



# **Motivation of Crowds' Online Participation in Crowdsourcing Community A case of XIAOMI MIUI**

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Bachelor's Thesis

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**THESIS**

**Abstract**

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| <p><b>Abstract</b></p> <p>XIAOMI is one of famous Chinese smartphone brands which employs a crowdsourcing business model to operate its MIUI forum. Since the competition among different crowdsourcing platforms has become fiercer and fiercer, making people positively and persistently involved in MIUI crowdsourcing activities has become increasingly challenging. The main objectives of the thesis were to discover the factors motivating users' participation in the MIUI forum and to compare the importance of different motivation types to MIUI forum users.</p> <p>The thesis started with theoretical knowledge presenting an overview of crowdsourcing, online community, online participation and motivations for participating in a crowdsourcing community. The information was mainly found in academic journals and online resources. Then, a quantitative research was conducted as an online questionnaire sent to the existing users of the MIUI forum.</p> <p>The research findings revealed that introjected motivation is regarded as a significant factor affecting users' engagement generally. However, when different types of participation are considered, motivational factors differ. Those users who are contributors are most likely to be internally motivated. Lurkers, in contrast, are highly motivated by introjected motivations and external motivations. The thesis suggests some improvements of the MIUI forum's incentive mechanism based on the findings.</p> |            |                  |      |
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## 1 INTRODUCTION

### 1.1 Background information

Under the influence of the Internet, a special business mode – crowdsourcing was initially employed in 2001 (Wei 2010, 36-39). Thereafter, more and more enterprises have been aware of the value of crowds' knowledge and the importance of crowdsourcing model and applied this model to their businesses operation. According to D.C. Brabham, two pivotal elements of crowdsourcing are crowd wisdom and collective intelligence (Brabham 2012, 307-328). The concepts of crowd wisdom and collective intelligence indicate that the crowd (mass participants) is the main subject and prerequisite of crowdsourcing, which make an enormous impact on the development of crowdsourcing. Hence, analyzing what motivates the crowd to engage in crowdsourcing activities and how can corporation create incentive mechanism to attract a large amount of crowds who are interested and able to provide better possible solutions are crucial for a successful crowdsourcing operation. (Leimeister et al. 2009.)

XIAOMI Tech. is a Chinese company, operating in the smartphone industry. The slogan of this brand is "being the most user-centric mobile internet corporation" (MI, 2016), which means XIAOMI greatly relies on users' ideas, suggestions and expectation to design functional devices for mobile fanatics. MIUI, designed by XIAOMI, is one of the most popular ROM (read-only memory) in China now. For the convenience of users' interaction, XIAOMI has created an online community - MIUI forum, initially employing crowdsourcing model in China for users exchanging information and proposing ideas about MIUI. The application of crowdsourcing model in MIUI forum has attracted a large amount of crowds. However, due to the rising competition among different crowdsourcing platforms, getting crowds positively and persistently involved in MIUI crowdsourcing activities has become increasingly challenging. The low costs of development and plenty of virtual online platforms caused two fatal issues: underperformed and underpopulated. A large amount of crowdsourcing operations failed to obtain critical mass for solving tasks because of low crowds' engagement and involvement. (McGonigal 2011.) Consequently, MIUI forum is faced to the fierce battles with other crowdsourcing platforms and there is a need for XIAOMI uncovering what can motivate the crowds' engagement in MIUI crowdsourcing activities. (Zhao & Zhu 2014, 16-21.)

## 1.2 Research objectives and thesis structure

The purpose of this thesis is to uncover the essence of crowdsourcing via browsing relevant literatures, to investigate what motivates users' engagement in MIUI crowdsourcing forum based on the self-determination motivation theory, to compare the difference of influence among five main types of motivation (intrinsic motivation, integrated motivation identified motivation, Introjected motivation and external regulation), to analyze whether internal motivations affect MIUI users more than external motivations or not, and to provide possible suggestions to MIUI forum about improving the existed incentive mechanism.

The framework of theoretical part was mainly derived from the theory of Ryan & Deci in *Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions* (2000, 54-67) and findings of Jakob Nielsen in *Participation Inequality: The 90-9-1 Rule for Social Features* (2006). And supplementary sources from various authors will be integrated into the above theories due to the imperfection of limited resources.

Quantitative method was applied in the research part. A questionnaire was distributed to existing users of MIUI forum by the Internet and Webropol was utilized to implement the quantitative analysis for solving the research questions.

The thesis is primarily grouped into 6 sections and the content of these sections are introduced as follows. Chapter 2 introduces the case company-XIAOMI MIUI and analyses the functions, current users and incentive mechanism of of MIUI crowdsourcing forum. Then, chapter 3 provides a theoretical background for the construction of quantitative research about crowds' motivation for participating MIUI forum. The section begins with a theoretical description and analysis on crowdsourcing model including the definition of crowdsourcing and the role of crowds. It is followed by the discussion about online community and online participation. 90-9-1 rule is explained in order to analyze different online participation types. The discussion continues with referring literature about the definition of motivation and the classification of motivation – self-determination theory, which is essential for developing the quantitative questionnaire. Chapter 4 turns into the main research section covering research methodology, data collection and analysis, summary of findings as well as reliability and validity of the survey. Thereafter, chapter 5 offers a summary of the findings of theoretical literatures and quantitative research and suggestions for future development of MIUI forum. Lastly, the discussion part concludes the thesis work process, challenges that the author have met

during the process and some suggestions about sustainable development of the research.

## 2 CASE COMPANY

Although "Crowdsourcing" business model has been a great success in western countries, it started rather late in China. However, as a new business model, crowdsourcing acts as a pivotal role on the transition of the industrial model from "made in China" to "created by China". (Wei 2010, 36-39.) XIAOMI, a Beijing-based company, primarily manufactures smartphones, which practiced crowdsourcing model initially in Chinese industry and made a big splash. Many people outside of Asia may be unfamiliar with Xiaomi this company name because they mainly focus on Chinese and adjacent markets, even though it has been one of the three top smartphone manufacturers in the world.

### 2.1 About XIAOMI

Xiaomi, founded in April 2010 by CEO Lei Jun, is a software enterprise researching a new custom ROM (Read-Only-Memory) on the basis of Google's Android. Offering additional functions that Android had yet to generate and becoming a convenient interface are their main objectives. When established Xiaomi, Lei Jun accumulated a professional team consisting of experts from diverse corporations like Yahoo, Google and Microsoft. Engaging their Mi-fans and external partners in the development of new products and services through social media and crowdsourcing platform is the philosophy and mission of Xiaomi Company. (Pedersen, Christensen, Meng & Rao 2015, 46.)

Five years ago, Xiaomi didn't even have a smartphone product. Now their market capitalization reached to \$45 billion; it has become the third largest smartphone enterprise in the world. XIAOMI creates excellent electronic devices, hardware, software, as well as Internet services for and with the help of XIAOMI fans. Unlike other smartphone companies investing heavily in direct marketing, such as Samsung and Apple, which spend 401 million dollars and 333 million dollars (Cheng 2013) in marketing respectively, Xiaomi only uses around 1% of its total revenue on direct marketing (Pedersen et al. 2015). In addition, the price of Xiaomi smartphone is half the normal price of the products sold by other rivalries.

## 2.2 XIAOMI MIUI Forum

MIUI, the ROM which XIAOMI Company created and improved for and with the help of MIUI users, has become a huge success and has been ported to many devices. MIUI forum is an online crowdsourcing technology-based platform focusing on MIUI ROM. It was established for mobile enthusiasts, private developers and official professional developers to communicate, share and discuss about MIUI Android ROM, peripheral products and relevant information.

### 2.2.1 Modules of MIUI Forum

MIUI crowdsourcing forum has been distributed into five main sub-forums, which are Devices Sub-forum, Resource Sub-forum, Comprehensive Discussion Sub-forum, R &D Sub-forum and Application and Service Complaints Sub-forum.

#### *Devices Sub-forum*

This Sub-forum has been divided into two sections:

- Discussion about phone models section: It focuses on improving users' skills about how to use MIUI and peripheral products. Four main hashtags are highlighted in this part, which are "Help", "Experience", "ROM" and "Others". There are slight differences among these four hashtags.
- BUG feedback Section: This BUG feedback section is provided to users who use official XIAOMI smartphones with MIUI ROM. Users can post the BUG discovered in the process of using MIUI ROM. After the moderator's confirmation, this BUG feedback will be submitted to the MIUI R & D group; if it is not a BUG, moderators will also give appropriate reply as soon as possible.

#### *Resource Sub-forum:*

Six main sections are included in this sub-forum: Theme, App, Games, Wallpaper, Font and Localization resources. Users can download various resources shared by other users here and upload diverse resources they liked.



### *Comprehensive Discussion Sub-forum:*

Announcements Board, New Function Advice, Geek Broadcast, Chat Zone, Fan Clubs, totally five sections are covered in this sub-forum.

- Announcements Board: It is designed for releasing relevant announcement about XIAOMI and MIUI; Ordinary members do not have permission to post in this section.
- New Function Advice: This is used for collecting members' suggestions, new functional requirements and designs of MIUI ROM.
- Geek Broadcast: Sharing scientific and technological information, such as new machines released, science and technology development.
- Chat Zone: Chat Zone is a relatively open section in MIUI crowdsourcing forum that is used for discussing current hot technology news and entertainment news by every user.
- Fan Clubs: The member of Fan Clubs can initiate and organize off-line activities via this section; a variety of enjoyments of off- line activities can be shared here.

### *R & D Sub-forum*

BUGLIST is the main modules in this sub-forum for enthusiasts feeding back BUG about MIUI ROM. These bugs will be collected and MIUI R&D team will regularly follow up the feedback bugs in this modules for timely processing.

### *Application and Service Complaints Sub-forum*

This sub-forum is used for the application of new modules and providing the service about user complaints. Users who have been muzzled need to appeal in this section and to post in the corresponding label if meet any dispute complaint. There will be a corresponding administrator for processing these complaints.

#### 2.2.2 The types of users

The users of MIUI crowdsourcing forum are one of the significant forces for the development of Xiaomi. Up until now, there are above 8 million registered users of MIUI forum. Categorizing and analyzing these users comprehensively is an effective method to maximum profit from users' engagement. Three dimensions of criteria: the level of engagement, the level of activity and the type of professions, are used to divide the

users of MIUI forum into four classes varying from low level to high level: forum novice, forum acquaintance, passionate fan and eternal fan. The proportions of different types of users are shown in the following figure.

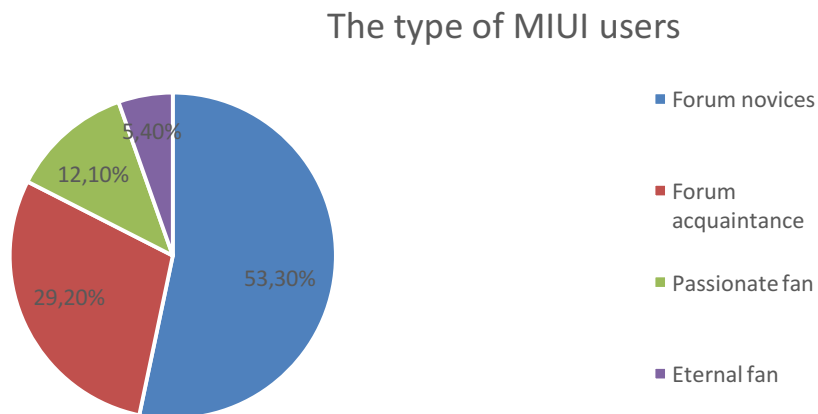


FIGURE 1. The distribution of different user types in 2014 (Xiao 2014)

The number of forum novices, acquaintance and passionate fan take a big proportion (around 95%) of whole users, while eternal fan only occupied 5%. Generally, the majority of forum users have low loyalty and behave passively, only a small percentage of whole users contribute to the value of communities and obtained higher status in the MIUI communities.

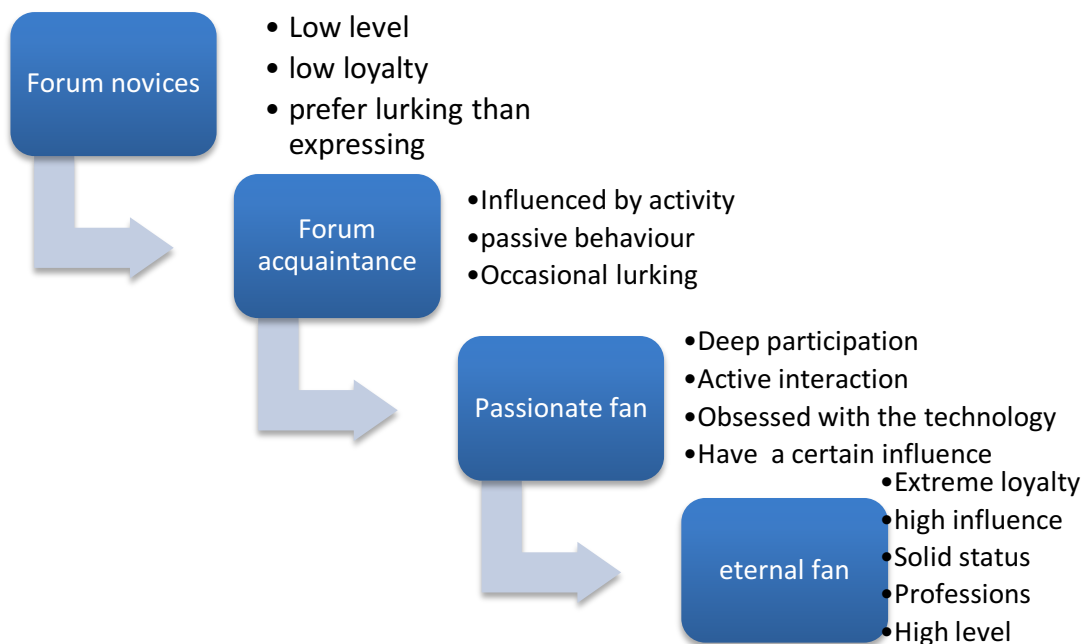


FIGURE 2. The characteristics of different user types (Xiao 2014)

Different activities on the forum such as adding new threads, voting to select better solutions and proposing new ideas and suggestions, can represent the level of users' engagement. In order to measure the users' activity level specifically, MIUI employed a signing system suggesting every user sign on the website when they log in the MIUI forum. Every user's activity level can be illustrated based on the time and frequency of signing. The type of professions refers to different functions that different users acted in MIUI forum. The ordinary users mainly exist in the type of forum novice and acquaintance. They are less controlled and structured and have a relative wide space to express themselves and share information. Different with ordinary users, special users can be classified by two types, one mainly consists of company's internal employees who are strictly regulated; the other one is users who have high-level of specialized Knowledge. Both types of special users not only act as customers but also partners and co-operators of MIUI forum.

### 2.2.3 Current motivational mechanism

MIUI users act as a specific role in the product R&D process and marketing process, which is a remarkable strength comparing to other smartphone manufacturers. Currently, Some methods that have been employed by MIUI forum are stated as follows. Initially, improving the information-exchanging function and problem-solving function continuously is the fundamental point of MIUI Crowdsourcing platform. Interacting with other users and learning knowledge from them are the initial functions required by members using any crowdsourcing platform. Next, the advanced security system and regulation offered by MIUI is an effective point attracting users' engagement because safety needs including the safety of users' account and personal data in the context of online crowdsourcing communities are important for MIUI users. Correspondently, for users, there is a sense of feeling safe in a group, which make them willing to stay in this group. Moreover, MIUI crowdsourcing community provides users a warm environment to make them feel like they are a real big family with similar value. And MIUI forum consultants, technicians and customer service reply problems posted by users regularly, frequently and professionally, which makes users feel highly respected and valued. Meanwhile, many opportunities are provided by MIUI forum for users to propose new ideas and innovate new functions. It gives users a sense of contribution and consolidates users' self-esteem and self-confidence. MIUI forum treats every user seriously and encourage each of them discovering own potential as much as possible via engaging more activities on the communities. Not only passionate and eternal fans can

be respected and recognized by their special innovations, but also ordinary users can be valued for their useful opinions and feedback.

For appealing more new members and motivating current users' engagement, MIUI crowdsourcing community set up different incentive systems to give score bonus, medal of honor, material rewards, priority and eligibility to join XIAOMI company for users who have outstanding performance. MIUI arranges different modules for different types of users. The resource allocation makes forum's function is more intensive. Based on the different contribution users made in different modules, different medals are given to praise these users. For instance, the medal of OTA feedback is given to those users who have more than 2000 points gained through posting and replying threads. The medal of ringtone master or ringtone star is rewarded to those who upload and share massive ringtone resources to the community and the medal of best theme designer is for users who create many popular and functional theme for XIAOMI smartphones. More medals one user obtained, higher community status is revealed and shown in the personal profile.

























|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| OTA Feedback                                                                        | Best Theme Designer                                                                 | Die-hard MIUI Fan                                                                   | Ringtone Master                                                                     | Ringtone Star                                                                       | Star MIUI News Team Member                                                            |
|  |  |  |  |  |  |
| Pioneer of MIUI English Forum                                                       | MIUI Porting Team                                                                   | MIUI Follower                                                                       | I love Mi Bunny                                                                     | I love MIUI                                                                         | Mr. Dependable                                                                        |
|  |  |  |  |  |  |
| MIUI Device Team                                                                    | Star of MIUI Device Team                                                            | App Review Star                                                                     | App Talent                                                                          | Recognized MIUI Porting Dev                                                         | Industrious Reporter                                                                  |
|  |  |  |  |  |  |
| MIUI Device Expert                                                                  | Best Article                                                                        | MIUI Photography Guru                                                               | Star of MIUI Beta Team                                                              | MIUI Ice Bucket Challenge                                                           | Humor Master                                                                          |

FIGURE 3. Different medals offered in MIUI crowdsourcing community (MIUI 2015)

In addition, a special motivational mechanism has been applied to maximum users' activity and engagement in order to maintain company's sustainable development. This motivational mechanism can be seen as the model of gamification, employing game-design elements, principle and techniques in a non-game context in order to motivate and shape users' behavior. (Kavaliova et al. 2016.) Users who accomplished required tasks such as signing every day when log in, replying and adding threads regularly, giving feedbacks promptly can be rewarded the virtual currency called Mi-copper. Members can purchase some virtual services and get discounts for real products with relative quantity of Mi-coppers.

### 3 THEORATICAL FRAMEWORK

This chapter offers an overview of the theoretical background of this thesis. Several theoretical sources are discussed in order to lay a basis for conducting a quantitative research for the case company. As mentioned in the introduction part, the definition of crowdsourcing and the role of crowds are stated, followed by the discussions about online community and online participation. Moreover, the concept of motivation and the classification of users' motivation are elaborated respectively.

#### 3.1 Crowdsourcing

What crowdsourcing is? Is it similar with outsourcing? Many people may be confused about this term as it is a recent new concept. It was coined by Jeff Howe, who mentioned in an article published in *Wired Magazine* in 2006. From the Howe's point of view, crowdsourcing is the act of an enterprise outsourcing the tasks traditionally completed by the employees to an undefined and large online community via using the open call format (Howe 2006, 1-4).

##### 3.1.1 Definition and overview

Many researchers have paraphrased their different definitions from varying levels and perspectives after Howe's creation about crowdsourcing. In this thesis, a new integrating definition, developed by Estellés-Arolas and González Ladrón-de-Guevara based on extracting and reorganizing over 40 definitions from diverse resources was employed to summarize this term comprehensively. The definition suggests crowdsourcing is a kind of online participative phenomenon for obtaining mutual benefit in which a corporation or an individual raises a task with diverse complexity and modularity to a large group of people or communities with different knowledge, culture and experience by an open call. The whole online crowd can participate this activity and submit their work in order to achieve own demand, like social recognition, self-worth and self-improvement. At the same time, the best solution from the large amount of works is utilized maximally by crowdsourcer (enterprise, institution or individual). The common characteristics of any given description about crowdsourcing process can be summarized into 8 points: the crowd, the task, the remuneration acquired by the crowd, the

crowdsourcer, the compensation obtained by crowdsourcer, online crowdsourcing process, an open call and the internet medium. (Estellés-Arolas & González Ladrón-de-Guevara 2012, 189–200)

### 3.1.2 The role of user and crowd in crowdsourcing

Simply speaking, user, means an entity has authority to use or operate something, such as an instrument, a system and a procedure (Business Dictionary 2016); the term crowd defines a large group of users united by common characteristics that are gathered or considered together (The Free Dictionary 2016). They prefer sharing and discussing own ideas, innovations, opinions with public rather than hiding them for making profits or creating patents (Hippel & Finkenstein 1979). Concerning the serious contribution of crowds in crowdsourcing, James Surowiecki (2004) states that the crowd is more intelligent even than the smartest individual in the world. Crowds should not be controlled and dominated by a few leaders for proposing good solutions, instead, crowd including diverse people with different knowledge and expertise can find comprehensive and ideal solutions or innovations through continuous discussion and communication. (Surowiecki 2004, 1-7.)

In traditional product development process, companies basically follow the informed-reported process: customer services and marketing department collect users' demand and suggestions via telephone, street surveys, etc., then communicate with the product managers. After filtered information collected by marketers, product managers report information to engineers, designers and corporate executives, who can make final decisions. (Kuang 2012, 336.) The whole process is very slow and irreversible. After the official launch of products, it is often difficult to make any changes, which means the negative impact among users cannot be withdrawn once it has formed. But now, crowdsourcing business model subverts the traditional product R&D processes and marketers can directly access to the user's real thoughts. This interactivity creates more opportunities for enterprises understanding users more specifically and this conversion is partly performed possible due to the rapid growth of users' engagement. According to Hippel (2005, 1-2), product R&D process can be democratized by changing the position between manufacturers and users. However, a majority of people still wonder can crowds really compete with experts in innovating new products. A study about a real-world comparison between the quality of ideas raised by a corporation's experts and ideas generated by crowds in a generating idea competition shows that crowd has an enormous contribution to complement company's experts in product R&D

process. Even though company's experts are better than crowd in terms of feasibility, which means the ideas generated by experts are more simply to be transferred into real products; ideal innovations are overall more concentrated among crowd instead of corporations' experts, especially in terms of novelty and customer benefit. It is obvious that users are now in the center of product R&D process instead of companies. (Poetz & Schreier 2012, 245-256.)

### 3.2 Online community & Online participation

The concept of community can be traced back to the critique of modernity. The early 19th-century sociologists believe that modernization is a kind of destruction to the communities (Muniz & O' Guinn 2001, 412-432). As the emergence of Internet, a new form of community called online community has been formed where people can obtain co-exist virtual space and participate in similar activities because the internet-based communication can break through the barriers of space and time.

#### 3.2.1 Online community

The concept of online community was initially popularized by Rheingold (1993). Many scholars conducted continuous studies after that. By reviewing and extracting diverse explanation from previous researchers, Lee, Vogel & Moez (2003) generated an integrated definition that online community is a technology-based and computer-mediated social aggregation providing virtual space for people who carry on ongoing public communication and interaction in a similar field to create member-driven content. (Lee et al. 2003, 47-61.)

#### 3.2.2 Online participation

The definition of participation is varying depends on the context and application. The most visual one from Rahnema (2010, 127) describes the behaviour of participation likes children play Legos. Every piece of Lego is assembled together and is the unique part of the whole amazing structure. In the context of Internet, this kind of behavior is online participation, which states the communication and interaction between crowd and online communities on the website. Crowd not only can post user-driven content to the website like suggestions, ideas and other related information, but also can discuss and exchange knowledge and opinions with other users (Wang & Yu 2012, 1-13).



Nowadays, online participation is an increasingly popular research topic because it offers insight into many fields such as e-commerce, crowdsourcing and online community marketing. In this thesis, the author focuses on the online participation in the scope of crowdsourcing communities.

Based on many previous research results, Crowds' participation in online communities can be classified into two main types: public participation and non-public participation. Public participation, also called poster or contributor, was used to describe users who play an essential role in maintaining and developing online communities by posting new knowledge and information (Wang & Yu 2012, 1-13). More content or more posts one user creates, more contribution the user makes. After more deep following researches, a vigorous debate about if providing some content is the only way to sustain online communities has been spread. According to Phang, Kankanhalli & Sabherwal (2009, 721-747), seeking and contributing information and knowledge are the two significant activities of online participation to achieve and sustain the value of online communities. Users who raise questions may be also useful for the development of online community via checking the availability of information (Wang & Yu 2012, 1-13). According to previous studies, Majchrzak, Wagner & Yates (2006, 99-104) classified public participation into two main types: "synthesizer" and "adder". Synthesizer refers to user who can influence others through providing a new solution and adder means people who raise new questions and offering new information, both of them are playing a crucial role in online communities. As a whole, those who really participate in the online virtual community, creating and sharing new information and knowledge via posting threads including dialogues and replies to questions raised by other users can be called public participation. (Wagner 2004, 265-289.)

Non-public participation is also known as lurker. The term of lurk can be tracked to the 14<sup>th</sup> century when it was used to describe people who hide in the dark for wicked intents (Merriam Webster 2015). However, nowadays, lurker is not regarded as a totally negative word on account of their contribution of being audience of mass virtual online communities (Rafaeli, Ravid & Soroka 2004, 10). Through browsing different online resources, while the definition of lurker is varying, there is an overall consensus that they perform passively, they may have useful ideas and knowledge but seldom post any threads for creating content for prolonged periods (Nonnecke & Preece 1999, 123-128; Ridings, Gefen & Arinze 2006, 329-354). Some communities think that lurking behaviors are the evidence of the value of each resource (Muller, Millen, Shami & Feinberg 2010, 201-210). They think users with short length of membership need enough

time to learn more through lurking because these newbies are not ready for any contribution yet (Wang & Yu 2012, 1-13), while some online communities regard lurker as a free-rider (Rheingold 1993) draining other users' contribution who uses and takes advantage of information on the web but does not have any contribution. However, no matter whether lurkers are negative takers or the positive users, it is no question that they are a crucial proportion of online virtual communities and worth studying. A refinement of previous explanation of lurker was developed from 4 aspects: lurker demographics, lurker strategies, context influence and lurker activities (Nonnecke & Preece 1999, 123-128).

### *Lurker demographics*

Even though the lurker demographics are varying depends on the type, scale of communities and other related elements (Nonnecke & Preece 1999, 123-128), numerous studies (Nonnecke & Preece 1999, 123-128; Nielsen 2006; Rafaeli et al. 2004, 10; Ridings et al. 2006, 329-354) suggest that "90-9-1 principle" is a rule of thumb about levels of participation in most online communities. If the website has a group of 100 users, only 1 people will participate actively and contribute a lot to create content, 9 people will contribute occasionally to interact with others and comment, edit or modify that content and other 90 users are defined as lurkers who just view and observe content without engaging other users in the online community. Just because this heavy participation inequality affects the sustainable operation of crowdsourcing communities, facilitating the transformation from lurkers to contributors is imminent.

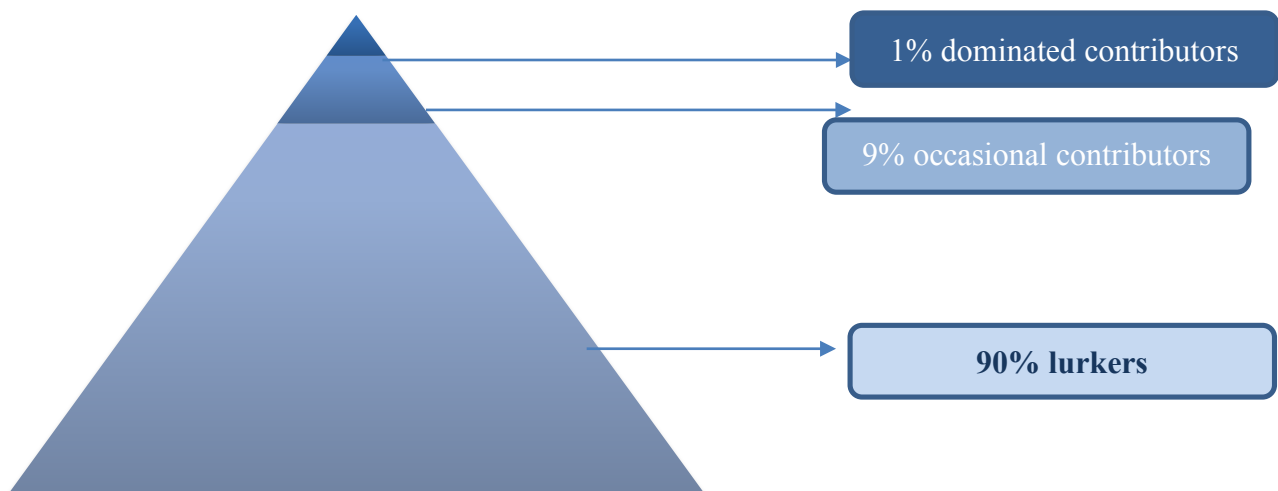


FIGURE 4. The 90-9-1 rule about participating in online crowdsourcing communities (Nielsen 2006)

### *Lurker strategies*

The lurkers' strategies can be perceived as the usability of communities' functions. Understanding why lurkers lurk, how they browse content, how they save useful information and which techniques they usually use is beneficial for web designers and tool makers to improve the online communities (Nonnecke, Andrews, Preece & Voutour 2004, 321). One good example is the case of Twitter lurkers: most of them often use some search techniques to narrow down the content and information as required, such as using multiple hashtags at once because most hashtags have no standardization, adding "or" between several variants for better identification, searching via inputting general keywords without the # symbol limiting results (Judy 2014).

### *Context influence*

Lurkers' behaviors and participations vary from communities to communities (Ridings et al. 2006, 329-354; Nonnecke et al. 2004, 321). Many elements including theme, topic, the scale of community, operating mechanism and the number of active participants have a tremendous impact on lurkers' performance. For understanding lurkers more accurately, it should be analyzed combining with diverse contexts instead of being treated as an isolated phenomenon (Nonnecke & Preece 1999, 123-128).

### *Lurker activities*

As many researches indicated, lurkers' regular activities include browsing information, downloading useful files, learning communities' norms and cultures (Muller et al. 2010, 201-210). All of these lurkers' behaviors can be categorized by 4 types: people seldom post any content; people do not post in a given discussion; people who are newbies of the communities need sufficient time to know more about communities' culture, rules and traditions are not ready to post; people never want to post anything (Dennen 2008, 1624-1633). According to the findings of Nonnecke et al. (2004, 321), over 20 reasons make lurkers do not participate in posting, such as learning about the communities just through browsing is sufficient, the value of posting is low because of nothing new to offer, personal factors including cultural background and characteristic make them do not want to post (Walker, Redmond & Lengyel 2010, 155-165). However, individuals are not always persistent on their behaviors. Many studies indicate that lurkers have the potential to transit from being lurkers to contributors (Rafaeli et al. 2004, 10). Hence, it would be very convenient for online communities motivating users' active participation if the variables affecting lurkers' behaviors can be identified and understood.

### 3.3 Motivation

A user's online participation plays a pivotal role in the development of crowdsourcing. A consistent finding of users' engagement including crowd-driven discussions and user-generated contents is that the estimated ratio of lurkers is 90-9-1 and even worse. Many researches about Blogs and Wikipedia with 95-5-0.1 and 99.8-0.2-0.003 ratio respectively, prove this phenomenon (Nielsen 2006; Meyers 2016). Though the author preserves a neutral attitude about the value of lurkers, the participation inequality is so heavy which may cause many troubles like unrepresentative customer feedback, tiny reviews to learn and low-quality postings (Nielsen 2006). There is a need to better understand the elements motivating user's engaging behavior to move from lurkers to contributors.

#### 3.3.1 Definition

Motivation is a theoretical concept referring to the reasons underlying individual's behavior (Guay, Chanal, Ratelle, Marsh, Larose & Boivin 2010, 711-735). It covers a constellation of biological, social, emotional and cognitive elements activating, directing and sustaining goal-oriented behaviors (Cherry 2015). Individuals who are motivated represents that they are moved, energized and activated to do something and vice versa. Anyone who works or plays is all related to motivation (Ryan & Deci 2000, 54-67), considering about the questions of can I do this tasks? Why I have to do this stuff? Do I want to do this task? How can I complete this task successfully? (Broussard & Garrison 2004, 106-120). People who have an aim such as earning a scholarship, finishing a marathon maybe immediately realize that only have the desire to achieve this goal is not sufficient. Three main components of motivation, activation (decision to do this), persistence (the perseverance of overcoming any challenges met during the task) and intensity (high concentration on pursuing the goal) are all significant for achieving such an aim. (Cherry 2015.)

#### 3.3.2 Classification of motivation – Self-determination theory

So what are the things that actually motivate us to act? Psychologists have proposed a number of different theories to analyze motivation. In the following section, an oversight of motivation affecting participation in a crowdsourcing platform is provided. Self-

determination theory model is employed to analyze the orientation of the motivation (the type of motivation and why generate this actions) (Ryan & Deci 2000, 54-67).

Generally, motivation can be classified into two main types based on the orientation of the motivation: Intrinsic motivation and extrinsic motivation, which have been widely studied and used. Intrinsic motivation can be regarded as inherent satisfaction and enjoyment from an activity. It defines that people engage in an activity or perform a behavior for the interests or challenges entailed instead of performing for external forces like money rewards and social pressures. (Nov, Anderson & Arazy 2010, 741-750.) For the participation and contribution to the online crowdsourcing communities, users motivated by intrinsic factors are usually affected by the potential of future revenues increasing from online communities' support services, accumulating 'human capital' via training and learning from crowdsourcing communities which is beneficial for a better portfolio of resume and job opportunity and obtaining peer recognition through feedback for improving self-confidence (Paulini, Maher & Murty. 2014, 94-114). Extrinsic motivation, related to external forces, is a construct that describes when somebody is extrinsically motivated, he performs this behavior in order to obtain some separable consequences, which is the opposite of intrinsic motivation (Ryan & Deci 2000, 54-67). According to Yang, Adamic & Ackerman (2008, 246-255), extrinsic incentive like financial reward is an extra trigger to encourage users to engage in the community with high-quality of contribution.

While the evidence is mixed pertaining to the relative influence of intrinsic forces and extrinsic forces, the majority of motivational studies indicate that both of them are important. According to Roberts, Hann & Slaughter (2006, 984-999), the result of the research about online open source software developers also shows that internal and external motivation might interact and both affect users' online participation. An extrinsic incentive like giving rewards can raise one's interest and more contribution may be created, which can improve user's status in the community and thus facilitate his intrinsic motivation. Nevertheless, many theories still treat motivation as a unitary phenomenon that varies in amount rather than type (Ryan & Deci 2000, 54-67), even though numerous studies figure out the taxis of intrinsic motivation and extrinsic motivation is not sufficient for analyzing real cases because of the intricacy of human behavior and decision-making processes.

Self-determination theory is a comprehensive theory of human personality and motivation focusing on the individual innate talent growth and psychological needs developed by Ryan & Deci in 2000. It elaborates that the taxonomy of motivation can be seen as

a gradual conversion process ranging from unwillingness indicated by amotivation, passive compliance demonstrated with extrinsic motivation and personal inner commitment shown by intrinsic motivation instead of a bipolar framework. This continuum can also be regarded as a manifestation of levels of one's internalization rising from left to right and the degree of integrating a regulation or value to be the part of oneself. (Ryan & Deci 2000, 54-67; Gagne & Deci 2005, 331-362). Distinction between autonomous motivation and controlled motivation is the key point of self-determination theory. Individual's behavior performed due to intrinsic motivation can be seen a prototype of autonomous motivation (Gagne & Deci 2005, 331-362). Four sub-types are illustrated understand extrinsic motivation based on the degree to which it is autonomy versus controlled (Ryan & Deci 2000, 54-67; Gagne & Deci 2005, 331-362). Contrast with incentive theory that person's behaviors are mostly motivated by the incentive of extrinsic factors like bonus, promotion and praise, Self-determination theory suggests people tend to be motivated by inherent growth and psychological needs. As figure 5 shown, we can view the place of different motivators.

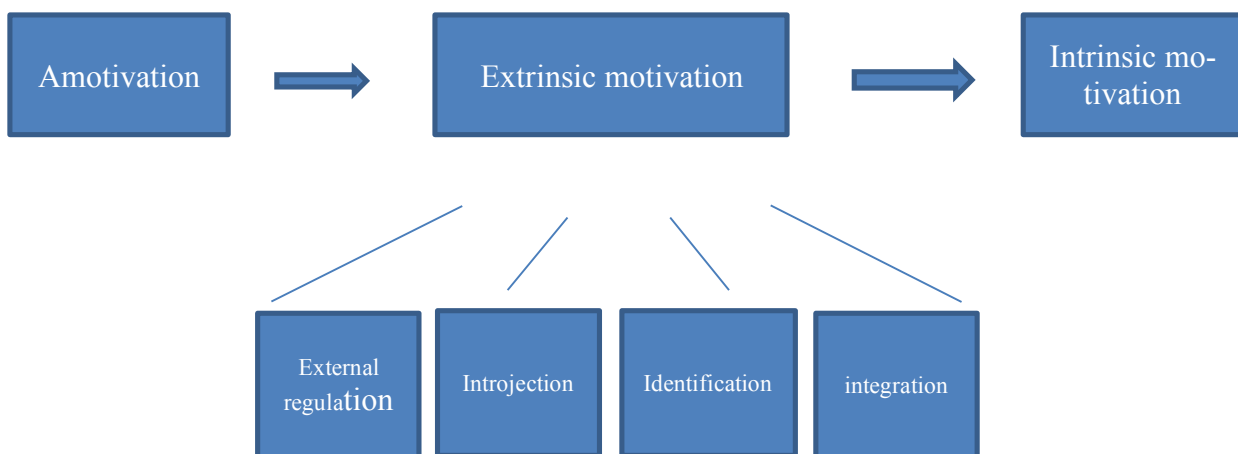


FIGURE 5. Self-determination theory model (Ryan & Deci 2000, 54-67)

Amotivation on the left side, which is least preferred than other types. The behavior is wholly lacking of an intention when people is motivated (Gagne & Deci 2005, 331-362). This type of motivation is resulted from the activity participated is not be valued or believed that can amount to anything.

Extrinsic motivation in the middle, which is less preferred than intrinsic motivation but better than Amotivation. Four sub-types of extrinsic motivation are shown as falling along a continuum of internalization. (Ryan & Deci 2000, 54-67.)

- First one is external regulation, which indicates that the behavior performed is going to obtain a possible reward or to fulfill the external demand. It is a prototype of controlled motivation that people act with the purpose of getting an expected result or avoiding an unexpected one. Hence, people are stimulated to perform only when the behavior is instrumental to these consequences.
- To the right of External regulation is introjection, which describes an act is motivated to remain self-esteem and self-worth and to get approval from self and others. Ego-involvement is a basic form of introjections. Though it is an internal regulation, introjected behavior is still controlling and not coming from one's self completely. This kind of actions are performed under the pressure of avoiding guilty or solicitude.
- Next one, identification, indicates that the actions are more autonomously of extrinsic motivation. For this type, individual has realized the importance and the value of the behavior. This action is not motivated by an immediate reward, enjoyment or guilty (Anderson 2016).
- The last one of extrinsic motivation, integration, is the most autonomously of extrinsic motivation. Only identified regulation has been totally assimilated to one self, the integrated regulation will happen. Although it has a lot of similar qualities with intrinsic motivation, the integrated regulation is still a form of extrinsic motivation because the actions or aims that want to be done is for the assumed instrumental value instead of the internal pleasure.

Intrinsic motivation on the right side, is the ideal one, which describes the activity that are trying to be achieved is purely due to self-internal enjoyment and inherent motivation. (Ryan & Deci 2000, 54-67.)

One of the pivotal elements of the SDT theory is three innate psychological needs: autonomy, competence and relatedness. A positive result can be reached if these three needs can be fulfilled.

Autonomy: it means decisions, behaviors and aims can be control by own self. In other words, autonomy represents the freedom of making choice. The reverse side of autonomy is heteronomy which represents regulation happened without self-endorsement.

As many motivational literatures shown, people who have autonomy perform more energetic and productive. In other words, higher levels of autonomy, more intrinsic motivation people have. (Gagne & Deci 2005, 331-362.)

Competence: People seek to master the tasks and the consequence. It can be seen as one psychological need for people confirming their self-esteem. The level of competence has an impact both on intrinsic and extrinsic motivation. (Gagne & Deci 2005, 331-362.)

Relatedness: A sense of belonging or interaction with other people and communities. It can be regarded as a need for a safe, warm and caring atmosphere in the crowdsourcing communities. Similar with competence, the level of relatedness also effects both intrinsic and extrinsic motivation. (Gagne & Deci 2005, 331-362.)

Psychological motivational studies have been applied in many different contexts. In the context of participation in online virtual communities, Uses and Gratifications theory (U&G) was generated by several scholars in 1970 (Blumler 1979, 9-36; Katz & Blumler 1974) and has been developed via thousands of continuous researches in different disciplines. Contrast with other theories about media effect focusing on what does media do to users, U&G theory emphasis on what do individuals do with media product. Uses and Gratification theory is an audience-centered method referring to the reasons why people seek out a specific media product based on the anticipation of what gratification will be received by doing so (Rafaeli et al. 2004, 10). It has been employed to many researches pertaining to motivations for users participating open source software and user-driven content activities in the past decade. For instance, a research about the motivation of Youtubers continuously posting videos to the website reveals that getting attention, fellow feedback and recognition is a common phenomenon among these users. (Wu, Wilkinson & Huberman 2009, 409-415.) Rafaeli, Hayat & Ariel (2009, 51-67) summarized three types of motivations of Wikipedia users to contribute, which includes obtaining and sharing information, seeking pure enjoyment and adding value to the content. Based on U&G theory, five motivation categories for crowds contributing to online virtual communities are generated by Dholakia, Bagozzi & Pearo (2003, 241-263), including predetermined intent, self-discovery, keeping interpersonal connection, improvement of social status and enjoyment.

Finally, the author summarizes some motivational factors in the context of online crowdsourcing communities under each column of self-determination model based on previous theories and relative researches.



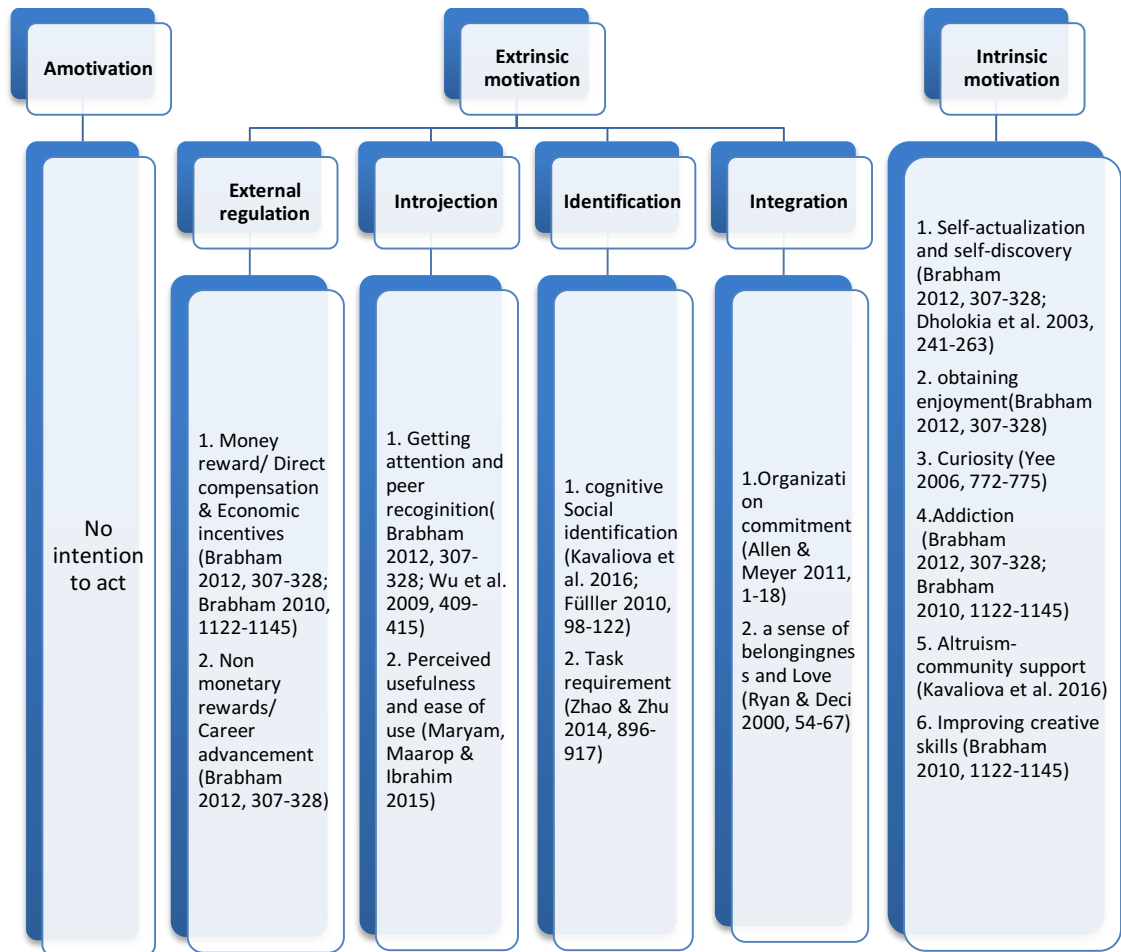


FIGURE 6. Self-determination theory in the context of crowdsourcing communities

## 4 RESEARCH ON MIUI FORUM AND ITS USERS

This chapter focuses on the practical research within the thesis topic. The whole procedure includes analyzing two main research methods, generating research questions, choosing a proper research method to design the survey and planning the proper sample, collecting data, then analyzing collected data and reaching to a summary of main findings; finally, evaluating the validity and reliability of the research.

### 4.1 Research methodology

Research methodology can be seen as a systematical process including collecting, analyzing and interpreting data in order to solve the research questions. Different research methodologies should be used in different types of research. Qualitative approach and quantitative approach are two basic research methodologies, which are differ in many aspects, such as research purpose, sample size, data collection and analysis as well as research outcome. (Kothari 2004, 3-5.)

#### *Quantitative research*

Quantitative research is applicable to explain a particular phenomenon that can be expressed in terms of quantity in order to solve the problems about “Amount” and “Association”. (Aliaga & Gunderson 2006.) It involves the generation of numeric data from a target sample to the whole large population and the measurement of the incidence of diverse attitudes, suggestions and other variables in order to uncover certain trends and patterns. (Wyse 2011.) According to Zikmund (2000, 53-67), the whole process of quantitative research can be divided into 6 stages, which is displayed in FIGURE 7 as a cyclical process.

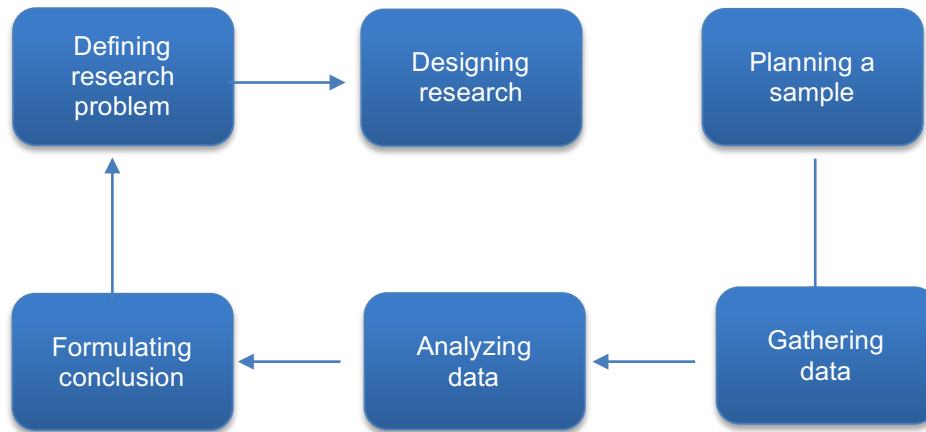


FIGURE 7. Quantitative research process (Zikmund 2000, 54)

As can be seen from FIGURE 7, the research process starts with the formulation of research objectives which are transferred to several sub-questions later. To be efficient, the researcher must have clear objectives and definite the problem he or she wants to research in a broad way. Then the general objectives should be extended and converted into several specific research questions from an analytical viewpoint. (Kothari 2004, 3-5; Zikmund 2000.) Once the research problems have been formulated, the researcher is required to develop a research design. The methods, techniques and procedures about data collection and analysis within the research should be stated in this stage. Quantitative research methods involve diverse forms of surveys and questionnaires within different types of questions, such as online surveys, mobile surveys, paper surveys and telephone surveys etc. (Wyse 2011.) Which method is selected should be decided based on the research objectives, the length of data collection, the cost of research and the availability of resources. (Zikmund 2000.) After the stage of research design, the method of selecting appropriate sample should be determined. Three issues about sampling should be considered, which are “who should be sampled”, “what is the size of the sample” and “how to select the sampling units”. The target population should be identified in order to select those who are related to the phenomena. And a proper sample size is important to get a reliable measurement of the whole population. (Zikmund 2000.) For the third issue, there are two main sampling methods: probability and non-probability sampling. A probability sampling refers to each sampling unit has a nonzero probability of being selected while a non-probability sample means the researcher selects the sampling unites based on personal judgment or belief. (Kothari 2004, 3-5.) Then, the researcher moves to the stage of gathering data. There are also various ways of collecting data that should be chosen based on the cost, urgency, time and relative resources. It is followed by the stage of data analysis,

which includes data coding and editing, tabulation and statistical inferences. At last, the research findings should be concluded to interpret important information and give suggestions in non-technical language. (Zikmund 2000.)

### *Qualitative research*

Differ with quantitative research, qualitative research is concerned with qualitative phenomenon to solve questions about “What” and “Why”. (Kothari 2004, 3-5.). It is used to obtain insights into the subject or phenomenon in reasons, reactions and opinions (Wyse 2011). Unstructured or semi-structured techniques, such as group discussions, individual depth interviews and participant observations are common used in this research method. Sampling units are selected based on a given quota and the sample size is pretty small comparing to quantitative research. Qualitative research method can be used if there is rarely information and theory base about the research topic and the variables about the research are unknown or unclear. (Tavallaei & Talib 2010, 570)

The research method employed in this research is quantitative method and the main reason for applying this method is to become more experienced with research between users and crowdsourcing activities. As mentioned before, this method offers a measure of the incidence of diverse behaviors, views and suggestions in a certain sample size. Considering the characteristics of this research and the type of data expected, quantitative method was used for collecting numerical data and analyzing them in statistic form, which is more structured and graphic than qualitative method in this research. Both primary data and secondary data were used in this research. Secondary data was collected from similar previous studies and online data base; primary data was obtained by conducting quantitative research method.

## 4.2 Research questions

The central research question that the author concerned about is:

What motives the users' engagement on MIUI crowdsourcing platform?

The sub-questions underlying the central question are:

1. What is the target crowd of MIUI crowdsourcing platform?
2. Which motivational factor is more important? / The difference of influence among these motivational factors.

3. How to attract and motivate more efficient users active on MIUI crowdsourcing platform?
4. What can motivate users persistently continue their engagement?

### 4.3 Survey design

A user questionnaire was designed and created by using Webropol which is a frequently used software within Savonia UAS for conducting surveys, aiming at understanding targeted users' motivation, behavior and opinions towards MIUI crowdsourcing communities. As the target groups are mainly from China and adjacent countries, the questionnaire was created both in English and Chinese. There are 10 questions in the survey, including single selection, Likert scale selection and open-ended question, which can be divided into three sections:

- Background information: Demographic variables of respondents concerning their gender, age, education level, income level and occupation were constructed. (Q1-Q5)
- Participation level: The questions about participation level were designed to divide respondents into three different types of participant (contributors, occasionally contributors and lurkers) based on the 90-9-1 rule developed by Jakob Nielsen (2006). This section consists of 3 questions including the length of being member of MIUI forum, the number of posts and the main use of this forum. Based on the MIUI forum regulations about the amount of credits obtained from posting threads and needed to upgrade users' status, the structure of the number of posts is classified into posts below 5, between 5-20, between 21-50 and finally above 50. (Q6-Q8)
- Motivation statements: A literature review was performed before to illustrate what was already about the motivations of users' engagement in online crowdsourcing platforms. Totally 14 types of motivation which were displayed in Figure 7 that mentioned in the theoretical part. Each motivation item was transferred into simple statement that represents the type of motivation as precise as possible. 5-point Likert scale, an ordered scale from which respondents choose one option that can best expresses their attitudes, were used to measure each motivation statement, which was constructed as follows: Strongly agree=1, agree=2, neutral=3, disagree=4, Strongly disagree=5. (Vanek 2012)

- Respondents will be asked about the extent to which they agree or disagree with a specific question or statement. (Q9)

Ultimately, respondents may give their suggestions and expectations for the continuous improvement of MIUI crowdsourcing community. (Q10)

#### 4.4 Data collection

Based on the statistics on MIUI forum, until May, 2014, total number of MIUI forum users reached to 8 million worldwide, which is a great size of population. Considering the limited research time, unavailable sources and the difficulty of analyzing the whole target population, sampling method was applied in the quantitative research. In order to reach more existing users of MIUI crowdsourcing forum, the author posted a questionnaire request on MIUI forum, any users who are interested in filling out the questionnaire can receive a whole questionnaire via Private Message function offered by MIUI community; questionnaire was also forwarded to the target population through several famous Chinese social medias, such as Weibo, QQ and WeChat.

The author also asked some friends who are already users of MIUI to participate in this survey directly. The survey was managed from 4 April to 18 April.

#### 4.5 Data analysis

A number of 218 answers were ultimately received after two weeks. However, there are only 32 answers collected in the last open-ended question. Quantitative data gathered via questionnaire was analyzed by Microsoft tools and Professional Statistics analytical tool of Webropol in order to generate statistical data of respondents.

Robert Michael (2003) defines cross-tabulation is a tool that displays the joint frequency distribution of the variables. It can be used for discovering the correlation between different variables. Therefore, the author is able to analyze whether there is a relationship between demographic variables and different participation types. The correlation between different types of participation and motivational factors is also analyzed by cross tabulation. The majority of the results in terms of respondents' motivations are displayed in bar charts because it is more visually for readers to comprehend. Totally 6 bar charts are created; 5 out of 6 bar charts are designed for analyzing 5 types

of motivations respectively and another one is used to comparing the average attitude of all motivational factors.

#### *Analysis of demographic variables*

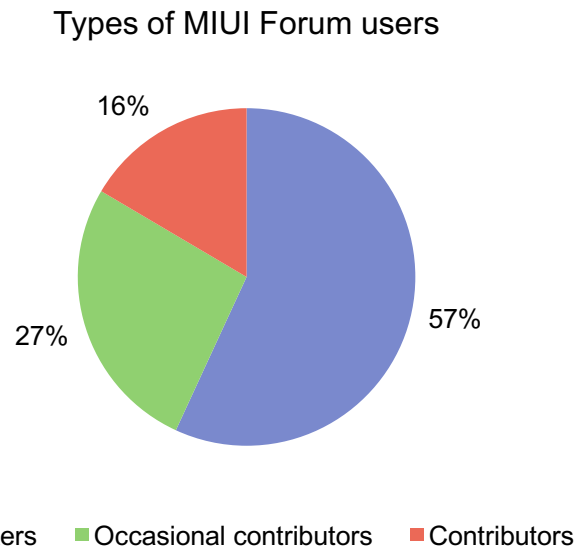


FIGURE 8. The distribution of respondents by different participation types

As illustrated in FIGURE 8, there are a total of 218 respondents from China and adjacent countries. More than half of respondents (57%) are lurkers who seldom post any threads in MIUI forum while only 16% of respondents are contributors who prefer posting and sharing information with other members of MIUI community. 27% of the respondents post threads and interact with other users occasionally.

#### *Analysis of association with targeted variables*

TABLE 1. The gender of respondents by participation types

| Gender | Participation types |                        |                                      |                    |
|--------|---------------------|------------------------|--------------------------------------|--------------------|
|        | All<br>(N=218)      | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| Male   | 75%                 | 67%                    | 76%                                  | 77%                |
| Female | 25%                 | 23%                    | 24%                                  | 33%                |
| Total  | 100%                | 100%                   | 100%                                 | 100%               |

It can be seen from TABLE 1 that there is a big difference on the number of male and female respondents, which accounts for 75% and 25% respectively. Hence, it seems that male prefers engaging in crowdsourcing activities than female. Moreover, the proportions of the male respondents are all much higher than the female in three groups with different participation types. Especially in the group of lurkers, up to four-fifths lurkers are male. Hence, the male group occupies as a dominant position which takes a much higher percentage than female group regardless of whichever the respondents' participation type is.

TABLE 2. The age of respondents by participation types

| Age      | Participation types |                        |                                      |                    |
|----------|---------------------|------------------------|--------------------------------------|--------------------|
|          | All<br>(N=218)      | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| Below 18 | 8%                  | 11%                    | 9%                                   | 7%                 |
| 18-35    | 78%                 | 61%                    | 71%                                  | 85%                |
| 36-50    | 13%                 | 28%                    | 17%                                  | 7%                 |
| Above 50 | 1%                  | 0%                     | 3%                                   | 0%                 |
| Total    | 100%                | 100%                   | 100%                                 | 100%               |

The age structure among respondents is classified into the age under 18, those from 18-35, from 36-50 and finally those older than 50. The respondents basically focus on the age between 18 and 35 years old, which occupies 78 % of the whole respondents. It is followed by the age between 36 and 50 and below 18, which take 13% and 8% respectively. Only 1% of respondents are elder than 50.

The table above also illustrates the distribution of different participation types in different age groups, which is similar with the situation reflected from all respondents. A slightly difference can be noticed with the group of age between 36-50, there are almost 30% of contributors' age is between 36-50, which is much higher than the proportions in other two groups. Surprisingly, there is no data about respondents who are elder than 50 exist in the group of contributors and lurkers.



TABLE 3. The occupation of respondents by participation types

| Occupation        | Participation types |                        |                                      |                    |
|-------------------|---------------------|------------------------|--------------------------------------|--------------------|
|                   | All<br>(N=218)      | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| Students          | 24%                 | 17%                    | 22%                                  | 27%                |
| IT field          | 35%                 | 33%                    | 34%                                  | 36%                |
| Finance field     | 17%                 | 19%                    | 22%                                  | 13%                |
| Education field   | 7%                  | 14%                    | 5%                                   | 6%                 |
| Service field     | 7%                  | 11%                    | 3%                                   | 7%                 |
| Manufacture field | 3%                  | 3%                     | 3%                                   | 2%                 |
| Others            | 7%                  | 3%                     | 9%                                   | 8%                 |
| Total             | 100%                | 100%                   | 100%                                 | 100%               |

Referring to the occupation of respondents, from TABLE 3 above can be seen that, a vast majority of 35% and 17% are the respondents working in IT field and finance field. Students also take a relative high proportion of the whole respondents with 24%. The minority are people who work in manufacture field with 3%. The number of respondents working in education field (15) is similar with the number of people working in service field (16). There is a slight difference between occasional contributors and other two participation types. Occasional contributors working in service field only hold 3% of the total occasional contributors which is much lower than other two groups, while 22% of them working in finance field which is higher than other two groups.

TABLE 4. The education level of respondents by participation types

| Education level                         | Participation types |                        |                                      |                    |
|-----------------------------------------|---------------------|------------------------|--------------------------------------|--------------------|
|                                         | All<br>(N=218)      | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| High school or less than<br>high school | 9%                  | 6%                     | 12%                                  | 8%                 |
| College                                 | 40%                 | 50%                    | 38%                                  | 38%                |
| Master degree                           | 47%                 | 36%                    | 43%                                  | 52%                |
| Doctoral degree                         | 4%                  | 8%                     | 7%                                   | 2%                 |
| Total                                   | 100%                | 100%                   | 100%                                 | 100%               |

For the education level of respondents, one can see from TABLE 4, there are 47% of respondents holding master degrees, which occupies a large proportion, followed by people who with bachelor degree (40 %). Respondents who finished high school or less than high school hold a third position with 9%. Nevertheless, only 4 % of respondents possessing doctoral degree were participated in this survey actively. The same situation happens on respondents who are occasional contributors and lurkers.

However, for respondents who are contributors, 50% possess their bachelor degree, which hold a first position, followed by those with master degree (36%). The proportion of respondents who have bachelor degree is same in the occasional contributors group and lurkers group (38%).

TABLE 5. The income level of respondents by participation types

| Income level | Participation types |                        |                                      |                    |
|--------------|---------------------|------------------------|--------------------------------------|--------------------|
|              | All<br>(N=218)      | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| Below 3000   | 25%                 | 19%                    | 31%                                  | 23%                |
| 3000-5000    | 16%                 | 17%                    | 17%                                  | 16%                |
| 5001-10000   | 47%                 | 39%                    | 33%                                  | 56%                |
| Above 10000  | 12%                 | 25%                    | 19%                                  | 5%                 |
| Total        | 100%                | 100%                   | 100%                                 | 100%               |

TABLE 5 demonstrates respondents' income in different levels. Four options including below 3000, 3000-5000, 5001-10000 and above 10000 were provided for respondents. Based on the statistics from The Statistics Portal (2016), in 2014, the average monthly income of Chinese was around 4500 CNY. It can be noticed that more than a half of respondents are able to earn more than 5000 CNY per month. Even though only 12% of respondents earn more than 10000 CNY per month, respondents' income primarily centers between 5001-10000 CNY with 47%. It can be inferred that majority of participants of MIUI crowdsourcing community have relative high income. Moreover, there are one fourth of respondents live in an income level below 3000, which is similar with the number of respondents who are students.

Considering different groups of participation types, however, there some differences exist. Respondents who are contributors mostly earn 5001-10000 CNY (39%) and

above 10000 CNY (25%) per month, while in other two groups, the income level of respondents mainly focuses on the group of 5001-10000 CNY and below 3000 CNY. Hence, it can be draw an inference that people who have relative high income would more likely to contribute to MIUI crowdsourcing forum.

TABLE 6. The number of posts submitted by participation types

| Number of posts | Participation types    |                                      |                    |
|-----------------|------------------------|--------------------------------------|--------------------|
|                 | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| Below 5         | 22%                    | 34%                                  | 90%                |
| 5-20            | 19%                    | 45%                                  | 7%                 |
| 20-50           | 31%                    | 19%                                  | 2%                 |
| Above 50        | 28%                    | 2%                                   | 1%                 |
| Total           | 100%                   | 100%                                 | 100%               |

In order to discover whether there is a possible relationship between the number of posts and the type of participation, TABLE 6 shows related information. Obviously, over a half of respondents are lurkers and 90% of them never or seldom post any threads; only 1% lurkers posted more than 50 threads. Respondents with different participation types have different preference in posting threads. A completely opposite phenomenon was reflected from contributors that only one fifth respondents among contributors posted threads below 5. The number of threads posted by contributors primarily centers between 20-50 (31%) as well as above 50 (28%). For respondents who are occasional contributors, almost half of them used to post threads between 5-20, followed by those posted below 5 and between 20-50, which are 34% and 19% respectively.

TABLE 7. The length of membership by participation types

| Length of membership | Participation types    |                                        |                    |
|----------------------|------------------------|----------------------------------------|--------------------|
|                      | Contributors<br>(N=36) | Occasional contrib-<br>utors<br>(N=58) | Lurkers<br>(N=124) |
| Less than 1 year     | 17%                    | 34%                                    | 72%                |
| 1-2 year             | 31%                    | 41%                                    | 21%                |
| 2-3 year             | 22%                    | 14%                                    | 6%                 |
| More than 3 year     | 31%                    | 10%                                    | 1%                 |
| Total                | 100%                   | 100%                                   | 100%               |

In TABLE 7, the two main variables would be compared with users' participation types and their length of membership. The participation type has been compared with the number of posts in the above table. In this cross tab, the similar comparison was made to see whether the length of membership would also affect their participation types. Apparently, TABLE 7 illustrates that a majority of lurkers registered as a member of MIUI forum less than 1 year and only 1% of lurkers with a membership over three years. On the contrary, less than one fifth of contributors registered less than 1 year. Over a half of contributors have accordingly longer membership. For the respondents who are occasional contributors, the length of membership mainly concentrates on 1-2 years. A brief assumption could be made that longer membership positively relates to the participation level.

*Motivations for participating MIUI crowdsourcing forum*

**Intrinsic motivations towards participating in MIUI Forum**

Average attitude: 2.30

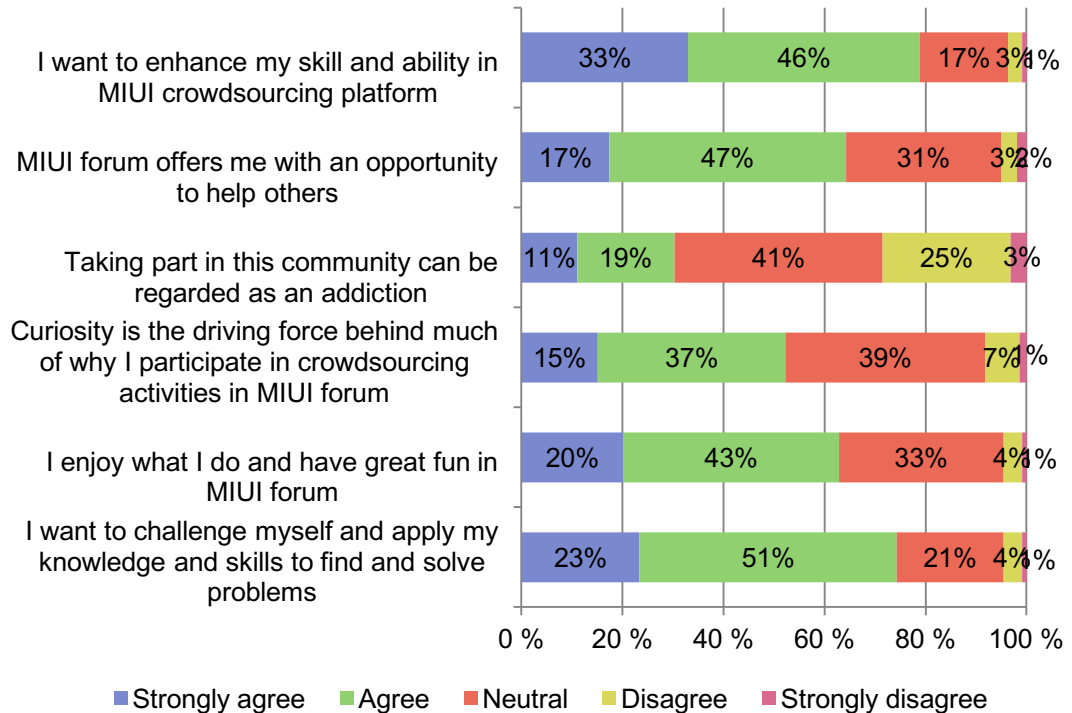


FIGURE 9. Intrinsic motivations towards participating in MIUI Forum

It can be visually noticed from FIGURE 9 that the majority of respondents consider intrinsic motivations are important for them engaging in MIUI crowdsourcing activities with an average attitude 2.30 expect the statement “Taking part in this community can be regarded as an addiction”. Four-fifths respondents regard “I want to enhance my skill and ability in MIUI crowdsourcing forum” as the most significant intrinsic motivational factor to engage in MIUI activities with 33% strongly agree, 46% agree, followed by the statement “I want to challenge myself and apply my knowledge and skills to find and solve problems” with 23% strongly agree and 51% agree. However, almost one third respondents consider the statement “Taking part in this community can be regarded as an addiction” as the least important intrinsic motivations for participating MIUI forum with 25% disagree and 3% strongly disagree.

### Integrated motivations towards participating in MIUI Forum

Average attitude: 2.74

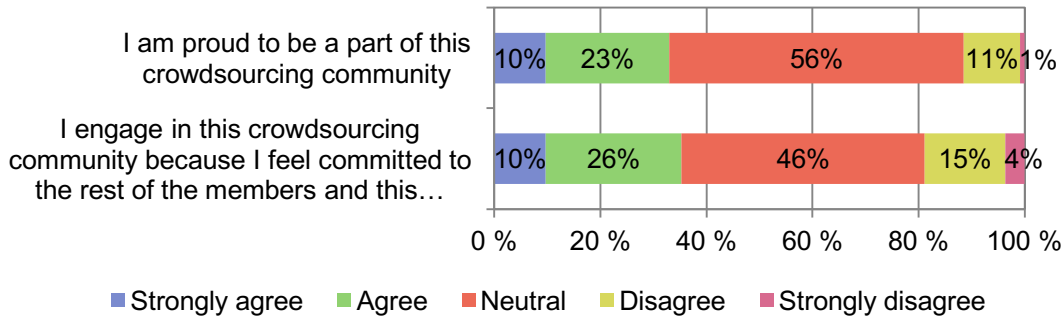


FIGURE 10. Integrated motivations towards participating in MIUI Forum

It can be seen from FIGURE 10 that respondents' attitudes toward two integrated motivational factors are similarly. The percentage of respondents who strongly agree with the statement "I am proud to be a part of this crowdsourcing community" is the same as the statement "I engage in this crowdsourcing community because I feel committed to the rest of the members and this community" (10%). Comparing to intrinsic motivational factors, respondents show a lower agreement with integrated motivations with an average attitude 2.74.

### Identified motivations towards participating in MIUI Forum

Average attitude: 2.95

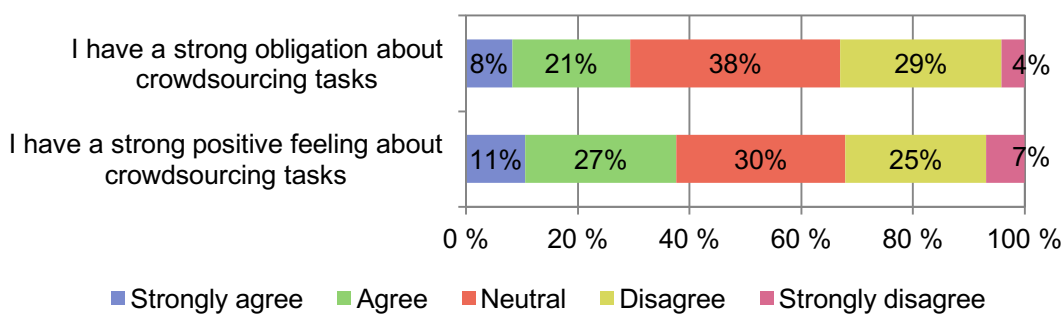


FIGURE 11. Identified motivations towards participating in MIUI Forum

FIGURE 11 illustrates that respondents express a lower agreement on identified motivational factors comparing to other types of motivations with an average attitude 2.95

while the attitude towards the statement “I have a strong positive feeling about crowdsourcing tasks” is better than “I have a strong obligation about crowdsourcing tasks”. Moreover, less than 10% of respondents strongly agree with these two factors while over one third respondents hold a negative attitude towards identified motivations.

**Introjected motivations towards participating in MIUI Forum**  
Average attitude: 1.99

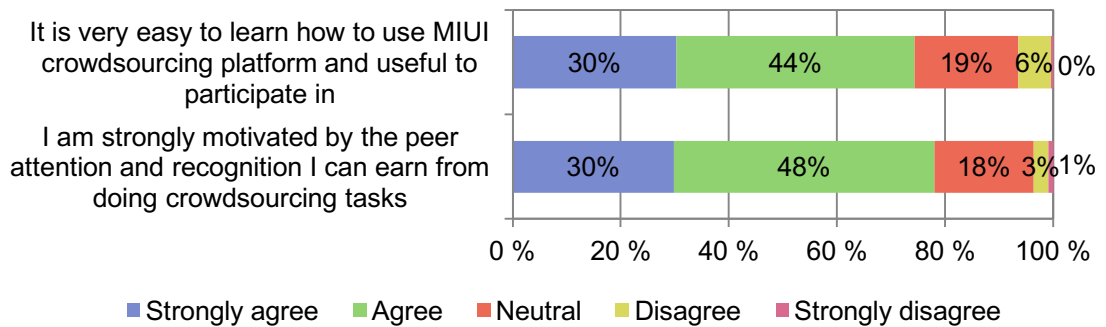


FIGURE 12 Introjected motivations towards participating in MIUI Forum

From FIGURE 12, respondents hold more positive viewpoints on introjected motivations with an average attitude 1.99. More specifically, 30% of respondents show strong agreement on these two introjected motivations; the percentage of respondents agree with “I am strongly motivated by the peer attention and recognition I can earn from doing crowdsourcing tasks” is a little bit higher than the statement “It is very easy to learn how to use MIUI crowdsourcing platform and useful to participate in”, which are 48% and 44% respectively. Surprisingly, no respondent heavily against with the statement “It is very easy to learn how to use MIUI crowdsourcing platform and useful to participate in” and only a few of respondents select strongly disagree with “I am strongly motivated by the peer attention and recognition I can earn from doing crowdsourcing tasks”.

### External regulations towards participating in MIUI Forum

Average attitude: 2.24

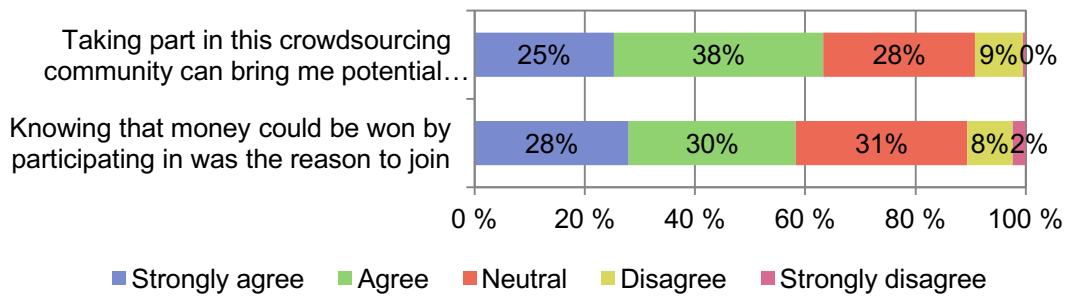


FIGURE 13. External regulations towards participating in MIUI Forum

According to FIGURE 13, the percentages of respondents who hold a positive view-point on these two external regulations are the same (58%). One third respondents stand a neutral position concerning external regulations. Moreover, no respondents strongly disagree with the statement "Taking part in this crowdsourcing community can bring me potential career advances/chances".



### Average attitude towards motivations of participating in MIUI Forum

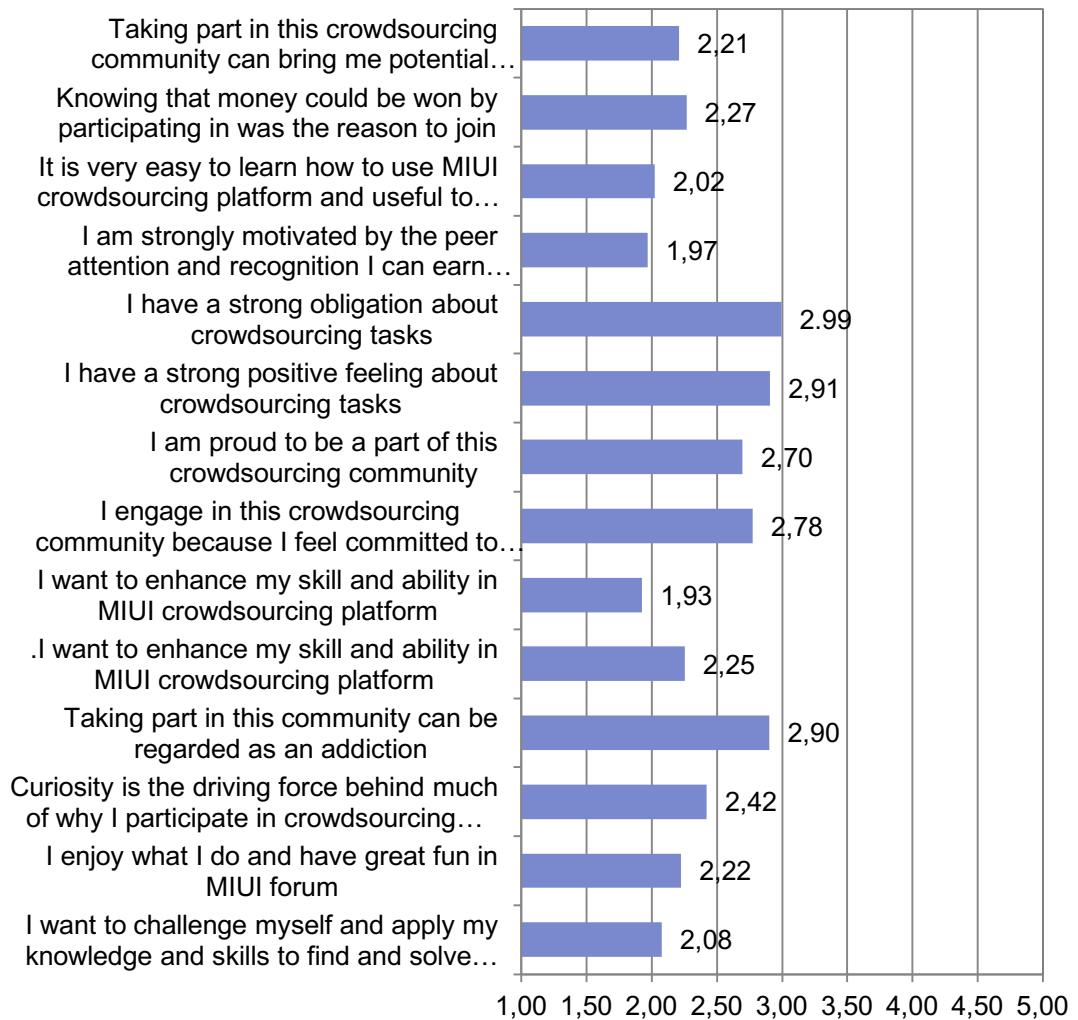


FIGURE 14 Average attitude towards motivations of participating in MIUI Forum

FIGURE 9 -14 depict an outlook for motivations of respondents participating in crowdsourcing activities. It can be visually noticed that a majority of respondents hold a positive viewpoint on these 14 motivations because average statistics are all below 3, especially for introjected motivations and external regulations with an average attitude 1.99 and 2.24 respectively. However, comparing to other types of motivation, respondents show a lower agreement with the statement of identified motivation with an average of 2.95. More specifically, respondents regard the statement “I want to enhance my skill and ability in MIUI crowdsourcing forum” and “I am strongly motivated by peer attention and recognition I can earn from doing crowdsourcing tasks” as the most significant motivations of their participations, which shows very high agreement with an average of 1.93 and 1.97 respectively. An average of 2.02 reveals that most of respondents consider “It is very easy to learn how to use MIUI crowdsourcing platform

and useful to participate in” rather important for crowds participating in MIUI forum. The same description can also apply to the statement “I want to challenge myself and apply my knowledge and skills to find and solve problems”. Surprisingly, the statement “I have a strong obligation about crowdsourcing tasks” gains an average of 2.99, which means that respondents neither agree nor disagree with this motivation in participating MIUI forum. And respondents also consider the statement “Taking part in this community can be regarded as an addiction” and “I have a strong positive feeling about crowdsourcing tasks” as less important motivations, which are 2.90 and 2.91 respectively.

TABLE 8. Motivations by participation types

| Motivation                |        | Participation types    |                                      |                    |
|---------------------------|--------|------------------------|--------------------------------------|--------------------|
|                           |        | Contributors<br>(N=36) | Occasional<br>Contributors<br>(N=58) | Lurkers<br>(N=124) |
| Intrinsic<br>motivation   | Intri1 | 83%                    | 76%                                  | 71%                |
|                           | Intri2 | 78%                    | 81%                                  | 50%                |
|                           | Intri3 | 58%                    | 52%                                  | 51%                |
|                           | Intri4 | 61%                    | 29%                                  | 22%                |
|                           | Intri5 | 83%                    | 69%                                  | 56%                |
|                           | Intri6 | 78%                    | 76%                                  | 81%                |
| Integrated<br>motivation  | Inte1  | 61%                    | 41%                                  | 25%                |
|                           | Inte2  | 50%                    | 41%                                  | 24%                |
| Identified<br>motivation  | Iden1  | 81%                    | 33%                                  | 27%                |
|                           | Iden2  | 53%                    | 24%                                  | 25%                |
| Introjected<br>motivation | Intro1 | 75%                    | 69%                                  | 83%                |
|                           | Intro2 | 64%                    | 69%                                  | 80%                |
| External<br>regulation    | Exte1  | 58%                    | 45%                                  | 65%                |
|                           | Exte2  | 64%                    | 55%                                  | 67%                |

TABLE 8 shows the count and percentages of the respondents who marked agree or strongly agree on each of the 14 motivational statements when different participation types are taken into consideration. Contributors rank much higher than other two

groups on identified motivation including the statement “I have a strong positive feeling about crowdsourcing tasks” and “I have a strong obligation about crowdsourcing tasks”, which occupy 81% and 53% respectively. Among the intrinsic variables, 83% of contributors are highly motivated by “I want to challenge myself and apply my knowledge and skills to find and solve problems” and “MIUI forum offers me with an opportunity to help others”. The picture is different for occasional contributors and lurkers. Occasional contributors are strongly motivated by the fun gained from MIUI crowdsourcing forum with 81% while the majority of lurkers are most motivated by the statement “I want to enhance my skill and ability in MIUI crowdsourcing platform” with 81%. Moreover, lurkers are very much concerned about introjected motivation and external regulation, especially for “I am strongly motivated by the peer attention and recognition I can earn from doing crowdsourcing tasks” with 83% and “Taking part in this crowdsourcing community can bring me potential career advances/chance” with 67%. Hence, the motivation for engaging in MIUI crowdsourcing activities differ greatly between different groups with different participation types.

#### *Suggestions for improving MIUI incentive mechanism*

In this question, 32 voluntary responses were collected ultimately. It is fairly interesting to notice that respondents' viewpoints on the improvement of MIUI incentive mechanism are quite spread and various. As mentioned from the survey, respondents are divided into three categories with different preference of participating motivations, which is one of the biggest reason why the advices are quite multiple from different angles. What mentioned most frequently is to pragmatize and simplify the incentive mechanism of Mi-coppers for MIUI forum users. That is to say, respondents think that Mi-coppers earned from the forum are hardly to be transferred into real benefit. The conversion of Mi-coppers to virtual services currently provided by MIUI forum are too complicated which cannot really benefit respondents. More substantial rewards, such as obtaining extra information about MIUI, having more priority to buy new model, getting more opportunities to participate in off-line activities, are expected by respondents in order to meet external needs. Another frequent advice for MIUI forum is to optimize the layout of MIUI forum and improve some basic functions like information-exchanging function and problem-solving function. Newcomers want to be familiar with the regulations and culture of MIUI forum but current web design is difficult for them to learn as soon as possible. Afterwards, more professional crowdsourcing tasks are highly recommended to be published on the platform with certain bonus for attracting more contributors offering more fresh vitality. Existing contributors are badly in need of more

new contributors engaging in the process of crowdsourcing tasks. More interaction with more contributors are expected in order to enhance their ability and update their mind.

#### 4.6 Reliability and validity of the research

According to Frambach, Cees and Durning (2013, 552), reliability and validity are two essential concepts used for assessing the quality of quantitative research. Reliability refers to the same results can be generated from different researcher and be the repeatability of findings. Validity. Validity means the results obtained should fulfill the requirements of scientific research methods and truly reflect what happened. (Shuttleworth 2008.)

In this case, the number of respondents is highly small for the whole users of MIUI forum. People who do not participate in the research might have diverse opinions, therefore it might cause the increase in the risk of bias in the thesis's summary. The Majority of responses can be reliable due to the fact that the author sent the online questionnaires through different channels. The questionnaire was conducted anonymously therefore respondents were able to express honest attitudes. However, the answer rate of final open-ended question is low. Only 32 respondents are willing to answer the open-ended question, which is difficult for the author to dive deeper about the thesis topic.

Additionally, some motivational statements could have been modified in order to distinguish different types of motivation. For example, respondents might be confused about the differences between the statements "I have a strong obligation about crowdsourcing tasks" and "I engage in this crowdsourcing community because I feel committed to the rest of the members and this community".

## 5 CONCLUSION

The ideal of the thesis was generated about 1 year ago. The inspiration for the topic came from the author's interest in crowdsourcing business model and the potential and infinite possibility of the development of online communities in China. The thesis topic was officially presented in the seminar on 17th November, followed by drafting the thesis work plan approved by the thesis supervisor. Then, it moved to the next stage of searching and collecting academic literatures as well as conducting the theoretical part. After that, a quantitative research about MIUI forum was conducted to collect and analyze data. At last, results of the research were finalized at the end of April.

According to the information collected from the research, it is acceptable to say that the major users of MIUI forum are male at 18s to 35s. Most of MIUI forum users hold bachelor degrees or master degrees. The MIUI forum users are most likely to work in IT field or to be students. And income level is partial to those people with monthly income of 5000-10000 CNY. Additionally, the amount of lurkers takes a big proportion of the whole MIUI forum users.

The motivations for users participating in MIUI crowdsourcing activities are more complicated than expected. Among 5 types of motivations, some intrinsic motivations like "self-actualization and self-discovery" and "improving creative skills" act as a significant role explaining why crowds participate in MIUI crowdsourcing forum, while respondents also regard introjected motivations including "getting attention and peer recognition" and "perceived usefulness and ease of use" as main determinants for their engagement. Moreover, external regulations such as "money reward" and "career advancement" is another infusive factor. The research also indicates that users' motivations are different when different participation types are taken into consideration. Users who are contributors are most likely to be internally motivated. They are more concerned about intrinsic motivations such as "self-actualization and self-discovery", "obtaining enjoyment", "altruism-community support", "improving creative skills" as well as identified motivations like "cognitive Social identification". Lurkers, in contrast, are highly motivated by introjected motivations and external motivations. "Peer attention and recognition" and "perceived usefulness and ease of use" are the key factors that lurkers are most concerned with. The research also shows that occasional contributors are strongly motivated by the fun gained from participating MIUI crowdsourcing activities. Integrated motivation and introjected motivation, however, do not have a crucial effect on lurkers' and occasional contributors' participation.

*Recommendations for MIUI forum*

Combining opinions given by respondents in the open-ended question and findings of quantitative analysis, there are several constructive suggestions summarized. Firstly, the incentive mechanism for MIUI crowdsourcing activities can draw from a diverse set of motivations. The research highlights the importance of getting attention and peer recognition for users doing MIUI crowdsourcing activities. Only incorporating some external regulations like monetary rewards into the incentive mechanism is not enough for those users who have strong internal motivation. The status or medal systems should be improved and inserted into monetary incentive system. Secondly, as mentioned already, the currently conversion of Mi-coppers is too complex; virtual currency earned from the forum should be easily transferred into real benefit. Moreover, the research also suggests the significance of “perceived usefulness and ease of use”. Some professional and challenging tasks should be provided to adepts applying their knowledge and skills; meanwhile, some detailed instructions should be offered to novices. Newcomers want to be familiar with the customs and culture of MIUI forum but current website is not easy for them to follow. Fourthly, there are a lot of crowdsourcing forums with similar layout and similar functions existed currently. Therefore, if MIUI forum is more innovative and more functional than other crowdsourcing forums, it will be more attractive to potential users and be fresher to existing users persistently continuing their engagement.

## 6 DISCUSSION

Overall, the objectives of the thesis are perceived as achieved successfully. The theoretical part and practical part were explained and analyzed logically and scientifically with proper academic literatures, figures and statistics. Some useful information has been offered for future researches about crowds' motivations of participating in MIUI forum as well as other crowdsourcing platforms. The whole thesis study process is not only challenging but also appealing and educative to the author.

One of the difficult part is the beginning to build up a specific framework for the theoretical part, which should include most relevant academic resources and lay a solid basis for quantitative research part. A lot of time and effort was needed to browse diverse literature materials and narrow down relative resources. Then, it was also time-consuming and difficult to summarize and draft the theoretical knowledge. Time management of the thesis is another big challenges. Since data collection period of the research part largely depended on the real speed of responses, it was not easy for the author following the original time plan. This problem was solved through adjusting the length of other stages of thesis process. Additionally, designing a simple and scientific questionnaire is also a headache.

In terms of the imperfections existed in the thesis, if I could restart again, some questions in the questionnaires would be revised. For example, some motivational statements would be modified in order to be distinguished with each other. More questions could be added in the questionnaire, such as the "hobby" and "talents and skills", to understand target crowd more comprehensively. Due to the uncertainty of data collection period, more time should be prepared beforehand in order to maximum the reliability and validity of the research. As the fact that the disadvantages of quantitative research exists, some interviews with MIUI forum moderators and managers could be conducted in order to gain insights about the topic and get more different opinions.

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## APPENDICES

## Appendix 1 Questionnaire



## Motivation of Crowdsourcing survey / 众包参与动机因素调查

Hello everyone!/大家好!

I'm a student from Savonia University of Applied Science in Finland. Now I am doing my final thesis about the key factors affecting crowds' engagement in MIUI crowdsourcing forum. A survey need to be implemented for specific analysis. I would greatly appreciate if you would like to fill out this short questionnaire. There are totally 10 questions (9 choice questions + 1 open-ended question). The questionnaire will be answered anonymously and the survey information will be used only for the research. /我是一名来自 savonia 的学生。因毕业论文是关于影响人群参与 MIUI 众包论坛因素的研究，现需要您帮助填写这份调查问卷，如果您愿意帮助完成这份调查我将十分感谢。问卷共有 10 个问题。(9 个选择题+1 个开放问题)。所有调查信息都是匿名保密且将只用于此研究。

**Crowdsourcing:** crowdsourcing is the act of an enterprise outsourcing the tasks traditionally completed by the employees to an undefined and large online community via using the open call format./众包是指一个公司或机构组织把传统的交给员工完成的工作，公开发布给非特定的且大型的互联网群体来完成。

**Crowdsourcing communities:** such as Linux and MIUI forum./众包社区：类似于 Linux 和 MIUI 论坛。

1. How old are you? /您的年龄? \*

- Below 18/低于 18
- 18-35
- 36-50
- Above 50/高于 50

2. What is your gender? /您的性别? \*

- Male/男性
- Female/女性

3. What is your highest education level? /您的最高学历? \*

- High school or less than high school/高中或低于高中
- College/大学
- Master's degree/硕士
- Doctoral degree or higher/博士及以上

4. What is your occupation? /您的职业? \*

- Students/学生
- IT field/电脑互联网行业
- Finance field/金融行业
- Education field/教育业
- Service filed/服务业
- Manufacture field/生产制造业
- Others/其他

5. The level of your monthly income (RMB):/您的月收入水平: \*

- Below 3000/3000 以下
- 3000-5000
- 5001-10000
- Above 10000/10000 以上

6. How long have you registered on MIUI forum? /您成为 MIUI 论坛会员有几年了? \*

- Less than 1 year/低于 1 年
- 1-2 year/1-2 年
- 2-3 year/2-3 年
- More than 3 year/高于 3 年

7. How many ideas or opinions have you submitted on MIUI forum?/您在 MIUI 论坛上发表过多少帖子? \*

- Below5/低于 5 个
- 5-20
- 21-50
- Above50/高于 50 个

8. What do you usually do on MIUI forum?/您一般用 MIUI 论坛来做什么? \*

- Always browsing and seeking information, seldom sharing or discussion with other users/总是浏览和寻找信息，很少与其他用户交流
- Mainly viewing and observing content, sometimes interact with other users/主要浏览观察信息内容，偶尔与其他用户交流

- Willing to create content, share information and discuss with other users/愿意创造内容·分享信息和与其他用户交流讨论

9. Your motivation towards participating in MIUI crowdsourcing communities / 参与 MIUI 众包活动的动机 \*

|                                                                                                                                     | Strongly agree/强烈同意   | Agree/同意              | Neutral/中立            | Disagree/不同意          | Strongly disagree/强烈反对 |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| I want to challenge myself and apply my knowledge and skills to find and solve problems/我想挑战自己运用自己的知识和技术去发现解决问题                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I enjoy what I do and have great fun in MIUI forum/MIUI 论坛能让我获取很多乐趣                                                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| Curiosity is the driving force behind much of why I participate in crowdsourcing activities in MIUI forum/好奇是我参与 MIUI 论坛的众包活动的主要因素  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| Taking part in this community can be regarded as an addiction/参与这个论坛的众包活动让我上瘾                                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| MIUI forum offers me with an opportunity to help others/MIUI 论坛给了我帮助他人的机会                                                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I want to enhance my skill and ability in MIUI crowdsourcing platform/我想通过参与论坛的众包活动提高自己的技能                                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I engage in this crowdsourcing community because I feel committed to the rest of the members and this community/我感到对这个论坛和其他论坛会员的责任感 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I am proud to be a part of this crowdsourcing community/我很自豪成为这个论坛的一员                                                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I have a strong positive feeling about crowdsourcing tasks/我对众包任务抱有十分积极的态度                                                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I have a strong obligation about crowdsourcing tasks/我对众包任务有强烈的责任感                                                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |
| I am strongly motivated by the peer attention and recognition I can earn from doing crowdsourcing tasks/获                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>  |

得其他用户的注意和认同会大大促进  
我参与论坛的众包活动

It is very easy to learn how to use  
MIUI crowdsourcing platform and  
useful to participate in/我认为学习  
MIUI 论坛如何使用很方便且很有用

Knowing that money could be won  
by participating in was the reason to  
join/MIUI 众包论坛给我提供了赚钱的  
机会

Taking part in this crowdsourcing  
community can bring me potential  
career advances/chances/MIUI 论坛  
给我提供了更多的职业选择机会

**10. What would you suggest in order to improve MIUI forum incentive mecha-  
nism for motivating more active users' participation?/您对如何提高小米 MIUI 论坛  
的激励机制有什么建议?**

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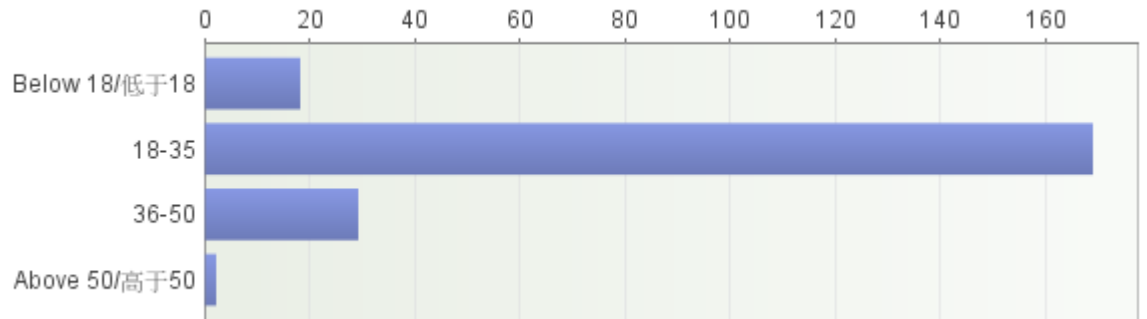
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I want to submit my answers

## Appendix 2 Basic report of questionnaire

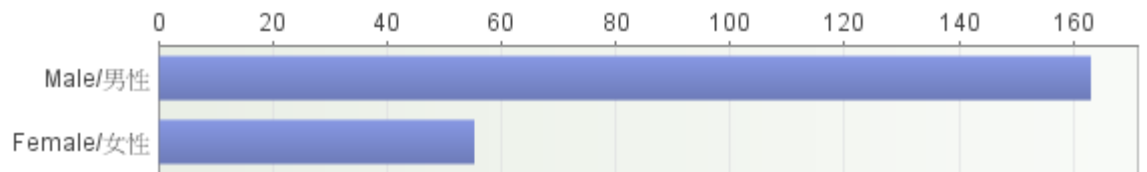
## 1. How old are you? /您的年龄?

Number of respondents: 218



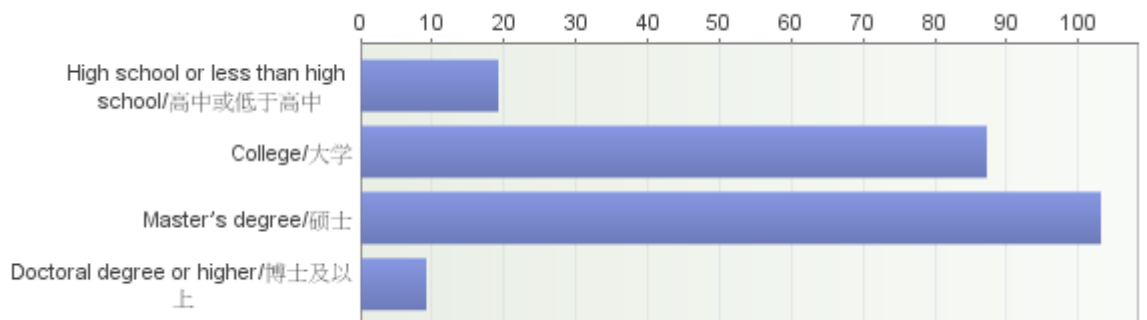
## 2. What is your gender? /您的性别?

Number of respondents: 218



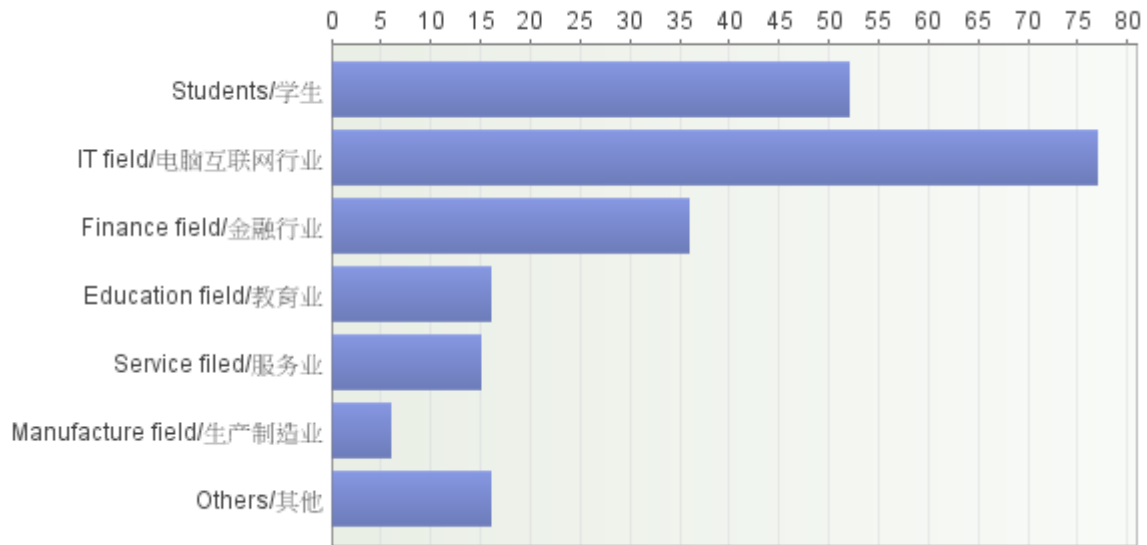
## 3. What is your highest education level? /您的最高学历?

Number of respondents: 218



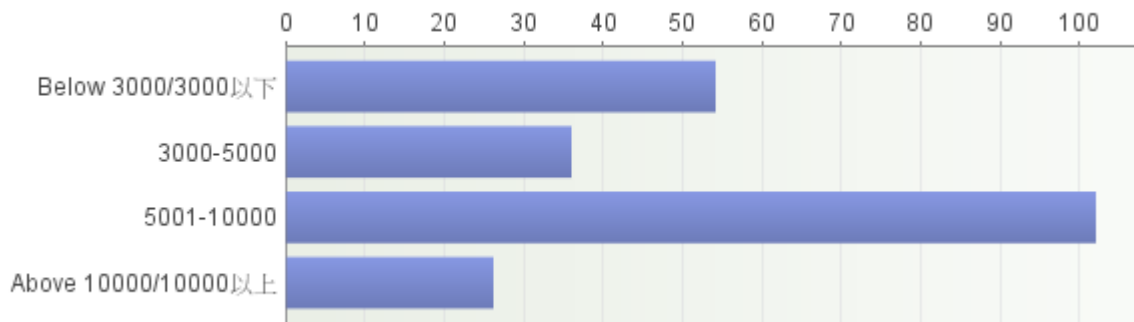
#### 4. What is your occupation? /您的职业?

Number of respondents: 218



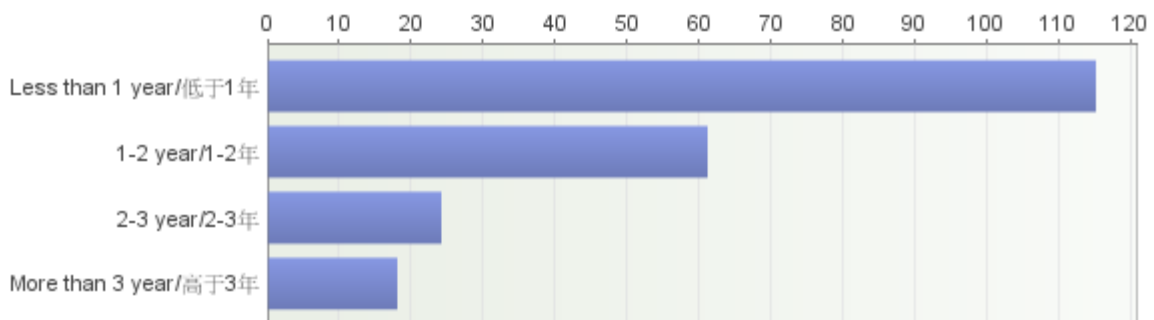
#### 5. The level of your monthly income (RMB):/您的月收入水平:

Number of respondents: 218



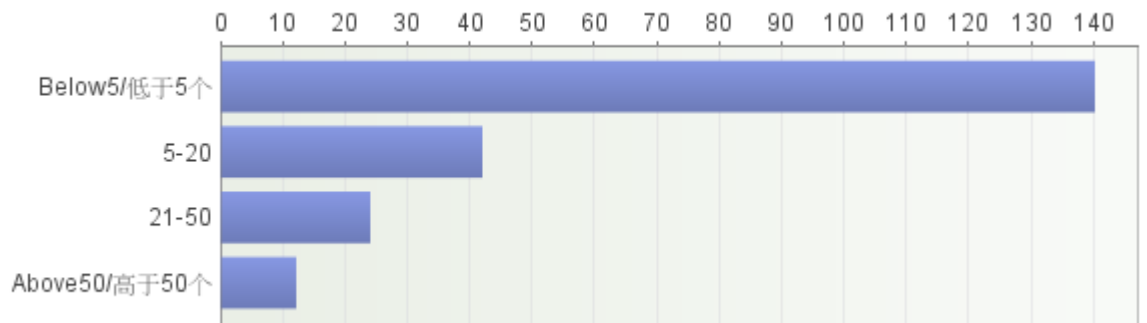
#### 6. How long have you registered on MIUI forum? /您成为 MIUI 论坛会员有几年了?

Number of respondents: 218



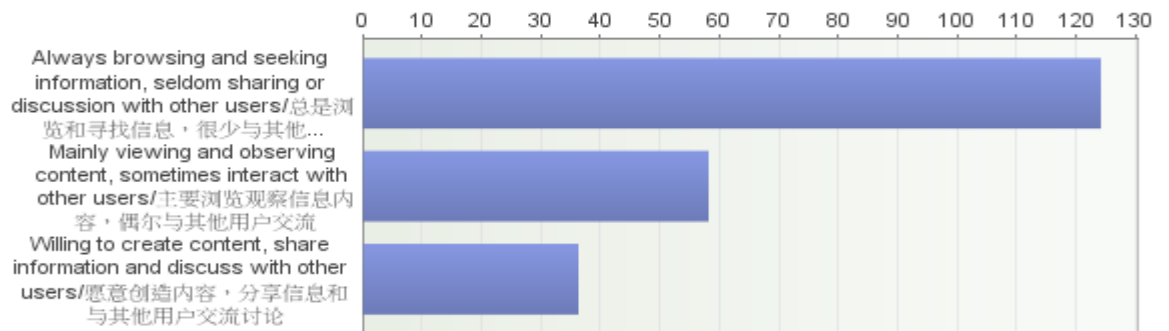
7. How many ideas or opinions have you submitted on MIUI forum? /您在 MIUI 论坛上发表过多少帖子?

Number of respondents: 218



8. What do you usually do on MIUI forum? /您一般用 MIUI 论坛来做什么?

Number of respondents: 218



9. Your motivation towards participating in MIUI crowdsourcing communities / 参与 MIUI 众包活动的动机

Number of respondents: 218

|                                                                                                                                     | Strongly agree/强烈同意 | Agree/同意 | Neutral/中立 | Disagree/不同意 | Strongly disagree/强烈反对 | Total | Average |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|------------|--------------|------------------------|-------|---------|
| I want to challenge myself and apply my knowledge and skills to find and solve problems/我想挑战自己运用自己的知识和技术去发现解决问题                     | 51                  | 111      | 46         | 8            | 2                      | 218   | 2.08    |
| I enjoy what I do and have great fun in MIUI forum/MIUI 论坛能让我获取很多乐趣                                                                 | 44                  | 93       | 71         | 8            | 2                      | 218   | 2.22    |
| Curiosity is the driving force behind much of why I participate in crowdsourcing activities in MIUI forum/好奇是我参与 MIUI 论坛的众包活动的主要因素  | 33                  | 81       | 86         | 15           | 3                      | 218   | 2.42    |
| Taking part in this community can be regarded as an addiction/参与这个论坛的众包活动让我上瘾                                                       | 24                  | 42       | 90         | 55           | 7                      | 218   | 2.9     |
| MIUI forum offers me with an opportunity to help others/MIUI 论坛给了我帮助他人的机会                                                           | 38                  | 102      | 67         | 7            | 4                      | 218   | 2.25    |
| I want to enhance my skill and ability in MIUI crowdsourcing platform/我想通过参与论坛的众包活动提高自己的技能                                          | 72                  | 100      | 38         | 6            | 2                      | 218   | 1.93    |
| I engage in this crowdsourcing community because I feel committed to the rest of the members and this community/我感到对这个论坛和其他论坛会员的责任感 | 21                  | 56       | 100        | 33           | 8                      | 218   | 2.78    |
| I am proud to be a part of this crowdsourcing community/我很自豪成为这个论坛的一员                                                               | 21                  | 51       | 121        | 23           | 2                      | 218   | 2.7     |
| I have a strong positive feeling about crowdsourcing tasks/我对众包任务抱有十分积极的态度                                                          | 23                  | 59       | 66         | 55           | 15                     | 218   | 2.91    |
| I have a strong obligation about crowdsourcing tasks/我对众包任务有强烈的责任感                                                                  | 18                  | 46       | 82         | 63           | 9                      | 218   | 3       |
| I am strongly motivated by the peer attention and recognition I can earn from doing crowdsourcing tasks/获得其他用户的注意和认同会大大促进我参与论坛的众包活动 | 65                  | 105      | 40         | 6            | 2                      | 218   | 1.97    |
| It is very easy to learn how to use MIUI crowdsourcing platform and useful to participate in/我认为学习 MIUI 论坛如何使用很方便且很有用               | 66                  | 96       | 42         | 13           | 1                      | 218   | 2.02    |
| Knowing that money could be won by participating in was the reason to join/MIUI 众包论坛给我提供了赚钱的机会                                      | 61                  | 66       | 68         | 18           | 5                      | 218   | 2.27    |
| Taking part in this crowdsourcing community can bring me potential career advances/chances/MIUI 论坛给我提供了更多的职业选择机会                    | 55                  | 83       | 60         | 19           | 1                      | 218   | 2.21    |



