869, respectively, and the reliability coefficients after deleting the items are not significantly improved, so Total Cronbach's Alpha is 0.881, which is greater than the standard of 0.7, so the reliability of policy perception is high.

3.4.4 Component Matrix after Rotation

In this study, SPSS was used to analyze the factors of tacit knowledge sharing behavior, tacit knowledge sharing intention, sharing attitude, subjective norms, sharing motivation, self-control and policy perception scale to test the convergence validity of the scale. Wu (2010) thinks that the statistic of KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) is greater than 0.6, which shows that there are common factors among the items, and is suitable for factor analysis. Tabachnick & Fidell (2007) thinks that the factor load is greater than 0.55, and the explanatory

power of the item is higher. If the factor load is less than 0.32, the item can be deleted at this time (Wu, 2010).

Table 3.13 Composition Matrix after Rotation

	Composition						
	1	**2**	**3**	**4**	**5**	**6**	**7**
B1	-	-	.766	-	-	-	-
B2	-	-	.728	-	-	-	-
B3	-	-	.614	-	-	-	-
I1	-	-	-	-	-	-	.772
I2	-	-	-	-	-	-	.728
I3	-	-	-	-	-	-	.656
A1	-	.639	-	-	-	-	-
A2	-	.830	-	-	-	-	-
A3	-	.820	-	-	-	-	-
A4	-	.851	-	-	-	-	-
A5	-	.852	-	-	-	-	-
A6	-	.808	-	-	-	-	-
A7	-	.834	-	-	-	-	-
S1	-	-	-	-	-	.536	-
S2	-	-	-	-	-	.594	-
S3	-	-	-	-	-	.559	-
M3	-	-	-	-	.837	-	-
M6	-	-	-	-	.575	-	-
M7	-	-	-	-	.695	-	-
C2	.628	-	-	-	-	-	-
C4	.771	-	-	-	-	-	-
C5	.780	-	-	-	-	-	-
C6	.757	-	-	-	-	-	-
C7	.727	-	-	-	-	-	-
C8	.817	-	-	-	-	-	-
C9	.769	-	-	-	-	-	-
C10	.731	-	-	-	-	-	-

	Composition						
	1	**2**	**3**	**4**	**5**	**6**	**7**
C11	.748	-	-	-	-	-	-
C12	.654	-	-	-	-	-	-
C13	.640	-	-	-	-	-	-
P1	-	-	-	.865	-	-	-
P2	-	-	-	.870	-	-	-
Total	7.391	6.254	4.953	2.310	1.905	1.712	1.569
Cumulative %	23.097	42.641	58.119	65.338	71.291	76.641	79.357
KMO	0.935						
Bartlett's Test	4975.395（P=0.000）						

Note: Extraction method: Principal component analysis.
Rotation Method: Caesar normalized maximum variance method.
a. The rotation has converged after 7 iterations.

Table 3.14 Explanation Table of Total Variance

Composition	Initial Eigenvalue			Extract The Sum of Load Squares			Square Sum of Rotating Load		
	Total	Variance percentage	Cumulative%	Total	Variance percentage	Cumulative%	Total	Variance percentage	Cumulative%
1	16.835	32.609	32.609	16.835	32.609	32.609	7.391	23.097	23.097
2	2.801	8.754	41.362	2.801	8.754	41.362	6.254	19.543	42.641
3	1.789	5.590	56.952	1.789	5.590	56.952	4.953	15.478	58.119
4	1.346	4.205	61.158	1.346	4.205	61.158	2.310	7.220	65.338
5	1.092	3.414	74.571	1.092	3.414	74.571	1.905	5.952	71.291
6	1.080	2.439	77.010	1.080	2.439	77.010	1.712	5.350	76.641
7	1.051	2.347	79.357	1.051	2.347	79.357	1.569	4.716	79.357

Note: Extraction method: Principal component analysis.

It can be seen from the above table that the KMO value of the scale is 0.935, which is greater than 0.6, and the chi-square value of Bartlett spherical test is 4,975.395, with a significant level of 0.000, which shows that there are common factors among the items, and the scale is suitable for factor analysis. According to the load analysis of the scale factors and rotation factors of each item, the total explanatory variance of the scale is 79.357%, and the explanatory percentage of each

factor is greater than 60%, which indicates that it is appropriate to keep seven factors. Among them, C2, C4-C13 items are distributed on the first factor, with factor loads of 0.628, 0.771, 0.780, 0.757, 0.727, 0.817, 0.769, 0.731, 0.748, 0.654 and 0.640 respectively, which are defined as "self-control" Items A1-A7 are distributed on the second factor, with factor loads of 0.639, 0.830, 0.820, 0.851, 0.852, 0.808 and 0.834 respectively, which are defined as "sharing attitudes". Items B1-B3 are distributed on the third factor, with factor loads of 0.766, 0.728 and 0.614 respectively, which are defined as "tacit knowledge sharing behavior". Items P1-P2 are distributed on the fourth factor, with factor loads of 0.865 and 0.870 respectively, which are defined as "policy perception". Items M3 and M6-M7 are distributed on the fifth factor, with factor loads of 0.837, 0.575 and 0.695 respectively, which are defined as "sharing motivation". S1-S3 items are distributed on the sixth factor, with factor loads of 0.536, 0.594 and 0.509 respectively, which are defined as "subjective norms". Item I1-I3 is distributed on the seventh factor, with factor loads of 0.772, 0.728 and 0.656 respectively, which is defined as "tacit knowledge sharing intention". The load of each factor is greater than 0.50, which means that the convergence validity is high and the variance interpretation ability is good. KMO values all exceed 0.7, which means that the correlation is high. Therefore, the validity of this scale is high.

To sum up, through the pre-test stage, the scale has been revised, and its reliability and validity are good. Therefore, the pre-test stage scale can be used in the formal test stage.

CHAPTER 4

RESEARCH RESULTS

This chapter begins with a descriptive analysis of the research objects, and then sequentially carries out a series of data analysis, such as reliability analysis, validity analysis, normality test, exploratory factor analysis, confirmatory factor analysis, correlation analysis, path analysis, mediating effect and moderating effect test. Finally, the hypothesis proposed in this paper is tested and the results are discussed.

4.1 Descriptive Analysis

The formal test of this paper began on May 20th, 2021, and the main research objects are the teachers in colleges and universities. Through formal investigation, the distribution of samples in this study is shown in Table 4.1. From the gender perspective, among the 560 valid samples, 44.107% are male and 55.893% are female. In terms of age, 21.964% are aged 30 and below, 49.464% are aged 31-39, 16.964% are aged 41-49, and 11.608% are aged 50 and above. From the perspective of professional titles, the proportion of non-professional titles is 19.464%; The proportion of primary titles is 15.714%; The proportion of junior titles is 34.643%; The proportion of senior titles is 30.179%; From the perspective of the nature of the university teachers are engaged in, the proportion of public undergraduate institutions is 36.429%, that of private undergraduate institutions is 14.286%, that of public colleges is 34.464% and that of private colleges is 14.821%. From the perspective of teachers' education in colleges and universities, the proportion of senior high school education and below is 1.071%, the proportion of bachelor’s degree is 29.464%, the proportion of master's degree is 57.679%, and the proportion of doctoral degree is 11.786%. From the teaching experience of teachers in colleges and universities, the

teaching experience of 3 years or less accounts for 25.714%, that of 4-9 years accounts for 16.429%, that of 10-14 years accounts for 16.429% and that of 15 years or more accounts for 32.143%. It can be seen that the samples are widely distributed and diverse in all groups.

Table 4.1 Basic Information of Samples

Indicators	Options	Frequency	Percent
Gender	Male	247	44.107%
	Female	313	55.893%
Age	30 years old and below	123	21.964%
	1-39 years old	277	49.464%
	40-49 years old	95	16.964%
	50 years old and above	65	11.608%
professional title	None	109	19.464%
	Primary	88	15.714%
	Junior	194	34.643%
	Senior	169	30.179%
University nature	Public undergraduate institution	204	36.429%
	Private undergraduate institution	80	14.286%
	Public college	193	34.464%
	Private college	83	14.821%
Academic degree	High school and below	6	1.071%
	Bachelor	165	29.464%

Indicators	Options	Frequency	Percent
	Master	323	57.679%
	Doctor	66	11.786%
Teaching	3 years and below	144	25.714%
experience	4-9 years	144	25.714%
	10-14 years	92	16.429%
	15 years and above	180	32.143%

Table 4.2 Descriptive Statistical Analysis

	N statistic	Minimum value statistic	Maximum statistic	Mean value statistic	Standard deviation Statistic	Skewness		Kurtosis	
						Statistic	Standard deviation	Statistic	Standard deviation
Sharing behavior	560	1.00	7.00	5.778	1.00669	-.667	.103	1.051	.206
Sharing consciousness	560	1.00	7.00	5.914	1.00934	-.776	.103	1.226	.206
Individual attitude	560	1.00	7.00	5.554	.92240	-.295	.103	.995	.206
Subjective norm	560	1.00	7.00	5.746	1.00267	-.280	.103	-.283	.206
Sharing motivation	560	1.00	7.00	5.233	1.01974	-.101	.103	.613	.206
Self-control	560	1.45	7.00	5.588	.84690	.091	.103	-.044	.206
Policy perception	560	1.00	7.00	5.581	1.14515	-.520	.103	-.758	.206

Note: Number of valid cases: 560

It can be seen from Table 4.2 that this paper uses SPSS to make descriptive statistical analysis of seven variables, and the results are as shown in the table. The minimum and maximum values of each variable are between 1 and 7, which indicates that the samples selected in this paper are quite extensive, with an mean value of 5.78. In the 7-level scale, the mean value is higher than 5, and the skewness and kurtosis statistical values are in the range of (-1.96, +1.96), which indicates that the samples obey the normal distribution.

4.2 Reliability Analysis

In this paper, SPSS statistical analysis software is used to analyze the reliability of official test data, and the judgment standard used in reliability analysis is the same as that used in pre-test data analysis. Cronbach's alpha of each scale is greater than 0.5, and Cronbach's alpha of total scale is greater than 0.7; CITC value of each item should be greater than 0.5, and Cronbach's Alpha if Item Deleted should be less than Cronbach's Alpha value of the sub-scale, which means that the scale has high reliability and can be used as a research tool.

From the results in Table 4.3, it can be seen that Cronbach's alpha = 0.973, Cronbach's alpha based on standardized items = 0.974, and the total reliability of the scale is greater than 0.8, which indicates that the analysis data has high internal consistency and the reliability of the scale is high.

Table 4.3 Total Reliability Analysis

Reliability Statistics			
	Cronbach's Alpha	**Cronbach's Alpha Based on Standardized Items**	**N of Items**
Tacit knowledge sharing behavior	.854	.855	3
Tacit knowledge sharing intention	.926	.927	3
Sharing attitude	.970	.970	7
Subjective norm	.942	.942	7
Sharing motivation	.775	.781	7
Self-control	.958	.958	11
Policy perception	.899	.899	2
Total scale	.973	.974	32

Table 4.4 Reliability Analysis of Sample Scale

Variable	Item	CITC	Cronbach's Alpha if Item Deleted	Total Cronbach's Alpha
Tacit knowledge sharing behavior	B1	.730	.793	.854
	B2	.797	.731	
	B3	.656	.858	
Tacit knowledge sharing intention	I1	.849	.894	.926
	I2	.890	.863	
	I3	.813	.923	
Sharing attitude	A1	.806	.971	.970
	A2	.890	.965	
	A3	.897	.964	
	A4	.922	.962	
	A5	.918	.963	
	A6	.891	.965	
	A7	.916	.963	
Subjective norm	S1	.865	.925	.942
	S2	.906	.893	
	S3	.864	.926	
Sharing motivation	M3	.554	.773	.775
	M6	.629	.683	
	M7	.665	.636	
Self-control	C2	.753	.955	.958
	C4	.831	.953	
	C5	.816	.953	
	C6	.810	.953	
	C7	.766	.955	
	C8	.828	.953	

Variable	Item	CITC	Cronbach's Alpha if Item Deleted	Total Cronbach's Alpha
	C9	.830	.953	
	C10	.789	.954	
	C11	.853	.952	
	C12	.776	.954	
	C13	.761	.955	
Policy	P1	.817	.854	.899
perception	P2	.817	.869	

As can be seen from the above table, Cronbach's Alpha of tacit knowledge sharing behavior is 0.854, Cronbach's Alpha of tacit knowledge sharing intention is 0.926, Cronbach's Alpha of sharing attitude is 0.970, Cronbach's Alpha of subjective norm is 0.942, Cronbach's Alpha of sharing motivation is 0.775, Cronbach's Alpha of self-control is 0.958 and Cronbach's Alpha of policy perception is 0.899. Cronbach's Alpha coefficients of all latent variables meet the basic standard of greater than 0.7, and most of them are above 0.8. It can be seen that the questionnaire used in this study has good reliability. In addition, the CITC between the observed variables and their latent variables is mostly between 0.6 and 0.9, which meets the requirement of greater than 0.5. This shows that the correlation coefficient CITC between the observed variables of each variable and the latent variables to which they belong exceeds 0.5, and most of them are between 0.6 and 0.9, which shows that the latent variables of each question are well set and the questionnaire reliability is good. At the same time, by excluding the observed variables, the specific method is to delete each variable once. If the reliability index does not change after deletion, it is considered that the measurement item of the variable has good reliability. The results show that the values of Cronbach's Alpha if Item Deleted are all less than those of Cronbach's Alpha. Therefore, the reliability coefficient has not been significantly improved after deleting the question, which indicates that the reliability of the scale in this study is highly consistent internally.

4.3 Validity Analysis

This study analyzes the validity of the variable structure of the questionnaire. The purpose of validity analysis is to determine whether the measurement structure of the variable is stable and whether the questions belonging to the same connotation can be effectively classified as the same factor through data analysis. Usually, principal component analysis is used to test, and the methods of principal component analysis can be roughly divided into two types, one is oblique test and the other is orthogonal test. In this study, the orthogonal test method is used for analysis, and the model test method is set as the maximum variance method. Through principal component analysis, we can get KMO and Bartlett test. It is proved that the correlation of the whole variables is obviously greater than the partial correlation by whether the KMO value is greater than 0.7. If the result is greater than 0.7, it is proved that the correlation between the indexes or questions involved in the analysis is significantly higher, which indicates that the questionnaire is suitable for the follow-up factor analysis. At the same time, Bartlett test needs to be significant to prove that the variable questions may be extracted with factors, that is, the questions can reflect the closely related factor state.

Table 4.5 KMO and Bartlett Test

KMO and Bartlett Test			
KMO test of the whole questionnaire	KMO sampling suitability quantity.		.966
	Bartlett sphericity test	Approximate chi-square	18730.375
		Freedom	496
		Significance	.000
KMO test of tacit knowledge sharing behavior	KMO sampling suitability quantity.		.790
	Bartlett sphericity test	Approximate chi-square	800.102
		Freedom	3
		Significance	.000

KMO and Bartlett Test			
KMO test of tacit knowledge sharing intention	O KM sampling suitability quantity.		.744
	Bartlett sphericity test	Approximate chi-square	1367.939
		Freedom	3
		Significance	.000
KMO test of sharing attitude	KMO sampling suitability quantity.		.940
	Bartlett sphericity test	Approximate chi-square	5183.910
		Freedom	21
		Significance	.000
KMO test of subjective norms	KMO sampling suitability quantity.		.759
	Bartlett sphericity test	Approximate chi-square	1544.688
		Freedom	3
		Significance	.000
KMO test of sharing motivation	KMO sampling suitability quantity.		.884
	Bartlett sphericity test	Approximate chi-square	489.350
		Freedom	3
		Significance	.000
KMO test of self-control	O KM sampling suitability quantity.		.965
	Bartlett sphericity test	Approximate chi-square	5393.540
		Freedom	55
		Significance	.000
KMO test of policy perception	KMO sampling suitability quantity.		.780
	Bartlett sphericity test	Approximate chi-square	614.684
		Freedom	1
		Significance	.000

Through the analysis, after the principal component analysis of the items set this time, we first get the KMO and Bartlett sphericity test results table. It can be seen that the Kaiser-Meyer-Olkin measurement value of sampling adequacy is obviously greater than 0.7, and it can be proved that there is a strong correlation between the items in the test, and the correlation level is obviously greater than the partial correlation level, so the items are suitable for factor extraction. At the same time, we can see that the approximate chi-square value is obtained by the Bartlett test, and the degree of freedom df is obtained by the number of questions, and the significance sig of the Bartlett test is less than sig $<$ 0.001, which shows that there is a significant correlation between mother and child clusters in the data relationship of questions, and the factors after data extraction have a high correlation with questions. That is, from the above table, we can see that the KMO value of the whole questionnaire is 0.966, which is very valid and suitable for factor analysis. Bartlett's sphericity test chi-square value is 18730.375, degree of freedom is 496, and the p value is less than 0.01, and it has passed the significance test of 1% of the significance level, which shows that it is suitable for factor analysis, that is, it is suitable for exploratory factor analysis (EFA).

In this study, SPSS was used to analyze the factors of tacit knowledge sharing behavior, tacit knowledge sharing intention, sharing attitude, subjective norms, sharing motivation, self-control and policy perception scale to test the convergence validity of the scale. Wu (2010) thinks that the statistic of KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) is greater than 0.6, which shows that there are common factors among the items, which is suitable for factor analysis. Tabachnick & Fidell (2007) thinks that the factor load is greater than 0.55, and the explanatory power of the item is higher. If the factor load is less than 0.32, the item can be considered for deletion at this time. (Wu, 2010).

Table 4.6 Composition Matrix after Rotation

	Composition						
	1	**2**	**3**	**4**	**5**	**6**	**7**
B1	-	-	.745	-	-	-	-
B2	-	-	.768	-	-	-	-
B3	-	-	.690	-	-	-	-
I1	-	-	-	-	-	-	.784
I2	-	-	-	-	-	-	.751
I3	-	-	-	-	-	-	.675
A1	-	.685	-	-	-	-	-
A2	-	.757	-	-	-	-	-
A3	-	.780	-	-	-	-	-
A4	-	.811	-	-	-	-	-
A5	-	.825	-	-	-	-	-
A6	-	.794	-	-	-	-	-
A7	-	.802	-	-	-	-	-
S1	-	-	-	-	.669	-	-
S2	-	-	-	-	.710	-	-
S3	-	-	-	-	.639	-	-
M3	-	-	-	.785	-	-	-
M6	-	-	-	.631	-	-	-
M7	-	-	-	.760	-	-	-
C2	.693	-	-	-	-	-	-
C4	.787	-	-	-	-	-	-
C5	.795	-	-	-	-	-	-
C6	.759	-	-	-	-	-	-
C7	.707	-	-	-	-	-	-
C8	.785	-	-	-	-	-	-
C9	.769	-	-	-	-	-	-
C10	.725	-	-	-	-	-	-
C11	.760	-	-	-	-	-	-

	Composition						
	1	**2**	**3**	**4**	**5**	**6**	**7**
C12	.685	-	-	-	-	-	-
C13	.656	-	-	-	-	-	-
P1	-	-	-	-	-	.854	-
P2	-	-	-	-	-	.868	-
Total	7.778	6.045	4.794	2.246	2.130	2.060	1.641
Cumulative %	24.307 %	43.197 %	58.177 %	65.195 %	71.852 %	78.290 %	80.292 %
KMO	0.966						
Bartlett's Test	18730.375（P = 0.000）						

Note: Extraction method: Principal component analysis.
Rotation method: Caesar normalized maximum variance method.
a. The rotation has converged after 7 iterations.

It can be seen from the above table that the KMO value of the scale is 0.966, which is greater than 0.6, and the chi-square value of Bartlett spherical test is 18,730.375, with a significant level of 0.000, which shows that there are common factors among the items, and the scale is suitable for factor analysis. From the factor analysis of the scale and the load analysis of each item's rotation factor, the total explanatory variance of the scale is 80.292%, and the explanatory percentage of each factor is greater than 60%, which indicates that it is appropriate to keep seven factors. Among them, items C2, C4-C13 are distributed on the first factor, with factor loads of 0.693, 0.787, 0.795, 0.759, 0.707, 0.785, 0.769, 0.725, 0.760, 0.685 and 0.656 respectively, which are defined as "self-control" Items A1-A7 are distributed on the second factor, with factor loads of 0.685, 0.757, 0.780, 0.811, 0.825, 0.794 and 0.802 respectively, which are defined as "sharing attitudes". Items B1-B3 are distributed on the third factor, with factor loads of 0.745, 0.768 and 0.690 respectively, which are defined as "tacit knowledge sharing behavior". Items M3 and M6-M7 are distributed on the fourth factor, with factor loads of 0.785, 0.631 and 0.760 respectively, which

are defined as "sharing motivation". Items S1-S3 are distributed on the fifth factor, with factor loads of 0.669, 0.710 and 0.639 respectively, which are defined as "subjective norms". Items P1-P2 are distributed on the sixth factor, with factor loads of 0.854 and 0.868 respectively, which are defined as "policy perception". Item I1-I3 is distributed on the seventh factor, with factor loads of 0.784, 0.751 and 0.675 respectively, which is defined as "tacit knowledge sharing intention". The load of each factor is greater than 0.50, which means that the convergence validity is high and the variance interpretation ability is good. KMO values all exceed 0.7, which means that the correlation is high. Therefore, the validity of this scale is high.

4.4 Normality Test

Before confirmatory factor analysis, it is necessary to test the normality of all the subjects involved in confirmatory factor analysis. The core reason is that structural equation model requires the analyzed data to obey normal distribution, and there are many methods of normality test, such as Kolmogorov-Smirnov test, the chi-square goodness-of-fittest, Shapiro-Wilk test, etc. However, skewness and kurtosis test are widely used by researchers in various research fields because of their fast operation, simple calculation and no strict requirement on sample size. Skewness, also called obliquity, which indicates the degree and direction of asymmetry of distribution. If the data distribution is symmetrical, the obliquity is zero. If the data distribution is to the left, the obliquity is positive; On the contrary, if the data distribution is to the right, the obliquity is negative. The greater the asymmetry of data distribution, the greater the absolute value of obliquity. Kurtosis indicates the degree to which the peak value of the distribution is thin or flat compared with the normal curve. If the data distribution is the same as the shape of the normal curve, the kurtosis value is zero. If the data distribution is thinner than the normal curve, the kurtosis is positive; On the contrary, if the data distribution is flatter than the normal curve, the kurtosis is negative. The greater the thinness (or flattening) degree of the data distribution shape, the greater the absolute value of kurtosis. Or vice versa. Generally speaking, the standard of skewness and kurtosis should be regarded as approximate normal within ±2, and strictly, the positive and negative levels should be within 1.

Table 4.7 Normal Distribution Test Table

	N Statistic	Minimum value statistic	Maximum statistic	Mean value statistic	Standard deviation statistic	Skewness		Kurtosis	
						Statistic	Standard error	Statistic	Standard error
B1	560	1.00	7.00	5.6661	1.20268	-.822	.095	1.364	.190
B2	560	1.00	7.00	5.8821	1.09334	-.902	.095	1.629	.190
B3	560	1.00	7.00	5.7857	1.13513	-.706	.095	.832	.190
I1	560	1.00	7.00	5.9089	1.11130	-1.005	.095	1.860	.190
I2	560	1.00	7.00	5.9768	1.03144	-.847	.095	1.325	.190
I3	560	1.00	7.00	5.8554	1.09910	-.636	.095	.277	.190
A1	560	1.00	7.00	5.6125	1.05562	-.367	.095	.410	.190
A2	560	1.00	7.00	5.5536	1.00659	-.232	.095	.358	.190
A3	560	1.00	7.00	5.4589	1.04723	-.111	.095	.054	.190
A4	560	1.00	7.00	5.4893	1.02031	-.169	.095	.160	.190
A5	560	1.00	7.00	5.5893	.94721	-.366	.095	.928	.190
A6	560	1.00	7.00	5.6179	.99392	-.603	.095	1.287	.190
A7	560	1.00	7.00	5.5589	.94392	-.324	.095	.921	.190
S1	560	1.00	7.00	5.7768	1.06925	-.445	.095	.022	.190
S2	560	1.00	7.00	5.7304	1.06689	-.377	.095	-.017	.190
S3	560	1.00	7.00	5.7321	1.04275	-.274	.095	-.345	.190
M3	560	1.00	7.00	5.0732	1.35345	-.477	.095	.488	.190
M6	560	1.00	7.00	5.5482	1.10996	-.323	.095	.281	.190
M7	560	1.00	7.00	5.0786	1.20860	-.279	.095	.482	.190
C2	560	1.00	7.00	5.6321	1.03794	-.134	.095	-.555	.190
C4	560	1.00	7.00	5.6196	1.00088	.012	.095	-.469	.190
C5	560	1.00	7.00	5.5089	1.02033	.021	.095	-.235	.190
C6	560	1.00	7.00	5.6214	1.00066	-.089	.095	-.247	.190
C7	560	1.00	7.00	5.5571	1.02052	-.176	.095	.314	.190
C8	560	3.00	7.00	5.5589	.99377	.182	.095	-1.008	.190
C9	560	1.00	7.00	5.7982	1.02229	-.233	.095	-.448	.190
C10	560	1.00	7.00	5.5893	1.02346	-.117	.095	-.239	.190
C11	560	1.00	7.00	5.6071	.99153	-.034	.095	-.074	.190
C12	560	1.00	7.00	5.4714	1.04765	.034	.095	-.393	.190
C13	560	1.00	7.00	5.5071	.95514	.109	.095	.004	.190
P1	560	1.00	7.00	5.6071	1.18244	-.596	.095	-.763	.190
P2	560	1.00	7.00	5.5554	1.22020	-.571	.095	-.717	.190

From the test results in the above table, we can see that the skewness values of all the questions are within ± 1, and only the kurtosis of some questions is between ± 2, which proves that most of the questions are close to normal. Therefore, this study basically thinks that all the questions are in normal distribution and are suitable for confirmatory factor analysis.

4.5 Exploratory Factor Analysis (EFA)

Factor analysis can be divided into exploratory factor analysis and confirmatory factor analysis. Exploratory factor analysis is used to measure the validity of the scale and determine whether the measured variables of each latent variable have stable structural consistency (Wu, 2010), which is the most used index to evaluate the validity of the scale. Confirmatory factor analysis is to test the appropriateness and authenticity of construct validity (Wu, 2010). When using factor analysis for validity analysis, first of all, it is necessary to judge whether the conditions of factor analysis are met. Generally, two conditions need to be met. One is that KMO value is greater than 0.7; Secondly, the significance of Bartlett's sphericity test is less than 0.05. If these two conditions are met, there is a strong correlation between the observed variables, which is suitable for factor analysis. In this study, SPSS was used to perform exploratory factor analysis and confirmatory factor analysis on the data to test the construct validity of the scale.

Table 4.8 Common Method Deviation Inspection

Component	Initial Eigenvalue			Extract The Sum of Load Squares			Rotate the Sum of Load Squares		
	Total	Variance Percentage	Cumulative%	Total	Variance Percentage	Cumulative %	Total	Variance Percentage	Cumulative %
1	15.916	35.986	35.986	15.916	35.986	35.986	7.778	24.307	24.307
2	2.362	7.382	43.368	2.362	7.382	43.368	6.045	18.890	43.197
3	1.500	4.689	58.057	1.500	4.689	58.057	4.794	14.980	58.177
4	1.358	4.244	62.302	1.358	4.244	62.302	2.246	7.018	65.195
5	1.184	3.700	76.002	1.184	3.700	76.002	2.130	6.657	71.852
6	1.183	2.448	78.450	1.183	2.448	78.450	2.060	6.438	78.290
7	1.090	1.843	80.292	1.090	1.843	80.292	1.641	5.002	80.292

Note: Extraction Method: Principal component analysis.

To ensure the accuracy of the statistical analysis results, Harman single factor method, which is the most commonly used method, is used to test the common method deviation of the data in this paper, that is. exploratory factor analysis is performed on all the scale items together, principal component analysis method is used to extract the components with eigenvalues greater than 1, and the test results are shown in the table. Seven common factors with eigenvalues greater than 1 are extracted in total, the interpretation rate of cumulative variance is 80.292%, and the

interpretation amount of single factor is less than 40%, and no common factor explains most of the variation. It can be concluded that there is no serious problem of common method deviation in this paper, and the empirical results can be analyzed.

Table 4.9 Rotation Component Matrix

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
B1	-	-	.745	-	-	-	-
B2	-	-	.768	-	-	-	-
B3	-	-	.690	-	-	-	-
I1	-	-	-	-	-	-	.784
I2	-	-	-	-	-	-	.751
I3	-	-	-	-	-	-	.675
A1	-	.685	-	-	-	-	-
A2	-	.757	-	-	-	-	-
A3	-	.780	-	-	-	-	-
A4	-	.811	-	-	-	-	-
A5	-	.825	-	-	-	-	-
A6	-	.794	-	-	-	-	-
A7	-	.802	-	-	-	-	-
S1	-	-	-	-	.669	-	-
S2	-	-	-	-	.710	-	-
S3	-	-	-	-	.639	-	-
M3	-	-	-	.785	-	-	-
M6	-	-	-	.631	-	-	-
M7	-	-	-	.760	-	-	-
C2	.693	-	-	-	-	-	-
C4	.787	-	-	-	-	-	-
C5	.795	-	-	-	-	-	-
C6	.759	-	-	-	-	-	-
C7	.707	-	-	-	-	-	-

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
C8	.785	-	-	-	-	-	-
C9	.769	-	-	-	-	-	-
C10	.725	-	-	-	-	-	-
C11	.760	-	-	-	-	-	-
C12	.685	-	-	-	-	-	-
C13	.656	-	-	-	-	-	-
P1	-	-	-	-	-	.854	-
P2	-	-	-	-	-	.868	-

Note: Extraction Method: Principal component analysis.
Rotation Method: Caesar normalized maximum variance method.
a. The rotation has converged after 7 iterations.

According to the result analysis in the table above, KMO value is 0.966, significantly higher than the standard 0.70, Bartlett's sphericity test chi-square value is 18730.375, degree of freedom is 496, P value is 0.000, less than 0.01, and it has passed the significance test of 1% of the significance level, which shows that it is very suitable for factor analysis, that is, exploratory factor analysis (EFA). The principal component analysis method was used to extract the factors whose characteristic value is greater than 1. As a result, six common factors were extracted, and the rotation cumulative square sum was 80.292%, greater than 60%. After rotating by orthogonal rotation method, 32 question options can be classified into 7 categories of factors, and the load of each item is higher than 0.3, which shows that the extracted 7 factors contain comprehensive information, and there is no double factor with high load, and all observed variables are aggregated into each dimension according to the theoretical preset. The above analysis shows that the scale selected in this paper has good construction validity.

4.6 Confirmatory Factor Analysis (CFA)

4.6.1 Structural Validity

Confirmatory factor analysis is a statistical analysis of survey data. This method is used to test whether the relationship between a certain factor and the corresponding observed variables accords with the theoretical relationship preset by researchers. In this study, AMOS was used to conduct CFA on this scale, and a CFA model was established according to the results of exploratory factor analysis. By judging the fitting index of structural equation, it is judged whether the CFA model constructed in this paper is suitable. If it meets the standard, it shows that the model constructed in this paper can effectively measure the relevant latent variables. In this study, X^2/df, RMSEA, GFI, AGFI, NFI and CFI were selected to judge the fitting degree between the model and the data. Specific criteria are: $X^2/df \leq 3$, and the value of RMSEA≤0.08, GFI, AGFI, NFI and CFI are all higher than 0.8. The normalized factor load value is between 0.5 and 0.95, and the combined reliability (CR) is greater than 0.7. At the same time, the convergence validity of each dimension is judged by calculating the average variance extraction (AVE value). The larger the AVE value, the larger the percentage of variance of the measured variables explained by potential variables, and the smaller the relative measurement error. The formula for calculating the AVE value is: (where the numerator is the sum of the squares of the factor load of each item in the dimension, and the denominator is the number of items contained in the dimension), in other words, the AVE value is the average of the squares of the factor load of each item in each dimension (Wu, 2010).

The maximum likelihood method model, which is often carried out through the analysis tool Amos, will obtain the model fitting index. Its main purpose is to judge whether the data can match the model. If the index reaches the standard, it will prove that the specific coefficient result obtained by the model is true and effective. If it does not meet the standard, it proves to be a problem. According to the analysis, the fitting results of the model can be obtained as follows:

Table 4.10 Overall Fitting Coefficient Table of Confirmatory Factor Model

Reference index	X^2/df	RMSEA	GFI	AGFI	NFI	CFI	IFI	TLI
Statistical values	2.420	0.063	0.858	0.830	0.925	0.947	0.947	0.940
Reference value	<3	<0.08	>0.8	>0.8	>0.8	>0.9	>0.9	>0.9
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

As shown in the table above, the X^2/ df of this paper is 2.420, which meets the judgment standard, indicating that the model fits well. RMSEA refers to the mean square root of progressive residual, which is the ratio of total difference to degree of freedom, usually less than 0.08, and the RMSEA in this paper is 0.063; GFI (Goodness of Fit Index) is the fitness index, and AGFI (Adjust Goodness of Fit Index) is the adjusted fitness index. The closer the values of GFI and AGFI are to 1, the higher the fitness of the model, usually taking 0.8 as the standard. The GFI and AGFI in this paper are 0.858 and 0.830, indicating that the fitness of this paper is higher. NFI (Normalized Fit Index) is the benchmark fitting index, and NFI is equal to 1 minus the preset model difference. The smaller the model difference, the closer the NFI value is to 1, and the better the model fitting degree. Generally, the standard of NFI greater than 0.8 is adopted, and the NFI in this paper is 0.925, which accords with the general standard. CFI (Comparative Fit Index) is a comparative fit index with a value between 0 and 1. When CFI is equal to 1, it means that the data completely fits the model. The general standard is 0.9, and the CFI in this paper is 0.947, which is obviously higher than the standard. IFI (Incremental Fit Index) is an incremental fitting index with a value between 0 and 1. When IFI is equal to 1, it means that the data completely fits the model. The general standard is 0.9, and the IFI in this paper is 0.947, which is obviously higher than the standard. TLI (Tucker-Lewis Index) is usually between 0 and 1. When TLI is equal to 1, it means that the data completely fits the model. The general standard is 0.9, and the TLI in this paper is 0.940. To sum up, all the indexes of exploratory factor analysis in this paper have reached the

standard, and the overall fitting degree of the model is good.

Through exploratory factor analysis and reliability analysis, it is found that the questionnaire has a basic level of reliability and validity, and it is necessary to use a fixed model to reverse verify the matching between the data and the model, that is, confirmatory factor analysis. The method of confirmatory factor analysis is to determine the factor structure between variables through structural equation model, to make fitting estimation by maximum likelihood method, to judge whether the model fits well through the model fitting index, and to judge whether the correlation between questions and dimensions is high through standardized factor load to judge the structural validity. In this study, Amos software was used to test and obtain the standardized factor load table as follows:

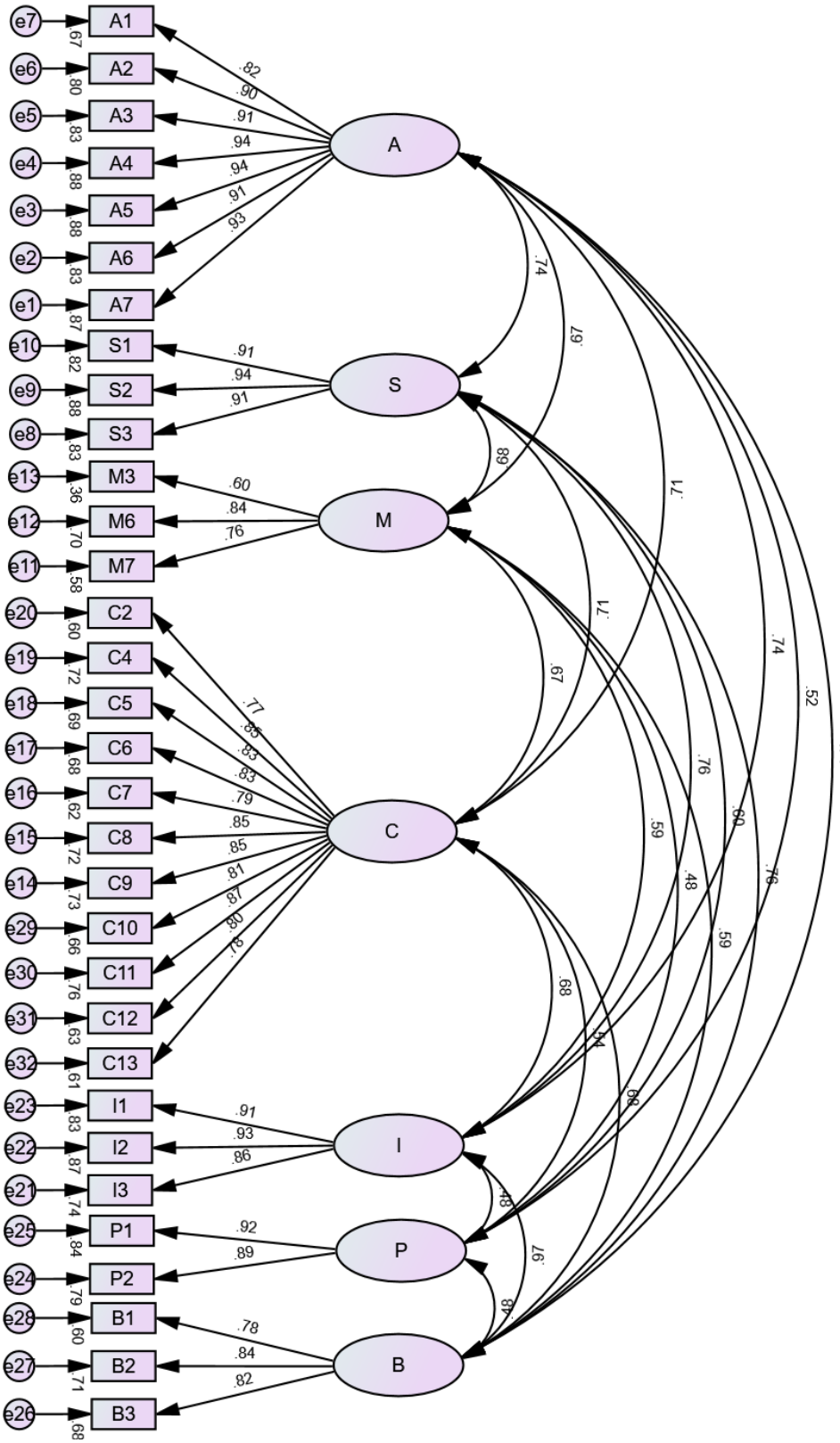

Figure 4.1 Standardized Factor Load Diagram

4.6.2 Convergence Validity

At the same time, the specific standardized load table can be derived according to Amos software, and the results of load coefficient, standard error, test critical value ratio and significance can be seen in the following table:

Table 4.11 Standardized Factor Load Table

Path			Std. Estimate	Estimate	S.E.	C.R.	P	AVE	CR
A7	<---	Sharing attitude	0.933	1	-	-	-	0.826	0.971
A6	<---	Sharing attitude	0.914	1.031	0.026	39.514	***		
A5	<---	Sharing attitude	0.939	1.009	0.023	43.614	***		
A4	<---	Sharing attitude	0.941	1.089	0.025	43.99	***		
A3	<---	Sharing attitude	0.912	1.084	0.028	39.302	***		
A2	<---	Sharing attitude	0.897	1.024	0.028	37.155	***		
A1	<---	Sharing attitude	0.818	0.98	0.034	29.045	***		
S3	<---	Subjective norm	0.911	1	-	-	-	0.846	0.943
S2	<---	Subjective norm	0.941	1.057	0.028	38.219	***		
S1	<---	Subjective norm	0.907	1.021	0.029	34.746	***		
M7	<---	Sharing motivation	0.761	1	-	-	-	0.549	0.782
M6	<---	Sharing motivation	0.838	1.011	0.057	17.719	***		
M3	<---	Sharing motivation	0.604	0.888	0.066	13.368	***		
C9	<---	Self-control	0.853	1	-	-	-	0.675	0.958
C8	<---	Self-control	0.848	0.967	0.037	26.383	***		
C7	<---	Self-control	0.786	0.92	0.04	23.19	***		
C6	<---	Self-control	0.827	0.949	0.038	25.204	***		
C5	<---	Self-control	0.833	0.974	0.038	25.521	***		
C4	<---	Self-control	0.846	0.972	0.037	26.271	***		
C2	<---	Self-control	0.774	0.922	0.041	22.611	***		
C10	<---	Self-control	0.811	0.952	0.039	24.399	***		
C11	<---	Self-control	0.872	0.992	0.036	27.779	***		
C12	<---	Self-control	0.796	0.956	0.04	23.636	***		
C13	<---	Self-control	0.783	0.858	0.037	23.027	***		
I3	<---	Sharing intention	0.861	1	-	-	-	0.813	0.930
I2	<---	Sharing intention	0.935	1.019	0.032	32.199	***		
I1	<---	Sharing intention	0.911	1.07	0.035	30.554	***		
P2	<---	Policy	0.89	1	-	-	-	0.817	0.9

Path			Std. Estimate	Estimate	S.E.	C.R.	P	AVE	CR
		perception							
P1	<---	Policy perception	0.918	0.999	0.046	21.707	***		
B3	<---	Sharing behavior	0.822	1	-	-	-	0.663	0.855
B2	<---	Sharing behavior	0.844	0.99	0.041	23.968	***		
B1	<---	Sharing behavior	0.776	one	0.047	21.16	***		

Note: * * *, * * and * are significant at 1%, 5% and 10% respectively.

From the above table, we can see that the factor load values of sharing behavior, sharing intention, sharing attitude, subjective norms, sharing motivation, self-control and policy perception corresponding to each topic are all greater than 0.7, which indicates that each latent variable is highly representative of the topic to which it belongs, and the average variance variation AVE of each latent variable is greater than 0.5, and the combined reliability (CR) is greater than 0.8, which indicates that the convergence validity is ideal.

4.6.3 Discriminant Validity

Table 4.12 Discriminant Validity Analysis

	Sharing Behavior	Sharing Intention	Sharing Attitude	Subjective Norm	Sharing Motivation	Self-control	Policy Perception
Sharing behavior	0.814	-	-	-	-	-	-
Sharing intention	0.802***	0.902	-	-	-	-	-
Sharing attitude	0.608***	0.616***	0.909	-	-	-	-
Subjective norm	0.676***	0.678***	0.618***	0.920	-	-	-
Sharing motivation	0.502***	0.516***	0.54***	0.595***	0.741	-	-
Self-control	0.551***	0.557***	0.542***	0.588***	0.537***	0.822	-
Policy perception	0.482***	0.495***	0.496***	0.614***	0.478***	0.51***	0.904

Note: * * *, * * and * are significant at 1%, 5% and 10% respectively.

First of all, by examining the correlation coefficient in the lower left corner of the comparison of the square root values of diagonal AVE, we can see that the square root values of diagonal AVE are all larger than the correlation coefficient among variables, and we can know that the correlation between variables is obviously smaller than the inter-question relationship within variables, which shows that the whole questionnaire has good discrimination validity. From the above table, it can be seen that there is a significant correlation among sharing behavior, sharing intention, sharing attitude, subjective norms, sharing motivation, self-control and policy perception ($P<0.01$), and the AVE of each dimension is 0.663, 0.813, 0.826, 0.846, 0.549, 0.675 and 0.817, all of which are greater than 0.5. The square root distribution of AVE in each dimension is 0.814, 0.902, 0.909, 0.920, 0.741, 0.822 and 0.904, which are all greater than the correlation coefficient among the dimensions, so the scale has good convergence validity and discrimination validity.

To sum up, according to the data analysis results, the scale has good structural validity, convergent validity and discrimination validity, and it can be used as a research tool.

4.7 Correlation Analysis

Correlation analysis is an analytical method used to analyze the correlation between variables. It is generally believed that if the correlation coefficient is equal to 1 or -1, the two variables are considered to be completely correlated; if the correlation coefficient is between (-1, -0.8) or [0.8,1), the correlation between variables is extremely strong; if the correlation coefficient is between (-0.8, -0.6) or [0.6,] -0.4] or [0.4,0.6], the correlation between variables is moderate; if the correlation coefficient is between (-0.4,0.2) or [0.2,0.4), the correlation between variables is weak; if the correlation coefficient is between (-0.2,0.2), there is no correlation or weak correlation between variables. Pearson linear correlation analysis is commonly used in correlation analysis.

Table 4.13 Pearson Correlation Analysis

Pearson Correlation	Sharing Behavior	Sharing Intention	Individual Attitude	Subjective Norm	Sharing Motivation	Self-Control	Policy Perception
Sharing behavior	1	-	-	-	-	-	-
Sharing intention	.865**	1	-	-	-	-	-
Individual attitude	.689**	.720**	1	-	-	-	-
Subjective norm	.689**	.723**	.715**	1	-	-	-
Sharing motivation	.456**	.489**	.560**	.566**	1	-	-
Self-control	.617**	.646**	.694**	.681**	.576**	1	-
Policy perception	.418**	.438**	.485**	.551**	.386**	.504**	1

* *. At 0.01 level (double tail), the correlation is significant.

Note: * * *, * * and * are significant at 1%, 5% and 10% respectively.

Therefore, the following conclusions can be drawn from Pearson's linear correlation analysis results:

1) There is a significant positive correlation between sharing intention and sharing behavior (P<0.01), and Pearson correlation coefficient is 0.865, which is highly correlated.

2) There is a significant positive correlation between individual attitude and sharing behavior (P<0.01), and Pearson correlation coefficient is 0.689, which shows a strong correlation.

3) There is a significant positive correlation between subjective norms and sharing behavior (P<0.01), and Pearson correlation coefficient is 0.689, which is a strong correlation.

4) There is a significant positive correlation between sharing motivation and sharing behavior (P<0.01), Pearson correlation coefficient is 0.456, and the correlation is moderate.

5) There is a significant positive correlation between self-control and sharing behavior (P<0.01), and Pearson correlation coefficient is 0.617, with a strong correlation.

6) There is a significant positive correlation between policy perception and sharing behavior (P<0.01), Pearson correlation coefficient is 0.418, and the correlation is moderate.

7) There is a significant positive correlation between individual attitude and sharing intention (P<0.01), and Pearson correlation coefficient is 0.720, which is highly correlated.

8) There is a significant positive correlation between subjective norms and sharing intention (P<0.01), and Pearson correlation coefficient is 0.723, which is highly correlated.

9) There is a significant positive correlation between sharing motivation and sharing intention (P<0.01), with Pearson correlation coefficient of 0.489, and the correlation is moderate.

10) There is a significant positive correlation between self-control and sharing intention (P<0.01), and Pearson correlation coefficient is 0.646, which is highly correlated.

11) There is a significant positive correlation between policy perception and sharing intention (P<0.01), and Pearson correlation coefficient is 0.438, and the correlation is moderate.

12) There is a significant positive correlation between subjective norms and individual attitudes (P<0.01), and Pearson correlation coefficient is 0.715, which shows a strong correlation.

13) There is a significant positive correlation between sharing motivation and individual attitude (P<0.01), Pearson correlation coefficient is 0.560, and the correlation is moderate.

14) There is a significant positive correlation between self-control and individual attitude (P<0.01), and Pearson correlation coefficient is 0.694, with a strong correlation.

15) There is a significant positive correlation between policy perception and individual attitude (P<0.01), Pearson correlation coefficient is 0.485, and the correlation is moderate.

16) There is a significant positive correlation between sharing motivation and subjective norms (P<0.01), Pearson correlation coefficient is 0.566, and the correlation is moderate.

17) There is a significant positive correlation between self-control and subjective norms (P<0.01), and Pearson correlation coefficient is 0.681, which shows a strong correlation.

18) There is a significant positive correlation between policy perception and subjective norms (P<0.01), Pearson correlation coefficient is 0.551, and the correlation is moderate.

19) There is a significant positive correlation between self-control and sharing motivation (P<0.01), Pearson correlation coefficient is 0.576, and the correlation is moderate.

20) There is a significant positive correlation between policy perception and sharing motivation (P<0.01), Pearson correlation coefficient is 0.386, and the correlation is weak.

21) There is a significant positive correlation between policy perception and self-control (P<0.01), with Pearson correlation coefficient of 0.504, and the correlation is moderate.

4.8 Path Analysis

Path analysis, also called pathanalysis (Sometimes it is also called structural equation model. Generally, if it includes measurement model and structural model, it is called structural equation model; If only the structural model is included, it is called path analysis). The path analysis is to study the model influence relationship, which is used to verify the model hypothesis. Before the path analysis, the goodness-of-fit test

of the seven dimensions in this paper is carried out by AMOS, and the conclusions are as follows:

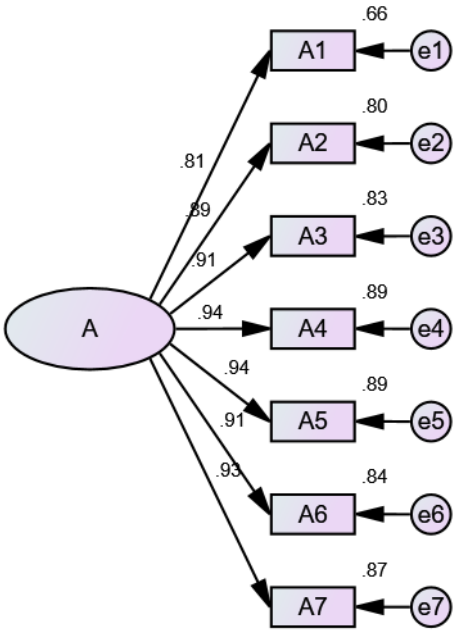

Figure 4.2 Confirmatory Factor Model of Sharing Attitude

Table 4.14 Model Fitting Coefficient Table of Sharing Attitude

Reference index	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.041	0.911	0.912	0.931	0.925	0.065
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.041, less than 3, GFI is 0.911, greater than 0.8, AGFI is 0.912, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.065, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

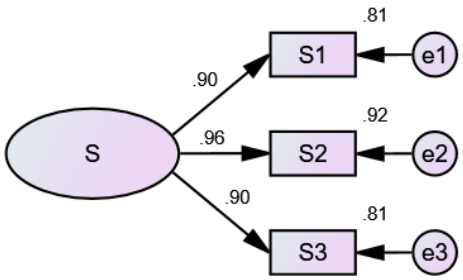

Figure 4.3 Confirmatory Factor Model of Subjective Norms

Table 4.15 Model Fitting Coefficient Table of Subjective Norms

Reference index	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.623	0.856	0.832	0.944	0.956	0.054
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.623, less than 3, GFI is 0.856, greater than 0.8, AGFI is 0.832, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.054, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

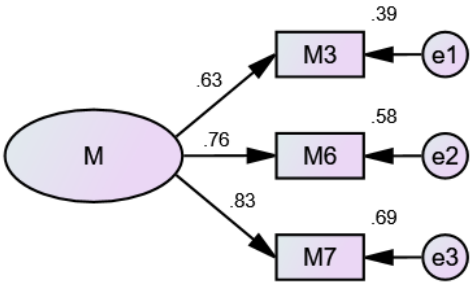

Figure 4.4 Confirmatory Factor Model of Sharing Motivation

Table 4.16 Model Fitting Coefficient Table of Sharing Motivation

Reference index	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.130	0.838	0.859	0.977	0.988	0.063
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.130, less than 3, GFI is 0.838, greater than 0.8, AGFI is 0.859, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.063, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

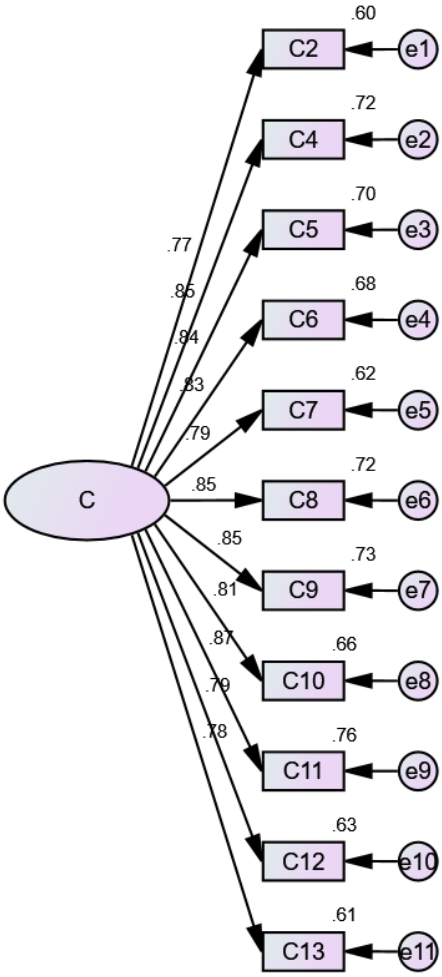

Figure 4.5 Confirmatory Factor Model of Self-control

Table 4.17 Model Fitting Coefficient Table of Self-control

Reference index	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.081	0.976	0.954	0.986	0.973	0.050
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.081, less than 3, GFI is 0.976, greater than 0.8, AGFI is 0.954, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.050, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

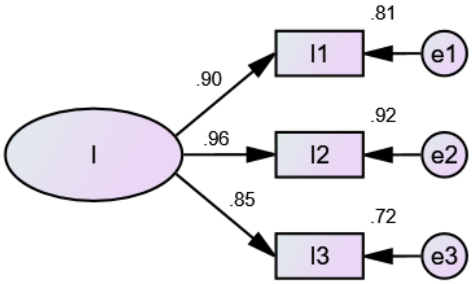

Figure 4.6 Confirmatory Factor Model of Sharing Intention

Table 4.18 Model Fitting Coefficient Table of Sharing Intention

Reference index	X2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.292	0.921	0.949	0.959	0.978	0.075
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.292, less than 3, GFI is 0.921, greater than 0.8, AGFI is 0.949, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.075, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

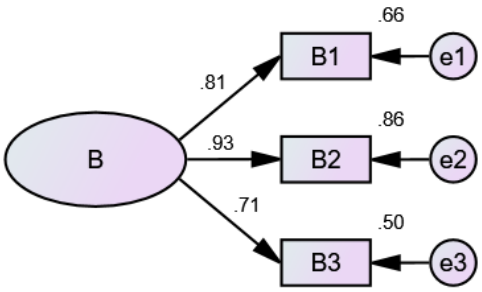

Figure 4.7 Confirmatory Factor Model of the Influence of Sharing Behavior

Table 4.19 Model Fitting Coefficient Table of Sharing Behavior

Reference index	X^2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.313	0.889	0.809	0.955	0.963	0.077
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.313, less than 3, GFI is 0.889, greater than 0.8, AGFI is 0.809, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.077, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

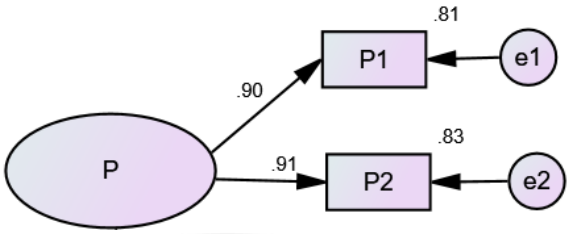

Figure 4.8 Confirmatory Factor Model of Policy Perception

Table 4.20 Model Fitting Coefficient Table of Policy Perception

Reference index	X2/df	GFI	AGFI	TLI	CFI	RMSEA
Statistical values	2.890	0.879	0.898	0.921	0.911	0.067
Reference value	<3	>0.8	>0.8	>0.9	>0.9	<0.08
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

It can be seen from the table that X^2/df is 2.890, less than 3, GFI is 0.879, greater than 0.8, AGFI is 0.898, greater than 0.8, TLI and CFI are both greater than 0.9, RMSEA is 0.067, less than 0.08. According to the standard of model fitting indexes, the fitting indexes of the model all meet the requirements, so the path of the model is analyzed.

This research will use AMOS to carry out structural equation modeling (SEM), it also known as structural equation analysis, which is a statistical method to analyze the relationship between variables based on the covariance matrix of the variables, so it also becomes covariance structure analysis. SEM is a multivariate statistical analysis technique that organically combines multiple regression and factor analysis methods to automatically evaluate a series of interrelated causal relationships. Structural equation modeling has similar application to multiple regression, but has more powerful function. It is suitable for modeling under complex

conditions such as hidden variables, independent variables correlation, variable error, multiple dependent variables, etc. Structural equation is a statistical analysis tool based on sample data to evaluate whether the theoretical model proposed by researchers is acceptable.

According to the theoretical model, with sharing attitude, subjective norms, sharing motivation and self-control as independent variables, sharing intention as intermediary variable, sharing behavior as dependent variable and policy perception as regulatory variable, the structural equation model is established by using AMOS.

The model fitting results obtained by AMOS are shown in the following table:

Table 4.21 Model Overall Fitting Coefficient Table

Reference index	X^2/df	RMSEA	GFI	AGFI	NFI	CFI	IFI	TLI
Statistical values	2.507	0.067	0.856	0.829	0.925	0.945	0.945	0.939
Reference index	<3	<0.08	>0.8	>0.8	>0.8	>0.9	>0.9	>0.9
Standard situation	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard	Reach the standard

According to the above results, the SEM path model can be established, and the path analysis and intermediary test of the model can be carried out. According to the correlation analysis results, it can be seen that there is a significant correlation between each hypothetical variable, so this paper can build the model by Amos software as shown in the following figure:

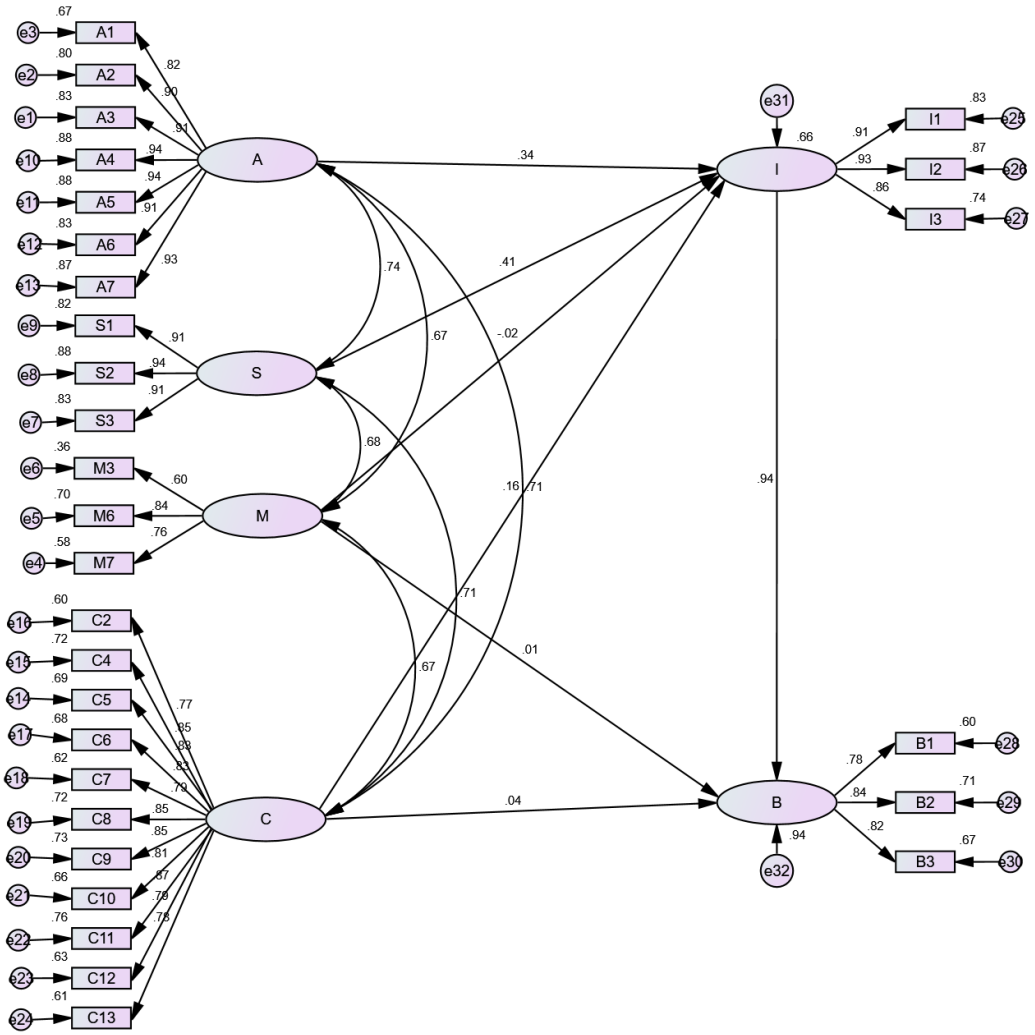

Figure 4.9 Structural Equation Model

From the standardized factor load diagram in Figure 4.9, we can see that there are six latent variables such as tacit knowledge sharing intention, tacit knowledge sharing behavior, sharing attitude, subjective norms, sharing motivation and self-control. Among them, tacit knowledge sharing behavior includes three observation variables B1, B2 and B3 and error variance of three observation variables e28, e29 and e30. Tacit knowledge sharing intention includes three observation variables I1, I2 and I3 and error variance of three observation variables e25, e26 and e27. Sharing attitude includes seven observation variables A1-A7 and error variance of seven observation variables e1-e3 and e10-e13. Subjective norms include three observation variables S1, S2 and S3 and error variance of three observation variables e4, e5 and

e6. There are three observation variables M3, M6 and M7 as well as the error variance of three observation variables e7, e8 and e9 in sharing motivation. The self-control includes eleven observation variables C2, C4-C13 and error variance of eleven observation variables e14-e24. The estimated parameters include seven normalized path coefficient values, 30 normalized factor load values of observation variables and 32 error variance of observation variables.

At the same time, the maximum likelihood fitting is carried out by Amos software, and the standardized path results are shown in the following table:

Table 4.22 Path Coefficient between Variables

Path Test							
Path			**Nonstandard coefficient**	**Standard coefficient**	**S.E.**	**T**	**P**
I	<--	A	0.364	0.343	0.051	7.127	***
I	<--	S	0.439	0.412	0.055	8.032	***
I	<--	M	0.124	0.122	0.057	4.424	***
I	<--	C	0.185	0.156	0.057	3.278	***
B	<--	I	0.869	0.942	0.045	19.453	***
B	<--	M	0.236	0.206	0.039	8.155	***
B	<--	C	0.041	0.037	0.042	9.986	***

Note: * * *, * * and * are significant at 1%, 5% and 10% respectively.

From the path test table, we can see that all the paths have passed the test, and the specific conclusions are as follows:

The standardized path coefficient of individual attitude to tacit knowledge sharing intention (A-> I) is 0.343 (T = 7.127, P ≦ 0.001), which shows that individual attitude has a significant positive impact on tacit knowledge sharing intention, that is, the stronger individual attitude, the stronger tacit knowledge sharing intention, so H1 is supported.

The standardized path coefficient of subjective norms to tacit knowledge sharing intention (S-> I) is 0.412 (T = 8.032, P ≦ 0.001), which shows that subjective norms have significant positive influence on tacit knowledge sharing intention, that is, the stronger subjective norms are, the stronger tacit knowledge sharing intention is, so H2 is supported.

The standardized path coefficient of sharing motivation to tacit knowledge sharing intention (m- > I) is 0.122 (T = 4.424, P ≦ 0.001), which shows that individual attitude has a significant positive impact on tacit knowledge sharing intention, that is, the stronger the sharing motivation, the stronger the tacit knowledge sharing intention, so H3a is supported.

The standardized path coefficient of self-control to tacit knowledge sharing intention (C- > I) is 0.156 (T = 3.278, P ≦ 0.001), which shows that self-control has a significant positive impact on tacit knowledge sharing intention, that is, the stronger self-control is, the stronger tacit knowledge sharing intention is, so H4a is supported.

The standardized path coefficient of tacit knowledge sharing intention to tacit knowledge sharing behavior (I- > B) is 0.942 (T = 19.453, P ≦ 0.001), which shows that tacit knowledge sharing intention has a significant positive impact on tacit knowledge sharing behavior, that is, the stronger tacit knowledge sharing consciousness is, the stronger tacit knowledge sharing behavior is, so H5 is supported.

The standardized path coefficient of sharing motivation to tacit knowledge sharing behavior (M- > B) is 0.206 (T = 8.155, P ≦ 0.001), which shows that sharing motivation has a significant positive impact on tacit knowledge sharing behavior, that is, the stronger the sharing motivation, the stronger the tacit knowledge sharing behavior, so H3b is supported.

The standardized path coefficient of self-control to tacit knowledge sharing behavior (C- > B) is 0.037 (T = 9.986, P ≦ 0.001), which shows that self-control has a significant positive impact on tacit knowledge sharing behavior, that is, the stronger self-control is, the stronger tacit knowledge sharing behavior is, so H4b is supported.

4.9 Mediating Effect Test

In this study, Bootstrap is used to test the mediating effect, and Bootstrap test mainly involves repeated sampling of original samples. According to the criteria of mediating effect: firstly, in the confidence interval, 0 is not included, which means significant, which means there is mediating effect, while insignificant, which means there is no mediating effect. According to Shrout and Bolger (2002), this study set the sample data to be sampled 2000 times, and the results are as follows:

Table 4.23 Non-standardized Bootstrap Mediating Test

Path	Effect value	S.E	Bias-corrected 95%CI			Percentile 95%CI		
			Lower	Upper	P	Lower	Upper	P
Sharing attitude-sharing intention-sharing behavior	0.316	0.054	0.216	0.429	0.001	0.213	0.425	0.001
Subjective norm-sharing intention-sharing behavior	0.381	0.08	0.242	0.556	0.001	0.236	0.55	0.001
Sharing motivation-sharing intention-sharing behavior	0.221	0.046	0.118	0.365	0.001	0.115	0.368	0.001
Self-control-sharing intention-sharing behavior	0.161	0.056	0.054	0.277	0.01	0.055	0.277	0.009

Table 4.24 Standardized Bootstrap Mediating Test

Path	Effect value	S.E	Bias-corrected 95%CI			Percentitle 95%CI		
			Lower	Upper	P	Lower	Upper	P
Sharing attitude-sharing intention-sharing behavior	0.323	0.057	0.211	0.44	0.001	0.211	0.439	0.001
Subjective norm-sharing intention-sharing behavior	0.388	0.075	0.25	0.548	0.001	0.243	0.537	0.001
Sharing motivation-sharing intention-sharing behavior	0.22	0.045	0.110	0.365	0.001	0.110	0.367	0.001
Self-control-sharing intention-sharing behavior	0.147	0.052	0.049	0.253	0.01	0.05	0.256	0.009

The above table uses Bootstrap method to test the mediating effect, repeating 2,000 samples, and calculating 95% confidence interval. From the above table results, it can be seen that there are 4 mediating paths, and the upper and lower intervals of the mediating path do not contain 0, and the P value is less than 0.05, so the hypothesis holds, and the mediating effect holds. The upper and lower intervals of the path contain 0, and the P value is greater than the significant level of 0.05, so the hypothesis is not valid and the mediating effect does not exist. Through analysis, we can see from the mediating test results that:

The upper and lower intervals of sharing attitude-sharing intention-sharing behavior mediating path do not contain 0, and the P value is less than the significant level of 0.05, so H7 holds, and the mediating effect holds.

The upper and lower intervals of the mediating path of subjective norm-sharing intention-sharing behavior do not contain 0, and the P value is less than 0.05, so H8 holds, and the mediating effect holds.

The upper and lower intervals of sharing motivation-sharing intention-sharing behavior mediating path do not contain 0, and the P value is less than the significant level of 0.05, so H9 holds, and the mediation effect holds.

The upper and lower intervals of the mediating path of self-control-sharing intention-sharing behavior do not contain 0, and the P value is less than the significant level of 0.05, so H10 holds, and the mediating effect holds.

To sum up, according to the criteria of mediating effect, the mediating effect test results show that the above four test results are all within the confidence interval, that is, the numerical value does not include 0, which represents significant effect, so there are four mediating effects in the above analysis results.

At the same time, this paper uses AMOS to test the mediating effect of moderation as follows:

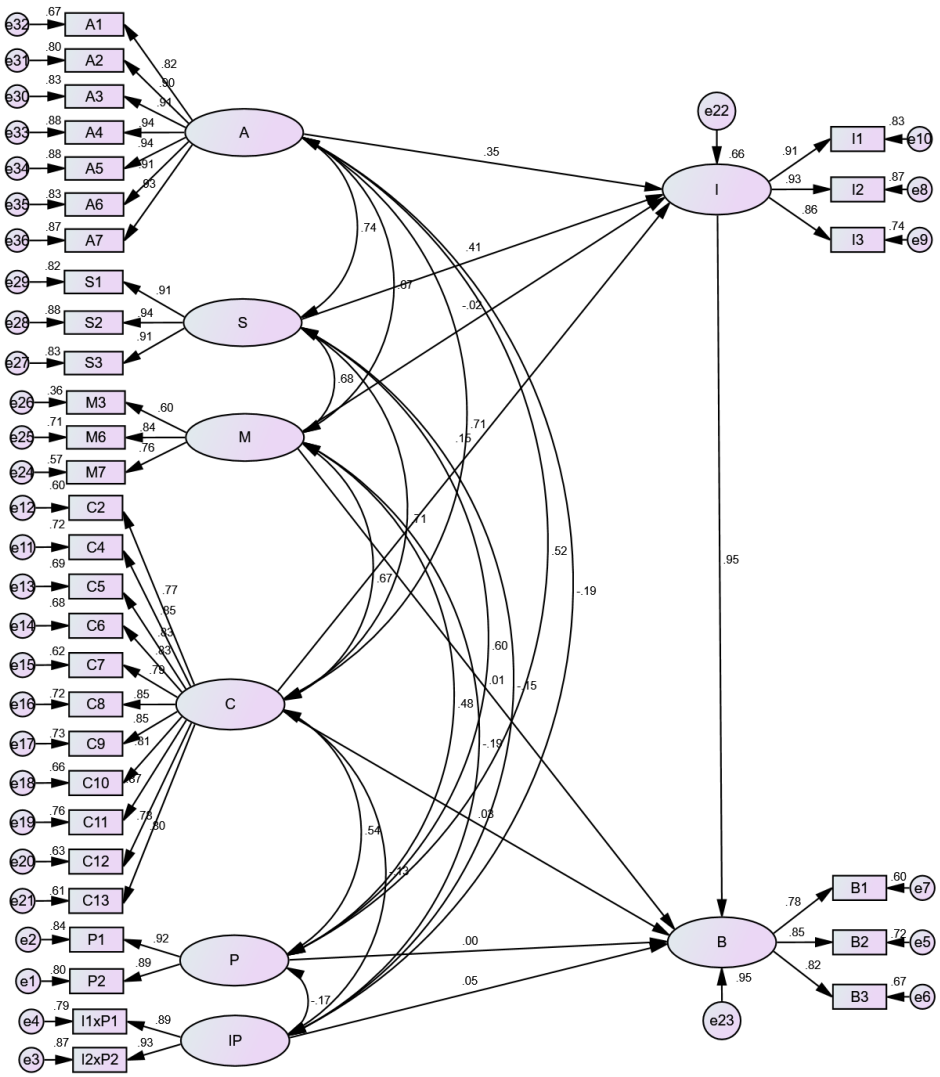

Figure 4.10 Mediating Effect Model with Moderation

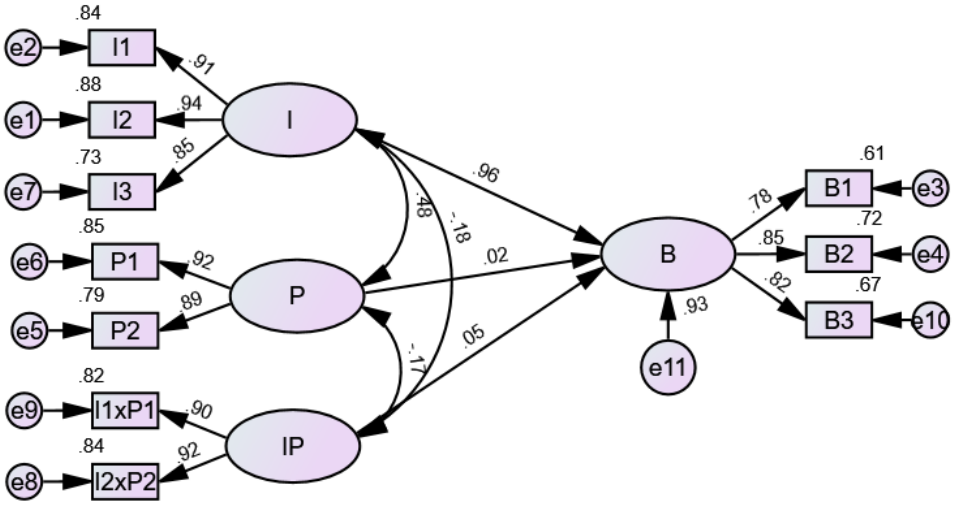

Figure 4.11 Moderating Effect Model

Among them, in Figure 4.3 and Figure 4.4, tacit knowledge sharing behavior includes three observation variables B1, B2 and B3 and error variance of three observation variables e4, e5 and e6. Tacit knowledge sharing consciousness has three observation variables of I1, I2 and I3 and error variance of three observation variables of e1, e2 and e3. There are two observation variables P1 and P2 and error variance of two observation variables e7 and e8 in policy perception. There are two observation variables I1xP1 and I2xP2, and error variance two observation variables of e10 and e11 in the interactive terms of sharing intention and policy perception. The estimated parameters include three standardized path coefficient values, 10 standardized factor load values of observation variables and 11 observation error variances.

Table 4.25 Path Coefficient of Moderating Effect

	Path		**Non-standardized Coefficient**	**Standardized Coefficient**	**S.E.**	**C.R.**	**P**
B	<---	I	0.952	0.965	0.044	21.727	***
B	<---	P	0.016	0.019	0.024	8.662	***
B	<---	IP	0.035	0.053	0.016	2.119	0.034

The normalized path coefficient of interaction between independent variable sharing consciousness and regulatory variable policy perception on tacit knowledge sharing behavior (B < -IP) is 0.053, P = 0.034 (P < 0.05), which shows that policy perception plays a moderating role between tacit knowledge sharing intention and knowledge sharing behavior of teachers in colleges and universities, and it is a positive significant moderating effect. That is, the moderating effect is established, so H6 is supported. Therefore, this study uses SEM to test the moderating effect of policy perception between tacit knowledge sharing intention and tacit knowledge sharing behavior of teachers in colleges and universities. The test results show that in the influencing mechanism of tacit knowledge sharing intention of teachers in colleges and universities on tacit knowledge sharing behavior, policy perception has a higher positive moderating effect.

4.10 Result Analysis

According to all the above data analysis results, the test results of 12 hypotheses in this study are summarized in Table 4.25 To sum up, the conclusions of this study are as follows:

Table 4.26 Summary of Hypothesis Test

	Hypothetical Results of Research	Pass or not
H1	The sharing attitude has a positive effect on the tacit knowledge sharing intention of teachers in colleges and universities.	SUPPORTED
H2	The support of others in subjective norms has a positive impact on the tacit knowledge sharing intention of teachers in colleges and universities.	SUPPORTED
H3a	The tacit knowledge sharing motivation has a direct positive impact on tacit knowledge sharing intention of teachers in colleges and universities.	SUPPORTED
H3b	The tacit knowledge sharing motivation has a direct	SUPPORTED

	Hypothetical Results of Research	Pass or not
	positive impact on tacit knowledge sharing behavior of teachers in colleges and universities.	
H4a	Self-control has positive intention on tacit knowledge sharing intention of teachers in colleges and universities.	SUPPORTED
H4b	Self-control has a positive effect on tacit knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED
H5	The tacit knowledge sharing intention has a positive influence on knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED
H6	The policy perception plays a moderating role between tacit knowledge sharing intention and knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED
H7	The tacit knowledge sharing intention plays an intermediary role between individual attitude and knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED
H8	The tacit knowledge sharing intention plays an intermediary role between subjective norms and knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED
H9	The tacit knowledge sharing intention plays an intermediary role between sharing motivation and knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED
H10	The tacit knowledge sharing intention plays an intermediary role between self-control and knowledge sharing behavior of teachers in colleges and universities.	SUPPORTED

In order to explore the influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities and their relationship, this study puts forward 12 hypotheses. Through path analysis, it is found that all 12 hypotheses are valid, as shown in Table 4.25. This study verifies the influencing factors and their relationship of tacit knowledge sharing behavior of teachers in colleges and universities. The tacit knowledge sharing behavior of teachers in colleges and universities is determined by a series of influencing factors such as sharing attitude, support from others in subjective norms, teachers' self-control and tacit knowledge sharing intention. According to the research results, in order to meet the research objectives and further demonstrate the research results of this paper, this paper discusses the following results.

1) The result analysis of the influence of tacit knowledge sharing attitude of teachers in colleges and universities on knowledge sharing intention.

Hypothesis 1, in which sharing attitude has a significant positive impact on the tacit knowledge sharing intention of teachers in colleges and universities, has been verified. The research results show that sharing attitude is an important factor influencing the tacit knowledge sharing intention of teachers in colleges and universities. This result has been repeatedly verified with Akosile and Olatokun (2020); Kmieciak (2020) in the theory of planned behavior, the positive correlation between attitude and intention, and the positive impact of attitude on consciousness in different fields has also been repeatedly verified (Ali, 2021; Hassan, Shiu, & Parry, 2016). Individuals will always try to eliminate the differences between attitude and behavior intention and keep their coordination and unity, so as to achieve consistency between attitude and behavior. The success or failure of work depends largely on the attitude of individuals towards work. The possible explanation that tacit knowledge sharing attitude of teachers in colleges and universities has a significant positive impact on tacit knowledge sharing intention lies in that, according to the theory of planned behavior, teachers' tacit knowledge sharing attitude in colleges and universities is the positive or negative perception of tacit knowledge sharing behavior by individual teachers, and positive tacit knowledge sharing attitude can effectively promote knowledge understanding, absorption and utilization, reduce the cost of knowledge dissemination, and lead to the increase of overall knowledge sharing and

exchange. Finally, teachers' expectation and commitment to tacit knowledge sharing will be improved, so as to promote teachers' intention to actively share high-value tacit knowledge with others (Bush & Grotjohann, 2020; Kakhki, Hadadian, Joyame, & Asl, 2020). The better the tacit knowledge sharing attitude of teachers in colleges and universities, the more thorough the tacit knowledge sharing and communication among teachers, and the higher the degree of influence on knowledge sharing.

2) The result analysis of subjective norms of teachers in colleges and universities affecting tacit knowledge sharing intention.

When discussing the influence of others' support in subjective norms on the tacit knowledge sharing intention of teachers in colleges and universities, this paper puts forward hypothesis 2, which is verified. The research results show that subjective norms have a significant positive impact on the tacit knowledge sharing intention of teachers in colleges and universities, which is similar to the research conclusions of Tan (2016); Malloch and Zhang (2019). In the theory of planned behavior, the support of others in subjective norms will affect behavior intention, thus affecting behavior. When an organization member has a high sense of support from others, he may do more work that is beneficial to the organization, that is, show more organizational citizenship behavior. Tacit knowledge sharing needs external encouragement and promotion, not mandatory mechanism, and the support of others is very important (Ajzen, 2002; Martin et al., 2010). By actively supporting the structural cooperation among teachers and providing sufficient resource support, we can create an open atmosphere for knowledge exchange and sharing in teachers' academic research (Malloch & Zhang, 2019; Thapar et al., 2012). Especially for the high-level intellectuals and self-driven occupations of teachers in colleges and universities, important others (school leaders, research team leaders, etc.) of teachers in colleges and universities think that he should share knowledge, and teachers' working atmosphere advocates tacit knowledge exchange, etc. These support attitudes towards tacit knowledge sharing behavior of teachers in colleges and universities will gradually form a general consensus, affect other teachers' cognition of tacit knowledge sharing behavior, and help teachers in colleges and universities to form behavioral norms and norms of tacit knowledge sharing. By actively supporting the structural cooperation among teachers and providing sufficient resource support, it

can create an open atmosphere for teachers' tacit knowledge exchange and sharing, and make teachers in colleges and universities more willing to share their tacit knowledge with others. Therefore, the support of others in subjective norms has a significant positive impact on the tacit knowledge sharing intention of teachers in colleges and universities.

3) The result analysis of sharing motivation of teachers in colleges and universities affecting tacit knowledge sharing intention and sharing behavior.

When discussing the influence of sharing motivation of teachers in colleges and universities on tacit knowledge sharing intention and tacit knowledge sharing behavior, this paper puts forward the hypothesis that H3a and H3b are verified, and the research results show that sharing motivation has a significant positive influence on tacit knowledge sharing intention and tacit knowledge sharing behavior of teachers in colleges and universities, which is similar to the research conclusion of Jin (2015). Although the external environment is constantly changing, the personal motivation of teachers in colleges and universities can always influence their intention and knowledge sharing behavior. According to the theory of planned behavior, economic motivation comes from the theory of economic exchange, and knowledge, especially knowledge owned by organizations, should generally follow the operating mechanism and laws of the market. Only when they feel profitable will they take the knowledge they own to the market to share. From the perspective of motivation theory, it is pointed out that motivation is the key decision-making factor of behavior, and the tacit knowledge sharing behavior of teachers in colleges and universities is driven by Maslow's five levels of needs (Wang, 2010). The positive and important influence of material incentives on knowledge sharing is stronger than that of non-material incentives. Zhang et al. (2017) also found that knowledge sharing motivation of teachers in colleges and universities is the influencing factor of knowledge sharing intention, motivation and social capital can influence knowledge sharing intention, and capital, reputation and self-achievement influence sharing motivation. Therefore, sharing motivation has a significant positive impact on the tacit knowledge sharing intention and sharing behavior of teachers in colleges and universities.

4) The result analysis of the influence of self-control on tacit knowledge sharing intention and sharing behavior of teachers in colleges and universities.

When discussing the influence of self-control on tacit knowledge sharing intention and tacit knowledge sharing behavior of teachers in colleges and universities, this paper puts forward the hypothesis that H4a and H4b are verified. The research results show that self-control ability has a significant positive influence on tacit knowledge sharing intention and tacit knowledge sharing behavior of teachers in colleges and universities, which is similar to the research conclusions of Chen et al. (2013); Bagozzi et al. (2000). In the theory of planned behavior, control beliefs, perceptual behavior control and self-control of teachers in colleges and universities have the ability to eliminate interference. Self-control plays a vital role in tacit knowledge sharing intention and behavior of teachers in colleges and universities. Teachers in colleges and universities can not only effectively control their attitudes, intentions and behaviors towards knowledge sharing, but also effectively deal with the imbalance of policy understanding (Fujita & Han, 2009). Teachers with sufficient self-control can influence and control their own behavior. When other conditions of knowledge sharing may change, teachers in colleges and universities can eliminate the influence from policies, others and material resources and insist on knowledge sharing (Derridder et al, 2012). Self-control can make teachers in colleges and universities aim at long-term goals and persist in their efforts to share tact knowledge, so as to realize long-term and persistent personal tacit knowledge sharing behavior. Therefore, self-control can help teachers in colleges and universities strengthen their intention to share invisible knowledge (van Koningsbruggen et al., 2011). As a result, self-control has a significant positive impact on the tacit knowledge sharing intention and sharing behavior of teachers in colleges and universities.

5) The result analysis of the influence of tacit knowledge sharing intention of teachers in colleges and universities on sharing behavior.

When discussing the influence of tacit knowledge sharing intention of teachers in colleges and universities on tacit knowledge sharing behavior, this paper puts forward the hypothesis that H5 are verified, and the research results show that tacit knowledge sharing intention of teachers in colleges and universities has a

positive influence on knowledge sharing behavior, which is like the research conclusions of Chen et al. (2009); Jolaee et al. (2014). In the theory of planned behavior, individual intention is the direct influencing factor of behavior (Fishbein et al., 2000), intention directly affects behavior, and tacit sharing intention also directly affects knowledge sharing behavior. According to the theory of planned behavior, under sufficient conditions, behavioral intention directly determines the actual behavior of individuals (Ajzen & Fishbein, 1977). Chen et al. (2009) found in the research of virtual learning groups that there is a positive relationship between knowledge sharing intention and sharing behavior. When studying knowledge sharing among teachers in colleges and universities, Jolaee et al. (2014) also found that the intention of knowledge sharing had a positive impact on sharing behavior. Stankosky et al. (2010) found that the sharing attitude will affect the intention of sharing when studying the knowledge sharing intention of Vietnamese educational organizations. When the attitude of knowledge sharing is more positive, the sharing intention will be stronger. Therefore, the intention of tacit knowledge sharing of teachers in colleges and universities has a significant positive impact on tacit knowledge sharing behavior.

6) The result analysis of mediating role of tacit knowledge sharing intention of teachers in colleges and universities.

Hypothesis 7 that tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between individual attitude and knowledge sharing behavior is proved to be true, Hypothesis 8 that tacit knowledge sharing intention of teachers in colleges and universities plays an mediating role between subjective norms and knowledge sharing behavior has been verified. Hypothesis 9 that tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between sharing motivation and knowledge sharing behavior has been verified; Hypothesis 10 that tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between self-control and knowledge sharing behavior has been verified, and this result is similar with that of Mafabi et al. (2017); Jolaee et al. (2014); Gong et al. (2012). Combining with the knowledge transfer theory, the individual tacit knowledge sharing behavior intention of teachers in colleges and universities is an important mediating variable, which plays a mediating role in the influence path of knowledge sharing behavior factors

(individual attitude, sharing motivation, self-control, subjective norms and other factors) on knowledge sharing behavior (Mafabi et al., 2017; Zheng et al., 2014). In the theory of planned behavior, people's behavior pattern is judged by three stages: firstly, people's behavior depends on people's behavior intention; Secondly, people's behavior intention depends on the attitude of behavior, people's subjective norms and people's cognitive behavior control ability. Finally, the attitude of people's behavior, subjective norms of behavior and cognitive behavior control are finally influenced by external factors (Ajzen, 2002). Therefore, all the factors affecting the tacit knowledge sharing behavior of teachers in colleges and universities affect the performance of tacit knowledge sharing behavior through the tacit knowledge sharing behavior intention, which mainly comes from three factors. Firstly, the attitude of teachers in colleges and universities themselves towards taking a specific behavior, that is, sharing attitude or personal attitude; Secondly, due to the influence of external factors such as society, teachers' scruples about taking a specific tacit knowledge sharing behavior is to influence others, that is, subjective norms; Thirdly, the behavior control of cognition of tacit knowledge sharing of teachers in colleges and universities, that is, self-control (Ajzen & Fishbein, 1975). In the theory of rational behavior, it is found that the better an individual's attitude towards a specific behavior, the higher his behavior intention, and the more likely he is to have a specific behavior, that is, the better the individual sharing attitude of teachers in colleges and universities, the higher his awareness of tacit knowledge sharing behavior, and the more likely he is to have a stronger tacit knowledge sharing behavior (Fishbein & Ajzen, 1977). At the same time, other people's positive evaluation of a specific behavior, that is, subjective norms, will also have a positive impact on the performance of a specific behavior, that is, when others make positive evaluation on the tacit knowledge sharing behavior of teachers in colleges and universities, it will have a positive impact on the sharing behavior of teachers in colleges and universities. At the same time, the stronger people's self-control ability and cognitive behavior control ability, the positive influence on people's behavior intention, and people's behavior is influenced by intention, that is, the stronger the self-control ability of teachers in colleges and universities, the stronger their intention of tacit knowledge sharing, which will have a positive impact on tacit knowledge sharing behavior (Fishbein & Ajzen, 1977). Under

the condition of good subjective norms of others' support, teachers in colleges and universities have a positive sharing attitude, sharing motivation and self-control of sharing behavior towards tacit knowledge sharing, which will help to generate a strong knowledge sharing intention, and then greatly promote the generation of knowledge sharing behavior (Zhang & Wang, 2016; Zhong et al., 2015). Therefore, the tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between sharing attitude and knowledge sharing behavior; Tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between subjective norms and knowledge sharing behavior; The tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between sharing motivation and knowledge sharing behavior. The tacit knowledge sharing intention of teachers in colleges and universities plays a mediating role between self-control and knowledge sharing behavior.

7) Analysis of the results of the moderating effect of policy perception.

Hypothesis 6, in which policy perception plays a moderating role between tacit knowledge sharing intention and knowledge sharing behavior of teachers in colleges and universities, has been verified, which is similar to the research conclusions of Li et al. (2018); Thomä (2017). In the theory of explanatory level, the consistency of people's policy perception is influenced by psychological distance, which is influenced by many factors. When the policy is highly integrated with the surrounding environment, that is, when the psychological distance is close, the consistency of people's policy perception is higher (Ledgerwood et al., 2010), and the difference in perception will profoundly affect the behavior, that is, when the policy perception of teachers in colleges and universities is good, the policy is more positive, and driven by social morality, teachers in colleges and universities will do more goodwill and other behaviors (Eyal & Liberman, 2012a). Policy perception plays an important role in the influence of tacit knowledge sharing intention of teachers in colleges and universities on sharing behavior, and good policy perception will become the driving force of intention-generating behavior (Xue & Zhao, 2016). Policy perception affects tacit knowledge sharing intention. When teachers think that policies support tacit knowledge sharing among teachers in colleges and universities, teachers' sharing intention will be enhanced, that is, university policies will also affect

teachers' sharing intention. Encouraging policies and resource sharing mode can promote teachers' sharing intention. Sharing behavior of teachers in colleges and universities is driven by sharing intention, and the enhancement of sharing intention will promote the enhancement of sharing behavior. Therefore, policy perception plays a moderating role between tacit knowledge sharing intention and knowledge sharing behavior of teachers in colleges and universities.

CHAPTER 5

CONCLUSIONS

This chapter first analyzes and summarizes the main research results of the paper, then deeply discusses and reveals the theoretical contribution and management enlightenment of the paper research, and finally puts forward the prospect of future research work in view of the shortcomings of the paper research.

5.1 Main Research Results

Nowadays, our society has entered the knowledge economy society, and knowledge is the key factor for every individual and every organization to gain the core competitive advantage. As an important contributor to all kinds of knowledge innovation achievements in colleges and universities and the cradle of knowledge dissemination, knowledge management has more important value and function for the development of colleges and universities. The knowledge level of teachers' in colleges and universities determines the knowledge management level of a university to a great extent, and then determines the school-running level and development ability of the university to a great extent. The tacit knowledge of teachers in colleges and universities is one of the most important objects of knowledge management in colleges and universities. How to effectively improve the level of tacit knowledge sharing among teachers in colleges and universities and the core proposition of knowledge management in colleges and universities. Tacit knowledge sharing among teachers in colleges and universities is not only helpful to excavate and reveal teachers' individual knowledge and enhance teachers' individual ability, but also helpful to realize the transformation of teachers' individual knowledge into group public knowledge, and further enrich and expand the practical "tacit knowledge base" of college teachers' community, thus providing important knowledge resources for the

development of colleges and universities. Although both universities and teachers realize that the realization of teacher knowledge sharing is of great significance to teachers, teachers' groups and universities' organizations, in the practice of education and teaching, the process of teacher knowledge sharing in colleges and universities is often hindered by many factors, such as school organizations and teachers' individuals, which makes it impossible for teachers' tacit knowledge to be well transmitted and shared among groups. Therefore, this paper takes the tacit knowledge sharing behavior of teachers in colleges and universities as the research object. Based on the theory of planned behavior and knowledge transfer, this paper makes an in-depth discussion and research on the influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities by adopting empirical research methods, re-examines the value implication of tacit knowledge sharing of teachers in colleges and universities, clarifies the important factors and mechanism that affect tacit knowledge sharing of in colleges and universities, and explores the possible paths to promote tacit knowledge sharing of in colleges and universities, which has important practical value and significance for promoting tacit knowledge sharing of teachers in colleges and universities, the development of teachers and school organizations. The main research results of this paper are summarized as follows:

1) In view of the research question 1 of this paper, "What is the effect of exploring behavior attitude on tacit knowledge sharing intention of teachers in colleges and universities", the research hypothesis H1 proposed in this paper is verified, and the answer to question 1 shows that the tacit knowledge sharing attitude of teachers in colleges and universities has a significant positive impact on their tacit knowledge sharing intention, that is, the better the tacit knowledge sharing attitude of teachers in colleges and universities is, the stronger their tacit knowledge sharing intention is, which is conducive to more thorough and in-depth implementation of tacit knowledge sharing behavior. Teachers in colleges and universities with good tacit knowledge sharing attitude will be more conscious, active and positive in acquiring more high-quality tacit knowledge resources, and at the same time, they will be more willing and make corresponding efforts to share their own tacit knowledge.

2) In view of the second research question proposed in this paper, "What is the effect of exploring subjective norms on the tacit knowledge sharing intention of teachers in colleges and universities?", the research hypothesis H2 proposed in this paper has been verified. The results show that the support of others in subjective norms has a positive impact on the tacit knowledge sharing intention of teachers in colleges and universities. When teachers in colleges and universities have a high sense of support from others, they will do more knowledge sharing behaviors that are beneficial to others and organizations. Therefore, leaders, colleagues and family members should give more support and encouragement to tacit knowledge sharing activities of teachers in colleges and universities, so as to effectively encourage and promote teachers in colleges and universities to actively implement tacit knowledge sharing activities.

3) In order to answer the third research question put forward in this paper, "What is the effect of exploring the influence of tacit knowledge sharing motivation on tacit knowledge sharing intention and behavior of teachers in colleges and universities?", this paper puts forward research hypotheses H3a and H3b. These two studies have been verified, and the results show that tacit knowledge sharing motivation of teachers in colleges and universities has a significant positive impact on tacit knowledge sharing intention and behavior of teachers in colleges and universities. Therefore, in order to promote the tacit knowledge sharing behavior of teachers in colleges and universities actively, it is necessary to adopt appropriate strategies to meet the tacit knowledge sharing motivation of teachers in colleges and universities, so that teachers in colleges and universities have a strong sense of identity with tacit knowledge sharing and consciously internalize it into their own lasting consciousness and belief.

4) In view of the fourth research question proposed in this paper, "What is the effect of exploring the influence of self-control on the tacit knowledge sharing intention and behavior of teachers in colleges and universities?", the research hypothesis H4a and H4b proposed in this paper are verified, and the results show that the tacit knowledge sharing motivation of teachers in colleges and universities has a direct positive impact on the tacit knowledge sharing intention and behavior of teachers in colleges and universities. Colleges and universities should provide

teachers with activities and opportunities to experience success, so that every teacher can have a successful feeling and experience of tacit knowledge sharing, so as to stimulate teachers' self-confidence and pride, improve teachers' self-control, and further promote their intention and behavior of tacit knowledge sharing.

5) In view of the fourth research question proposed in this paper "What is the effect of exploring sharing intention on tacit knowledge sharing behavior of teachers in colleges and universities?", the research hypothesis H5 put forward in this paper has been verified, and the results show that sharing intention has a direct positive impact on tacit knowledge sharing behavior of teachers in colleges and universities. At the same time, as for the mediating role of tacit knowledge sharing intention, the research assumes that H6, H7, H8 and H9 are verified, which indicates that the tacit knowledge sharing intention of teachers in colleges and universities has the mediating role among individual attitude, subjective norms, self-control, sharing motivation and tacit knowledge sharing behavior. The above results show that the tacit knowledge sharing intention of teachers in colleges and universities is an important influencing factor of tacit knowledge sharing behavior, and it also plays a direct and mediation role in tacit knowledge sharing behavior. Combined with the previous research results, university administrators should pay attention to encouraging and stimulating teachers' knowledge sharing intention from the aspects of sharing attitude, sharing motivation and external support, so as to make teachers in colleges and universities more involved and more effective in tacit knowledge sharing.

6) In view of the fourth research question proposed in this paper "What is the effect of exploring the moderating effect of policy perception on the tacit knowledge sharing intention and behavior of teachers in colleges and universities", the research hypothesis H10 proposed in this paper has been verified, and the results show that policy perception plays a moderating role between the tacit knowledge sharing intention and behavior of teachers in colleges and universities. A good external organization and policy environment is the support and encouragement for teachers in colleges and universities to adopt specific strategies and behaviors, which can eliminate teachers' doubts about the unstable external policy environment, thus better promoting the implementation of tacit knowledge sharing intention of teachers in colleges and universities and forming tacit knowledge sharing behavior. Therefore,

when formulating knowledge management policies, the government and universities should study, understand and respect the tacit knowledge exchange needs of teachers in colleges and universities, meet the active, reasonable and feasible knowledge sharing needs of teachers in colleges and universities, further stimulate teachers in colleges and universities to share their tacit knowledge, and promote individual tacit knowledge to become knowledge resources and reserves at the organizational level of universities.

5.2 Theoretical Contribution

The effective implementation of tacit knowledge sharing behavior of teachers in colleges and universities is the key to promote the effective exchange, transfer and integration of valuable tacit knowledge resources among individual teachers in colleges and universities, and then to enhance the knowledge level and development advantages of the whole group of teachers and the whole colleges and universities. This paper focuses on the key influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities, constructs a theoretical framework of influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities based on theory of planned behavior and knowledge transfer theory, and studies the mechanism of each influencing factor on teachers' tacit knowledge sharing behavior under the framework. In this paper, knowledge transfer theory and theory of planned behavior are combined into the research model of tacit knowledge sharing behavior factors of teachers in colleges and universities. The research results not only expand and enrich the knowledge transfer theory and theory of planned behavior, but also enrich the research on the management proposition of tacit knowledge sharing behavior of teachers in colleges and universities. The theoretical contributions of the research results in this paper are as follows:

First of all, by introducing knowledge transfer theory and theory of planned behavior, considering the influence of specific external environment advocated by knowledge transfer theory on knowledge sharing behavior, this paper enriches and expands the theoretical model of planned behavior, and applies it to the research proposition of tacit knowledge sharing behavior of teachers in colleges and

universities, which is very sensitive to external organizational environment and policy environment, and constructs a theoretical model of influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities. Since the theory of planned behavior was put forward in 1980' s (Ajzen, 1985), it has been applied to all fields of social and economic management, and has been continuously adjusted, applied, proved by practice and expanded to further study the management proposition of organizational behavior (Edwards et al., 2015; Iqbal et al., 2011; Kim, Kim, Aiken, & Park, 2006). The theory of planned behavior can provide a good theoretical framework for tacit knowledge sharing among teachers in the context of university organization, and it has strong theoretical inclusiveness and integration (Kuo & Young, 2008; Radaelli et al., 2015), meanwhile, knowledge transfer can well explain and analyze the influence of specific organizational situation and policy environment on knowledge and behavior (Szulanski et al., 2016b; Nonaka,1991). Therefore, this paper combines the theory of knowledge transfer with the theory of planned behavior, which makes the theoretical model of planned behavior take into account both the external organizational environment and the policy environment, realizes the applicability and explanatory power of the theory of planned behavior to the proposition of tacit knowledge sharing behavior of teachers in colleges and universities in the China’s actual situation, and reveals the mechanism of influence factors such as other people's support and policy perception on tacit knowledge sharing behavior of teachers in colleges and universities in the Chinese context of university organization, that is, other people's support has a significant positive impact on tacit knowledge sharing intention of teachers in colleges and universities, and policy perception plays a moderating role between tacit knowledge sharing intention and knowledge sharing behavior of teachers in colleges and universities. To sum up, the research results of this paper provide valuable theoretical support for in-depth study and discussion of influencing factors and mechanism of tacit knowledge sharing behavior of teachers in colleges and universities.

Secondly, theoretically, this study is a supplement to the research on the management proposition of tacit knowledge sharing behavior of teachers in colleges and universities. Explicit knowledge is like the tip of the iceberg, while tacit knowledge is the most part of the bottom of the iceberg. The key to knowledge sharing within an organization lies in the sharing of tacit knowledge (Ryan & O'Connor, 2013; Wu & Shanley, 2009). The explicit knowledge of teachers in colleges and universities works through their tacit knowledge, which assists the presentation of explicit knowledge. The level of tacit knowledge of teachers in colleges and universities determines the development level of individual teachers and the university as a whole (Elliott et al., 2011; Zhang & Han, 2008; Yu & Zhou, 2015). The research shows that there are some problems in tacit knowledge sharing among teachers in colleges and universities, such as low sharing intention, single sharing method, low sharing satisfaction, unclear sharing motivation and insufficient sharing mechanism (Kaya & Erkut, 2018; Sun, 2017), and factors such as insufficient communication, insufficient trust, confidentiality of work, organizational norms and lack of support and reward are the main reasons for the ineffective implementation of tacit knowledge sharing among teachers in colleges and universities (Al-Kurdi et al., 2020; Chugh, 2017). Therefore, how to integrate the scattered and unobservable tacit knowledge of teachers in colleges and universities, and make it produce a synergy through effective tacit knowledge sharing behavior, which becomes the core advantage of promoting the individual knowledge level of teachers in colleges and universities and improving the knowledge competitiveness of universities, has always been a difficult problem in the management research of tacit knowledge sharing behavior of teachers in colleges and universities. By introducing the knowledge transfer theory and theory of planned behavior in organizational management, this study realized the empirical investigation on the influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities, and deeply revealed the relationship between tacit knowledge sharing behavior attitude, knowledge sharing motivation, knowledge sharing intention, support from others, self-control and policy perception of teachers in colleges and universities. Therefore, it is helpful for university administrators to deeply understand the behavioral motivation and influencing mechanism of tacit knowledge sharing among teachers in

colleges and universities, and then effectively activate, utilize and share the tacit knowledge resources owned by teachers in colleges and universities, and raise them to the knowledge resources of the whole university teachers group and university organizations, so that in-depth and effective tacit knowledge sharing among teachers in colleges and universities can become the knowledge source for universities to maintain their development advantages.

Thirdly, based on the emphasis of knowledge transfer theory on the role of external organizational environment and policy environment in knowledge sharing behavior, this paper introduces policy perception, an external policy environment factor, into the research of tacit knowledge sharing behavior of teachers in colleges and universities as a regulatory variable. In the process of tacit knowledge sharing behavior of teachers in colleges and universities, policy perception and knowledge sharing behavior of teachers in colleges and universities are often neglected correspondingly, which leads to vague elements and paths of tacit knowledge sharing behavior of teachers in colleges and universities under the action of policies (Eyal & Liberman, 2012a; Thomä, 2017). The results of this study confirm that policy perception plays a significant role in moderating the tacit knowledge sharing intention and behavior of teachers in colleges and universities. Policy perception is the key variable that affects the tacit knowledge sharing behavior of teachers in colleges and universities. Policy perception points out the goal and direction for teachers in colleges and universities to share their tacit knowledge, which can effectively stimulate the tacit knowledge sharing intention and behavior of teachers in colleges and universities and promote the flow of valuable tacit knowledge among teachers in colleges and universities. Policy perception is closely related to the tacit knowledge sharing behavior of teachers in colleges and universities. Therefore, the pertinence of the content design of university tacit knowledge management policy and the rationality of the response mechanism are helpful to improve the tacit knowledge sharing behavior level of teachers in colleges and universities (Cohen et al., 2009; Xue & Zhao, 2016), which requires policy makers to fully consider the characteristics and needs of policy recipients (i.e., teachers in colleges and universities) when formulating policies related to the management of teachers' tacit knowledge sharing behavior, and meantime, comprehensively consider the combination of policy

motivation elements, policy response channels and response costs to ensure that the formulated policies can fully stimulate and promote the tacit knowledge sharing behavior of teachers in colleges and universities. In this paper, starting from the key point of the relationship between teachers' policy perception and tacit knowledge sharing behavior, taking tacit knowledge sharing behavior of teachers in colleges and universities as the research object, deeply reveal the moderating mechanism of policy perception on tacit knowledge sharing behavior of teachers in colleges and universities, further enrich the research results of tacit knowledge sharing behavior management proposition of teachers in colleges and universities, and provide theoretical support for promoting the smooth and effective implementation of tacit knowledge sharing behavior of teachers in colleges and universities. The research results of this paper not only theoretically expand the application of theory of planned behavior and knowledge transfer theory in the field of tacit knowledge sharing behavior policy, but also provide useful reference for the optimization of related mechanisms such as tacit knowledge sharing behavior policy making and tacit knowledge sharing behavior response decision-making.

5.3 Management Enlightenment

1) Improve the motivation system at the organizational level

Through empirical research, this paper finds that the tacit knowledge sharing intention of teachers in colleges and universities will affect their tacit knowledge sharing behavior. Organizational motivation is an important measure to enhance the tacit knowledge sharing intention of teachers in colleges and universities. The university knowledge sharing motivation system and motivation measures play an important role in promoting teachers' tacit knowledge sharing behavior. Motivation factors can be divided into intrinsic motivation and extrinsic motivation. Intrinsic motivation mainly emphasizes spiritual level, such as pride and sense of accomplishment, while extrinsic motivation mainly emphasizes material level rewards or non-material benefits, such as bonuses and titles (Ryan & Deci, 2000b). The research shows that intrinsic motivation are the real factors that affect individuals' intention to share knowledge, while extrinsic motivation only reduce their

dissatisfaction. The tacit knowledge of teachers in colleges and universities is the sum of their subject teaching knowledge, professional practical knowledge, skill contest knowledge and teaching management experience in teaching practice, which is accumulated continuously in teaching practice (Malik et al., 2017; Sun, 2017). If teachers share tacit knowledge acquired by their own practice with other teachers, their tacit knowledge sharing behavior will not be supported by leaders and recognized by colleagues in spirit, and won't be rewarded materially, and their enthusiasm for tacit knowledge sharing will be greatly reduced in the future. Therefore, colleges and universities should formulate relevant motivation mechanisms for the tacit knowledge sharing behavior of teachers in colleges and universities from the spiritual and material aspects, so as to protect the interests of tacit knowledge sharers, stimulate the sharing motivation of tacit knowledge sharers, and enhance the intention of teachers in colleges and universities to share tacit knowledge, so that the tacit knowledge sharing behavior of teachers in colleges and universities can be implemented and carried out more smoothly and effectively at the individual and organizational levels of teachers in colleges and universities.

2) Building the tacit knowledge sharing community of teachers in colleges and universities

The results show that the tacit knowledge sharing attitude and subjective norms of teachers in colleges and universities have a significant impact on their tacit knowledge sharing behavior. Tacit knowledge sharing community in teachers in colleges and universities refers to a group of teachers who exchange and share teaching practice based on the same goals and values, with continuous reflection, collaboration and learning as the orientation (Fleisher et al., 2011; Zhu & Feng, 2012), the construction and operation of tacit knowledge sharing community for teachers in colleges and universities plays an important role in actively guiding teachers' knowledge sharing attitude and subjective norms. The construction of tacit knowledge sharing community among teachers in colleges and universities can effectively improve the recognition and acceptance of tacit knowledge sharing among teachers in colleges and universities, eliminate their hesitation or resistance to knowledge sharing, promote the effective flow of teaching knowledge among teachers, strengthen the interaction of knowledge exchange and sharing behavior among teachers in

colleges and universities, and enable teachers in colleges and universities to continuously realize knowledge innovation in knowledge sharing, thus improving the knowledge level of individual teachers and universities as a whole, and realizing the virtuous circle of teachers' knowledge ecosystem. If teachers' tacit knowledge in colleges and universities is not properly managed, it will not be conducive to the rapid growth of new teachers, nor to the innovation of experienced teachers' knowledge resources. In the long run, it will hinder the growth of the whole teaching team (Li, 2019; Yu & Zhou, 2015). Therefore, it is more necessary to strengthen the effective management of tacit knowledge resources of teachers in colleges and universities and promote the innovation and sharing of excellent tacit knowledge resources by constructing the tacit knowledge sharing community of teachers in colleges and universities. The key to building the tacit knowledge sharing community of teachers in colleges and universities lies in the generation, flow, sharing and innovation of tacit knowledge of teachers in colleges and universities. The generation of teachers' tacit knowledge in colleges and universities comes from teachers' teaching and research practice, and teachers in colleges and universities transfer the knowledge acquired in practice to other teachers, thus promoting the flow and innovation of knowledge. The establishment of tacit knowledge sharing community among teachers in colleges and universities is conducive to the formation of a good tacit knowledge sharing trust relationship among teachers in colleges and universities, the improvement of teachers' positive attitude towards tacit knowledge sharing and good subjective norms, and the better promotion of tacit knowledge sharing among teachers. Therefore, it is particularly important to build the tacit knowledge sharing community of teachers in colleges and universities, establish the tacit knowledge sharing trust relationship of teachers in colleges and universities, and actively guide the tacit knowledge sharing attitude and supervisor norms of teachers in colleges and universities.

3) Stimulate the tacit knowledge sharing motivation of teachers in colleges and universities

The empirical results show that the tacit knowledge sharing motivation of teachers in colleges and universities is an important factor that affects tacit knowledge sharing intention and sharing behavior, and tacit knowledge sharing intention plays a moderation role between sharing motivation and sharing behavior. According to

Maslow's hierarchy of needs theory, only when the actual needs of teachers in colleges and universities at each stage of development are met can teachers be gradually pushed towards the ultimate pursuit of self-realization. By stimulating and meeting the motivation and needs of tacit knowledge sharing among teachers in colleges and universities, promoting the intention of tacit knowledge sharing and promoting the generation of tacit knowledge sharing behavior among teachers, it should start with the following points: First, strengthen material motivation to meet the interest pursuit motivation of teachers in colleges and universities. To protect teachers' personal tacit knowledge rights and interests, teachers can be substantially rewarded according to teachers' tacit knowledge sharing behavior by establishing knowledge sharing performance evaluation system, including teachers' teaching experience sharing behavior into the evaluation system and giving a certain proportion of weight. It is also possible to set up a special fund for tacit knowledge sharing. Based on giving consideration to the external competition and internal equity of teachers' remuneration, special funds can be set up to reward teachers who have made outstanding contributions in tacit knowledge sharing activities. Secondly, pay attention to spiritual motivation to stimulate the motivation of self-realization of teachers in colleges and universities. Colleges and universities publicly commend teachers who actively share their tacit knowledge, give encouragement and praise to teachers at the spiritual level, and display teachers' knowledge sharing behaviors in the form of academic newspapers, pictures and texts, and issue certificates and prizes to enhance teachers' sense of accomplishment and honor, to stimulate teachers' tacit sharing motivation, enhance teachers' intention to share knowledge and turn them into practical actions. Thirdly, build an organizational culture of harmony and mutual trust to enhance the organizational emotional motivation of teachers in colleges and universities. When teachers are in a state of being respected and concerned, they will naturally have a sense of belonging, responsibility, and mission to the organization. Teachers are more willing to make personal efforts and share their tacit knowledge resources for the development of the organization and are committed to the realization of the organizational goals (Alshehri & Cumming, 2020; Zhang, 2011).

4) Create a scientific and reasonable organization and policy environment

The results show that policy perception has a positive effect on tacit knowledge sharing behavior of teachers in colleges and universities. Teachers in colleges and universities are the important organizational members of colleges and universities and the main carriers of tacit knowledge. The benign knowledge interaction among teachers in colleges and universities cannot be separated from the scientific and reasonable organizational and policy environment of colleges and universities. To create a scientific and reasonable organizational environment for tacit knowledge sharing, it should not only adjust and optimize the traditional organizational structure of colleges and universities, but also establish and improve relevant policy mechanisms (Hsu & Chang, 2014; Wang, Mao & Long, 2012). Multi-pronged approach to optimize the organization and policy and create a scientific and reasonable organization and policy environment atmosphere for tacit knowledge sharing among teachers in colleges and universities and make tacit knowledge sharing more standardized and efficient. At present, the flat matrix organizational structure is gradually being widely used in the optimal choice of many institutions and enterprises. This organizational structure can effectively reduce the management level and simplify the functional departments, and it is a flexible and new organizational structure model. The flat organizational structure can improve the efficiency of information transmission and feedback among teachers in colleges and universities, unblock the communication channels of teachers' tacit knowledge sharing, realize flexible communication and real-time interaction among teachers, and create a democratic and equal cultural atmosphere and relaxed and harmonious communication atmosphere for tacit knowledge sharing (Chugh, 2017; Oztok, 2013). This organizational structure is conducive to the sharing and transmission of tacit knowledge among teachers in colleges and universities. Teachers are willing to share their tacit knowledge with other teachers, so as to realize equal dialogue and deep cooperation among teachers. Therefore, with the support of tacit knowledge sharing policy, adjusting, and optimizing the organizational structure of universities and constructing a flat rectangular organizational structure conducive to tacit knowledge sharing are effective means to improve the level of tacit knowledge sharing, and also an important way to promote teachers' tacit knowledge sharing from general level to

high level of experience sharing. In addition, with the support of relevant policies, various forms of communication channels for teachers should be constructed. Through various forms of communication and interaction, which can increase the interaction opportunities among teachers and create convenient space-time conditions for tacit knowledge sharing. Teachers in colleges and universities should actively build a good knowledge exchange relationship, increase opportunities for mutual contact and interaction, and then promote the generation of tacit knowledge sharing behavior.

5.4 Future Research

In the era of knowledge economy, the role of colleges and universities as the base of knowledge dissemination and cradle of knowledge innovation is more prominent. As an important source of development advantages and innovation ability of colleges and universities, the role and importance of tacit knowledge has gradually been highly valued by university administrators. How to effectively share tacit knowledge is becoming a hot issue in the field of knowledge management theory and practice. However, because of the unutterability and complexity of tacit knowledge, the management of tacit knowledge is not as intuitive and easy to operate as explicit knowledge, and the research on tacit knowledge sharing among teachers in colleges and universities is still in its infancy. Based on the theory of planned behavior and knowledge transfer, this paper makes an in-depth study on the influencing factors and mechanism of tacit knowledge sharing behavior of teachers in colleges and universities, which provides valuable theoretical support for targeted implementation of tacit knowledge sharing behavior management in colleges and universities. However, due to the limitations of research conditions, there are still the following problems in the research of tacit knowledge sharing behavior of teachers in colleges and universities in this paper, which need further in-depth study.

First, the research on the tacit problem of tacit knowledge of teachers in colleges and universities. Although the key to tacit knowledge sharing behavior lies in the coordination and management of knowledge sharing participants, from the perspective of accelerating tacit knowledge exchange and sharing, how to promote

explicit of tacit knowledge is still an important breakthrough for knowledge sharing behavior management, which is an unsolved problem in this paper. From the law of knowledge innovation and development, many scientific discoveries and technological breakthroughs are successful cases of explicit of tacit knowledge. Is the ability of explicit of tacit knowledge explicit among teachers in colleges and universities innate or cultivated? What is the relationship between it and people's knowledge background and individual characteristics? What kind of means and methods can be adopted to promote the explicitness of teachers' tacit knowledge? The solution of these problems is of great significance to the management of tacit knowledge sharing behavior of teachers in colleges and universities. In order to solve these problems, it is necessary to conduct a more in-depth study on the mechanism of explicit of tacit knowledge of teachers in colleges and universities by means of psychological experiments and empirical research in the long-term contact with university teachers.

Secondly, the research on the evaluation of individual tacit knowledge of teachers in colleges and universities. Knowledge sharing attitude, motivation and intention are the main influencing factors of tacit knowledge sharing behavior of teachers in colleges and universities, which is reflected in the empirical analysis conclusion of this paper. In this paper, the measurement scheme of individual tacit knowledge sharing among teachers in colleges and universities is proposed from three aspects: attitude, motivation, and intention of knowledge sharing. To truly evaluate the value of tacit knowledge of teachers in colleges and universities, it is necessary to conduct more in-depth research from the perspective of individual tacit knowledge evaluation of teachers in colleges and universities. Individual tacit knowledge evaluation is a systematic project, and it is also a difficult point in knowledge management research. It is of great significance for more effective sharing of tacit knowledge among teachers in colleges and universities. Therefore, it is worth further study and discussion. In the future research, the author will try to use fuzzy comprehensive evaluation method and analytic hierarchy process to evaluate and measure individual tacit knowledge of teachers in colleges and universities, aiming at the hierarchy and fuzziness of individual tacit knowledge of teachers in colleges and universities.

Finally, the formal and informal tacit knowledge sharing behaviors among teachers in colleges and universities are studied. This paper takes tacit knowledge sharing behavior among teachers in colleges and universities as the research proposition, and studies how to stimulate and improve the subjective intention and objective possibility of teachers in colleges and universities to participate in tacit knowledge sharing through corresponding management measures and means, so as to achieve the goal of promoting the effective dissemination and utilization of tacit knowledge within universities. The research object is tacit knowledge sharing behavior in general sense. The shared content can be knowledge that accords with the concept of tacit knowledge, such as creativity, inspiration, experience, know-how, skills, etc., without deliberately distinguishing which kind of tacit knowledge is suitable for communication and sharing through what ways and means. However, according to the author's investigation on the actual situation of tacit knowledge management of teachers in colleges and universities, the tacit knowledge sharing behavior of teachers in colleges and universities is tendentious, and there is a difference between informal sharing and formal sharing. They will intentionally or unintentionally choose the sharing method that is most beneficial to them. For some teaching and scientific research experience and skills accumulated at ordinary times, it is relatively random to share, and there are more situations to share in daily communication between teachers. For those critical ideas and inspirations, we usually choose more formal occasions to share them. In this regard, due to the different focus of research, this paper has not conducted a special empirical study. The implementation of this problem is of great significance to the formulation of tacit knowledge management strategies and policies in colleges and universities. Therefore, it is necessary to carry out further research.

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APPENDIX

Questionnaire on Tacit Knowledge Sharing

Questionnaire description:

1. This questionnaire is mainly used for the investigation of "tacit knowledge sharing" among college teachers.

2. This study is for academic purposes only, and will not disclose any personal information.

3. Respondents are asked to answer relevant questions independently. If in doubt, please only consult the issuer of the questionnaire.

4. Please answer the questionnaire completely to ensure the completeness of the questionnaire.

B1. You (the teacher) often share ideas and inspiration with colleagues. [Single choice]

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

B2. You (the teacher) often share knowledge, experience or know-how with colleagues. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

B3. If a colleague makes a request, you (the teacher) often provide the source or insider of the knowledge you know. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

I1. You (the teacher) are willing to frequently share ideas and inspiration with colleagues. [Single choice] *

- ○ Totally unwilling
- ○ Very unwilling
- ○ Unwilling
- ○ Average

○ Willing

○ Very willing

○ Totally willing

I2. You (the teacher) are willing to frequently share knowledge, experience or know-how with colleagues. [Single choice] *

○ Totally unwilling

○ Very unwilling

○ Unwilling

○ Average/Willing

○ Very willing

○ Totally willing

I3. When a colleague makes request, you (the teacher) are willing to provide the source or insider of the knowledge you know. [Single choice] *

○ Totally unwilling

○ Very unwilling

○ Unwilling

○ Average

○ Willing

○ Very willing

○ Totally willing

For you, conducting tacit knowledge sharing is [Single choice] *

○Most disappointing	○Very disappointing	○Disappointing	○Average	○Pleasing	○Very pleasing	○Most pleasing

A1. For you, conducting tacit knowledge sharing is [Single choice] *

○Completely negative	○Very negative	○Negative	○Average	○Positive	○Very positive	○Completely positive

A2. For you, conducting tacit knowledge sharing is [Single choice] *

○Most disappointing	○Very disappointing	○Disappointing	○Average	○Pleasing	○Very pleasing	○Most pleasing

A3. For you, conducting tacit knowledge sharing is [Single choice] *

○Most disgusting	○Very disgusting	○Disgusting	○Average	○Enviable	○Very enviable	○Most enviable

A4. For you, conducting tacit knowledge sharing is [Single choice] *

○Most stupid	○Very stupid	○Stupid	○Average	○Wise	○Very wise	○The wisest

A5. For you, conducting tacit knowledge sharing is [Single choice] *

○Most useless	○Very useless	○Useless	○Average	○Helpful	○Very helpful	○Most helpful

A6. For you, conducting tacit knowledge sharing is [Single choice] *

○Completely bad	○Very bad	○Bad	○Average	○Good	○Very good	○Completely good

A7. For you, conducting tacit knowledge sharing is [Single choice] *

○Most worthless	○Very worthless	○Worthless	○Average	○Valuable	○Very valuable	○Most valuable

S1. College leaders believe that teachers should share knowledge with colleagues. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

S2. The family members of teachers believe that teachers should share knowledge with colleagues. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

S3. University colleagues believe that teachers should share knowledge with colleagues. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

M1. Sharing knowledge with colleagues makes me happy. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

M2. I find it interesting to share knowledge with colleagues. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average

○ Agree

○ Strongly agree

○ Totally agree

M3. Sharing knowledge with colleagues gets me noticed. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

M4. Sharing knowledge with colleagues is to obey the leadership's arrangement. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

M5. Share knowledge with colleagues because it pays me. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

M6. Sharing knowledge with colleagues will have a sense of accomplishment. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

M7. Sharing knowledge with colleagues will be encouraged by others [Single choice] *

- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree

○ Totally agree

C1. You do things in the way of completing tasks. [Single choice] *

○ Totally disagree
○ Strongly disagree
○ Disagree
○ Average
○ Agree
○ Strongly agree
○ Totally agree

C2. You pay special attention to the concept of time. [Single choice] *

○ Totally disagree
○ Strongly disagree
○ Disagree
○ Average
○ Agree
○ Strongly agree
○ Totally agree

C3. Your own actions do not need to be reminded by others. [Single choice] *

○ Totally disagree
○ Strongly disagree
○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C4. You will self-monitor your own behavior. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C5. You have a behavioral plan for what you want to accomplish. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C6. You will choose meaningful actions to do. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

C7. You will always stick to some behaviors. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree
- ○ Strongly agree
- ○ Totally agree

C8. You will make a summary of your own behaviors. [Single choice] *

- ○ Totally disagree
- ○ Strongly disagree
- ○ Disagree
- ○ Average
- ○ Agree

○ Strongly agree

○ Totally agree

C9. You will learn by yourself. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C10. You can regulate your moods. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C11. You can take remedial measures for your misconducts. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C12. You can maintain your personal behavior in different environments.[Single choice]*

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

C13. You will need help from others as appropriate. [Single choice] *

○ Totally disagree

○ Strongly disagree

○ Disagree

○ Average

○ Agree

○ Strongly agree

○ Totally agree

P1 How the policy does the government hold on teachers' tacit knowledge sharing? [Single choice] *

- ○ Very opposed
- ○ Opposed
- ○ No objection
- ○ Average
- ○ Discouraging
- ○ Encouraging
- ○ Very encouraging

P2 How the policy does the school hold on teachers' tacit knowledge sharing? [Single choice] *

- ○ Very opposed
- ○ Opposed
- ○ No objection
- ○ Average

○ Discouraging

○ Encouraging

○ Very encouraging

Your gender? [Single choice] *

- ○ Male
- ○ Female

Your age? [Fill in the blank] *

_____

Your professional title? [Single choice] *

○ None

○ Junior

○ Intermediate

○ Senior

University nature? [Single choice] *

○ Public college

○ Private college

○ Public junior college

○ Private junior college

○ Other

Your nationality? [Single choice] *

○ Chinese

○ Other

Your education or academic degree? [Single choice] *

○ High school and below

○ Bachelor

○ Master

○ Doctor

How long is your teaching experience ( ) years? [Fill in the blank] *

_____

Which province and city is your unit located? [Fill in the blank] *

_____

BIOGRAPHY

Name-Surname	Miss Ling Xu
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