

**FACTORS INFLUENCING USER'S CONTINUANCE INTENTION ON PAID QUESTION AND ANSWER SERVICE
----A STUDY ON WEIBO IN CHINA**

A Master thesis in
Information System Science
Turku School of Economics
University of Turku
And in
Information Science
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May 2018
Wuhan

ABSTRACT

This thesis addresses the research question “Why do users continue to use paid Q&A in China” by means showed below:

First, this research introduces research background of paid Q&A in China and raises corresponding research question and highlights the research significance of this thesis topic;

Second, the author concludes previous research on paid Q&A in aspects of Q&A system, paid subscription and sharing economy, and finds that most of prior research focuses on exploring the influence of usefulness but not enjoyment on the users’ willingness of continuing using a paid Q&A system;

Third, the thesis introduces the VAM theory and build a modified model based on it, this modified model highlights the importance of pleasure on users’ continuance intention in using paid Q&A;

Finally, the empirical study combining an Exploratory Factor Analysis and a Confirmatory Factor Analysis proves that, after integrating factors extracted from previous research and the proposed model, the research is tested to be explanatorily capable and hypotheses related to the model are mostly proved to be supported.

As a conclusion, this study conducts an investigation on the constructs and related theories that influence users’ continuance intention to use paid Q&A, from a hedonic perspective. In this thesis, VAM theory is selected as the prototype of proposed research model which reveals factors affecting users’ continuance intention to use a Chinese paid Q&A product named Weibo Paid Q&A. In this thesis, the proposed model makes predictions that the constructs perceived fee and community atmosphere along with perceived enjoyment construct have critical effect on users’ continuance willingness in using Weibo Paid Q&A in China. With the assistance of PLS–SEM, this study analyzes data collected from users in WPQA, the empirical study verifies that users' continuance intention is assuredly dependent on perceived fee and community atmosphere along with perceived enjoyment. The study also reveals that quality of answerers and quality of answer positively exert significant influences on perceived enjoyment.

Key words: Paid Q&A; Continuance intention; Structural Equation Modelling

TABLE OF CONTENTS

ABSTRACT.....	1
TABLE OF CONTENTS.....	2
LIST OF FIGURES	4
LIST OF TABLES.....	5
LIST OF ABBREVIATIONS.....	6
1 INTRODUCTION.....	7
1.1 Research purpose	7
1.1.1 Research background.....	7
1.1.2 Research significance	10
1.2 Research approach	11
1.2.1 Research question	11
1.2.2 Research procedure.....	11
2 LITERATURE REVIEW.....	13
2.1 Introduction of literature review	13
2.2 Paid Q&A and information system.....	13
2.2.1 Conceptualization of paid Q&A	13
2.2.2 User behavior in paid Q&A community.....	14
2.2.3 User experience in paid Q&A community	15
2.3 Paid Q&A and paid subscription	16
2.3.1 Paid subscription and free mentality.....	16
2.3.2 Content of subscription.....	17
2.3.3 Provider of subscription.....	18
2.3.4 Other factors influencing subscription payment.....	19
2.4 Paid Q&A and sharing economy	20
2.4.1 Economic factors	20
2.4.2 Social factors	20
2.5 Summary of literature review	21
3 RESEARCH MODEL AND RESEARCH HYPOTHESIS.....	22
3.1 Research model.....	22
3.1.1 Value-based adoption model	22
3.1.2 Modified model based on VAM.....	23
3.2 Construct definition and hypothesis.....	23
3.2.1 Content Quality(CQ)	24
3.2.2 Answerer Quality(AQ)	24
3.2.3 Community Atmosphere(CA)	25
3.2.4 Perceived Fee(PF).....	25
3.2.5 Perceived Enjoyment(PE).....	26
3.2.6 Summary of construct definitions and hypotheses	26
4 RESEARCH METHOD AND RESEARCH STRATEGY.....	28
4.1 Research method.....	28

4.1.1	Research method types	28
4.1.2	Quantitative research	28
4.2	Survey strategy.....	28
4.2.1	Survey approach	28
4.2.2	Sampling strategy	29
5	DATA COLLECTION AND DATA ANALYSIS	30
5.1	Design of data collection and analysis.....	30
5.1.1	Data collection strategy	30
5.1.2	Data analysis strategy	30
5.2	Pretest of research	31
5.2.1	Pretest survey questionnaire	31
5.2.2	Exploratory Factor Analysis	31
5.2.3	Revision of factors.....	32
5.3	Revised test of research.....	33
5.3.1	Final survey questionnaire.....	33
5.3.2	Confirmatory Factor Analysis	34
6	PRESENTATION OF EMPIRICAL RESULTS	37
6.1	Demographics of respondents.....	37
6.1.1	Gender distribution	37
6.1.2	Age distribution	37
6.1.3	Education level distribution.....	38
6.1.4	Income distribution.....	38
6.1.5	User and usage distribution	39
6.2	Empirical results of the research model.....	40
6.2.1	P value and T value.....	40
6.2.2	Interpretation of empirical results.....	41
7	DISCUSSION AND CONCLUSION.....	43
7.1	Research discussions.....	43
7.1.1	Determinants of perceived enjoyment	43
7.1.2	Determinants of continuance intention.....	43
7.2	Research conclusions	44
7.2.1	Research contributions and research implications.....	44
7.2.2	Research limitations and further research directions.....	45
	REFERENCES	46
	Outer loadings of factors	52
	Pretest questionnaire in English	53
	Pretest questionnaire in Chinese.....	56
	Final survey questionnaire in English	58
	Final survey questionnaire in Chinese.....	60
	ACKNOWLEDGEMENT	63

LIST OF FIGURES

Figure 1-1 Questioner behavior mode in free Q&A	8
Figure 1-2 Sharer behavior mode in free Q&A	8
Figure 1-3 Questioner behavior mode in paid Q&A	9
Figure 1-4 Sharer behavior mode in paid Q&A.....	9
Figure 1-5 Research Procedure.....	12
Figure 2-1 Interaction process in Q&A community (Zhang & Li, 2010, p. 19).....	14
Figure 2-2 User roles in paid Q&A community (Liu & Zhao, 2017, p. 42).....	15
Figure 3-1 Value-based adoption model (H.-W. Kim et al., 2007a, p. 115)	22
Figure 3-2 Research model	23
Figure 3-3 Hypotheses of research model	27
Figure 6-1 Gender distribution.....	37
Figure 6-2 Age distribution.....	38
Figure 6-3 Education level distribution	38
Figure 6-4 Income distribution	39
Figure 6-5 User distribution.....	39
Figure 6-6 Usage distribution	40
Figure 6-7 Test result of research model	41

LIST OF TABLES

Table 2-1 Situations and corresponding social cost.....	16
Table 3-1 Construct definitions	26
Table 3-2 Hypotheses and references	27
Table 5-1 The 1 st EFA Rotated Component Matrix ^a	31
Table 5-2 The 2 nd EFA Rotated Component Matrix ^a	32
Table 5-3 Constructs and items.....	33
Table 5-4 Construct Reliability and Validity	34
Table 5-5 Fornell-Larcker Criterion	35
Table 5-6 Cross Loadings	35
Table 6-1 Test result of influence of constructs.....	40
Table 6-2 Test result of hypotheses	42

LIST OF ABBREVIATIONS

CFA	Confirmatory factor analysis
EFA	Exploratory factor analysis
P2P	Peer to Peer
PLS	Partial Least Squares
Q&A	Question and Answer
SEM	Structure Equation Modeling
TAM	Technology Acceptance Model
UGC	User Generate Content
UTAUT	Unified Theory of Acceptance and Use of Technology
VAM	Value-based Adoption Model
WPQA	Weibo Paid Q&A

1 INTRODUCTION

1.1 Research purpose

In section “Research purpose”, part “Research background” reviews the origin and recent situation of paid question and answer (Paid Q&A) community; part “Research significance” demonstrates several research areas related to paid Q&A community, and the significance of this master thesis is pointed out as well after listing potential research perspectives.

1.1.1 *Research background*

Finding specific information is never easy to internet users, especially at an era of information explosion. On early days of internet, users look for information with help of searching engines. However, even though a lot of effort has tried to improve searching engine performance by combining it with social networking, searching engine still cannot always satisfy users due to its technology defects. (Amitay et al., 2009; Bao et al., 2007; Kolay & Dasdan, 2009)

Considering the poor performance in looking for target information of search engine, a new product named Q&A community emerged to be an alternative choice satisfying internet users’ information requirements. Users are encouraged to ask questions in Q&A communities where these questions can be answered by other users (Espina & Figueroa, 2017). To internet users, using Q&A communities to look for information is much easier than using search engines to do that, since Q&A communities require a lower standard of language skill. Users can use natural language to ask questions and interact with other users. Considering the high rate of untrained users among all internet users, using Q&A community is consequently a better choice.

As depicted in Figure 1-1 and Figure 1-2, in a free Q&A community, a questioner can either choose answerers based on topics and answerers he or she is following to answer questions and wait for their answers, or just submit questions to the public and wait for spontaneous answerers; a sharer can search and read resolved questions recommended by the system based on the topics and answerers followed by him or her. All the content in a Q&A community, such as Zhihu and Quora, is open and accessible to all users, including questioners, answerers and sharers, in this community. After reading answers both questioners and sharers can comment, share and rate them.

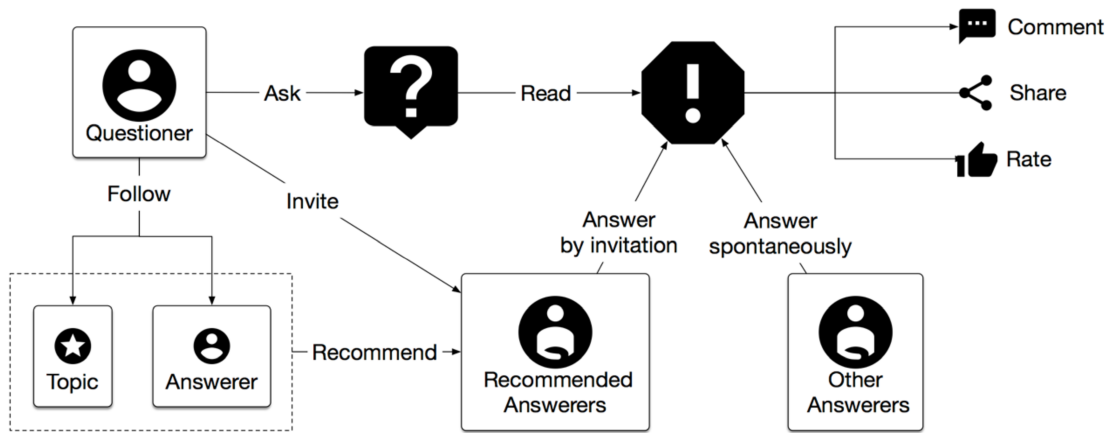


Figure 1-1 Questioner behavior mode in free Q&A

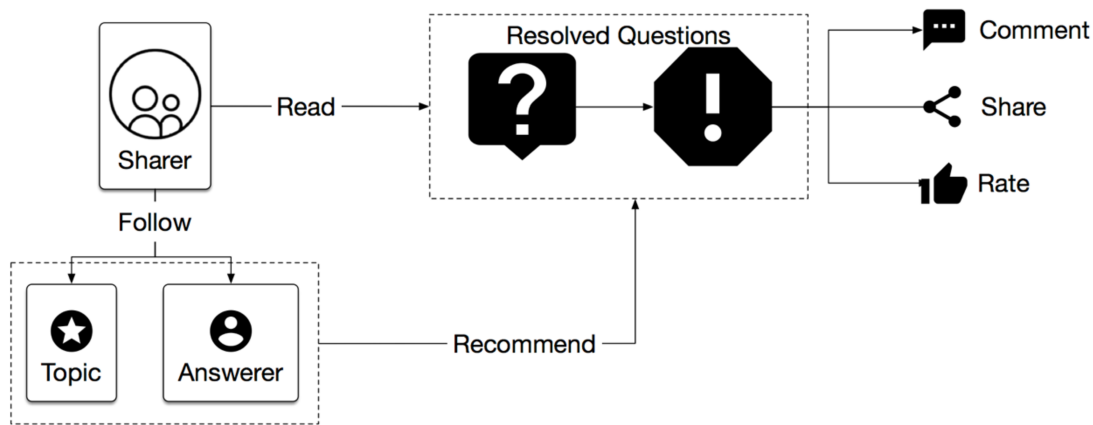


Figure 1-2 Sharer behavior mode in free Q&A

In the age of free answers in Q&A communities, any user can answer any question without payment, and can read any answer without payment. This situation leaves potential risks for the stability of Q&A community.

Answerers' motivation can be a significant factor. For instance, questioners in Sina Weibo occasionally suffered embarrassment that their questions remained to be unanswered for a long time (Z. Liu & Jansen, 2017). This problem happens probably because answerers without payment will sometimes have lack of motivation to offer help. Additionally, question readers can easily copy free answers from answer providers without payment, thus invade answer providers' copyrights. This also may hurt answerers' motivation to help.

What is worse, another critical element, information quality and accuracy are decreasing either. Rodrigo and Peñas (2017) showed another problem that due to overwhelming reworded content, Q&A system can hardly return correct answers from existing database for questioners and reveal implicit knowledge, which means the primary advantage of Q&A community over searching engine is reducing.

As a consequence, a new economy mode based on paid content in internet is emerging because of various reasons, such as the popularity of User Generate Content (UGC) mode and the increasing sense of copyright protection. Considering the core concept of this new

mode is paying for knowledge and it is totally a new generation of sharing knowledge, the economy mode is called “Pay for knowledge” or “Knowledge sharing 3.0”. Paid Q&A is one of famous products in this economy mode.

As depicted in Figure 1-3 and Figure 1-4, in a paid Q&A community, a questioner can choose target answerers based on topics and answerers followed by him or her and recommendations from the system, then the questioner can ask and pay for question to answerers; a sharer can choose resolved questions based on topics and answerers followed by him or her and recommendations from the system, then the sharer can pay for answers to questioners and answerers. The content of answers is not accessible before users’ payment. The payment of sharers goes to both questioners and answerers, and it is usually much lower than payment of questioners. After reading answers, both questioners and sharers can comment, share and rate answers.

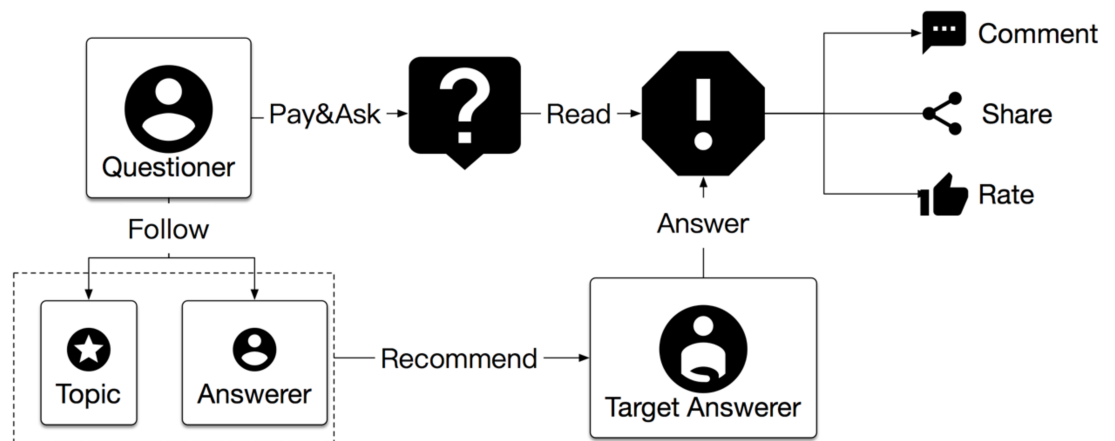


Figure 1-3 Questioner behavior mode in paid Q&A

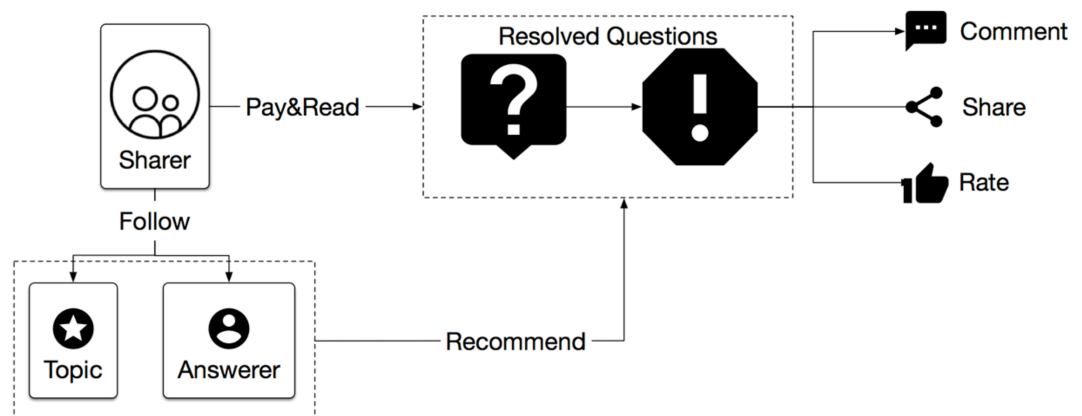


Figure 1-4 Sharer behavior mode in paid Q&A

The advantages of paid Q&A to free Q&A can be briefly concluded in some aspects: first, answerers in paid Q&A have more motivation to provide help when they are paid by questioners and sharers; second, Q&A processes are more effective in paid Q&A since

only chosen answerers can provide answers to questioners; third, answerers content copyrights are better protected since the content can be seen only after payment and cannot be copy easily.

In China, because of the lack of valuable information, the convenience of mobile payment, the increasing of spiritual needs and the formation of the sense of pay-for-content, the pay-for-knowledge mode gets lot of attention. A big number of Chinese knowledge economy companies reached significant achievements in 2017(iiMedia Research Group, 2017). For example, Ximalaya FM, a paid audio content company in China, got its sales reached 196 million RMB (nearly 24 million Euros) on its sales promotion season lasting for only 3 days. Many Paid Q&A communities, such as Fenda and Weibo Q&A, performed equally excellent as Ximalaya FM in 2017.

Unfortunately, the prevalence of paid Q&A did not last very long. Participation of users in paid Q&A communities decreased sharply in the end of 2017. Obviously this decreased usage of paid Q&A cannot be explained solely by one reason, such as the users' ultimate preference for free online content, since Berger, Matt, Steininger and Hess (2015) had concluded in a relevant research that besides cost of money, various factors lie behind user's willing to pay for online content. The boom of paid Q&A community and the quick cooling down of it has left questions in multiple research areas, including information system science. (Z. Hu, Zhang, Yang, Chen, & Zuo, 2017) Consequently, conducting an investigation in exploring factors influencing users' continuance intention to use paid Q&A is necessary.

1.1.2 Research significance

Knowledge economy is changing users' life styles at an unprecedented speed. Under this circumstance, paid Q&A quickly becomes popular as well as other knowledge economy products. Among users, the intention to continuing use paid Q&A is primarily decided by what user can do in paid Q&A, and scholars have accordingly concluded user behavior mode and showed three research areas highly related to this mode:

- Q&A system: paid Q&A is universally considered as a premium version of previous Q&A product, such as social Q&A, because they share a large number of similarities in function and mechanism. It is easy for users to accept a product similar to social Q&A, since the new product gives them new experience without requiring them to largely change their user habits.
- Paid subscription: paid Q&A is additionally another product of paid content. Paid content, or paid subscription, generally speaking, is more specific to satisfy user requirements and has higher quality than free content, because of the motivation of payment.
- Sharing economy: paid Q&A, just like Airbnb and OFO sharing bike, is a new form of economy sharing, which refers to enjoying life in a sharing then low-cost way. The unique attribute of knowledge makes content in paid Q&A be able to be shared and reused effectively without any loss or waste.

However, research, which aims at studying factors influencing intention to use paid Q&A, from a combined perspective of information system, paid subscription and sharing economy, is not sufficient. Most research on paid Q&A, which will be shown in section "Literature Review", focuses simply on one aspect of paid Q&A, which consequently leads to incomprehensive results.

Considering the outstanding achievements of knowledge economy in recent years and the huge potential of it in the future, setting about a systematical research studying factors

affecting user intention is of great importance. In this thesis, we base our research on the environment of paid Q&A communities and systematically build a model of factors affecting user's intention to use paid Q&A community. This research will ultimately offer theoretical guidelines for the development of paid Q&A and fill up a research gap in relevant area.

1.2 Research approach

In section "Research approach", part "Research question" raises the questions of this research; part "Research procedure" overviews the process of research and illustrates it with a flowchart.

1.2.1 Research question

In order to comprehensively investigate the thesis topic "factors influencing user's continuance intention on paid question and answer service", we raise the research question: "What influences users' continuance intention to use a paid Q&A community?"

1.2.2 Research procedure

In this thesis, after raising research questions, we start our research from literature review on paid Q&A as an information system, paid Q&A as a form of paid subscription and paid Q&A as a product of sharing economy. Then we will conclude factors mentioned in literature review, and build a modified model based on existing models and factors. We afterwards put our hands to an empirical study of these factors to exam our conjectural model. This study involves choosing target research objective users, framing a questionnaire, collecting data from questionnaire feedback, analyzing data, concluding research result. The research procedure can be illustrated as Figure 1-5.

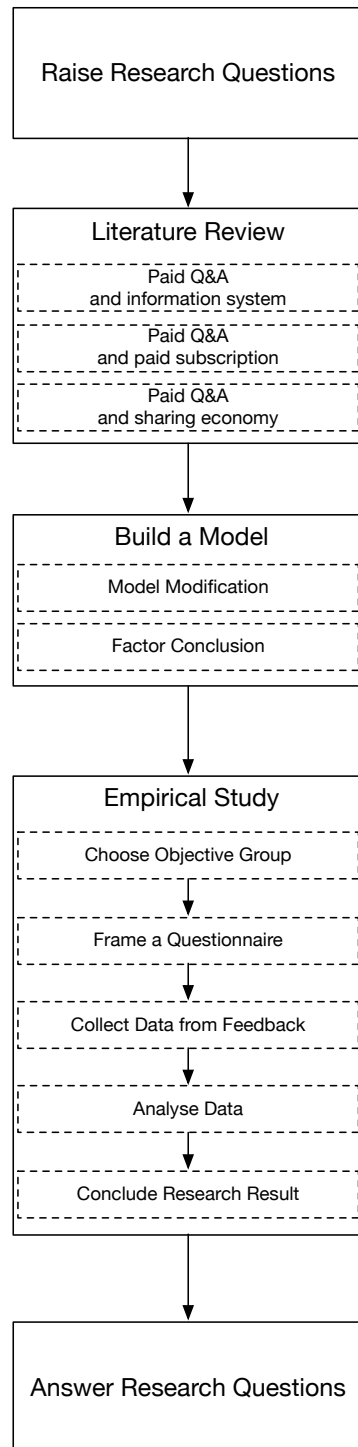


Figure 1-5 Research Procedure

2 LITERATURE REVIEW

2.1 Introduction of literature review

In this literature review, we review existing research on paid Q&A in 3 aspects. These aspects are information system, paid subscription, and sharing economy.

Literature review on paid Q&A as an information system reviews the mechanism of Q&A community, which is the best point in both understanding interactions between users and system, and user behaviors in using paid Q&A communities. Literature review on paid Q&A and paid subscription summarizes important discoveries in users' expectations to the content they pay for, preferences to choose content, and other factors related to paying for content. Literature review on paid Q&A and sharing economy sums up potential points attracting users to pay for answers and share knowledge in paid Q&A in respect of economic factors and social factors.

2.2 Paid Q&A and information system

In section "Paid Q&A and information system", we review research on paid Q&A community as an information system. The review involves paid Q&A concept, paid Q&A user behavior, and paid Q&A user experience.

2.2.1 *Conceptualization of paid Q&A*

Q&A community has been surprisingly popular and got great success in recent one and a half decades, since the introduction of Naver, the first Q&A community in the world, in 2002. Now Q&A community is prevalence in various countries, e.g. Quora in USA and Zhihu in China. Intense research has been put in studying this novel information system during these 15 years.

Research on Q&A community has harvested comprehensive conclusions on definition of Q&A community. Shah, Oh and Oh (2009) defined the Q&A community as a community offering users chances to use natural language to express their information requirements and encouraging users to take active part in knowledge sharing activities.

Generally speaking, Q&A community features 3 points: A Q&A community depends largely on collective wisdom in solving internet information problems (Lankes, 2004). In a Q&A community, answers can be commented, edited, rated and voted, therefore the community can offer users highly customized answers (Shah & Kitzie, 2012). In a community, voting, saving and sharing answers by users are encouraged (Blooma, Hoe Lian Goh, & Yeow Kuan Chua, 2012).

As for classification of Q&A service, Choi, Kitzie and Shah (2012) categorized four categories: first, community-based Q&A, which requires active participation by askers and answer providers; second, collaborative Q&A, which features editing questions and answers by collaboration between questioners and answerers; third, expert-based Q&A, which enables users to consult specific users for issues directly. Social networking Q&A

helps users seek information from their friends. These categories are not mutually exclusive, since they can co-exist in Q&A and be supplementary to each other. Paid Q&A is a combination of Q&A communities featuring expert consulting and social networking.

Value of Q&A community has been studied intensively as well as definition of Q&A community by some scholars. Blooma, Kurian, Chua, Goh and Lien (2013) not only defined Q&A community as a platform where asking, answering and rating occur, but also claimed that Q&A cooperation in social net can accelerate the construction of communities, improve self-identity and strengthen the intention of communication, then promote learning of users.

As an information system, Q&A community also got user interaction process researched deliberately. Zhang and Li (2010) illustrated the process of interactions in Q&A communities as Figure 2-1 below, and defined four roles of users in the process, including questioner, answerer, searcher and valuator. In this process, questioner raise questions and then evaluate answers from answerers, questioners will make evaluations if they are not satisfied with answers; other users can search existing questions and answers if they do not ask new questions.

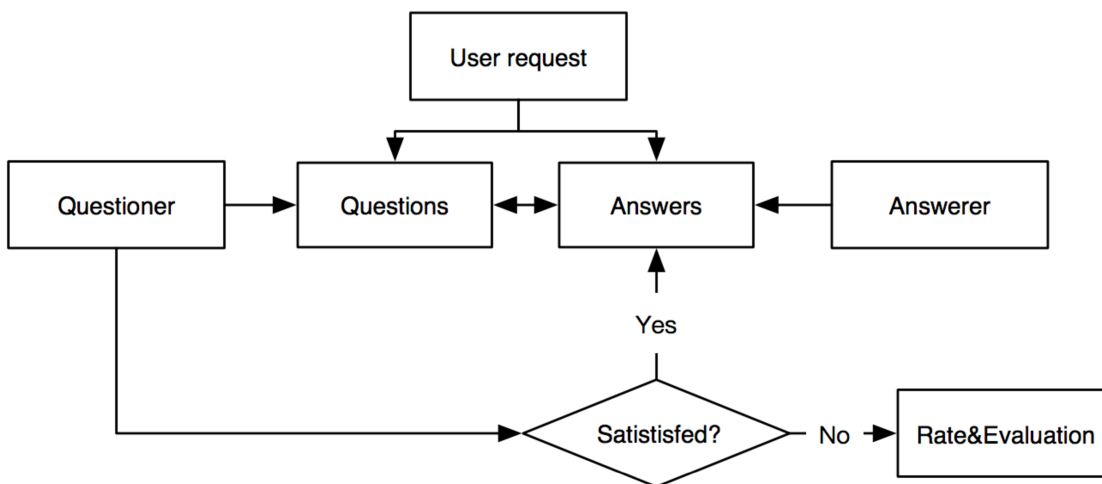


Figure 2-1 Interaction process in Q&A community (Zhang & Li, 2010, p. 19)

2.2.2 User behavior in paid Q&A community

Study of users in Q&A communities pays most attention to user behavior and experience in using communities. User behavior and experience, along with aspects in Interaction process in Q&A community mentioned in section “conceptualization of paid Q&A”, constitute most important factors influencing user intention to use paid Q&A in terms of information system.

Categories of user behavior, in Q&A communities, are various, yet can be classified mostly into two parts, learning and sharing. What is more, higher participation of users usually leads to a better performance in sharing knowledge in Q&A communities.(Nam, Ackerman, & Adamic, 2009)

Liu and Zhao (2017) defined user roles in paid Q&A communities in China as questioner, answerer and sharer, then illustrated user roles and interaction as Figure 2-2: Questioners ask and pay for questions to answerers, then answerers answer back with answers to questioners, while sharers can read resolved questions after paying sharing fees to questioners and answers.

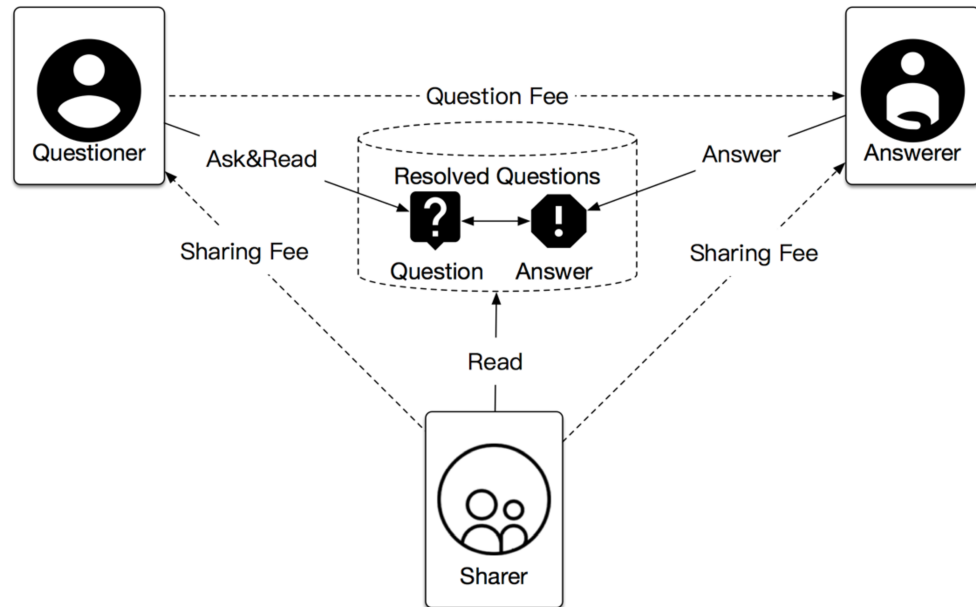


Figure 2-2 User roles in paid Q&A community (Liu & Zhao, 2017, p. 42)

Questioners choose target answerers based on topics and answerers they follow and recommendations from system, then they ask and pay for question to answerers, after they get and read answers they can comment, share and rate. Sharers choose resolved questions based on topics and answerers they follow and recommendations from system, then they pay for answers to questioners and answerers, after they get and read answers they can comment, share and rate. The payment of sharers goes to both questioners and answerers, and it is usually much lower than payment of questioners. (Liu & Zhao, 2017)

2.2.3 User experience in paid Q&A community

User experience was profiled recently by Minge and Thürin (2018) as a concept that includes perceived product quality and emotion when using products. The interrelationship between these two factors were examined in the research, findings showed that at early stage of usage visual attractiveness influenced perceived quality, while at later stage of usage the usability reversely affected emotion.

Research on user experience of Q&A system is mostly clustered in performance on seeking information, including retrieving performance, classification and recommendation performance.

Retrieving performance of a Q&A community can be specified as understanding requests, searching and responding relevant results. Yang, Lee, Park and Rim (2015) proposed a new approach to semantically transform nature language into logical language, and the approach outperformed previous methods. Jovita, Linda, Hartawan and Suhartono (2015) conducted an experiment aiming at improving retrieving most relevant information in Q&A communities by using a model named Vector Space, in the result of this experiment, expected information were able to be showed to questioners more accurately. Figueroa, Gómez-Pantoja and Herrera (2016) did a similar research on how to improve retrieving and displaying resolved questions by analyzing clicks on questions. These studies in depth help users improve user experience while searching for potential questions.

Classification and recommendation performance involves putting questions and answers into appropriate categories, and recommending them to potential appropriate users. Figueroa and Neumann (2014) made it possible to ameliorate system performance in assorting questions and answers into appropriate categories so that questioners could easily find out questions and answers in their favorite topic. Yan and Zhou (2015) improved Q&A system performance in recommending answer providers most related to askers by introducing a novel method, and extensive experiments had been conducted on Yahoo! Answers and Tencent Wenwen to prove this method reliable. Wu, Hori, Kashioka and Kawa (2015) introduced Question-Type-Specific Method (QTSM) classifying each type of questions automatically. Besides identification of common information of users, Figueroa (2017) made it possible to identify the gender of askers by analyzing linguistic factor in their answers and age, occupation, and industry of askers, hence more relevant content can be recommended to target users.

2.3 Paid Q&A and paid subscription

In section “Paid Q&A and paid subscription”, we review research on paid Q&A community as a paid subscription product. The review involves user attitude towards paying for online content, subscription content quality, subscription content provider and related factors influencing payment intention.

2.3.1 *Paid subscription and free mentality*

For online users, paying for online content or taking it for free, is a question which should be discussed comprehensively.

Dou (2004) described one prevailing kind of attitude towards online content among internet users, and named it as “Free Mentality”. Users with free mentality usually insist that any information in internet should be free. This attitude germinated and then became deep-rooted owing to not only the environment of the initial internet that anything is free but also the prevalence of free but illegal pirated content. Nearly ten years later, Lin, Hsu and Chen (2013) found that free mentality among users was still strong enough to negatively influence users’ intention in paying for online audio content.

Furthermore, there is a long accepted understanding of answer providers in Q&A communities, that answer providers offer help to questioners mostly because of knowledge self-efficacy and selflessness but not primarily because of economic benefits. (Bhattacharjee, 2001; Jin, Zhou, Lee, & Cheung, 2013; Limayem, Hirt, & Cheung, 2007)

It seems like that users have no need to pay for answers in terms of Q&A. However, valid research findings showed that asking questions with payment is still necessary.

Levinson and Stephen (2012) brought in a concept named “social cost” describing questioners’ potential expense, in terms of social relationship, when asking questions to other users. Specific constituents of social cost, such as face loss and information loss, are concluded and listed in Table 2-1 with corresponding situations by the author. Although social cost is not equal with monetary cost, it is still of indispensable importance to questioners. This research finding significantly reminds questioners they should still pay for asking questions even it is free in terms of money.

Table 2-1 Situations and corresponding social cost

Situation when asking questions	Social cost
The questioner is ignorant of the information needed, and the answerers is likely to know that.	The questioner may lose face due to his or her ignorance.
The questioner needs the information, and is concerned with the issue.	The questioner may get his or her privacy information leaked.
The questioner thinks the answerers are obliged to answer his or her questions.	The questioner may be misguided, and lose face.
The questioner expects that the answers are able to offer him or her helpful information.	The questioner may need to show clues that he or she trusts the answerers' answers.
The questioner needs to pay something for the information.	The questioner may give parallel information to the answerers.

Moreover, in the early research about quality difference between paid content and free content, Harper, Raban, Rafaeli and Konstan (2008) made a statement that answers in fee-based Q&A communities, e.g. Google answers, is generally better than that in free Q&A websites.

Both conclusions of above research highlight necessity of paying for answers if users have higher expectation on answer quality. As a consequence, from the perspective of paid Q&A, we will list previous research on aspects related to paid subscription, including content of subscription, source of subscription, and payment of subscription in this section.

2.3.2 *Content of subscription*

Content of answers is vital in knowledge seeking processes. Yan and Jian (2017) recently reported that fresh users in Stack Overflow, a programmer Q&A community, would be more motivated to continue seeking for knowledge if they were responded with high quality answers in the first place.

Research on content in paid Q&A focuses mainly on the evaluation of content quality. As early as 10 years ago, Kim, Oh and Oh (2007b) detected criteria applied when questioners selected answers in Yahoo! Answers from perspective of relevance research, and listed out seven value classes most frequently considered by questioners: content usefulness, cognitive value, socioemotional support, information source validity, extrinsic convenience, utility effectiveness and general statement. Later, Kim and Oh (2009) tested criteria found previously and proved them credible. Additionally, their findings in respect of correlation of criteria classes and question categories showed that socioemotional criteria were important in questions focusing on discussion, content-oriented criteria were important in topic-oriented questions, and utility were considered more frequently in questions for self-help. Research of these scholars on content quality evaluation paid attention to answers' contextual and social features, it established a foundation for later researchers.

Later research on content quality evaluation generated different opinions. Blooma et al. (2012) identified characteristics of high quality answers in Yahoo! Answer, the analysis result suggested that, in this research context, content evaluation factors—positive votes, integrity of answers, presentation styles, and credibility of information, and correctness to questions, were more important than contextual factors and social factors in

predicting high quality answers. However, Tian, Zhang and Li (2013) argued that, by analyzing factors in answers selected as the best answer in Stack Overflow, conclusions showed contextual information are more critical among factors when choosing the best answer for a question.

Considering that non-textual features has also been applied intensively in predicting answer quality, Liu, Feng, Liu, Hu and Wang (2015) and Hu et al. (2017) conducted experiments in making predictions of the content quality of answers in a health expert Q&A community based on a model combining textual features and social features as well.

Scholars showed their interest not only in answers but also in questions in Q&A communities. Yao et al. (2015) explored the correlation of answer voting scores and question voting scores as well, while the research focused on popularity of questions and quality of answers, in the conclusion novel algorithms were introduced to predict potential popular questions and high quality answers. Palomera and Figueroa (2017) explored relationship between information seeking questions as well as social networking questions, and found that information seeking questions were more easily to get answers while more social networking questions were asked. Elalfy, Gad and Ismail (2017) tried to predict high quality answers by a mixed model. This model consisted of two models, one of them was constituted of question-answer feature, answer content feature, and answer-answer feature; another one consisted of non-content feature. Liu, Shen and Yu (2017) represented that, in research on question and answer quality in Q&A communities, not only answer-related factors but also question-related factors matter in seeking satisfied information. Those question-related factors are additional detailed information, category classification and ranking of best answerers. This conclusion contributes to additionally emphasizing importance of studying questions in Q&A communities, including categories and asking strategies.

2.3.3 Provider of subscription

Beside seeking for high quality answers, it is also of great importance to find people who are willing to offer help and be able to help. In the process of seeking information, users care about not only the quality of information but also the provider of information, i.e. the answerer.

High quality content in Q&A communities is not distributed consistently, on the contrary, it is provided by a small number of answer providers and clustered together in certain categories (Shen, Li, Liu, & Grant, 2015). Moreover, the rate of response of questions are usually very low in most Q&A communities. Therefore, finding a target user to ask questions is probably more effective than asking a question in public and waiting for answers.

Procaci, Siqueira, Braz and de Andrade (2015) named users, who have intention in answering questions or are capable to provide high quality answers, as reliable users, and introduced strategies for questioners to find reliable users. Considering that answer providers from different area share knowledge in various ways, Gazan (2007) introduced two kinds of answerers, specialist and synthesizer, in research of Answerbag. Answers of specialists, who tagged themselves as being professional in specific area and answered questions without references, were rated more highly within certain categories than that of synthesizer; meanwhile answers of synthesizer, who answered with single or multiple references, were rated more highly than that of specialists with the community as a whole. As a conclusion, questioner' satisfaction differs when source of answers changes.

Research on finding people who is able to help is intensive. Liu and Jansen (2017) shed light on how to predict if a user is willing to help by analyzing his self-introduction, posting preferences, writing style and social activity participation. Attiaoui, Martin and Yaghlane (2017) erewhile proposed a belief measure to predict which user was with greatest potential to offer high quality answers in Stack Overflow Q&A. A learning frame was presented by Neshati, Fallahnejad and Beigy (2017) to detect and rank experts in Stack Overflow, four feature groups were tested to be beneficial in detecting and ranking expert: theme sameness, emerging themes, behavior of users, and theme transition.

2.3.4 Other factors influencing subscription payment

Existing research also reveals factors influence customers' intention to pay for content in paid Q&A, besides content and source of subscription.

First, current research shows that performance of system critically influences user intention to pay for online content.

The purchasing action will be improved by convenience of purchase process, and customers will browse and purchase more frequently if they are using websites designed in more friendly ways (Ilfeld & Winer, 2002). The population of customers with intention in paying for internet information is as well in direct proportion to the convenience in using online websites (Wolk & Theysohn, 2007). Playfulness, visual factors, and social profile expression could as well influence users to pay for online content (H.-W. Kim, Gupta, & Koh, 2011).

Additionally, risk of transactions will also play an important role in payment process, since high safety level in aspects of finance and private information in online transactions will encourage more online transactions (Dou, 2004). Hsiao (2011) represented that, in finding of factors affecting users' payment intention for online services, realized value and service decline barriers were primary direct determinants. The finding also reported that, realized payment, enjoyment, and social value influenced realized value, while sunk costs and lost performance influenced service decline barriers, and age, gender, and usage time were control variables for intention to pay. The willingness of payment is also positively affected by the system's convenience, necessity, additional value, and quality of service, and by the users' usage frequency of the service but negatively related to the noticed unfairness in a subscription-based online service model (C. L. Wang, Ye, Zhang, & Nguyen, 2005). It is also found that the number of trustable reviews is in direct proportion to the intention to buy (Jiménez & Mendoza, 2013). Hsu and Lin (2016) represented in their research result that stickiness affect users' willingness in making in-app purchases critically. Goyanes [55] made a report of factors affecting willingness to pay for online content to stated that, besides user age and user income, content topic was an important factor either. Being contrary to some research findings, this research found that entertainment online content was more apt to be paid for by users than knowledge content.

Second, subscription behavior will also be affected by user characteristics.

Experienced users who have already paid for content in the internet will less likely to be confused when experiencing payment process (OCass & Fenech, 2003). Goyanes (2006) gave a same conclusion that social media usage was as well an important factor in promoting users to pay for online content. Financial support was discovered to be significant as well as experience in positively influencing intention to pay for online content (Horng, Lee, & Wu, 2016). Punj (2013) likewise raised similar questions, and findings of his research answered those questions by showing that willingness to pay is highly related with age and gender, while amount of payment is more related to income and

education. Wu, Chien and Liu (2017) verified a model demonstrating how various factors found in the research motivated users to pay for online content. The process showed that self-evaluation, internet purchase conformity and social identity positively affected emotion, then user trust motivated by positive emotion ultimately influenced the intention to pay positively.

Third, device type also plays a dispensable role in affecting payment intention.

Since the same content can be showed in different forms in different devices, consumers' purchasing intention to buy the same content differ in different devices. Particularly speaking, the intention in paying for content more credible and more timely was generally higher in mobile devices than that in personal computers. Moreover, the general switching costs through mobile channel were far higher than that through personal computer channel. (D. Kim & Sugai, 2008; Shi, 2009)

2.4 Paid Q&A and sharing economy

In section "Paid Q&A and sharing economy", we review research on paid Q&A community as a way of sharing economy. The review involves economic factors and social factors influencing users when use paid Q&A.

2.4.1 Economic factors

Sharing economy involves collaborative consumption, an activity involving receiving, giving and sharing virtual goods or service among online users. Collaborative consumption ultimately reduces pressure of over purchasing and lowers expenses. Hence economic gains as well as participation endurance and delight of participation are indispensable factors motivating users to participate in purchasing in paid Q&A. (Hamari, Sjöklint, & Ukkonen, 2015) This research emphasizes the benefit of low cost in sharing economy.

2.4.2 Social factors

Sharing economy is inevitably related to social actions. Moreover, Rechavi and Rafaeli (2012) classified activities co-existing in Q&A into two categories, one of them was called information seeking, which simply aimed at obtaining information, and another one was named social networking, which aimed at any social activity else than seeking information. Social networking is apparently a crucial factor for participation in paid Q&A.

Oh (2011) introduced that, rather than economic gains, exchange benefits and reputation, people's intention in sharing useful information with others is more likely to be motivated by selflessness or enjoyment. Therefore, users' intention to use paid Q&A, as a way of sharing economy, can be critically driven by social factors.

Previous research does show that social factors play significant role in improving users' learning outcomes, which could highly motivate questioners in Q&A communities. Yu, Tian, Vogel and Kwok (2010) took learning behaviors of students in Facebook as an example to verify that online social networking learning can directly improve learning outcomes of students in social communities. Five years later, a research in Universiti

Teknologi, Malaysia showed that learning collaboratively and participation in learning, through social networking, could still positively and significantly impact users' learning outcome (Al-rahmi, Othman, & Mi Yusuf, 2015). Besides, Hsu et al. (2016) represented in their research that social identification significantly affects users' intention to use paid app.

2.5 Summary of literature review

In chapter "Literature review", we review existing research on paid Q&A in three aspects: information system, paid subscription and sharing economy.

In section "Paid Q&A and information system", we review the conceptualization of paid Q&A, user behavior and user experience in Q&A. The retrospective conclusion to this review shows that, as a type of information system, paid Q&A has been intensively studied in terms of Q&A service. The study of paid Q&A is clustered in user behavior, and user experience corresponding to it. After the review, we conclude several potential factors, such as retrieve performance and recommendation performance of paid Q&A, which are influential to continuance intention.

In section "Paid Q&A and paid subscription", we first review the definition of paid subscription and a prevalent attitude towards it, i.e. free mentality, from users; then we review research on content, content provider and other related factors. We first show the definition and significance of paid subscription: even the belief that online content should be taken for free is rooted in most users' brain, it seems like paying for online content is necessary and inevitable. In the retrospection we afterwards find the divergence in terms of user requests in seeking for information: some focuses on content quality while some prefers content providers. We additionally find that, when purchasing online content, users are more apt to pay for enjoyment than for professional skills. Factors improving payment intention are also concluded.

In section "Paid Q&A and sharing economy", sharing economy's recent research status is reviewed. We get few yet irradiative information from previous research on paid Q&A as a way of sharing economy. We find that, as a way to both reduce purchasing fee and improve social networking, sharing feature of paid Q&A could be potential significant factors to customers' continuance intention.

We additionally find that in most research aiming at exploring factors driving users' intention in using any information system, usefulness is studied most frequently, this implies that previous research pays more attention to utility but less to enjoyment of using a system. We will fill in this research gap in this research.

3 RESEARCH MODEL AND RESEARCH HYPOTHESIS

3.1 Research model

In section “Research model”, Value-based Adoption Model (VAM) is firstly introduced as the theory foundation of this research, after the introduction a modified model based on VAM is represented to be applied as research model in this thesis.

3.1.1 Value-based adoption model

Aiming at exploring users’ acceptance of Mobile online services from the perspective of value, Kim, Chan and Gupta (2007a) developed a model named Value-based Adoption Model, i.e. VAM. VAM has four main constructs, which are *benefit*, *sacrifice*, *perceived value* and *adoption intention*. In construct *benefit*, there are extrinsic and cognitive benefit, i.e. *usefulness*, and intrinsic and affective benefit, i.e. *enjoyment*; in construct *sacrifice*, there are non-monetary sacrifice, i.e. *technicality*, and monetary sacrifice, i.e. *perceived fee*. Figure 3-1 represents the relationship of each construct in VAM: each construct in benefit and sacrifice influence perceived value directly, afterwards perceived value exerts positive influence on adoption intention directly. The VAM has been intensively applied and proved to be reliable in study on users’ acceptance of new technology(K.-Y. Lin & Lu, 2011; Mallat, 2007; Venkatesh, Thong, & Xu, 2012).

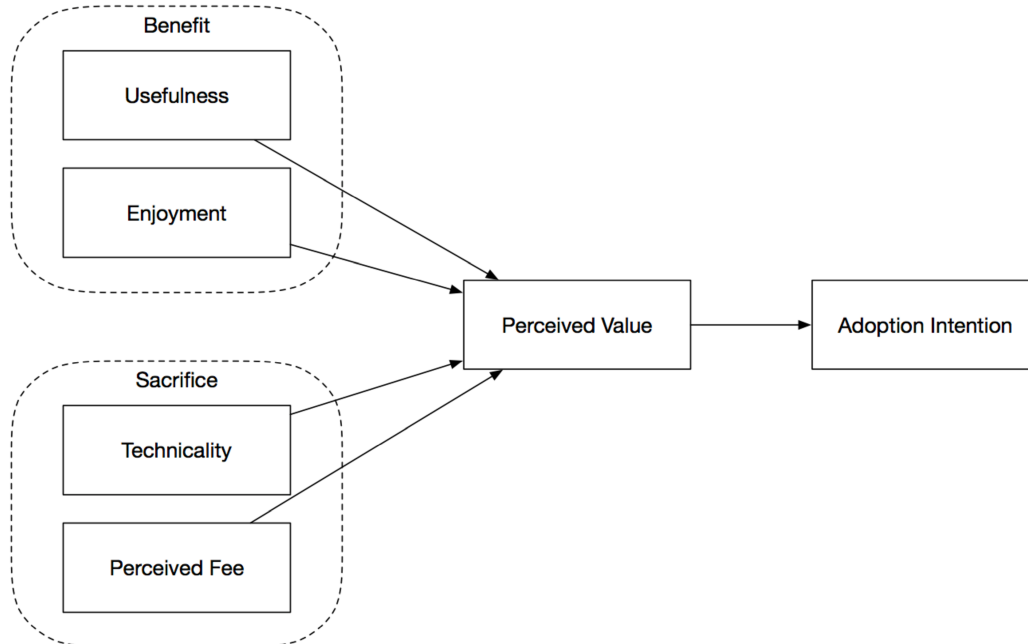


Figure 3-1 Value-based adoption model (H.-W. Kim et al., 2007a, p. 115)

The developer implied that “VAM performs better in explaining the adoption of new ICT like Mobile Internet by customers than TAM, because customer choice and behavior are mainly determined by value of the choice object” (H.-W. Kim et al., 2007a, p. 122). This implication verifies that although it was claimed that “VAM explains customers’

Mobile Internet adoption from the value maximization perspective”(H.-W. Kim et al., 2007a, p. 111), VAM can still be applied in research on adoption of NEW technology other than Mobile Internet, such as paid Q&A, since from value perspective, paid Q&A is highly coherent with most Mobile Internet products.

3.1.2 Modified model based on VAM

We extract constructs and relationship between each construct from VAM, and build a modified model. This revised model has six constructs: *content quality*, *answerer quality*, *community atmosphere*, *perceived fee*, *perceived enjoyment* and *continuance intention*. Content quality and answerer quality are categorized as perceived benefit, and perceived fee is classified as perceived sacrifice. We use content quality and answerer quality to take place of usefulness, combine enjoyment and perceived value together, and use community atmosphere to take place of technicality after moving it out of the category perceived sacrifice. In this modified model, we view perceived enjoyment as a critical value that influences users’ continuance intention.

As represented in Figure 3-2, we hypothesize that, content quality and answer quality influence perceived enjoyment both directly and indirectly(through community atmosphere); perceived fee exerts direct impact on perceived enjoyment and continuance intention; perceived enjoyment exerts influence on continuance intention directly; education suppresses the influence of content quality and answerer quality on perceived enjoyment; gender suppresses the influence of perceived enjoyment on continuance intention; income suppresses the influence of perceived fee on continuance intention. Detailed explanations of each construct, hypotheses and supporting material will be listed in section “construct definition and hypothesis”.

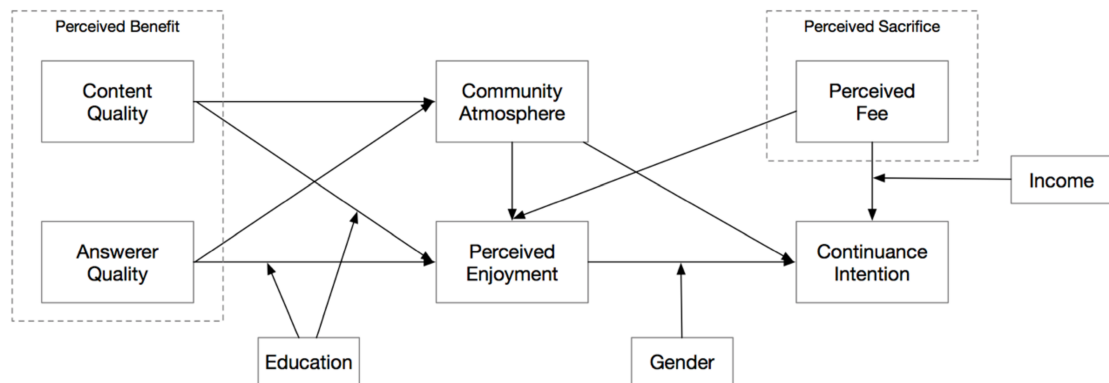


Figure 3-2 Research model

3.2 Construct definition and hypothesis

In section “Construct definition and hypothesis”, definitions and related previous research of constructs are represented, and hypotheses about relation between constructs are attached behind the definitions. Then two tables and a figure are made to conclude definitions and hypotheses.

3.2.1 *Content Quality(CQ)*

Content Quality(CQ) refers to the value delivered by the content and finally perceived by readers. CQ can be viewed as either quality of a paid Q&A product or a type of tangible benefit of paid Q&A.

Scholars conceptualized product quality as the degree in satisfying users' requests, it stands for the tangible advantages and merits of a product (Steenkamp, 1990). In VAM theory, perceived benefit is introduced to represent value received by users from a product or service, both extrinsically and intrinsically.(H.-W. Kim et al., 2007a) This classification of benefit is not novel, the Cognitive Evaluation Theory(CET) had viewed users' motivations from the extrinsic and intrinsic perspectives in 1971. In the CET's context, extrinsic motivation means the tangible outcome assisting to reach a goal; while intrinsic motivation refers to the intangible outcome assisting the process of reaching a goal. (Deci, 1971).

Q&A community is long described as a place of sharing collaborative information, which can be mostly understood as knowledge. Therefore, in the paid Q&A context, product quality is the answer content quality, i.e. the quality of knowledge shared by contributors.

As mentioned in previous research, product quality has been tested to be positively influential to perceived value, which refers to perceived enjoyment in this thesis, and consequently enhance the overall evaluation of a system (Dodds, Monroe, & Grewal, 1991). Therefore, in this thesis, we develop this conclusion and hypothesize that:

H1a. *Content quality has positive influence on perceived enjoyment, and the influence of content quality on perceived enjoyment is moderated by user's education background.*

H1b. *Content quality has positive influence community atmosphere.*

3.2.2 *Answerer Quality(AQ)*

Answerer Quality(AQ) can be explained as the answer providers' excellences and superiorities which are showed directly or indirectly in their answer content. The perceived benefit of paid Q&A consist of various factors, quality of answer is supplementary to quality of content, it stands for both the tangible and intangible part of perceived benefit.

In paid Q&A context, answerer delivers both intangible value, such as positive attitude and trust, other than obvious value in content, and tangible value, such as perceived effort, quick ness and expertise. Quality of answer stands for this supplementary value offer by content contributors which cannot be delivered solely by content per se. Contributors who have high quality can be named as reliable user, expert, or opinion leader. (Corey, 1971; S. Kim et al., 2007b; Mayer, Davis, & Schoorman, 1995; Procaci et al., 2015)

Previous research has shown that merits of answerers have positive influence on perceived enjoyment, and additionally improve the users' feeling when using this product.(Y. Zhang, Peng, & Liu, 2018) Therefore, we develop this conclusion and speculate that:

H2a. *Answerer quality has positive influence on perceived enjoyment, and the influence of answer quality on perceived enjoyment is moderated by user's education background.*

H2b. *Answerer quality has positive influence on community atmosphere.*

3.2.3 *Community Atmosphere(CA)*

Community Atmosphere(CA) refers to the perceived overall feeling in using paid Q&A. CA can be understood as a type of hybrid and intangible feeling users experience in terms of both sacrifice and benefit, it is derived from various constructs, such as technicality in VAM and social influence in UTAUT model. (H.-W. Kim et al., 2007a; Venkatesh, Morris, Davis, & Davis, 2003)

Technicality refers to the degree of convenience perceived by users in using a product or an information system. Technicality consists of two parts in respect of performance of a product or an information system: convenience and reliability. Convenience stands for the perceived relief of effort in the usage of products or information systems, such as difficulty in adapting into the community. Reliability is usually defined as system quality, and evaluated by the extent of performance advantages in offering services, e.g. information safety or information timeliness. Social influence refers to a user's feeling that people who have social influence on him or her believe he or she should use this product. (F. D. Davis, 1989; DeLone & McLean, 1995; Venkatesh et al., 2003)

Previous research has adequately verified that, both intrinsic benefit and social influence influences continuance intention and perceived enjoyment. (Babin, Darden, & Griffin, 1994; Dube-Rioux, 1990; Moore & Benbasat, 1991; Rogers Everett, 1995; L. Wu, Bo, & Dan, 2018) Therefore, we make hypotheses that:

H3a. *Community atmosphere has positive influence on perceived enjoyment.*

H3b. *Community atmosphere has positive influence on continuance intention.*

3.2.4 *Perceived Fee(PF)*

Perceived fee can be explained as the monetary cost which is necessarily spent in using paid Q&A. In VAM model, monetary sacrifice is one type of sacrifice in category perceived sacrifices.(H.-W. Kim et al., 2007a; Thaler, 1985; Zeithaml, 1988).

Perceived sacrifices, which represent users' cost expectation of using a product or an information system. Perceived sacrifices can be money or other valuable resource of users. Monetary cost of a product refers to all potential fee related in using it, and the cost is usually evaluated based on the price of a product.(Andersson & Heinonen, 2002; Vrechopoulos, Constantiou, Mylonopoulos, & Sideris, 2002) The most obvious cost in using paid Q&A is the fee for questions.

According to Kim, Chan and Gupta (2007a) and Li, Hu and Ji(2018), perceived fee is negatively related to perceived enjoyment and continuance intention. Therefore, we hypothesis that:

H4a. *Perceived fee has negative influence on perceived enjoyment.*

H4b. *Perceived fee has negative influence on continuance intention, and the influence of perceived fee on continuance intention is moderated by user's income.*

3.2.5 *Perceived Enjoyment(PE)*

Perceived Enjoyment(PE) refers to a type of emotional value that users experience in the process of using an information system or a product. In this thesis, since we have combined perceived enjoyment perceived value together as a unified construct, PE can be explained as either a type of intangible benefit of paid Q&A, or a type of perceived value. Usually, users experience emotional feelings when they are in the process of value delivery between products and users. These feelings could influence the delivery process negatively or positively. Enjoyment can be understood as the degree of emotion's positive influence on the delivery process of value. (F. D. Davis, Bagozzi, & Warshaw, 1992; Sweeney & Soutar, 2001)

In the paid Q&A context, enjoyment refers to the degree of relief and fun which experienced by users in the process of dealing with paid Q&A system. Previous research on enjoyment's influence has shown that users will use a product more frequently and intensively than other products if the enjoyment experienced in using this product is higher than that of other products. This conclusion shows that enjoyment has positive influence on continuance intention.(F. D. Davis, 1989)

As a consequence, we hypothesize that:

H5. *Perceived enjoyment has negative influence on continuance intention, and the influence of perceived enjoyment on continuance intention is moderated by user's gender.*

3.2.6 *Summary of construct definitions and hypotheses*

To make the content open and shut, we conclude constructs and corresponding definitions in Table 3-1.

Table 3-1 Construct definitions

Construct	Definition
Content Quality (CQ)	The value originally delivered by the content and finally perceived by readers
Answerer Quality (AQ)	The answer providers' excellences and superiorities which are showed directly or indirectly in their answer content.
Community Atmosphere (CA)	The overall feeling perceived by users when they use paid Q&A.
Perceived Fee (PF)	The monetary cost which is necessarily spent in using paid Q&A.
Perceived Enjoyment (PE)	A type of emotional value that users experience in the process of using an information system or a product.
Continuance Intention (CI)	The degree to which the users think that they are likely to continue using paid Q&A.

We then list hypotheses and related constructs in Table 3-2.

Table 3-2 Hypotheses and references

Hypothesis	Related Constructs
H1a Content quality has positive influence on perceived enjoyment, and the influence of content quality on perceived enjoyment is moderated by user's education background.	CQ→PE; Education
H1b Content quality has positive influence community atmosphere.	CQ→CA
H2a Answerer quality has positive influence on perceived enjoyment, and the influence of answer quality on perceived enjoyment is moderated by user's education background.	AQ→PE; Education
H2b Answerer quality has positive influence on community atmosphere.	AQ→CA
H3a Community atmosphere has positive influence on perceived enjoyment.	CA→PE
H3b Community atmosphere has positive influence on continuance intention.	CA→CI
H4a Perceived fee has negative influence on perceived enjoyment.	PF→PE
H4b Perceived fee has negative influence on continuance intention, and the influence of perceived fee on continuance intention is moderated by user's income.	PF→CI; Income
H5 Perceived enjoyment has negative influence on continuance intention, and the influence of perceived enjoyment on continuance intention is moderated by user's gender.	PE→CI; Gender

Finally, we illustrate hypotheses and constructs in Figure 3-3.

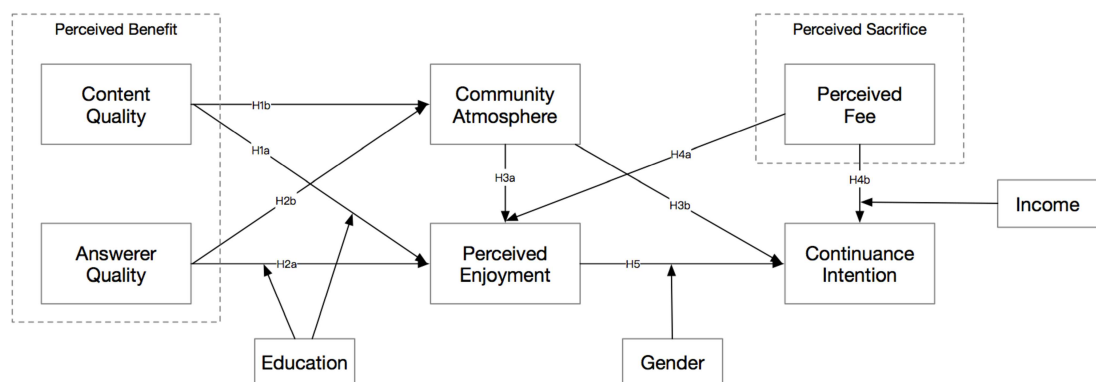


Figure 3-3 Hypotheses of research model

4 RESEARCH METHOD AND RESEARCH STRATEGY

4.1 Research method

In section “Quantitative research method”, quantitative research method and the reason of selecting quantitative research method is introduced.

4.1.1 *Research method types*

There are two types of research method usually conducted in IS research, qualitative research method and quantitative research method. Qualitative method usually pays more attention to provide deep insights on the investigated subject but not to test hypotheses, hence it gathers data from various source and barely builds its research structure on theory. Quantitative, on the contrary, focuses on proving or confirming speculations which are built on theories, with the help of quantitative data analysis methods, such as structural equation modelling (SEM).(Bhattacharjee, 2012).(McLeod, 2011)

To summarize, qualitative research is more appropriate in exploring for an in depth conclusion while quantitative research is more suitable in verifying hypotheses which constitute only parts of issues.(Myers, 1997)

4.1.2 *Quantitative research*

Pinsonneault and Kraemer (1993) stated that quantitative research is most appropriate in exploring “how and why is it happening” and “what is happening” if the phenomena studied happens during the survey or happened before the survey.

This description fits the research topic “factors influencing user’s continuance intention” in context of this thesis, therefore, we conduct a quantitative research to achieve our research goals.

4.2 Survey strategy

In section “Survey strategy”, survey approach type and sampling strategy are introduced based on the feature of research in this thesis and previous research.

4.2.1 *Survey approach*

There are two ways of survey approach, cross sectional research or longitudinal research. Longitudinal research is a classical design which collects data for at least twice, while cross sectional research collects data at one time. That is because longitudinal aims at exploring change, development or process, while cross sectional research aims at concluding the past(Pinsonneault & Kraemer, 1993)

The research focuses on examining customers' feelings based on previous experience, and this description of research object fits that of cross sectional approach, which excludes explicit attention from the time dimension. Therefore, we also conduct a cross sectional approach, to realize our research aim.

4.2.2 *Sampling strategy*

In this thesis, we choose individual users of paid Q&A and analyze them as the units in studying continuance intention.

According to Pinsonneault and Kraemer (1993), researchers can take either individuals or groups of individual as the units in research analysis. In this research, we are exploring reasons why users continue using paid Q&A services, i.e. factors influencing users' continuance on paid Q&A services. The research is based on feelings and experience of users, therefore, taking individual user as the unit and analyzing feeling of each user can best reveal the real condition of users' continuance intention on paid Q&A.

To be more specific, we choose customers in Weibo Paid Q&A (WPQA) as the sample of our research.

WPQA is a paid question and answer service provided by Sina Weibo, which is the biggest social media company in China. WPQA came into the market in December of 2016, and it serves customers as a supplementary function to Weibo, the most famous short blog social media service in China which has more than 376 million active users in every month. Based on the biggest social media platform in China, WPQA easily becomes one of the most famous paid Q&A products. The function and system of WPQA are almost the same as most mature and stable paid Q&A products. WPQA covers almost all types of topics related to users in social media, e.g. art, movie, celebrity and sports, and has registered experts corresponding to those topics. Considering the large quantity of users, the complete service system and the broad coverage of topics, choosing users in WPQA as the research sample is appropriate.

5 DATA COLLECTION AND DATA ANALYSIS

5.1 Design of data collection and analysis

In section “Design of data collection and analysis”, data collection strategy and data analysis strategy are introduced.

5.1.1 Data collection strategy

We conduct survey questionnaires in Wenjuanxing¹, a public survey website in China, to collect data analyzed in this research. Test takers of these surveys are all internet users recommended by Wenjuanxing randomly. The questionnaires conducted in this research consists of two parts.

The first part is “background information”, it collects test takers’ background information such as gender, age, education level, income, and usage. To be specific, choices of gender are “male” and “female”; choices of age are “less than 18 years”, “18-25 years”, “26-35 years”, “36-45 years”, “46-55 years” and “over 55 years”; choices of education level are “Other”, “High school or vocational school level”, “Bachelor level”, “Master level” and “PhD level”; choices of income are “less than 1000¥CNY”, “1000-2500¥CNY”, “2500-5000¥CNY”, “5000-10000¥CNY” and “more than 10000¥CNY”; choices of usage are “never”, “less than once a month”, “about once a month” and “more than twice a month”.

The second part is “direct determinants”, which collects test takers’ attitude towards statement of WPQA based on their prior experience, a Likert-scale which contains five statements (strongly disagree, disagree, neutral, agree and strongly agree) is used to measure each answer.

5.1.2 Data analysis strategy

In this research, Structure Equation Modeling (SEM), which refers to an effective method for analyzing multivariate data, especially for theory testing, is selected as the analysis method to analyze model and hypotheses in this thesis.

To enhance the persuasion of research result, we conduct a research involving both exploratory and confirmatory approaches. We firstly use a pretest survey to test the factors based on our conjectures which are derived from previous theoretical hypotheses and research model; we afterwards revise our conjecture and corresponding factors with the help of feedback in the exploratory approach, and deploy the final questionnaire to confirm the hypotheses and model in a confirmatory approach.(Horng, 2012)

The exploratory approach is conducted by using a data analysis software named SPSS; the confirmatory approach is with the help of a data analysis software named Smart-PLS.

¹ <https://www.wjx.cn/>

5.2 Pretest of research

In section “Pretest of research”, a pretest survey questionnaire is firstly developed, factors in this pilot survey come from theoretical conclusions derived previously in chapter 2 “Literature Review”; then an EFA to examine hypothesis factors is conducted and revisions of factors based on the result of EFA is made.

5.2.1 Pretest survey questionnaire

We conclude 34 factors from chapter 2 “Literature Review”, then we develop a pretest questionnaire (see Pretest questionnaire in Appendices), and use the feedback to conduct an Exploratory Factor Analysis(EFA) before the final survey questionnaire.

5.2.2 Exploratory Factor Analysis

After the distribution of survey questionnaire, we get 134 questionnaire feedbacks. To make the analysis result more convincing, we delete feedbacks which are finished in 90 seconds and feedbacks which are finished over 600 seconds, since these feedbacks may not be completed seriously, and we deleted feedbacks which answer “No” in question “Have you used WPQA before?”, since only users who have used WPQA can be taken into consideration in this research. After filtering the data, there are 86 feedbacks.

Exploratory factor analysis (EFA) refers to a method in statistics which is conducted in exploring the potential correlations of a large number of variables. Factors will automatically cluster together if they have underlying relations after EFA. It is widely used by scholars who want to explore but not to confirm latent connections of factors, especially when they have no hypothetical models.(Fabrigar, Wegener, MacCallum, & Strahan, 1999; Finch & West, 1997; Norris & Lecavalier, 2010)

These 34 questions are raised based on factors related to users’ continuance intention on paid Q&A, but they and their relationships have not been tested to be reliable and valid explanation elements in this research. Therefore, an EFA is indispensable to act as a pretest. We use factor analysis in SPSS to conduct the EFA in this research, the analysis will output Rotated Component Matrixes as results.

From the result of the EFA pretest, we find that many components in the 1st EFA Rotated Component Matrix (see Table 5-1), cannot meet the lowest requirements, which refers to that there should be one and only one component, of each factor, which is above 0.6 in the matrix. Then those factors which cannot meet the requirements should be deleted or revised.

Table 5-1 The 1st EFA Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
F34	.727						
F25	.705						
F27	.599						
F8	.593					.494	

F28	.582								
F1	.554		.408	.413					
F14	.533		.452						
F5	.502								
F32	.483			.462					
F4		.672							
F24		.593			.517				
F20		.561							
F31	.518	.555							
F13		.523			.454				
F22		.511							
F16		.503							
F21		.497							
F11		.474							.400
F26			.751						
F9			.694				.404		
F29			.618						
F23			.562	.470					
F15		.488	.535						
F6		.406	.456						
F12				.661					
F7				.647					
F3				.546	.478				
F19		.417		.428					
F30					.737				
F33					.670				
F17							.729		
F2							.497		
F10							.473		
F18									.736

5.2.3 Revision of factors

After deleting most useless factors, there are eighteen factors remain in the list. The 2nd EFA Rotated Component Matrix shows that most of them meet the lowest requirements (see Table 5-2). These eighteen factors are combined with research model and used as items in section part 5.3.1 “Final survey questionnaire” to form constructs of the final questionnaire.

Table 5-2 The 2nd EFA Rotated Component Matrix^a

	Component				
	1	2	3	4	5
F34	0.768				
F27	0.754				
F33	0.643				
F15	0.603				

F16	0.592		
F14	0.592		
F9		0.768	
F13		0.705	
F24		0.634	
F19			0.727
F4			0.676
F5			0.607
F7			0.535
F25			0.734
F10			0.657
F2			0.612
F18			0.853
F17			0.833

5.3 Revised test of research

In section “Revised test of research”, the final survey questionnaire is developed based on the factors extracted in part 5.2.3 “Revision of factors” and model in 3.1.2 “Modified model”. After getting feedbacks of the final survey finally, a confirmatory factor analysis is employed to test the relevant quality, for instance, reliability and validity, cross loading and so on, of collected data.

5.3.1 Final survey questionnaire

After the revision based on result of section “Exploratory Factor Analysis”, we develop the final research questionnaire(see Final survey questionnaire in Appendices) and list the constructs, items and references in Table 5-3. The constructs are derived from part 3.1.2 “Modified model” and the items are derived from factors concluded in part 5.2.3 “Revision of factors”.

Table 5-3 Constructs and items

Construct	Item	Reference
Content Quality (CQ)	CQ1: The content is easy to understand.	(Chiu, Hsu, & Wang, 2006; F. D. Davis, 1989; S. Kim et al., 2007b)
	CQ2: The content is complete.	
	CQ3: The content is relevant to the questions.	
	CQ4: The content is easy to implement.	
Answerer Quality (AQ)	AQ1: Answerers provide references to a worthwhile resource for me to check out.	(S. Kim et al., 2007b)
	AQ2: I can feel answers' effort in their answers.	
	AQ3: Answerers are relevant to my questions' area.	
	CA1: Answerers in the community are professional.	
	CA2: Information in the community is up-to-date.	

Community Atmosphere (CA)	CA3: There are famous people I like in the community.	(Ajzen, 1991; S. Kim et al., 2007b; Thompson, Higgins, & Howell, 1991)
Perceived Enjoyment (PE)	PE1: I have fun interacting with WPQA PE2: Using WPQA gives me a lot of enjoyment. PE3: I enjoy using WPQA.	(Agarwal & Karahanna, 2000)
Perceived Fee (PF)	PF1: The fees for asking questions are too high (the price is determined by answerers). PF2: The fees for sharing questions are too high (the price is normally 1¥ CNY).	(Voss, Parasuraman, & Grewal, 1998)
Continuance Intention (CI)	UI1: I will continue using WPQA in the future. UI2: I will use WPQA more frequently in the future. UI3: I will use and recommend WPQA to my friends in the future.	(F. D. Davis, 1989) & developed.

5.3.2 Confirmatory Factor Analysis

After the distribution of survey questionnaire, we get 452 questionnaire feedbacks. To make the result more convincing, we deleted feedbacks in the same way as mentioned in the EFA. After filtering the data, there are 200 feedbacks.

Confirmatory factor analysis (CFA) refers to a type of method in analyzing data which focuses on testing or confirming if the relation of constructs fit hypothetical model. It is used to verify if the researchers' understandings of a model or constructs is consistent with the real relations between constructs. (Kline, 2011; Preedy & Watson, 2010)

We use PLS Algorithm in Smart-PLS to conduct the CFA in this research. The algorithm will analyze data and output construct reliability and validity, discriminant validity of constructs and cross loadings.

First, we examine the construct reliability and validity of the final survey questionnaire. It is suggested that, if a construct's value of Cronbach's Alpha is above 0.6, the value of composite reliability is more than 0.7 and the value of AVE is more than 0.5, then the construct is of acceptable reliability and validity. (R. Cheung & Vogel, 2013; D. J. Kim, Ferrin, & Rao, 2009; Shiao & Luo, 2013)

The test result showed in Table 5-4 represents that every constructs' Cronbach's Alpha value is above 0.6, most constructs' composite reliability value are all above 0.7, and all constructs' AVE value are above 0.5. These interpretations indicate that the constructs are reliable and validated in this model.

Table 5-4 Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
AQ	0.746	0.855	0.663
CA	0.607	0.792	0.559
CQ	0.708	0.820	0.533
PE	0.707	0.837	0.632
PF	0.639	0.829	0.712
CI	0.674	0.821	0.605

Then, we examine the discriminant validity of constructs in the final survey questionnaire. It is suggested that if the values of number in the diagonal, which refers to the square root of AVE, are above 0.7 and synchronously greater than other values in the same column, then the independence of each construct is high.(Fornell & Larcker, 1981)

The test result represented in Table 5-5 represents that the discriminant validity of each construct meets the requirement, which refers to that each square roots of the Average Variance Extracted(AVE), i.e. bold items, should be greater than 0.7 and any value in its column at the same time.

Table 5-5 Fornell-Larcker Criterion

	AQ	CA	CQ	PE	PF	CI
AQ	0.814*					
CA	0.503	0.748*				
CQ	0.563	0.478	0.730*			
PE	0.576	0.409	0.546	0.795*		
PF	-0.02	-0.04	-0.056	-0.11	0.844*	
CI	0.543	0.519	0.51	0.692	-0.192	0.778*

**Note: The bold items on the diagonal represent the square roots of the extracted variance (AVE), and off diagonal elements are the correlation estimates.*

Finally, we verify the cross loadings of each factor in the final survey questionnaire. Cross-loading aims at each measurement variables' discriminant validity. If the factor loadings in their own group, e.g. loading in row AQ1 and column AQ, are obviously greater than that loadings of factors from other groups, e.g. loading in row CQ1 and AQ column, and these cross loadings are synchronously greater than 0.7, then the measurement variables are of high quality. (Chin, 1998; Hair, Hult, Ringle, Sarstedt, & Thiele, 2017)

The test result listed in Table 5-6 illustrates that almost every factor's cross loading value on its construct column is above 0.7(the cross loading value of CQ1 on CQ is 0.689, which nearly meets the requirement) and obviously higher than loadings of factors from other groups. This result indicates that the measurement variables are of high quality.

Table 5-6 Cross Loadings

	AQ	CA	CQ	PE	PF	CI
AQ1	0.814	0.417	0.456	0.440	0.005	0.412
AQ2	0.870	0.470	0.489	0.545	-0.038	0.494
AQ3	0.755	0.327	0.430	0.407	-0.011	0.413
CA1	0.473	0.791	0.346	0.331	-0.060	0.425
CA2	0.383	0.721	0.408	0.282	-0.042	0.348
CA3	0.253	0.730	0.318	0.303	0.019	0.389
CQ1	0.386	0.283	0.689	0.340	-0.071	0.335
CQ2	0.415	0.421	0.766	0.429	-0.016	0.429
CQ3	0.452	0.344	0.710	0.395	-0.093	0.310
CQ4	0.393	0.331	0.752	0.421	0.008	0.404
PE1	0.392	0.272	0.372	0.728	-0.083	0.506

PE2	0.568	0.353	0.435	0.854	-0.150	0.598
PE3	0.399	0.345	0.493	0.797	-0.023	0.542
PF1	-0.049	-0.029	-0.037	-0.143	0.949	-0.188
PF2	0.053	-0.049	-0.075	0.005	0.723	-0.126
CI1	0.416	0.453	0.473	0.542	-0.216	0.761
CI2	0.439	0.399	0.384	0.524	-0.198	0.797
CI3	0.411	0.353	0.324	0.548	-0.025	0.775

6 PRESENTATION OF EMPIRICAL RESULTS

6.1 Demographics of respondents

As mentioned in part 5.3.2 “Confirmatory Factor Analysis”, we get 200 final feedbacks in our survey. In section “Demographics of respondents”, the distributions of test takers’ gender, age, income and usage of WPQA are represented.

6.1.1 Gender distribution

The gender distribution of survey takers is represented in Figure 6-1, it shows that, in this research, 41% of WPQA users are females and 59% of them are males. This interpretation indicates that, among all test takers, the difference in aspect of users’ gender, is perceptible buy not huge.

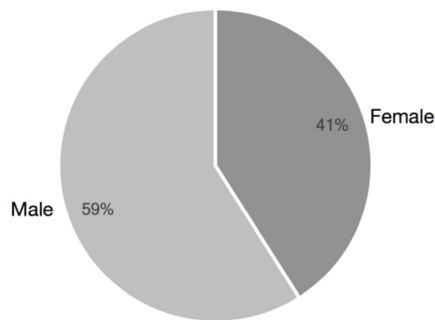


Figure 6-1 Gender distribution

6.1.2 Age distribution

The age distribution of survey takers is represented in Figure 6-2. The distribution illustrates that users aged from 26 to 35 constitute the most of test takers (61%), and the rest of test takers consist of users aged from 36 to 45(19%), users aged from 18 to 25(12%), users aged from 46 to 55(7%) and users in other age groups (less than 1%). This result implies that among survey takers, young generation (younger than 35 years old) are much more than elders (elder than 35 years old).

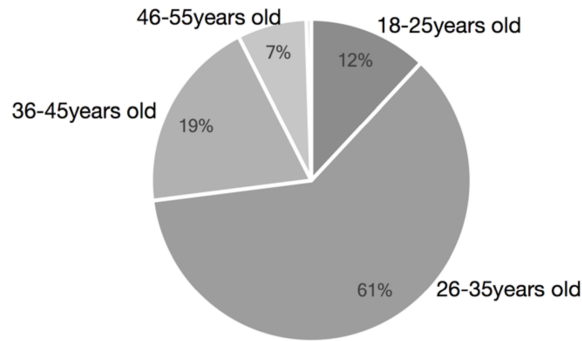


Figure 6-2 Age distribution

6.1.3 Education level distribution

The education level distribution of survey takers is represented in Figure 6-3. This result reveals that users who have bachelor level education constitute the most of test takers (80%), and the rest of test takers consist of users who have master level education (13%), users who have high school or vocational school level education (6%), users who have PhD level education (1%) and users in other education levels (less than 1%). The distribution indicates that among test takers, most of them have at least bachelor level education (94%).

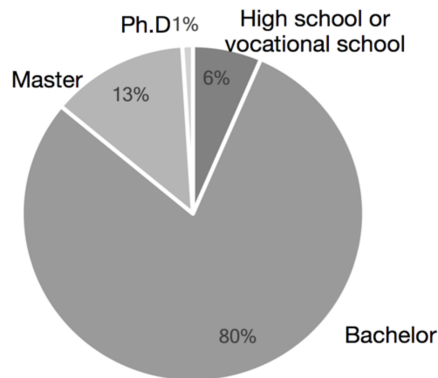


Figure 6-3 Education level distribution

6.1.4 Income distribution

The monthly income level distribution of survey takers is represented in Figure 6-4. This result represents that users who earn 5000 to 10000 CNY per month (41%) and users who earn 2500 to 5000 CNY per month (39%) constitute the most of test users, and the rest of test takers consist of users who earn 1000 to 2500 CNY per month (12%) and users who earn more than 10000 CNY per month (8%). The distribution indicates that among survey

takers, most of them are not from high income class (earn more than 10000 CNY per month).

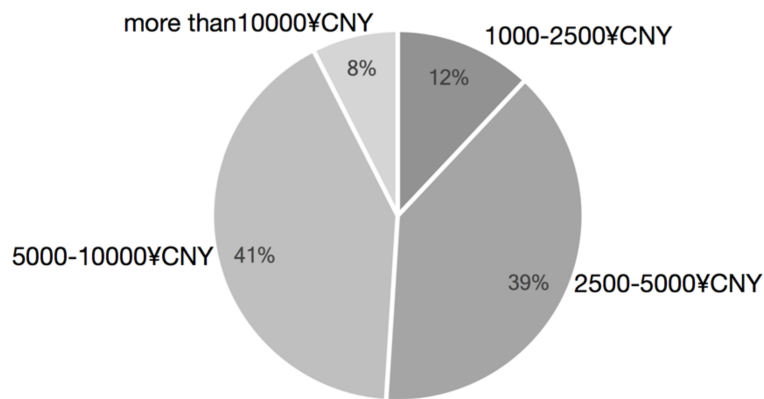


Figure 6-4 Income distribution

6.1.5 User and usage distribution

As mentioned in 5.2.2 “Exploratory Factor Analysis”, we get 452 responses from the final survey, and after deleting responses finished in 90 second and beyond 600 seconds, we get 263 responses. In these 263 responses, 200 respondents report that they have used WPQA before while 63 respondents report have not. The WPQA user distribution is illustrated in Figure 6-5. The distribution represents that most of survey takers (76%) have used WPQA before.

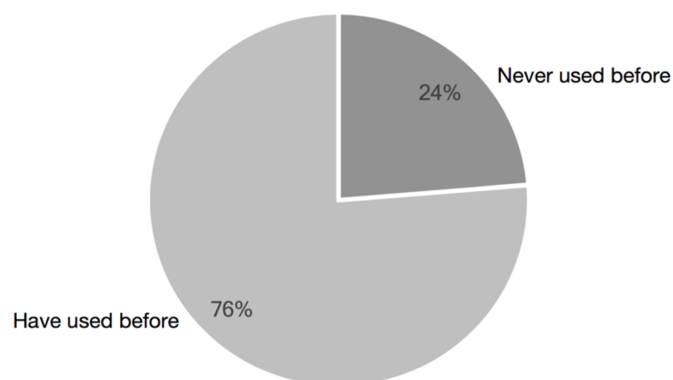


Figure 6-5 User distribution

The usage distribution of survey takers is represented in Figure 6-6. This result represents that users who use WPQA less than once per month (47%) constitute the most of test users, and the rest of test takers consist of users who use WPQA about once per month (32%) and users who use WPQA more than twice per month (21%). The distribution

indicates that among survey takers, most of them do not use WPQA very often (more than twice per month).

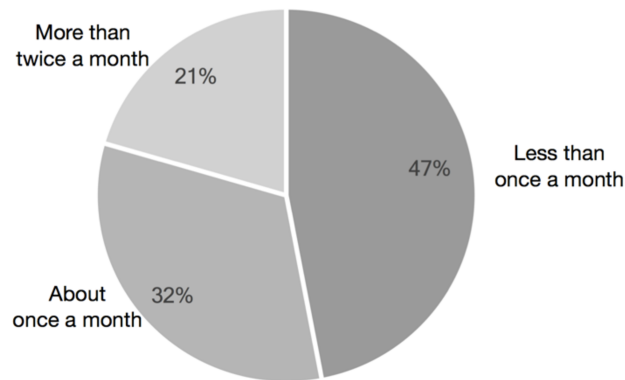


Figure 6-6 Usage distribution

6.2 Empirical results of the research model

This empirical study is conducted by the instruction of Structural Equation Model(SEM). Specifically speaking, the influence and the numerical significance of variables in proposed model is verified by Partial Least Squares (PLS) regression algorithm and a bootstrapping procedure in Smart-PLS.

6.2.1 P value and T value

The test result of influence between constructs is illustrated in Table 6-1, it reveals original sample, sample mean, standard deviation, T statistics and P values of each path. When a path's T value is greater than 1.96 or its P value is less than 0.05, the path coefficient is significant.

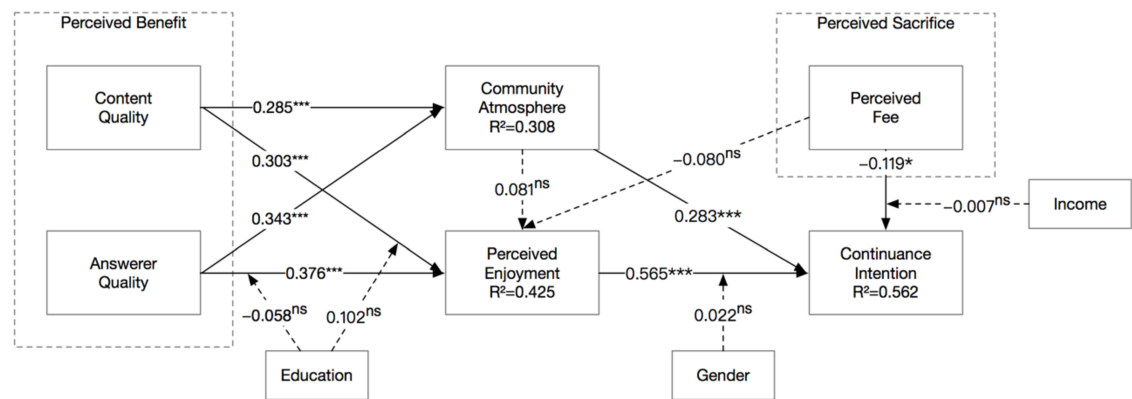
Table 6-1 Test result of influence of constructs

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
AQ -> CA	0.343	0.343	0.078	4.375	0.000
AQ ->PE	0.376	0.373	0.075	4.994	0.000
CA ->PE	0.081	0.081	0.074	1.096	0.273
CA -> UI	0.283	0.282	0.056	5.048	0.000
CQ -> CA	0.285	0.288	0.063	4.524	0.000
CQ ->PE	0.303	0.302	0.073	4.138	0.000
Edu-AQ ->PE	-0.058	-0.052	0.066	0.880	0.379
Edu-CQ ->PE	0.102	0.098	0.067	1.513	0.130

Gender-PE -> CI	0.022	0.025	0.052	0.429	0.668
Income-PF -> CI	-0.007	-0.007	0.053	0.125	0.901
PE -> CI	0.565	0.564	0.057	9.986	0.000
PF ->PE	-0.080	-0.081	0.075	1.076	0.282
PF -> CI	-0.119	-0.119	0.053	2.255	0.024

6.2.2 Interpretation of empirical results

The result in this empirical study, which involves relationship between constructs, can be demonstrated in Figure 6-7. The relationships consist of not only influence of constructs on others, which are expressed by their β , t and p values, but also explaining ability of independent constructs, which are expressed by their square of R values.



Note: $*p < 0.05$, $**p < 0.01$, $***p < 0.001$, $ns = \text{Not Significant}$

Figure 6-7 Test result of research model

Analysis results show that, content quality and answerer quality explain 30.8% of the variance of community atmosphere, they also explain 42.5% of the variance of perceived enjoyment; finally, community atmosphere, perceived fee and perceived enjoyment explain 56.2% of the variance of continuance intention. Therefore, the explanatory capacity of this model are proved to be acceptable.

The results additionally show that:

Content quality ($\beta=0.303$, $t=4.138$, $p<0.001$) in WPQA significantly and positively affects **perceived enjoyment**, and the moderator influence from **education** ($\beta=0.102$, $t=1.513$, $p=0.130$) is positive but not significant. As a result, H1a is partly supported.

Content quality ($\beta=0.285$, $t=4.524$, $p<0.001$) in WPQA significantly and positively affects **community atmosphere**. Therefore, H1b is supported.

Answerer quality ($\beta=0.343$, $t=4.994$, $p<0.001$) in WPQA significantly and positively affects **perceived enjoyment**, and the moderator influence from education ($\beta=-0.058$, $t=0.880$, $p=0.379$) is negative and not significant. As a result, H2a is partly supported.

Answerer quality ($\beta=0.376$, $t=4.375$, $p<0.001$) in WPQA significantly and positively affects **community atmosphere**. Therefore, H2b is supported.

Community atmosphere ($\beta=0.081$, $t=1.096$, $p>0.05$) in WPQA positively but not significantly affects **perceived enjoyment**. As a result, H3a is not supported.

Community atmosphere ($\beta=0.283$, $t=5.048$, $p<0.001$) in WPQA has significant and positive influence on **continuance intention**. As a result, H3b is supported.

Perceived fee ($\beta=-0.080$, $t=1.076$, $p>0.05$) in WPQA negatively but not significantly affects **perceived enjoyment**. As a result, H4a is not supported.

Perceived fee ($\beta=-0.119$, $t=2.255$, $p<0.05$) in WPQA significantly and negatively affects **continuance intention**, and the moderator influence from **income** ($\beta=0.007$, $t=0.125$, $p=0.901$) is positive but not significant. As a result, H4b is partly supported.

Perceived enjoyment ($\beta=0.565$, $t=9.986$, $p<0.001$) in WPQA significantly and positively affects **continuance intention**, and the moderator influence from **gender** ($\beta=0.022$, $t=0.429$, $p=0.668$) is positive but not significant. As a result, H5 is partly supported.

The test result of hypotheses is listed in Table 6-2, it shows that most hypotheses which are not attached by statements about moderators are supported, while hypotheses which are attached by statements about moderators are all partly supported partly supported due to the lack of evidence supporting moderator effects. Only H3a and H4a are not supported by this result.

Table 6-2 Test result of hypotheses

	Hypothesis	Test result
H1a	Content quality has positive influence on perceived enjoyment, and the influence of content quality on perceived enjoyment is moderated by user's education background.	Partly supported
H1b	Content quality has positive influence community atmosphere.	Supported
H2a	Answerer quality has positive influence on perceived enjoyment, and the influence of answer quality on perceived enjoyment is moderated by user's education background.	Partly supported
H2b	Answerer quality has positive influence on community atmosphere.	Supported
H3a	Community atmosphere has positive influence on perceived enjoyment.	Not supported
H3b	Community atmosphere has positive influence on continuance intention.	Supported
H4a	Perceived fee has negative influence on perceived enjoyment.	Not supported
H4b	Perceived fee has negative influence on continuance intention, and the influence of perceived fee on continuance intention is moderated by user's income.	Partly supported
H5	Perceived enjoyment has negative influence on continuance intention, and the influence of perceived enjoyment on continuance intention is moderated by user's gender.	Partly supported

7 DISCUSSION AND CONCLUSION

7.1 Research discussions

This study expands the research based on VAM by raising a modified model to investigate how constructs in the model affect and influence users' continuance intention to use paid Q&A. Research in this thesis aims to fill in a research blank, which refers to the lack of study on user's continuance intention to use paid Q&A in a hedonic perspective. To realize the research goal, we do not only make hypotheses by modifying the VAM but also combine the model with factors extracted from previous research.

In section "Research discussion", research findings, which can be specifically represented as determinants of continuance intention and perceived enjoyment are discussed.

7.1.1 *Determinants of perceived enjoyment*

In this study, content quality and answerer quality are proved to significantly influence users' perceived enjoyment in using WPQA; however, the evidence showing that community atmosphere and perceived fee are significant determinants of users' perceived enjoyment in using WPQA, is not sufficient. The moderate effects from education, on direct effects of both content quality and answerer on perceived enjoyment, is not significant either.

Specifically speaking, first, we find that content quality ($\beta=0.303$, $t=4.138$, $p<0.001$) and answerer quality ($\beta=0.343$, $t=4.994$, $p<0.001$) in WPQA significantly and positively affects perceived enjoyment; then the result shows that community atmosphere ($\beta=0.081$, $t=1.096$, $p>0.05$) in WPQA positively but not significantly affects perceived enjoyment; additionally, perceived fee ($\beta=-0.080$, $t=1.076$, $p>0.05$) in WPQA is showed to have negative but not significant effect on perceived enjoyment.

7.1.2 *Determinants of continuance intention*

From this research, we conclude that community atmosphere, perceived fee and perceived enjoyment are verified to be critical determinants of users' continuance intention in using WPQA; additionally, we find that neither the moderate effect from gender on direct effects of perceived enjoyment on continuance intention, nor the moderate effect from income on direct effects of perceived enjoyment on continuance intention, is significant.

To be specific, community atmosphere ($\beta=0.283$, $t=5.048$, $p<0.001$) and perceived enjoyment ($\beta=0.565$, $t=9.986$, $p<0.001$) in WPQA are found to have significantly and positively influence on continuance intention; while perceived fee ($\beta=-0.119$, $t=2.255$, $p<0.05$) in WPQA is proved to exert significant and negative effect on continuance intention.

7.2 Research conclusions

This study conducts an investigation on the constructs and related theories that influence users' continuance intention to use paid Q&A, from a hedonic perspective. In this thesis, VAM theory is selected as the prototype of proposed research model which reveals factors affecting users' continuance intention to use a Chinese paid Q&A product named Weibo Paid Q&. The proposed model makes predictions that the constructs perceived fee and community atmosphere along with perceived enjoyment construct significantly influence users' continuance intention to use Weibo Paid Q&A in China. With the assistance of PLS–SEM, this study analyzes data collected from users in WPQA, the empirical study verifies that users' continuance intention is assuredly dependent on perceived fee and community atmosphere along with perceived enjoyment. The study also reveals that quality of answerers and quality of answer positively exert significant influences on perceived enjoyment.

In section “Research conclusions”, research contributions and research implications of this thesis, and limitations of this research and corresponding future directions are represented.

7.2.1 *Research contributions and research implications*

This research outputs both theoretical contributions and practical implications.

This thesis is theoretically contributive to research on IS based on these points: first, this research concludes previous research on paid Q&A in aspects of Q&A system, paid subscription and sharing economy, and finds that most of prior research focuses on exploring usefulness on users' continuance intention in using the information system; second, the study introduces the VAM theory and build a modified model based on it, this modified model highlights the importance of perceived enjoyment on users' continuance intention to use paid Q&A; finally, the empirical study combining EFA and CFA proves that, after integrating factors extracted from previous research and the proposed model, the research is tested to be explanatorily capable and hypotheses related to the model are mostly proved to be supported. To be general, this research makes a retrospective conclusion on research on paid Q&A, and expands the theoretical territory of IS research by investigating the area of paid Q&A in a new perspective.

Practically speaking, to make a paid Q&A community successful and welcome to users, this thesis offers implications in these points: first, the study result instructs the decision making level of paid Q&A companies in developing strategies, by highlighting that the significance of perceived enjoyment is greater than that of perceived fee and community atmosphere on users' continuance intention to use paid Q&A; second, the study result shows that in order to enhance users' perceived enjoyment, paid Q&A companies should put greater effort on improving the quality of answerers and answers, but less on community atmosphere and perceived fee, since community atmosphere and perceived fee are of less significance than the quality of answerers and answers to continuance intention. This is because of two points: first, even users in paid Q&A care about enjoyment, atmosphere and fee, they care more about enjoyment they get but pay less attention to the fee they pay for answers and the atmosphere the experience in the community; second, the enjoyment depends mostly on quality of answers and answerers, but not significantly on perceived fee or atmosphere.

7.2.2 *Research limitations and further research directions*

Even though the research result is both theoretical contributive and practical implicative, few limitations, due to both the research context and researcher's shortcomings, should be acknowledged.

First, even the proposed model performs very well in terms of explanatory capacity by showing an evidential variance of 56.2% in continuance intention and a variance of 42% in perceived enjoyment. Yet the test takers investigated in the research are mostly from WPQA. Therefore, the model should be investigated in further research with other paid Q&A communities, such as Fenda and Zhihu, to examine and analyze the performance differences in different paid Q&A communities.

Second, the study takes place in the Chinese geographical context, hence the result of this study can only assuredly explain situations in China. If we want to enhance the model's reliability, we should test it in different regions to examine the influence of cultural or economic differences that affects continuance intention in using paid Q&A communities, especially in European countries.

Third, due to the time limit of conducting a master thesis, we distribute the survey in a public survey website and only users of this website can take this survey. Future research should focus on samples from a bigger population to see the difference of credibility and explanatory power of the model.

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Appendices

Outer loadings of factors

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
AQ1 <- AQ	0.814	0.809	0.035	23.070	0.000
AQ2 <- AQ	0.870	0.868	0.019	46.553	0.000
AQ3 <- AQ	0.755	0.754	0.037	20.606	0.000
AQ * Edu <- Edu-AQ-PE	1.046	1.038	0.104	10.046	0.000
CA1 <- CA	0.791	0.792	0.032	24.936	0.000
CA2 <- CA	0.721	0.720	0.050	14.497	0.000
CA3 <- CA	0.730	0.726	0.051	14.275	0.000
CQ1 <- CQ	0.689	0.688	0.048	14.491	0.000
CQ2 <- CQ	0.766	0.764	0.032	24.017	0.000
CQ3 <- CQ	0.710	0.705	0.049	14.418	0.000
CQ4 <- CQ	0.752	0.749	0.040	18.648	0.000
CQ * Edu <- Edu-CQ-PE	1.113	1.099	0.099	11.194	0.000
PE1 <- PE	0.728	0.725	0.044	16.410	0.000
PE2 <- PE	0.854	0.853	0.021	41.619	0.000
PE3 <- PE	0.797	0.796	0.035	22.957	0.000
PF1 <- PF	0.949	0.885	0.215	4.420	0.000
PF2 <- PF	0.723	0.676	0.242	2.990	0.003
PE * Gender <- Gender-PE- UI	1.010	1.007	0.021	47.903	0.000
PF * Income <- Income-PF- UI	0.922	0.930	0.060	15.271	0.000
UI1 <- UI	0.761	0.758	0.034	22.259	0.000
UI2 <- UI	0.797	0.797	0.028	28.812	0.000
UI3 <- UI	0.775	0.774	0.041	18.975	0.000

Pretest questionnaire in English

Dear survey takers, this survey is aiming at exploring factors influencing users' intention to use Weibo Paid Q&A (WPQA, a paid question and answer service provided by Sina Weibo). In this survey there are 6 main questions, and finishing all questions takes less than 7 minutes.

Please complete this survey based on your experience and feelings. Any information you submitted will be confidentially used in academic research and individual respondents will not be tracked. Thank you for your cooperation.

Part 1. Background information

1. What is your gender?

- Male
- Female

2. What is your age?

- Less than 18 years
- 18-25 years
- 26-35 years
- 36-45 years
- 46-55 years
- Over 55 years

3. What is your education background?

- Other
- High school or vocational school level
- Bachelor level
- Master level
- PhD level

4. How much can you earn every month?

- Less than 1000¥CNY
- 1000-2500¥CNY
- 2500-5000¥CNY
- 5000-10000¥CNY
- More than 10000¥CNY

5. Have you used WPQA before?

- Never (end survey)
- Less than once a month
- About once a month
- More than twice a month

Part 2. Direct determinants

Direct determinants of intention to adopt technology. The following tables have statements about WPQA. Rate your agreement with each of the statements by using the scale provided in the table:

SD= Strongly Disagree

D=Disagree

N=Neutral

A=Agree

SA=Strongly Agree

1. Please comment on the following statements on WPQA.

Question		Statement				
		SD	D	N	A	SA
F1	Overall, the content is of high quality					
F2	The content is timely					
F3	The content is reliable					
F4	The content is easy to understand					
F5	The content is accurate					
F6	The content is complete					
F7	The content is relevant to the questions					
F8	Overall, answerers in Weibo paid Q&A are of high quality					
F9	Answerers are professional in the field					
F10	Answerers provide references to a worthwhile resource for me to check out					
F11	Answerers answer my question in a short time					
F12	I can feel answerers' positive attitude in their answers					
F13	I can feel answers' effort in their answers					
F14	I have fun interacting with Weibo paid Q&A					
F15	Using Weibo paid Q&A provides me with a lot of enjoyment					
F16	I enjoy using Weibo paid Q&A					
F17	The fee that I have to pay for asking questions in Weibo paid Q&A is too high (the price is determined by answerers)					
F18	The fee that I have to pay for sharing questions in Weibo paid Q&A is too high (the price is normally 1¥ CNY)					
F19	Overall, It is easy to use Weibo paid Q&A					
F20	Weibo paid Q&A takes a short time to respond					
F21	The interface of Weibo paid Q&A is friendly					
F22	Payment processes in Weibo paid Q&A are safe					
F23	Weibo paid Q&A can feedback appropriate content when I search questions in it					
F24	Weibo paid Q&A can recommend appropriate answerers or questions based on my information					
F25	People who are socially Influential to me are using Weibo paid Q&A (e.g. celebrities or seniors)					
F26	My friends are using Weibo paid Q&A					
F27	Using Weibo paid Q&A brings me more social influence					
F28	Overall, the use of Weibo paid Q&A delivers me good value					
F29	Compared to the fee I need to pay, the use of Weibo paid Q&A offers value for money					

F30	Compared to the effort I need to put in, the use of Weibo paid Q&A is beneficial to me					
F31	Compared to the time I need to spend, the use of Weibo paid Q&A is worthwhile to me					
F32	I will continue using Weibo paid Q&A in the future					
F33	I will use Weibo paid Q&A more frequently in the future					
F34	I will use similar competing paid Q&A services rather than any other alternatives, such as free Q&A or search engines.					

Pretest questionnaire in Chinese

您好，此问卷用来调查微博付费问答（新浪微博提供的付费知识分享服务）用户的使用意愿。此问卷包含 6 道大题，完成时间在 7 分钟左右。

请根据您的经历与感受进行填写。我们向您保证，您所填信息仅供学术研究使用，并且不会被泄露。感谢您的参与。

Part 1. 背景信息

1. 请选择您的性别

- 男
- 女

2. 请选择您的年龄段

- 小于 18 岁
- 18-25 岁
- 26-35 岁
- 36-45 岁
- 46-55 岁
- 大于 55 岁

3. 请选择您的学历背景

- 其它
- 高中或职业技术学校
- 本科
- 硕士
- 博士

4. 请选择您的月收入水平

- 少于 1000¥CNY
- 1000-2500¥CNY
- 2500-5000¥CNY
- 5000-10000¥CNY
- 大于 10000¥CNY

5. 请选择您的微博付费问答使用状况

- 从未用过（结束问卷）
- 每月少于一次
- 每月大约一次
- 每月大于两次

Part 2. 控制变量

以下列表中包含针对微博付费问答服务的陈述，请根据您的情况选择评分

SD= 非常反对

D= 反对

N= 中立

A= 同意

SA=非常同意

6. 请对有关微博付费问答的描述作出评价.

描述	您的评价				
	SD	D	N	A	SA
F1	整体而言,微博付费问答中的内容质量很高				
F2	回答内容是实时的(没有过时失效的)				
F3	回答内容是可信的				
F4	回答内容是易懂的				
F5	回答内容是准确的				
F6	回答内容是完整的				
F7	回答内容是与问题相关的				
F8	整体而言,微博付费问答中的答主品质优秀				
F9	答主在回答中提供了值得查阅的参考信息				
F10	答主是问题相关领域的专业人士				
F11	答主能在很短时间内回答我的问题				
F12	我能感受到答主回答中的积极态度(如诚恳、鼓励等)				
F13	我能感受到答主为了回答我的问题所付出的努力(如篇幅很长、内容丰富等)				
F14	微博付费问答的人机交互很有趣				
F15	使用微博付费问答让我获得更多愉悦				
F16	我享受使用微博付费问答的过程				
F17	在微博问答付费提问所需的费用太高了(提问费用一般由答主决定)				
F18	在微博问答围观问答所需的费用太高了(围观费用一般为人民币)				
F19	整体而言,微博付费问答简单易用				
F20	微博付费问答用户界面很友好				
F21	微博付费问答响应时间很短				
F22	微博付费问答付费过程是安全可靠的				
F23	在搜索问题或答主时, 微博付费问答能向我反馈合适的问答内容与答主				
F24	平时使用时, 微博付费问答能向我推荐相关的问答内容与答主				
F25	在社交方面对我有影响的人在使用微博付费问答(如名人、师长等)				
F26	我社交圈中的朋友在使用微博付费问答				
F27	使用微博付费问答让我更有社交影响力				
F28	整体而言,使用微博付费问答让我获益良多				
F29	使用微博付费问答获得的价值, 配得上我付出的费用				
F30	使用微博付费问答获得的价值, 配得上我付出的精力				

F31	使用微博付费问答获得的价值，配得上我付出的时间					
F32	我将来会继续使用微博付费问答					
F33	我将来会更频繁地使用微博付费问答					
F34	我将来会优先考虑与微博付费问答类似的付费问答服务，而不是免费问答或者搜索引擎。					

Final survey questionnaire in English

Dear survey takers, this survey is aiming at exploring factors influencing users' intention to use Weibo Paid Q&A (WPQA, a paid question and answer service provided by Sina Weibo). In this survey there are 11 main questions, and finishing all questions takes less than 7 minutes.

Please complete this survey based on your experience and feelings. Any information you submitted will be confidentially used in academic research and individual respondents will not be tracked. Thank you for your cooperation.

Part 1. Background information

1. What is your gender?

- Male
- Female

2. What is your age?

- Less than 18 years
- 18-25 years
- 26-35 years
- 36-45 years
- 46-55 years
- Over 55 years

3. What is your education background?

- Other
- High school or vocational school level
- Bachelor level
- Master level
- PhD level

4. How much can you earn every month?

- Less than 1000¥CNY
- 1000-2500¥CNY
- 2500-5000¥CNY
- 5000-10000¥CNY
- More than 10000¥CNY

5. Have you used WPQA before?

- Never (end survey)

- Less than once a month
- About once a month
- More than twice a month

Part 2. Direct determinants

Direct determinants of intention to adopt technology. The following tables have statements about WPQA. Rate your agreement with each of the statements by using the scale provided in the table:

SD= Strongly Disagree

D=Disagree

N=Neutral

A=Agree

SA=Strongly Agree

6. QC: Please comment on the following statements on the quality of answer content in WPQA.

Question	Statement				
	SD	D	N	A	SA
The content is easy to understand.					
The content is complete.					
The content is relevant to the questions.					
The content is easy to implement.					

7. QA: Please comment on the following statements on the quality of answerers in WPQA.

Question	Statement				
	SD	D	N	A	SA
Answerers provide references to a worthwhile resource for me to check out.					
I can feel answerers' effort in their answers.					
Answerers are relevant to my questions' area.					

8. CA: Please comment on the following statements on the community atmosphere in WPQA.

Question	Statement				
	SD	D	N	A	SA
Answerers in the community are professional.					
Information in the community is up-to-date.					
There are famous people I like in the community.					

9. PE: Please comment on the following statements on the enjoyment in WPQA.

Question	Statement				
	SD	D	N	A	SA
I have fun interacting with WPQA					
Using WPQA provides me with a lot of enjoyment					
I enjoy using WPQA					

10. PF: Please comment on the following statements on the perceived fee in WPQA.

Question	Statement				
	SD	D	N	A	SA
The fee that I have to pay for asking questions is too high (the price is determined by answerers)					
The fee that I have to pay for sharing questions is too high (the price is normally 1¥ CNY)					

11. CI: Based on your experience of using WPQA, please consider your future intentions regarding using it and comment on the following.

Question	Statement				
	SD	D	N	A	SA
I will continue using WPQA in the future					
I will use WPQA more frequently in the future					
I will use and recommend WPQA to my friends in the future					

Final survey questionnaire in Chinese

您好，此问卷用来调查微博付费问答（新浪微博提供的付费知识分享服务）用户的使用意愿。此问卷包含 11 道大题，完成时间在 7 分钟左右。

请根据您的经历与感受进行填写。我们向您保证，您所填信息仅供学术研究使用，并且不会被泄露。感谢您的参与。

Part 1. 背景信息

1. 请选择您的性别

- 男
- 女

2. 请选择您的年龄段

- 小于 18 岁
- 18-25 岁
- 26-35 岁
- 36-45 岁
- 46-55 岁
- 大于 55 岁

3. 请选择您的学历背景

- 其它
- 高中或职业技术学校
- 本科
- 硕士
- 博士

4. 请选择您的月收入水平

- 少于 1000¥CNY
- 1000-2500¥CNY
- 2500-5000¥CNY
- 5000-10000¥CNY
- 大于 10000¥CNY

5. 请选择您的微博付费问答使用状况

- 从未用过（结束问卷）
- 每月少于一次
- 每月大约一次
- 每月大于两次

Part 2. 控制变量

以下列表中包含针对微博付费问答服务的陈述，请根据您的情况选择评分

SD= 非常反对

D=反对

N=中立

A=同意

SA=非常同意

6. QC: 请对微博付费问答内容质量作出评价

描述	您的评价				
	SD	D	N	A	SA
回答是易懂的					
回答是完整的					
回答是与主题相关的					
回答是可行的					

7. QA: 请对微博付费问答答主品质作出评价

描述	您的评价				
	SD	D	N	A	SA
答主提供了值得查阅的参考信息					
我能感受到答主在回答中作出的努力					
答主与我的问题领域是相关的					

8. CA: 请对微博付费问答社区氛围作出评价

描述	您的评价				
	SD	D	N	A	SA
微博付费问答社区中的答主平均专业水平较高					
微博付费问答社区信息是及时更新的					
我喜欢的名人也在微博付费问答社区中					

9. PE: 请对使用微博付费问答过程中的感知愉悦作出评价。

描述	您的评价				
	SD	D	N	A	SA
与微博付费问答交互过程很开心					
使用微博付费问答为我提供很多愉悦感					
我喜欢使用微博付费问答					

10. PF: 请对使用微博付费问答过程中的感知价格作出评价

描述	您的评价				
	SD	D	N	A	SA
在微博问答付费提问所需的费用太高了(提问费用一般由答主决定)					
在微博问答围观问答所需的费用太高了(围观费用一般为一元人民币)					

11. CI: 请根据您的微博付费问答使用经历, 对未来持续使用微博付费问答的意愿做出评价

描述	您的评价				
	SD	D	N	A	SA
未来我会继续使用微博付费问答					
未来我会更频繁使用微博付费问答					
未来我会使用并向他人推荐微博付费问答					

ACKNOWLEDGEMENT

This thesis is for my master degree in both School of Information Management in CCNU and Turku School of Economics in UTU. It contains my understanding of users' continuance intention on paid Q&A community. It took me nearly a year to accomplish this thesis, everything in this thesis shows my effort. But besides my effort, assistance from others helped me a lot additionally. I would like to write down their names and say thank you to them sincerely.

I should firstly give my greatest thanks to my supervisors, Prof. Xia Lixin and Prof. Reima Suomi. Their effort and instructions in helping me should be remembered. They gave me the chance to participate in BIKMA program and get a double master degree in both CCNU and UTU, they are the most reliable guides in my master career.

Then I want to thank Ms. Li Hongxiu and Ms. Eija sincerely for their assistance in Finland. They never hesitate to help me when I am in trouble. And I want to thank my friends in both Finland and China, your company makes my life meaningful.

Finally, I want to give my gratitude to my parents, their support gives me the greatest power to overcome every obstacle in my life.

Thank you again!