UNIVERSITY OF VAASA
FACULTY OF BUSINESS STUDIES

Eveliina Haimakainen

MOTIVATIONS OF USERS PARTICIPATING IN MNES' USER COMMUNITIES

A Comparison between the Indian and Dutch Users in the Application Software Industry

Master's Thesis in
International Business

VAASA 2014

Table of Contents

LIST OF FIGURES **page**

LIST OF TABLES **page**

UNIVERSITY OF VAASA

Faculty of Business Studies
Author: Eveliina Haimakainen
Topic of the Thesis: Motivations of Users Participating in MNEs' User Communities – A Comparison between the Indian and Dutch Users in the Application Software Industry
Name of the Supervisor: Minnie Kontkanen
Degree: Master of Science in Economics and Business Administration
Department: Department of Marketing
Bachelor's Programme: International Business
Year of Entering the University: 2010
Year of Completing the Thesis: 2014 **Pages: 98**

ABSTRACT

The markets have become more demanding for companies, when they have to bring new products/services to the markets faster. Also, the needs of customers are dispersed and change rapidly. Many companies cannot face these challenges all by themselves, which is why an increase can be seen in open innovation. Open innovation means a company which uses external resources for its innovation. There are many options, one of which is the user communities. These are mediated by the Internet, where users of a company's products/services come to communicate with each other. This knowledge flow that the discussions consist of is an important innovation source for companies.

Managers are challenged by this fairly new way of doing innovation, since they need to understand what motivates users to participate in the communities. With multinational companies, understanding how culture affects these motivations is also crucial. The types of motivations can be roughly divided into extrinsic and intrinsic motivations. Extrinsic motivation include among others pay, which is not important for users. Extrinsic motivations are also found to sometimes be of negative influence. On the other hand intrinsic motivations play a big role in user communities and therefore managers are advised to use them when motivating users.

Altogether 24 Indian and Dutch users from Adobe's and Google's communities are compared in this study to understand the role of culture has with motivation. Even though these are two very different cultures, the difference between their motivations is not substantial though differences can be found. Especially the factors that influence most and least their motivation to participate are similar across cultures. It is clear, that these shared motivations can only be applied to Internet based environments and more differences could be found in a normal work environment. Nevertheless, managers can use this information to know how to motivate users and not use resources in differentiating the means of doing so in vain.

KEYWORDS: Open innovation, User Community, User, Extrinsic Motivation, Intrinsic Motivation, Culture

1. INTRODUCTION

Traditional ways of doing innovation and creating new products is becoming more and more costly and time-consuming for companies as the needs of consumers on the other hand change faster than before and are more dispersed. Therefore companies are abandoning the old ways of trying to understand customer needs and searching for new and better ways to serve consumers. (von Hippel & Katz 2002: 821).

Not only are companies looking for new ways to operate, but consumers also desire a position in the markets where they are more than merely on the receiving side of an exchange situation. Consumers are informant, active and connected and want to be more involved and influence the business processes of companies. (Prahalad & Ramaswamy 2004: 6.)

Consumers have been proven by previous research and practice to be innovative and able to develop new products (Füller et al. 2007: 60). Therefore, consumers are becoming an important resource for companies in ever growing figures. Consumers have a lot more power than previously and companies can utilize them in value creating in a way that views them as active partners in innovation processes among others. (Wu & Fang 2010: 570.) Understanding better the needs of customers and acquiring their knowledge on products and services will help a company improve its core competencies (Füller & Matzler 2007: 378).

As consumers have become an important resource for companies, there is a growing need to understand the consumer's point of view on the subject. For example, the knowledge a consumer possesses and motivation level he has can affect the quality of his outputs (Frey et al. 2011: 398). In order to best utilize this abundant resource, companies must understand how they can get the most out of consumers: what are the motives and sources for co-operation. Little is also known of how culture affects these factors in an open innovation environment.

User communities are one of the most important forms of open innovation used by companies, which offer a resource for the company that is hard to copy (Hau & Kim 2011: 956). Thus user communities offer an interesting and central environment for examining the participating users and their motives.

1.1. Background

Outsourcing has become an important way for companies to create value and gain competitive advantage. Especially in global markets, companies face competition from various and numerous competitors while needing to perform their best at all times. Thus there are many reasons for using resources outside the company rather than resources inside the company, some of which are for instance savings in costs, flexibility, efficiency, effectiveness and focus on core competences (Yang et al. 2007: 3770).

For a long time outsourcing has been a way for companies to organize some of their functions. In time, the importance of outsourcing and scale of the outsourced functions has grown, leaving companies in a situation where basically anything can be outsourced and whole process and even business units are being outsourced. (Belcourt 2006: 269.)

The challenging competitive environment where companies operate does not only drive some companies to outsourcing but it also emphasizes the importance of innovation. Innovation is another way to create value and gain competitive advantage (Ye & Kankanhalli 2013: 69). Outsourcing and innovation trends are emerging as a result.

The way of perceiving innovation has changed from only covering closed innovation that was done inside the company to including also open innovation which happens outsourced and outside the company. Knowledge workers have been in a key role in this change, as companies have realized it is ever challenging to keep all knowledge and know-how inside the company when the number of knowledge workers has increased and employees move from one company to another. Hence, open innovation has emerged when companies use external knowledge and open up their own R&D know-how for others to utilize. (Ye & Kankanhalli 2013: 69-70.)

Outsourcing innovation can be a good option if the needs and wants of consumers are various or unknown, when the markets are new and for example the norms for technology and design do not yet exist. Particularly advantage can be gained from outsourcing if a specific part of the innovation process can be outsourced easily. (Boudreau & Lakhani 2009: 70.)

Open innovation can take place in many forms. A company can license-in knowledge in the form of e.g. new technologies or form strategic alliances where they gain complementary resources from one or more partner. Another way is not to specify who

will be the party to solve the problems or challenges of the company, but the give this information outside and wait for a suitable partner to emerge. This happens through open networks or user communities. (Ye & Kankanhalli 2013: 71-72.)

The difference between open networks and user communities is that in open networks, the solving party will get monetary compensation for the work, whereas in user communities the work is done without any fee. Open networks can be for instance in the form of webpages and they are the meeting place of the company seeking for assistance, also known as the seeker and the third parties offering their help when finding a suitable project, known as solvers. User communities consist of the users of the company's product or service and the goal is to develop these. (Ye & Kankanhalli 2013: 72.)

However, not always are the companies' roles so evident in user communities. In some cases, for instance, a company might facilitate a user community linked to its webpages but it is not actively giving the users problems to solve but rather observing the ongoing dialogue. Sometimes the users might even themselves set up the user community and again the company can retrieve important information by observing and without even being noticed by the users. The Internet is full of examples and it is very clear to see a company's presence as those user communities are linked to the company's web page.

Consumers innovating is not entirely a new phenomenon. As an example, windsurfing and the needed equipment were invented by a group of users in the late seventies resulting to around million windsurfing enthusiasts a decade later. (von Hippel 2005: 2). What has nevertheless accelerated the amount of users innovating is the Internet. It has created more ways for customers to participate in innovation and made the process easier. (von Hippel 2005: 121.)

Outsourcing is however, not without problems or challenges. Many of these challenges relate to the partner in question, e.g. finding and maintaining the right partner. (Freytag et al. 2013: 99, 103-104.) Also, the importance of social capital and relationships is highlighted as e.g. strong ties are stated as being beneficial for innovation (Rost 2011: 601). With open networks and user communities the situation is somewhat different, as the companies do not decide before hand with who they do co-operation with and the relationship is not a continuing one, even though the same party might be a partner in the future also. With these two forms of outsourcing innovation, the question is how to gain these user as partners in the first place.

User communities, which can be referred to also as open communities, should be researched to understand what motivates the users to participate if they do not get any financial gain for their work.

1.2. Previous Research

Open innovation as a term emerged in 2003, when Henry Chesbrough published "Open Innovation: The New Imperative for Creating and Profiting from Technology". Even though the subject of open innovation was built on existing innovation research, it gave new terminology to a way of doing innovation that was not happening only within company borders. Even in the 1970's it was discovered that innovation could originate from external sources. (West et al. 2014: 806.)

Majority of open innovation has concentrated on inbound open innovation. The reason behind this is speculated to be the importance of reducing costs and companies' eagerness to exploit innovations rather than create them themselves. The different subjects researched within the open innovation field are vast, but the most important orientation concerning this study is the user innovation research lead by Eric von Hippel. User innovation research has been conducted both as a separate field from open innovation and as part of it. (West et al. 2014: 806-808.)

Users as innovators were researched long before the term open innovation emerged, as apparent in for instance von Hippel's (1976) and (1978) studies. A study on scientific instruments revealed that 80 % of the samples' innovations were in fact done by the users and not the manufacturers (von Hippel 1976: 212). The time of Internet and new communication technologies has brought new importance to user innovations and their research (von Hippel 2010: 411).

Virtual communities, especially open source communities were of interest to research at the end of the 1990's (Burger-Helmchen & Cohendet 2011: 320). Open source technologies are a special type of open innovation where software is distributed free with the aim of penetrating the market efficiently and improving the software rapidly as users gain access to it free of charge (Albors et al. 2008: 195). In addition to the software, companies also give the means to understand and modify the code that the software is composed of and so a special interest of the open source research has been to understand why the programmers are willing to spend time modifying the software for

the good of the public (von Krogh & von Hippel 2003: 1150, 1152).

Currently, open innovation is as popular as ever as a research subject for several different fields of study. Just in seven years, the book by Henry Chesbrough that originally introduced the term to the masses has received over 1 800 citations according to Google Scholar. (Huizing 2011: 2.) User communities are a big part of the open innovation research. They are clearly growing in numbers and their importance has been understood by many large companies, which is why understanding what makes a successful user community and what leads to a user community's failure are of utter importance (Fiedler & Sarstedt 2014: 2258).

It is clear that for both theoretical and managerial reasons user communities are an interesting subject for this study, as both scholars and companies see their importance. There are of course many factors influencing the success of user communities, of which motivational factors of users will be the focus of this study. More on the research gap this focus fill help to fill is discussed below.

1.3. Research Gap

Previous research has studied knowledge sharing motives (e.g. Hung et al. 2011; Jin et al. 2013; Hau et al. 2013), consumer's motives for participating in open innovation (e.g. Koch & Kerschbaum 2014; Park et al. 2014; Pi et al. 2013), culture's influence on motivation and work motivation (e.g. Latham & Pinder 2005). The motivations to engage in online communities appear to be a current topic, as many recent studies can be easily found. Intrinsic motivation has been found to play a big role in the participation of users especially in user communities (e.g. Frey et al. 2011: 413, Hau & Kim 2011: 965, Boudreau & Lakhani 2009: 71-72) and there is evidence of culture influencing these motivational factors (e.g. Peterson & Ruiz-Quintanilla 2003: 192-193).

Since the number of user communities is on the rise and they are expanding globally, more collaboration between cultures in these communities is growing. Therefore, many researches have proclaimed a key challenge of the research field to figure how culture affects these user communities. Studying the online behavior differences of users from different cultures would help with generalizing research findings and further help with research robustness, identifying literature patterns, complementing existing research and

advancing research. (Gallagher & Savage 2013: 1029.)

Nevertheless, the studies on comparisons of motivation between cultures are limited (Shin 2010: 474; Fey 2005: 346). Even studies taking cultural differences into account in general in online communities are scarce (Gallagher & Savage 2013: 1030). Most of the previous research focuses on users from a single country, mainly from Asia (e.g. Jin et al. 2013; Park et al.; Lai & Chen 2014) or some from Western cultures (e.g. Jadin et al. 2013; Munar & Jacobsen 2014). Especially, regarding user communities and cultural differences in motivation, there is a research gap that needs to be addressed. Studies on motivational factors of individuals from different cultures can be found (e.g. Verner et al. 2014; Fey 2005) but when you add open innovation and user communities to the picture, previous research is scarce.

In their review of existing comparative cross-cultural research on online communities, Gallagher and Savage (2013: 1032-1033) list four studies addressing the motivational factors of users to participate in online communities; one brand community and three social networking sites (SNS). Since the social networking sites which have been studied, like Facebook are quite different to user communities the previous research does not contribute to this study as much as would be preferable. Many of the findings are not on a general level, but specific to a particular community or SNSs and generalizability to other communities is hard.

If culture affects the motivations of a person, it can be expected that between two cultures there are differences to the reasons why consumers feel motivated to participate in open innovation, more specifically user communities. This study will focus on this gap narrowing down the sampling to two varied cultures.

1.4. Central Definitions

Open Innovation. Open innovation is the knowledge flow into and out of a company, which aims at better innovation rates and quality internally and expansions of a market by external use of the innovation. Compared to a more traditional way of organizing innovation, here innovation is seen as an open system and not something done fully within the boundaries of a company. (Koch & Kerschbaum 2014.)

User communities. User communities are groups of people who use the Internet and

computer systems to mediate their communication and interaction with each other. The members of these communities in the Internet share interests or have common purpose that creates a sense of togetherness. Types of user communities are according to one categorization: discussion based, task/goal oriented, virtual worlds and hybrid styled. (Gallagher & Savage 2013: 1029.) User communities can also be called e.g. online communities or virtual communities. In this study, the focus is on discussion based communities, even though sharing and finding information in the community can resemble a task/goal community as well.

Users. Users are the members of online communities. Some of the users contribute by e.g. posting their own thoughts and participating in the discussion. (Jin et al. 2013:93; Lai & Chen 2014: 295.) Users can also be innovators and their own needs are usually the basis of the innovations (Füller et al. 2013: 1197). In addition, users are customers, meaning that they are users of the product or service they are improving through innovations. They can be an important innovation resource for companies. (Baldwin et al. 2006: 1291.)

Motivations. Extrinsic and intrinsic motivations explain why individuals or companies work for a certain goal are usually divided in terms of paid and unpaid work. Extrinsic motivations explain reasons for doing paid work, even though the only reason might not be financial whereas intrinsic motivations explain reasons for doing unpaid work (Boudreau & Lakhani 2009: 72). Intrinsic motivations can for instance be further divided into three different types of motivators: enjoyment in the work being done, social motives as being part of a community or status, and own and others' welfare (Bruno & Fiorillo 2012: 660). Extrinsic motivations are benefits that an individual hopes to gain from doing the tasks in question (Jadin et al. 2013: 212).

MNEs. MNEs, short for Multinational Enterprises, are companies that operate in several geographical locations. They thus compete with both local and foreign competitors and in order to do this, they must transfer knowledge from one location to another. (Gonzalez & Chakraborty 2014: 299.)

Cultural Dimensions. Cultural dimensions are scales to measure the differences and similarities between different cultures in different countries. Hofstede's study on cultural dimensions has probably been the most influential and used set of dimensions, but many other studies have also been made for instance by Kluckhohn and Strodtbeck, McClelland, Triandis, Schwartz and Trompennar. The scales and dimensions vary

between these studies. (Chand & Ghorbani 2011: 597.)

1.5. Research Questions and Objectives

The research question of this study is "What are the differences and similarities in motivational factors of Adobe's and Google's user community users from India and the Netherlands?"

The first objective is to present open innovation. As part of this, user communities will be defined in order to set them apart from other forms of open innovation. Next, users and their role in these user communities will be discussed. The second objective is to identify the different motives that affect users. Intrinsic and extrinsic motivations will be discussed and the motivations that will be used in the survey for comparison will be decided. The third objective is to show the relationship culture has to motivation. Especially theories on cultural dimensions will be presented. Lastly, the fourth objective is to empirically identify intrinsic and extrinsic motivational factors of both Dutch and Indian users participating in the user communities through a survey. The findings are then compared to understand the roles of both intrinsic and extrinsic motivations, in addition to find any similarities or differences between the important motivational factors of the Dutch and Indian users.

The aim of the study is to better understand what motivates solvers in the user communities when they receive no monetary pay for their work. Special emphasis is put on the cultural differences of intrinsic and extrinsic motivations. Therefore both Dutch and Indian users will be studied to find out their motivational factors and possible differences. These two cultures are chosen because they represent two different types of cultures when measured with the Hofstede's (1983) theory on cultural dimensions and the differences in work culture. Also, since there are many differences between different occupations and industries (Peterson & Ruiz-Quintanilla 2003: 194), the focus will be on user communities of similar companies represented by MNEs operating both in the Netherlands and in India. When the motivational factors are known, we get an understanding of how to better utilize this form of open innovation, making its management an easier task and we will also get a better apprehension of culture's role in the subject.

1.6. Delimitations

There are four main delimitations in this study that also link to the main sections. First of all, not all forms of open innovation are studied but the form of open innovation is limited to user communities. The amount of user communities studied is also limited to two, in order to keep the group of users otherwise as homogeneous as possible excluding their cultural background.

Thirdly, there are several ways to categorize motivational factors. The chosen categorization of intrinsic and extrinsic motivations has been used by previous research in regard of user communities. Therefore it was found an appropriate categorization for this particular study as well.

The fourth and final delimitations concerns addressing culture. Of all the available frameworks for dealing with comparing cultures, Hofstede's and the GLOBE frameworks are chosen. Again, these have been used in by previous research in related studies and hence they were chosen for this study as well. The dimensions of the two frameworks also show clearly the differences and similarities of cultures.

1.7. Structure of the study

The thesis will begin with introducing the background; the importance of outsourcing and innovation today and why the combination of the two, open innovation should be studied. User communities will be briefly discussed along with the intrinsic and extrinsic motivations, to give an understanding of their role in the study. Then the aim, delimitations, research questions and objectives of the study will be presented at the end of the introduction part.

Secondly, open innovation will be presented in more depth with emphasis on user communities and the key concepts of users as innovators participating in these communities. The relationship between MNEs and user communities will also be discussed to give justification on using MNEs in this study as the other party of open innovation.

Thirdly, background on motivational factors follows, listing in detail the intrinsic and extrinsic motivations presented in previous research and the connection between user

communities and intrinsic/extrinsic motivation. Even intrinsic motivations are found to play a more meaningful role in user communities, also extrinsic motivations are examined and their relationship to the communities.

Fourthly, the study will examine culture. Cultural research will be discussed shortly, emphasizing the cultural dimensions theory of Hofstede (1983). Previous research will be discussed on culture's effect on motivation to form basis for the empirical part and information on culture and innovation will be given in the end.

The methodological section follows, presenting the used methodology and data collection methods with argumentation for them being chosen. Validity and reliability will also be addressed.

The findings will be presented thereafter, dividing them between the motivational factors of both cultures being studied.

In the end, the findings will be discussed to present which intrinsic and extrinsic motivations were considered most import by the users. After this any differences found in the motivations between the two cultures will be addressed and discussed for implications. Finally, the summary and future research suggestions end the thesis before list of references.

2. USER COMMUNITIES AS A FORM OF OPEN INNOVATION

This section focuses on open innovation. Open innovation's characteristics and benefits are presented in comparison to closed innovation and its different forms are discussed. Also, the relationship between open innovation and multinational enterprises will be discussed. The main focus will be on user communities as a form of open innovation with presenting users as a unique source of innovation. Finally, knowledge sharing will be pointed out as a key element for successful innovation, including open innovation happening in user communities among users.

2.1. Open versus Closed Innovation

Innovation is commercializing inventions. Not all inventions are commercialized, but the best ones need to be singled out. These inventions that companies commercialize and which become innovations, can either be done within a company or they can come from other sources as well. (Efrat 2014: 13.) Not all needed knowledge can be found inside the company and for a long time already, companies have been relying on external sources to complement their own know-how (Pénin et al. 2011: 14).

Open innovation is using internal and external resources to find pathways both in and outside the company to markets. The company opens up, so that innovation and ideas flow freely between the company and the other resources to gain competitive advantage and commercialize the innovations. This way of operating, which differs from the previously dominated closed innovation approach, has opened new ways for companies to make profit from its technology and know-how. (Chesbrough 2003: 36-37.)

The difference between closed and open innovation is not only a question of operating differently but another way of seeing the business as well. A company doing closed innovation is self-sufficient and does not need any assistance. The mentality is that they possess all the needed knowledge and the success is mainly dependent on the company itself. (Chesbrough 2003: 37-38.) This might be the case in some industries still and probably was true in majority of the cases in the past when it was enough to be the first in the market, when it was harder for other companies to steal and copy your ideas and when product life cycles where longer. Nowadays, new products and models need to come to the markets faster and more often and other companies can many times utilize

the same technology that you are using. With open innovation it is also easier to get value from projects that have not seem promising at first but turn out to be the opposite, because usually these projects have elements that the company cannot utilize by themselves in their current situation (Chesbrough 2003: 37-38).

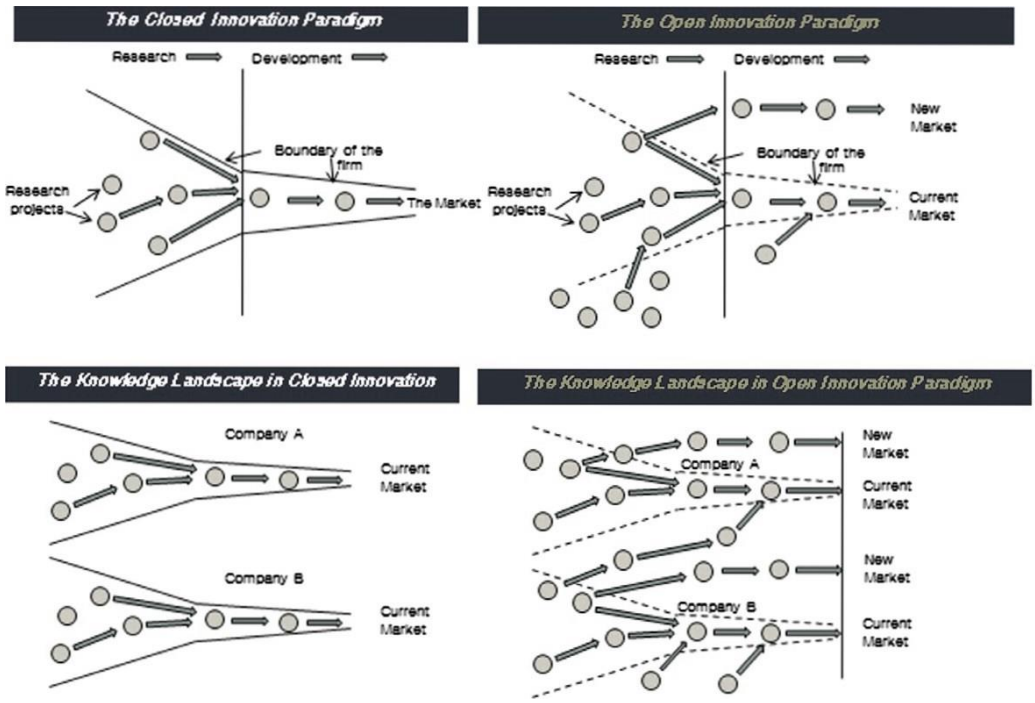


Figure 1. Differences between open and closed innovations. (Chesbrough 2006: xxii, xxv, 31, 44)

2.2. Reasons for Opening up the Innovation Process

When products life cycles have become ever shorter and the costs of R&D rises at the same time, open innovation has become an appealing option for many companies (Koch & Kerschbaum 2014). Open innovation is above all a way to access resources, information and knowledge that cannot be found within the company (Mortara & Minshall 2011: 587).

The emerging of information and communication technologies has brought improvements to information exchange (Pénin et al. 2011: 16); along with the ever gaining popularity and importance of the Internet which has led to a situation where companies can and have to think through again their ways of doing innovation especially to tap into external innovations (Denyer et al. 2011: 377). Kozinets (2002: 62) among others gives an example of utilizing the Internet for better understanding

consumer needs: before methods like interviews, focus groups and ethnography were used but nowadays examining online communities can replace them. The old methods are described as intrusive, artificial and time-consuming, but learning from online communities will remove these problems as consumers might not even notice they are being examined.

Using users as the source of innovation will cut down costs related to the process. First of all, users do not need to research and examine consumer needs as they are the consumers themselves. Second of all, the costs associated with transferring knowledge are low, as all the needed information is mostly located at user sites and easily accessible for the users. (von Hippel 2007: 302.) Savings naturally arise also from using consumers as a "work force" but not paying them for their ideas (Baldwin et al. 2006: 1296).

Other benefits of using open innovation are the vast number of ideas and speeding up the innovation process (Mortara & Minshall 2011: 587), as for instance there is no need to put time into researching the needs of consumers and as so many ideas are generated a company needs to just pick out the best ones. Especially with activities that require a high level of knowledge of the matter at hand, open innovation can offer a way to emphasize specialization in the form of labor division (Pénin et al. 2011:12). Open innovation can in addition help reduce risks when they have others to share them with (Mortara & Minshall 2011: 587).

Companies might still choose to continue with closed innovation because of for example fear of losing their competitive advantage by sharing crucial information with outside parties, being unable to find the right and beneficial information and resources or not knowing how to transfer knowledge from the outside to inside the company. Nevertheless, customers remain a potential source of innovation for companies that should be further studied. (Schaarschmidt & Kilian 2013: 3.) Companies should also keep in mind, that complete protection of innovations can be very challenging as many innovations rely on highly qualified individuals and attaining them can be a challenge itself in the current work life where transfers between companies is common (Koch & Kerschbaum 2014).

2.3. MNEs and Open Innovation

Multinational enterprises are large firms that operate in many different countries. By operating in many countries, they also offer their products or services in those countries creating homogeneity among consumers in different nations. One reason for MNEs to enter new countries is to access that nation's knowledge sources. (Efrat 2014: 12.) MNEs have a need to share knowledge and collaborate with partners outside their company borders (Albors et al. 2008: 195).

Open innovation is a great way to access external resources to complement the shortcomings of a company of any size and from any industry. Nevertheless, especially big companies such as multinational enterprises (MNEs) have been the core subject of open innovation research. Whereas smaller companies tend to use open innovation through exploration, large companies usually prefer exploitation. Despite the fact that direct contacts between the different parties involved in open innovation are important, companies arrange their open innovation processes most of the time through separate entities. (Mortara & Minshall 2011: 587.)

Mortara and Minshall (2011: 591-592) have identified four different approaches that companies can take towards open innovation: open innovation conscious adopters, open innovation ad-hoc innovators, open innovation precursors and open innovation communities of practice. Conscious adopters have decisively implemented open innovation practices, even redesigned existing processes. Ad-hoc adopters have implemented only partially open innovation practices, for example related to a specific product or process. Precursors are companies that perhaps already had open innovation process before it became a phenomenon, but certainly have implemented it without strategic decisions and more as a natural continuum of events and surroundings. The last group consists of companies that are less certain with open innovation and have just recently adopted practices even previous experiences existed through collaboration.

It should also be remembered that there is really no limitation as to which type of companies can use open innovation. Naturally open innovation can be a better solution to some companies rather than others, a key determinant being the ability to implement a relationship with the external sources (Burger-Helmchen & Cohendet 2011: 337). It is many times perceived that open innovation is only suitable for information products as software and thus happening through open source software projects. In spite of open innovation being very suitable for this purpose, it can also be used with physical

products, like sporting goods. (von Hippel 2005: 103-104.)

Difference occurs in the forms of open innovation. MNEs are found to implement open innovation in particularly two forms: one that helps with current innovation practices and core markets and another that aims at increasing ambidexterity. The former requires inbound processes and the latter both inbound and outbound processes. (Mortara & Minshall 2011: 593).

There is also a practical reason for choosing a MNE as the target of this study. Since the aim is not only to identify motivational factors, but to compare them between two cultures any MNE is suitable for the sampling since they operate in several countries and they have consumers from different cultures. Adobe and Google were chosen as the target of this study because their sites for user communities were found optimal. The biggest advantage was that their user communities are organized so that different nations (cultures) have their own user groups, which makes identifying the users' culture a lot easier.

2.4. Forms of Open Innovation

Open innovation can be divided into two processes: external technology acquisition and external technology exploitation. External technology acquisition (ETA) is the process where innovation and ideas come from the outside of the company and become part of the company's inner innovation process. This way the external knowledge complements the company's own inner resources. External technology exploitation (ETE) refers to companies letting their own innovation and know-how to exit the company boundaries so that external resources can pursue to develop them. (Hung & Chou 2013: 368.) Another classification of the same phenomena is outbound and inbound openness (Frey et al. 2011: 399), which perhaps more clearly states the way open innovation is used. Inbound openness is equivalent with external technology acquisition and outbound openness is the same as external technology exploitation. The interest of this study is the ETA process where external resources' innovations and ideas are brought inside the company for further processing and utilization.

Frey et al. (2011: 399) further offer two optional ways of doing inbound openness. The first option is to find what kind of external ideas and solutions already exist and harness these to the company. Another way of doing inbound openness is to gather external

resources with the aim at getting them to solve problems and challenges set by the company.

Implementing open innovation differs in addition in how open a company is to external resources. Companies can restrict their open innovation so that only a specific group of individuals can participate. This is called controlled inbound openness and is the most common way of organizing a company's open innovation processes. Crowdsourcing is a term used of a non-restricted way of doing open innovation. Here, everyone willing can participate and the group usually consists of the users of the particular product or service. (Frey et al. 2011: 399-340.)

Many times, open innovation is understood as equivalent of open source innovation, where a company gives up its property rights in order for a big crowd to freely develop the product or service for all to benefit from. Open innovation does not however need to produce a public good for free, for a company can choose the level of privacy and protecting its rights according to the form of open innovation. Open source is just one way of organizing and practicing open innovation. (Pénin et al. 2011: 15).

Huizingh (2011: 3) demonstrated in a table, how both the innovation process and outcome can either be open or closed and the company can decide between four different options. Table 1 shows the four different cases of open innovation according to the choices of openness.

		Innovation outcome:	
		Closed	**Open**
Innovation process:	**Closed**	1. closed innovation	3. public innovation
	Open	2. private open innovation	4. open source innovation

Table 1. Innovation based on openness of process and outcome. (Huizingh 2011:3)

Pénin et al. (2011: 11) list some of the different forms in which open innovation has emerged: crowdsourcing, co-conception, open-source, markets for ideas, co-development and co-conception. The focus of this study will be on user communities as a means to organize open innovation. Even though open innovation does not exclude innovation work done inside the company, the focus of this thesis is on the external resources in order to understand them better and examine their uniqueness compared to internal resources.

2.5. User Communities

Internet has proven to be an excellent medium for companies to interact and communicate with its customers and other consumers. It is a low cost technology with rich interaction and multimedia features. The tools used by companies with the assistance of Internet are numerous and not all can be discussed in this study. (Füller & Matzler 2007: 378.) Users and customers can be involved in a company's innovation through these online innovation tools in the form of for instance sharing thoughts, ideas and experiences or testing and designing products (Bengtsson & Ryzhkova 2013: 655). Even though the Internet has been feared to constrain complex innovation, internet-based communities can cope with complicated tasks and distribute even tacit knowledge (Füller et al. 2007: 62).

Pisano & Verganti (2008: 80, 82) have divided the different ways to collaborate on innovation projects into four groups: innovation mall, innovation community, elite circle and consortium. The characteristics that divide the forms of collaboration are governance and participation. Participation can either be closed, when the participating parties are limited and the company can have a say in the partners, or it can be open when all willing parties can participate. According to governance the collaboration can either be hierarchical when the company can decide what needs to be solved, how and what is the right solution or flat when all participating parties are equal. Innovation communities are the flat and open option for collaboration.

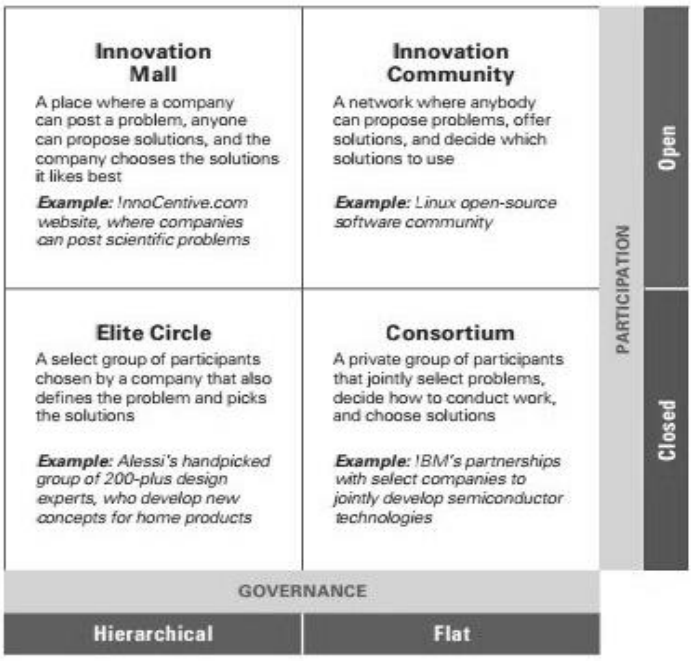


Figure 2. Division of collaboration according to governance & participation. (Pisano & Verganti 2008:82)

Innovation platforms and communities offer companies means to access external resources for their open innovation. An innovation platform can be the company's own or set up by intermediaries connecting the company with external sources. In these online platforms the companies themselves decided on what issues they require external assistance and the members do not interact with each other but rather do the innovation work by themselves. On the contrary, in innovation communities there is a lot of interaction between the members who voluntarily join common communities because of similar interests. (Frey at el. 2011: 400.) The innovation communities can be linked to the company or completely separate (Wu & Fang 2010: 571), for instance when a community is focused on a specific brand versus a general product category.

User communities can be seen as an innovation community, as anyone willing can join in them and the users themselves decide on the topics and what will be discussed. They gather together individuals that are interested in and/or the users of a particular product or service. Brand communities are a more specific type of user community, where the brand is the force bringing the individuals together as they share an admiration for that particular brand. (Wu & Fang 2010: 570-571.) Even though the users share similar interests, the communities can be said most of the time to consist of weak ties as the users are not connected emotionally and have infrequently contact with other users (Parks et al. 2014: 2). Consumers innovate more in a collective way compared to in total isolation, as other people with similar interests can offer support and compatible knowledge needed in the innovation (Füller et al. 2007: 60). This is why user communities, also known as innovation communities, offer an advantage compared to other sorts of platforms where consumers work alone or at least do not get any support online.

Interaction and communication play a vital role in user communities (Wu & Fang 2010: 517). Users use online communities for both sharing and searching for information (Park et al. 2014: 1), and also for interaction through these actions (Denyer et al. 2011: 376). A community refers to a group of volunteering individuals, who interact on a shared topic or goal in a specified field. The communities are organized in an informal fashion and decide on its own rules. Depending on how the communities are organized and how the learning in them happens, affects if the community is associated with exploitation or exploration. (Burger-Helmchen & Cohendet 2011: 319.)

Hau and Kim (2011: 957) argue that a community has to have active collaboration with a firm, to better emphasize the community's role as a company's resource and the link

between them. However, most other definitions (e.g. von Hippel 2005, Füller et al. 2007: 61) do not require this notion. Leaving out the remark on active collaboration leaves room for more ways of conducting open innovation through communities. As an example, a company might gather valuable information on needs from a community without the users being even aware of the fact.

Previous research has divided communities into three different categories: communities within an organization, virtual communities and open source communities, and user communities and the organization. Communities within an organization distinctly mean communities consisting of a company's own employees. Here even some of the incentives can be intrinsic, extrinsic incentives as financial pay play a big role. Virtual communities and open source communities on the other hand exist outside the organization and therefore consist of not the employees but individuals outside the company. (Burger-Helmchen & Cohendet 2011: 320.) Participants in virtual communities interact with each other through the Internet and use software designed for this purpose (Albors et al. 2008: 197).

Burger-Helmchen and Cohendet (2011: 318) describe user communities used by the game industry as a source of product/service support, brand promotion and loyalty and resources for innovation, making user communities an important business model in the gaming industry. Particularly in this study, the user communities are of interest as the source of new innovation though they can also offer other advantages to the companies.

Utilizing the resources of a company's users can be very important to firms, as if they are able to transform a user community to a loyal one, they can thus receive a competitive advantage (Pénin et al. 2011: 17-18). User communities and forums are useful for companies in particular in the beginning of the innovation process, the discovery phase. Through the communities companies can learn a lot of the needs consumers have and of the customers' opinions on certain products and services. (Schaarschmidt & Kilian 2013: 6.) Still, users can participate throughout the company's value chain – from the initial innovating to distribution (Hau & Kim 2011: 957).

These communities generate new innovations when users come up with ideas and solutions, which are then discussed and refined by other users until a final form is found. Discussion and giving feedback will also in the long run create new knowledge among the members and this again can serve as a basis for further innovations. (Füller et al. 2007: 61.)

2.6. Users as Innovators

More and more individuals are joining online social networking sites as user communities. It is not only in free-time related matters that users are seeking and sharing information online, but workers are joining professional communities where they can acquire new skill and improve themselves in order to better tackle challenges that they face in their working life. (Pi et al. 2013: 1971.)

Users can be great innovators for a product or service, since as a user they know perfectly the needs and desires they have and therefore can incorporate these into the actual product. In other words, users are the experts on users. Special cases of using users as innovators are for instance lead users, whose needs are ahead of time and will become common with the masses later on, or potential users, whose needs can when understood open doors to new customer segments. (Koch & Kerschbaum 2014.)

von Hippel (2007: 294-295) makes a division of participants of open innovation according to if the individuals or companies expect to benefit through either using or selling the innovation. Those who gain benefits from using the innovation, are referred to as innovation users and those gaining benefits from selling the innovation are referred to as innovation manufacturers. The benefits might be connected to the nature of the product or service, as for example with open source software the user benefits directly and right way from the improved product whereas with physical products the user has to wait for the company to bring the improved product to markets (Hau & Kim 2011: 957).

In this study, the interest is on users that are individuals not companies. These individuals participating in open innovation and in this case user communities can be called many other things as well. Wu and Fang (2010: 570) call them creative consumers. von Hippel (2007: 301) calls them lead users, when their goal for innovation is to find a solution for their needs and whose needs are similar to the masses but ahead of time. Users will be the term used in this study to refer to the individual consumers, since no emphasis is wanted to put on the specific characteristics of the individuals participating in user communities.

Users are the members of an online community or other platforms, where they take part in innovation which later can be utilized by e.g. companies. The have know-how and skills that they can use in their favor to create a new innovation either alone or with the

assistance of others. (Wu & Fang 2010: 570.) An important factor that enables companies to take advantage of the innovations and ideas of users is that many users are willing to share this information in detail rather than keeping it all to themselves (von Hippel 2007: 304).

Users could be divided into different roles also according to the input they have on the innovation. Helping with the idea phase makes a user a resource, in the design and development phase a user is a co-creator and in the testing and support phase a user is simply a user. (Schaarschmidt & Kilian 2013: 2.) However, users do not only innovate improvements to existing products but can also come up with totally new products or technologies (Füller et al. 2007: 64). It is most likely that the users studied in this research will be resources for innovative ideas, but other options are also possible. Also, it is of no importance how the users help the companies as this study does not concentrate on the outcomes of the open innovation happening in the user communities but rather only present the users as a resource for companies and examines the motivational factors for participating.

Participation in user communities and thus innovation mostly takes the form of interaction through discussion. Users, as an example, seek assistance with problems and questions, offer solutions, offer their knowledge, talk of related subjects and changes in the field. When one user's know-how fails to be sufficient, other users fix this shortage by offering their own know-how. From the pool of knowledge, that is shared with all members, emerges new solutions, ideas and innovations. (Füller et al. 2007: 61-62.)

Participating members could be divided also depending on their involvement in user communities and in the consumption activity: tourists, minglers, devotees and insiders. Tourists do not have a lot of social ties in the community or interest in the activity. Minglers have little interest in the activity but do possess social ties. Devotees are the opposite of minglers and lack social ties to the community but are interested in the consumption activity. Insiders have both social ties and interest in the activity. (Kozinets 2002: 64.) This division will not be taken into account in this study, as it would require more time and effort to first classify the users. It is however likely that most of the users taking part in this study will be insiders as their contribution to the user communities is the highest. In addition, a comparison between the motivational factors of the different user types from different cultures would be an interesting suggestion for a future research subject.

Another categorization of the users, which is perhaps more suitable for this study, is the separation between posters and lurkers. Posters are user community members who have posted once at least to the community during the past three months and thus participate in the discussions. Lurkers on the other hand do not participate otherwise than through observation and therefore do not post in the community. Normally, the majority of users in an online community are lurkers. Posters and lurkers have been examined to have different motivations for participating in user communities: posters are more motivated by intrinsic motivations, whereas lurkers are motivated more by extrinsic motivations. (Lai & Chen 2014: 295, 298.) This makes them interesting subjects, since if this study finds one of the culture's users to be motivated more by extrinsic motivations; this could mean the culture produces more lurkers than posters.

2.6.1. Innovation Model

The amount of users involved in innovation by developing or modifying is significant. With industrial products the amount of innovative users is between 19% and 36%. The equivalent amount with consumer products was 10% to 38%. The underlying motive was the users' own needs. (Baldwin et al. 2006: 1292.)

Baldwin et al. (2006: 1291) have developed a model of how users innovate. It starts with one user or more finding possible ways to improve a good they are familiar with and start investigating these possibilities. Afterwards communities of users will share each other information that is essential to the innovation. At some point, a user will appear that is more interested in purchasing the new improved product rather than in developing it. When there is evidence of demand, manufacturers will appear in the picture.

The model is claimed to be applicable to all industries and fields where users are used as a source of innovation (Baldwin et al. 2006: 1307). Even if some differences do exist, the model gives a good picture of the basics of how users innovate and most importantly of the importance of the community.

From the company's point of view, Füller and Matzler (2007: 382) have created a model on how companies implement consumers to the innovation process. It can be presented by two dimensions: frequency of integration from one time to continuous and level of integration meaning consumer engagement from passive to very active.

2.7. Knowledge Sharing

As is already clear, knowledge is an important part of any innovation – open innovation included. Knowledge helps in creating something new and companies want to acquire it from external sources. So when customers are used as a source of innovation, it is not enough for knowledge merely to exist for open innovation to happen, but there must be also sharing of that knowledge. (Hoarau & Kline 2014: 45, 48.)

Successful knowledge sharing means the capabilities of individuals to share knowledge, so that it generates intellectual capital shared by all parties involved. This on the other hand, creates a competitive advantage for the company benefiting from the intellectual capital. Knowledge, unlike many tangible assets, is hard to imitate by competition. (Abdul-Jalal et al. 2013: 150.)

Knowledge sharing means individuals sharing their knowledge, but the role of the recipient should also be remembered as there are always parties gaining new knowledge also in a successful sharing of knowledge. People not only get to learn new things, but communication with others can in addition become easier as the knowledge levels on a subject match between persons. (Abdul-Jalal et al. 2013: 151.)

In the communities, knowledge is shared in an informal manner (Burger-Helmchen & Cohendet 2011: 319). Researchers have categorized the communication of knowledge sharing in online communities as generalized social exchange. Hence, social exchange theories have been used to explain the exchange process happening between individuals in these communities. According to this theory, users share their knowledge because they expect to gain something from the action. This benefit they wish to gain can be either extrinsic or intrinsic. (Jin et al. 2013: 94.) The motivational factors are discussed in the next part of this study.

Information technology plays nowadays a big role in facilitating knowledge sharing. It helps in storing, transferring and sharing information. In addition, information technology connects different networks of communication and users. (Hung et al. 2011: 416; Burger-Helmchen & Cohendet 2011: 320.) As a lot of the knowledge sharing within companies happens via information technology, it is natural to study knowledge sharing across company boundaries in an IT setting as well – as is the case with online user communities.

However, IT in itself is not enough to guarantee knowledge sharing. Knowledge sharing would not happen often, if it were not for the individual motivation of people to exercise it. Motivation is said to be the most important factor in influencing knowledge sharing. (Hau et al. 2013: 357; Abdul-Jalal et al. 2013: 151.) Concerning the continuity of users' knowledge sharing in online communities, Jin et al. (2013: 101) found that satisfaction is crucial and satisfaction stems from users' motivations becoming reality. For these two reasons, it is important to study and understand the motivations linked to knowledge sharing – a goal of this particular study.

Burger-Hemchen and Cohendet (2011: 335) mention as a problem of many companies, that they do not understand the importance of trust and motivation in order to utilize knowledge. This is particularly a problem in communities which are voluntary for its members and self-guiding. The companies must generate motivation for community members if they want to collect the benefits.

3. MOTIVATION

This section focuses on motivation, by first defining the concept and discussing its fundamental elements of needs and values. Then, a categorization of motivational factors is presented; one that divides motivations into intrinsic and extrinsic motivations. An overview of both intrinsic motivations' and extrinsic motivations' link to user communities is given, with the aim of tying this section to the previous one on open innovation.

3.1. Definition of Motivation

Motivation is a key factor when companies want to use external resources in their innovation processes. Given that an individual needs some skills and knowledge on the subject to succeed in being part of the new innovation, he also needs motivation in order to participate in the first place and execute to his best performance level. Without any motivation, the resources offered by the individual cannot be reached. (Frey et al. 2011: 401.) Therefore it is important to understand what factors motivate an individual to participate in the open innovation.

Bengtsson and Ryzhkova (2013: 660-661) identified the three biggest challenges managers face when implementing open innovation: the first of which was finding and motivating users and customers to participate in the open innovation. It is clearly an important issue, for companies to understand the customers engaged in user communities and what motivates them to take part.

Motivation is a psychological process of a person who interacts with his surroundings (Latham & Pinder 2005: 486). Motivation can be described as the force that makes people act, or in other words they are "moved to do something" (Ryan & Deci 2000: 54-55) or it gives behavior a direction (Di Cesare & Sadri 2003: 29).

There are three elements that can be said to form motivation. The first one is arousal, what initially makes an individual interested in the goal. The second element is direction: what will be done in order to approach the goal. The third and final element is mobilization of effort, meaning the individual will continue with the actions until the goal is reached. (Di Cesare & Sadri 2003: 29.)

An individual's self-identity and needs can help examining motivation. People feel motivated to reaching goals that fit with their own identity. Moreover, being part of a group leads to the individual internalizing the group's needs which in turn directs the person's behavior. (Latham & Pinder 2005: 487-488.) As an example, Di Cesare and Sadri (2003: 37) found in their theory that American employees were very much motivated by pay which is an individual need, whereas Japanese employees also valued pay but via a successful company and were motivated foremost by the company's potential success, a collectivistic approach.

3.2. Needs and Values

Motivation, or the driver of a person's actions, is closely related to people's needs. When a person has unsatisfied needs, he is willing to work to fulfill those needs; in other words he is motivated to work for the goal of satisfying his needs. The more a certain action is plausible to satisfy the need, the more motivated the person feels to completing the action. (Haslam et al. 2000: 320.)

Maslow created in 1954 his renowned theory of needs and their hierarchy. He put 5 groups of needs into an order stating that the needs on the lower level had to be satisfied before a person could move on to the next level of needs. The groups of needs from bottom to top are as follows: physiological needs (food, water), safety needs (security), social needs (acceptance, being loved), esteem needs (success, admiration) and self-actualization (becoming what one can). (Fey 2005: 349-350.)

Viewed in the light of Maslow's hierarchy of needs theory, an individual would need to be on the highest level of needs, known as the self-actualization level, in order to be creative, innovative and willing to solve problems. This would include the participation in open innovation communities.

McClelland's Learned Needs Theory implies that a person learns his needs from his culture by coping with it. Needs become a basis for motivation and are part of creating the person's value system. (Emery & Oertel 2006: 17.) It also works the other way around and values are an influencing factor of motivation. Values are even closer to the actual action than needs are, as they guide a person's decision between different behavioral options. (Latham & Pinder 2005: 491.)

Vroom's Expectancy theory sees motivation as a set of three beliefs, but in the end it comes down to values. Expectancy, the first belief is that if a person puts in effort there will be performance. Instrumentality, which is the second belief, means that performance will lead to a reward. The last belief, valence, means the value that the person feels the reward has. (Di Cesare & Sadri 2003: 37.) We can conclude that the reward must be considered valuable for an individual to put in effort to achieve it.

The thing that moves people, motivation, differs between individuals and situations. What motivates one might not motivate someone else. This is called the orientation of motivation and is the goals and attitudes of a person that lead to an action. (Ryan & Deci 2000: 54-55.) Hence, it is recommended for companies to employ individuals that have common beliefs, values and needs in order to make employee motivating easier (Emery & Oertel 2006: 13). This can however be challenging when employing people from different countries and cultures, and close to impossible when using external resources.

To better understand these goals and attitudes that lead to motivation, other theories than need-based ones should be examined as these theories only explain why people have a need to act. (Latham & Pinder 2005: 488).

The Self-Determination theory examines the different types of motivation in which the most basic division is between intrinsic and extrinsic motivation. The difference lies in the reasons for doing the action. Either the reason is getting something from the action itself (intrinsic motivation) or getting something outside or in addition to the action (extrinsic motivation). (Ryan & Deci 2000: 54-55.) These two general motivations are discussed in more detail below.

3.3. Extrinsic and Intrinsic Motivation

Intrinsic motivations are such activities that are a value on its own for the solver. This means that when an activity is performed, it creates value for the solver then and there. On the contrary, extrinsic motivations mean value obtained separate to the actual activity. Here, the value does not come from performing the activity but receiving something different for doing the activity. (Frey et al. 2011: 401; Jadin et al. 2013: 212; Hung et al. 2011: 416.) This said, intrinsic motivations can also be defined as the satisfaction that comes of doing a task (Ryan & Deci 2000: 56). According to this view

the value exists outside the task but is still related to it whereas with extrinsic motivation the value is separate. Of course it is not always easy to classify a motivational factor entirely into only one of these groups as they might have characteristics of both intrinsic and extrinsic motivations.

As mentioned, extrinsic motivations are benefits that come with doing a task instead of motivations from the task itself (Jadin et al. 2013: 212). The extrinsic motivations include: money, signaling and career concerns, user need, learning and skills development. On the other hand, intrinsic motivations include: autonomy, fun and enjoyment, professional and personal identity, intellectual challenge, status. Reciprocity and reputation are motivations that place somewhere in the middle of these two groups of motivations. (Boudreau & Lakhani 2009: 71-72.) In some cases, reciprocity and reputation are considered as extrinsic motivations (Lai & Chen 2014: 303).

Money is quite an obvious motivation in open markets, where solvers are paid for their contribution in the innovation process. This of course does not apply to open communities where no financial profit is to be gained by participating in innovation work – at least not directly from the company in question. Being a user of a technology or improving one's own skills can also inspire a solver to take part in the development. (Boudreau & Lakhani 2009: 72.)

Intrinsic motivation can have many forms. Being able to challenge yourself, enjoying innovation work and being part of some bigger process can influence solvers to participate free of charge. An important aspect is when "work is not perceived to be work" and the personal preferences of a solver step in. The open community offers in addition a community of others in the same situation and working with the same things, which likewise gives the individual solvers an opportunity to gain status or find some identity among the other solvers. (Boudreau & Lakhani 2009: 72.) Simply having fun has been one of the most important motivations mentioned by the solvers (Frey et al. 2011: 402.) In addition, friendship between members, gaining new knowledge and stimulation for the mind are other motivational factors (Füller et al. 2007: 62).

The triggers of intrinsic motivation are numerous. A person gets a sense of mastery when he has fulfilled his needs related to competence, leading to intrinsic motivation. In addition, when the needs related to control and self-determination are fulfilled, a person will feel a sense of control which also is a trigger. Another trigger, getting feedback increases the effort put into work and helps to focus on the goal. Preferably the feedback

is positive, since negative feedback can in turn decrease intrinsic motivation. The task needs to be interesting for intrinsic motivation to appear. The characteristics of an interesting task are skill variety, task significance and identity, feedback and autonomy. (Peterson & Ruiz-Quintanilla 2003: 189-190.)

Intrinsic motivations have emphasized the importance when it comes to companies influencing solvers to participate in their open innovation. It has been stated, that intrinsic motivations bring out the most valuable solvers as the contributions of these solvers tend to be more substantial and important than the contributions of solvers driven by extrinsic motivations (Frey et al. 2011: 413). Intrinsic motivations have been associated with high work morale and ethics (Frey 1997: 429).

Hau and Kim (2011: 965) found in their research on online gamer user communities that intrinsic motivations like joy, fun, pride and satisfaction play an important role in facilitating innovation whereas extrinsic motivations could even build barriers when users were unwilling to share knowledge. That is why intrinsic motivations are of great interest in this study, but the extrinsic motivations should not be excluded from the research altogether. The importance of extrinsic motivations has also been mentioned in previous research (Shin 2010: 487), even though in fewer studies.

For example, Huang and van de Vliert (2003: 159, 161-162) found in their study on 49 countries that extrinsic job characteristics were important for job satisfaction across the countries. The difference between cultures lies in the finding that the extrinsic job characteristics relationship to job satisfaction is only important in countries that for instance are richer, more individualistic and have lower power distance. Again, this is tied either to Maslow's need hierarchy, explaining how intrinsic characteristics become more important as moving up on the hierarchy or to Hofstede's dimensions, explaining that the difference comes from traits inherited from the culture.

The motivations of users will be studied in the user communities setting. The online communities differ from face-to-face interactions in the network ties, meaning the ties between individuals, and the motivational factors cannot therefore be explained with social-psychological theories used to explain similar questions in offline settings (Park et al. 2014: 1).

3.4. Intrinsic Motivations in User Communities

Boudreau and Lakhani (2009: 71-72) claim that the different motivations of intrinsic and extrinsic nature vary between the types of open innovation. If innovation is organized in the form of open markets, extrinsic motivations are more important to solvers whereas intrinsic motivations influence the participation of solvers when the innovation process happens in open communities.

Intrinsic motivations require certain conditions and elements from the work done in order to be the influencing factors of workers. The following three examples will illustrate the reasons for having intrinsic motivations, leading to higher work ethics and morale. Firstly, the job or assignment has to be interesting. If one can find more meaning in the job, the more effort will be put into it. Secondly, a personal relationship between the employee and employer result in "recognition, loyalty and trust". Thirdly, participation is important as being able to be included in the decision and solutions will increase the input. (Frey 1997: 431.)

As discussed in the earlier section on user communities, these three factors – interesting work, personal relationship and participation – actualize in user communities. Since the participation in user communities is voluntary, the activity must be perceived as interesting to participate in the first place. The personal relationship also exists, though not necessarily as straightforward as in a normal work environment. Depending on if the community is run by the company or not, the company is either present or not. Nevertheless, the solvers do have a personal relationship with the company as users of the product and in some cases through brand loyalty. Participation in user communities is high and even a corner stone of the communities.

Even though both extrinsic and intrinsic motivations can influence users in online communities, especially intrinsic motivations are important for active participation. Such intrinsic motivations as joy of helping others and knowledge self-efficacy, increase the participation and knowledge sharing of posters in user communities. (Lai & Chen 2014: 303.) The intrinsic motivations of perceiving knowledge sharing as fun and pleasurable are mentioned as important ones, as is helping others (Hau et al. 2013: 358). Application developers in the smartphone industry were found to be motivated by the intrinsic incentives of again, fun and intellectual stimulation (Koch & Kerchbaum 2014). Altruism is yet another motivation that facilitates knowledge sharing (Hung et al. 2011: 416), and it was found that perceiving information helpful to others made users

more inclined to share it with others among Facebook Group members (Pi et al. 2013: 1976).

As intrinsic motivation leads to learning and creativity of high-class (Ryan & Deci 2000: 55), user communities do not only facilitate intrinsic motivations, but they need intrinsic motivations also for new innovations to arise.

3.5. Extrinsic Motivations in User Communities

According to economic exchange theory, extrinsic incentives as monetary rewards, promotions and educational opportunities encourage individuals to share their knowledge (Hung et al. 2011: 416).

Monetary rewards are perhaps the most important, or at least the most obvious form of extrinsic motivations. In a study conducted in open source communities, rewards were found as an important motivation, but it also revealed how some users might turn down such rewards for a number of reasons; for instance to remain free of any ties or fear of control over the innovation process (Krishnamurthy et al. 2014: 642). Also, Koch and Kerschbaum (2014) found financial gain to be an inferior motive among application developers in the smartphone industry.

According to Lai and Chen (2014: 303) reputation as an extrinsic motivation was not of importance for the participation of users in online communities, but reciprocity did matter. Especially posters expect reciprocity from other users, but lurkers do not. Pi et al. (2013: 1976) studied users in Facebook Groups and found posters to post in groups when they felt this was expected of them. Also Hau et al. (2013: 358) mention reciprocity as an extrinsic motivation that is effective concerning knowledge sharing. On the other hand, in a study conducted in a team setting, reputation played a strong role in facilitating knowledge sharing (Hung et al. 2011: 422). It might be that a face-to-face situation emphasizes the importance of reputation feedback, but it should not be excluded as a possible motive as well when studying the user communities. Even online, building a reputation can lead to hopes of job offers, when employers recognize skilled users (Koch & Kerschbaum 2014).

In addition, learning a new set of skills and acquiring more know-how were important extrinsic motivations for application developers in Koch and Kerchbaum's (2014) study.

In general, studies have found extrinsic motivations to be inferior to intrinsic motivations when it comes to knowledge sharing, as extrinsic motivations have either little or no influence on the matter (Jadin et al. 2013: 212). Better yet, some studies claim that extrinsic incentives even have a negative effect on knowledge sharing (Hau et al. 2013: 357).

4. CULTURE

This section is dedicated to discussing culture and its meaning to open innovation. After culture as a concept has been defined, the different frameworks using cultural dimensions will be presented mainly focusing on Hofstede's and on the GLOBE frameworks. These two frameworks will be further used to analyze the national cultures of India and the Netherlands, to lay a foundation for the cultural comparisons of motivation in the empirical part. In the end, cultures relationship to both motivation and innovation will be discussed.

4.1. Definition of Culture

Culture can have many definitions with some difference among them. The following definition is from the GLOBE project, which will be discussed later on in this section: "Culture is the shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives that are transmitted across generations" (House et al. 2010: 114).

The behavior of the members of a culture is influenced by the culture in question and its values (Chiu & Chow 2010: 579; Kim et al. 2011: 366). That is why culture has been of great interest in previous business research, as its connection to among other things entrepreneurship, financing, management style and network utilization has been studied. Many other aspects of the business world yet demand more researching in terms of culture's influence, such topics as human resource management or new venture financing. (Chand & Ghorbani 2011: 593-594.)

Many comparisons between cultures have also been studied, as it is natural that both positive and negative issues arise when different cultures are in contact. Globalization has brought new meaning to cross-cultural studies and especially MNEs are touched by cultural differences as they operate across country borders which leads to dispersed customer satisfaction (Lewin et al. 2010: 698).

In this study, the emphasis is on culture's influence on the motivational factors of consumers participating in user communities. Consumers that come from different cultures should not be treated as a completely homogenous group as there are

differences between them, as for example how they perceive value and what satisfies them (Blocker 2011: 553; Torres et al. 2014: 255). Customers from Western and Eastern cultures differ in addition in the factors influencing their loyalty and in the product attributes they prefer: Western customers tend to prefer intrinsic attributes and Eastern customers prefer extrinsic attributes (Zhang et al. 2014: 284, 291).

In this section, we will first examine how the differences between cultures can be measured and presented through cultural dimensions. Secondly, the affect these different cultures have on motivation will be discussed and lastly, any implications culture has on innovation will be presented.

The Hofstede's framework for comparing cultures is chosen for this study because it was originally a study on employees' work values (Thomas 2008: 49) and because it has been widely used in previous research (e.g. Fey 2005: 347). In addition, Hofstede's dimensions have been used when researching how behavior is affected by cross-cultural differences (Emery & Oertel 2006: 15). The Globe study, also presented in this study, complements Hofstede's study (Thomas 2008: 60).

As it has been criticized that the cultural distance measurements are not consistent (Avloniti & Filippaios 2014: 660), I am using two sets of cultural dimensions to map out the differences between the chosen cultures. This same decision to use two cultural dimension measurements has been used also by, e.g. Chand and Ghorbani (2011: 597-599).

4.2. Cultural Dimensions

Cultural dimensions are used to measure and present the differences that exist between different cultures; their diversity. These concepts are used especially when discussing home and host countries and when helping to explain such subjects as expansion patterns, entry modes, marketing and strategic adaptation, MNE performance and appeal of foreign markets. The difference between cultures is called cultural distance. (Avloniti & Filippaios 2014: 661.)

Cultural distance, that is the differences between cultures, can arise from rules of behavior, values and norms that vary between cultures. Cultural distance can cause difficulties in operating in a foreign culture, which is known as the liability of

foreignness. This of course can be challenging for many companies. Cultural distance has been researched and explained through several approaches. (López-Duarte & Vidal-Suárez 2013: 2253.) Two of these approaches, Hofstede's and the GLOBE project, will be presented below.

4.2.1. Hofstede

One concept of measuring cultural differences that is the most famous and used the most is Hofstede's cultural dimensions. Even though its popularity, it has received also a lot of criticism. The main critique is that the research was conducted in a single firm, which makes the results questionable. (Avloniti & Filippaios 2014: 662.)

Geert Hofstede's (1983: 46, 50, 53) research on culture presents four different dimensions of culture. These dimensions help to understand among others how organizations are structured in different cultures, what motivates people and the different issues that need to be faced depending on the culture. The dimensions are as follows: power distance, uncertainty avoidance, individual-collectivism and masculinity-femininity. There are also two other dimensions that have been added to the framework later on: long-term orientation and indulgence vs. normative (Geert Hofstede 2014 c.) These two dimensions are not however taken into account in this study, as they are used more rarely and are not considered essential in showcasing the differences between the Dutch and Indian cultures.

Power distance explains how a society deals with power distribution, meaning how power is distributed in general. Also, how much power are superiors given and how much subordinates accept and wish superiors to have power (Hofstede 1983: 51.) A low scoring on the power distance index tells of for instance of decentralized decision structures, use of personal experience, a flat organization, individuals' efforts leading to innovations and subordinates' wishes to be consulted. A high score on the other hand is a sign of hierarchy and centralized decision making, formal rules, subordinates being told what to do and innovations needing the support of the structures. (Waarts & van Everdingen 2005: 604.)

Uncertainty avoidance tells how much a society wishes to avoid life's uncertainties because it causes anxiety, and therefore everything that would increase this uncertainty and anxiety is avoided (Hofstede 1983: 53). A low score on the uncertainty avoidance index tells of tolerance towards ambiguity, innovators being independent of rules and

skepticism toward technical solutions. A score that is high tells of innovators being restricted by rules, appeal of technological solutions and formal management. (Waarts & van Everdinger 2005: 604.)

Individualism tells how much activities where individuals alone are the agents and not dependent on others are preferred. Individual freedom is of much importance. (Hofstede 1983: 54.) Low scoring on the individualism index means belief in collective decisions, innovators want to involve others, innovations happen within existing networks and less mobility across occupations. High scoring tells of belief in individual decisions, innovators wanting to try things on their own, innovations happening outside existing networks and mobility across occupations. (Waarts & van Everdinger 2005: 604.)

Masculinity indicates if the culture values more the attributes connected with masculinity or femininity. Basically in all societies masculine attributes have found to be self-reliance and assertiveness and the feminine attributes responsibility and nurturance. (Hofstede 1983: 54.) A low scoring on the masculinity index is a sign of importance of equality, solidarity, work life quality, feelings and intuition. A high score signals importance of pay, security, interesting work, equity, performance, competition, assertiveness and decisiveness. (Waarts & van Everdinger 2005: 604.)

The fifth dimension, long-term orientation was added later on (Avloniti & Filippaios 2014: 662). It means if a culture is more focused on the future short-termed or long-termed (Waarts & van Everdinger 2005: 604). This dimension will be not part of the comparison between cultures in this study.

Based on Hofstede's research, nations were given scores on how strong the dimensions affect their cultures. These will be presented later on regarding India and the Netherlands. This way it is also easy to compare cultures with each other, as we know which characteristics are related to the culture and to what extent.

4.2.2. GLOBE

Another concept of cultural differences examined in this study, is the GLOBE concept that was part of the Global Leadership and Organizational Behavior Effectiveness Program. The program aimed at understanding what kind of leadership is affective among different cultures. The first aim of the research was to create instruments to study societal culture adequately. The research is extensive as about 17 000 managers in 62

societies and 951 organizations produced the research data and the people involved in doing the research were from around the globe as well. (House et al. 2010: 113.)

GLOBE consists of nine cultural variations that are closely related to the dimensions of Hofstede as extensions on his work: institutional collectivism, in-group collectivism, power distance, uncertainty avoidance, gender egalitarianism, assertiveness, humane orientation, future orientation and performance orientation. (Thomas 2008: 60-61.)

Collectivism is divided to two dimensions. Institutional collectivism is the dimension that indicates to what extent collective action and collective distribution of resources are supported by societal institutions. For example, the well-being of employees is taken care of by companies since it is their responsibility. In-group collectivism is collectivism on a lower level, meaning for much individuals value being part of and are loyal to small groups like family and friends. (Chui & Kwok 2009: 277.)

Power distance and uncertainty avoidance are equivalent to Hofstede's dimensions. Power distance tells the degree of unequally distributed power that is agreed upon and expected by the society. Uncertainty avoidance tells how much a society wants to avoid uncertainty through societal norms and rules. (Chui & Kwok 2009: 279.)

Next dimensions are gender egalitarianism and assertiveness. Gender egalitarianism is the measure of minimizing the differences of genders in the society. In cultures with a higher score, women are more involved in the society alongside the men. Assertiveness tells how competitive and tough individuals are encouraged to be. In cultures with a high score, individuals are less inclined in helping and more fixed on their own needs and fulfilling them. (Chui & Kwok 2009: 276, 278.)

Finally are the orientation dimensions. Humane orientation tells the extent to which individuals are expected to take care of others, especially those in need. Future orientation means the importance of the future in terms of how much is planned and invested in it. Performance orientation is the level of improving things and how much the society invites its members to do it. (Chui & Kwok 2009: 277-278.)

There are two kinds of scores a country receives according to GLOBE, the "As is" score and the "Should be" score. As is scores tell the culture's practices meaning it is a to-date perception of that particular culture. On the other hand, should be scores are based on the culture's values instead and thus tell more of what the culture would liked to be by

the respondents. Understanding the differences between these scores can be very important to companies. For instance, knowledge transfer between members of culture can be a lot easier than expected when the as is scores are different, as long as the should be scores are similar – meaning shared values. (Javidan et al. 2005: 61.)

The managers could rate the different dimensions according to a scale from one to seven, where scores higher than 4.5 are considered high, scores lower than 3.5 are considered low and the middle ground is naturally between scores of 3.5 and 4.5 (Szabo et al. 2002: 62-64).

Below, the national cultures of India and the Netherlands are discussed in detail, in order to show how different the cultures are from each other. There are many different frameworks of national variation derived from several studies conducted at different times. Among the many similarities between these frameworks individualism-collectivism and power distance frequently appear in them making these dimensions especially important when comparing cultures (Thomas 2008: 62).

4.2.3. Dutch Culture

Though there is no fixed scale in Hofstede's cultural dimensions framework, it can be said that the Netherlands score fairly low on the power distance dimension, high on the individualism dimension, low on the masculinity dimension and are somewhere in the middle on the uncertainty avoidance dimension (Thomas 2008: 52). Table 2 shows the rankings of the Netherlands.

Country	*Power Distance*	*Individualism*	*Masculinity*	*Uncertainty Avoidance*
Netherlands	38	80	14	53

Table 2. The Netherland's Rankings on the Cultural Dimensions of Hofstede (Thomas 2008: 52)

As the Netherlands scores low on the power distance index independence, equal rights and decentralized decision making are important in the culture. Managers are expected to involve employees, expertise of employees is relied on and communication is informal and direct. (Geert Hofstede 2014 a.)

The Netherlands is an individualistic culture with a very high score on the index. Individuals are solely responsible of themselves and their immediate family. In the workplace, merit should be the only affecting factor in promotion decisions and the employment contract should benefit both the employee and the employer. (Geert Hofstede 2014 a.)

The Netherlands is a feminine culture, since it scores very low on the masculinity index. This means that a balance between work and personal life is valued, as is involving and supporting everyone at the work place. Consensus is important to the Dutch, which might lead to long negotiations to ensure equality and solidarity to all. (Geert Hofstede 2014 a.)

On the uncertainty avoidance index, the Dutch are in the middle ground meaning they are slightly more inclined to avoiding uncertainty than embracing it. Security is important with rules and codes of belief defining correct behavior that usually includes valuing working hard, effective and with precision. (Geert Hofstede 2014 a.)

Countries are divided into clusters according to the GLOBE study, placing the Netherlands in the group of Germanic Europe along with Germany, Austria and the German speaking part of Switzerland (CCL 2014).

Country means for globe societal culture dimensions

	The Netherlands	Gap between "As Is" and "Should Be"
As Is		
Uncertainty avoidance	4.70	- 1,46
Future orientation	4.61	0,46
Power distance	4.11	- 1,66
Institutional collectivism	4.46	0,09
Humane orientation	3.86	1,34
Performance orientation	4.32	1,17
Group and family collectivism	3.70	1,47
Gender egalitarianism	3.50	1,49
Assertiveness	4.32	- 1,3
Should Be		
Uncertainty avoidance	3.24	- 1,46
Future orientation	5.07	0,46
Power distance	2.45	- 1,66
Institutional collectivism	4.55	0,09
Humane orientation	5.20	1,34
Performance orientation	5.49	1,17
Group and family collectivism	5.17	1,47
Gender egalitarianism	4.99	1,49
Assertiveness	3.02	- 1,3

Table 3. The Netherland's Rankings on GLOBE scale of Cultural Dimensions. (Szabo et al. 2002: 63).

On the "As is" scale of the dimensions, the Netherlands score high on uncertainty avoidance and future orientation. A middle score is received on power distance, institutional collectivism (though near a high score), humane orientation, performance orientation, group and family collectivism, and assertiveness. Gender egalitarianism is just on the border of a low score with 3.50. (Szabo et al. 2002: 63.)

4.2.4. Indian Culture

India has received quite different scores on the Hofstede's dimensions compared to the Netherlands, as illustrated in Table 4. India scored high on power distance, about in the middle on individualism, same with masculinity and fairly low on uncertainty avoidance. (Thomas 2008: 51.) India and the Netherlands are perhaps not the most far apart cultures one can find, but they do have clear differences. When comparing the two first dimensions, a 38 to 77 and 80 to 48 scores are significant enough to consider the two cultures sensible options for comparison.

Country	*Power Distance*	*Individualism*	*Masculinity*	*Uncertainty Avoidance*
India	77	48	56	40

Table 4. India's Rankings on the Cultural Dimensions of Hofstede. (Thomas 2008: 51)

India's high score on the power distance index is a sign that hierarchy and top-down structures are important in the culture. Superiors are looked up to in terms of direction, un-equality is accepted, management gives meaning to working and obedience is rewarded. All power and control is centralized to management, who is treated formally. (Geert Hofstede 2014 b.)

A score of 48 on the individualism index indicates that both individualistic and collectivistic characteristics can be found. Belonging to a group and striving to work for the benefit of that group is very important. All in all relationships are a key component of the culture and bring security to individuals. Individualistic traits in Indian culture are the result of Hinduism, which teaches that everyone is at the bottom line responsible for their actions and to the fate they have when reborn. (Geert Hofstede 2014 b.)

India can be said to be a masculine culture with a score of 56. This can especially be

seen in the way success and power are showcased openly. Again it is the religious and spiritual part of India that keeps the masculinity score on a more moderate level. India has a medium low score on the uncertainty avoidance. Imperfection and the unexpected are tolerated, and the rules that exist can be bent or even ignored if convenient. (Geert Hofstede 2014 b.)

The country cluster India is in is called Southern Asia. The other countries in this group are Iran, Thailand, Malaysia, Indonesia and Philippines. (CCL 2014.)

Country means for globe societal culture dimensions

	India	Gap between "As Is" and "Should Be"
As Is		
Uncertainty avoidance	4.15	0.58
Future orientation	4.19	1.41
Power distance	5.47	-2.83
Institutional collectivism	4.38	0.36
Humane orientation	4.57	0.71
Performance orientation	4.25	1.80
Group and family collectivism	5.92	-0.6
Gender egalitarianism	2.90	1.61
Assertiveness	3.73	1.03
Should Be		
Uncertainty avoidance	4.73	0.58
Future orientation	5.60	1.41
Power distance	2.64	-2.83
Institutional collectivism	4.71	0.36
Humane orientation	5.28	0.71
Performance orientation	6.05	1.80
Group and family collectivism	5.32	-0.6
Gender egalitarianism	4.51	1.61
Assertiveness	4.76	1.03

Table 5. India's Rankings on the GLOBE scale of Cultural Dimensions. (CCL 2014).

On the as is scoring these dimensions scored a score that is high: power distance, humane orientation, group and family collectivism. A medium score was received by these dimensions: uncertainty avoidance, future orientation, institutional collectivism, performance orientation, assertiveness. Gender egalitarianism scored a low score.

4.3. Culture and Motivation

Before, it was mentioned that values are closely linked to motivation. The values that are shared by the members of a social group are the core of its culture (Thomas 2008: 47) and differ between cultures (Kim et al. 2011: 365). Therefore culture also influences what motivates people (Fey 2005: 345). Previously, research on motivation primarily concentrated on Western culture leaving all other cultures outside. Nowadays, more research has been conducted of cultures other than the western and by researches from different cultural backgrounds. (Maehr 2008: 917.)

Culture can influence the behavior of consumers in user communities in many ways: what information and knowledge users choose to share, how privacy is perceived, how and to what extent communication happens. The most important way culture can influence behavior concerning this study, is the way users are motivated to use online communities. (Gallagher & Savage 2013: 1030.)

Regarding open innovation research, studies have found that culture is one factor for instance influencing the barriers of using and implementing open innovation (Mortara & Minshall 2011: 587). In addition, Verner et al. (2014: 115) found that culture was an affecting factor of software engineers' motivations.

According to previous research, culture contains motivation-related values which differ from culture to culture. Culture defines what the sources of motivation are like. These sources are for example the self-concept, needs, values and beliefs of a person; norms on ethics and many environmental factors. (Latham & Pinder 2005: 492-493.) A person's behavior is said to be affected by the values and norms of a society, especially those related to working (Peterson & Ruiz-Quintanilla 2003: 188).

Intrinsic motivation can be said to arise from human nature being more inclined to activeness than passiveness, but it can also originate from culture and socialization of the values and norms linked to working life. Work ethics become societal culture when enough individuals and institutions within a culture share the same beliefs and values of it. (Peterson & Ruiz-Quintanilla 2003: 189, 191.)

The values and beliefs in a societal culture that support intrinsic motivation are according to Peterson and Ruiz-Quintanilla (2003: 192-193) work centrality, valued worked goals and norms about working. Work centrality is the extent to which work is

valued in contrast to other aspects of life; how important is work to an individual. The valued work goals which are associated with opportunities to express yourself lead to intrinsic motivation. Norms on working can be divided into two groups: obligation and entitlement norms. Obligation norms relate to responsibility and commitment, as individuals taking responsibility for their work and who are committed to the organization are more proactive. Entitlement norms relate to property rights and psychological contracts.

The intrinsic motivations of two groups coming from different cultural background are studied and compared because of the significant importance of culture. Nations have the strongest connection to cultural values, not age, personality, religion or workplace (Chiu & Chow 2010: 580), which is why this study concentrates on the comparison of solvers coming from two different nations. In addition, cultural differences are said to differ mostly between and not within countries (Chiu & Chow 2010: 580), why such a comparison between Dutch and Indian solvers is relevant.

Nevertheless, it is important to conclude that not all values associated with motivation differ between different cultures. For instance, general self-efficacy of workers has been reported to show consistency across cultures, in a study conducted in 25 different countries. (Latham & Pinder 2005: 493.)

For MNEs, who have consumers from many different cultures, it is safe to assume that the participating consumers in user communities also come from different cultural backgrounds. In order to comprehend what motivates these users and use this information to best utilize this external innovation resource, we must find out what motivational factors are similar and which ones different to individuals from different cultures. In this study, the focus is on two different cultures: Indian and Dutch. More resources would be required to research the difference of more than two cultures, but as the Indian and Dutch culture represent two very different cultures compared on cultural dimensions, the results of this study can give insight as to how much the motivational factors can really differ.

4.3.1. Western and Asian Cultures

As discussed earlier, needs affect the motivation of individuals. Previously, the emphasis on motivating workers had been relying mostly on monetary rewards, but this solution has become insufficient in today's Western cultures. Pay satisfies many lower-

end needs such as safety and nutrition, which are in fact satisfied in many Western countries; thus, leading workers to fulfill higher-end needs. (Haslam et al. 2000: 322.)

Fey (2005: 345) found in his study on Swedish and Russian managers that the Russian managers seemed to be on a lower value level and so valued monetary rewards more. On the contrary, Swedish managers were on a higher value level and valued more things like an enjoyable work environment and equity with peers. Though differences exist on the value/need levels of cultures, the Maslow's need hierarchy has been found to be similar in different cultures (Di Ceasar & Sadri 2003: 34). So the theory is the same, but the situation the individuals are in, cause differences in the motivation's origins.

In their study on Vietnamese, American, Australian and Chilean software engineers, Verner et al. (2014: 125-126) discovered that first of all Vietnamese successful projects did not have a relationship with high motivation as did the teams from other countries. On the other hand, the Vietnamese engineers were the most motivated ones from the group which could also explain the lack of a relationship between quality and motivation in their case. Interestingly, all four groups of software engineers were motivated most by different factors and also differences were found in the least motivating factors.

Many Western cultures are more individualistic than Asian cultures, as is with the Indian and Dutch cultures. However, one should be careful in making any generalization on the subject. In collectivistic cultures people value more group identity, long-time relationships and social interaction among Internet users, whereas in individualistic cultures people value more independence, seeking and gaining information (Kim et al. 2011: 367). From this we could draw the conclusions that from the motivational factors knowledge self-efficacy, learning opportunities and user needs are more important to the Dutch and the Indian on the other hand find identity among the users and friendship more important.

For the Dutch, work motivation has been found to be linked with autonomy, self-control, developing oneself, career opportunities and even though it is an individualistic culture, good relationships with co-workers and superiors is important (Roe et al. 2000: 678-679).

4.4. Culture and Innovation

Not only does culture affect the motivational factors of users, it also influences innovation meaning how much investments are put into innovation and how interested a country is to innovate. Since many MNEs desire to access a country's knowledge sources or locate near known knowledge centers, it is useful to understand the relationship between culture and innovations. (Efrat 2014: 12.)

Understanding the relationship of other cultures and motivation is of importance as a growing number of companies operate in many different cultures outside their home country. Though globalization has to some extent decreased the significance of national boarders through knowledge spillovers, national cultures still hold importance regarding innovation done on a national and firm level (Efrat 2014: 13). Open innovation and its adoption rate is naturally also affected by culture, with governing and institutions like the protection of intellectual property rights as part of the reason (Mortara & Minshall 2011: 587).

On the consumer level, similar affects have been witnessed when innovations have been adopted in the same form regardless of geographical location. Nonetheless, culture still causes differences in consumers' motivations and behavior which leads to differences in adopting innovations. (Truong 2013: 130.)

Innovating individuals have been considered to have similar traits such as for instance novelty-seeking, risk-taking and making their own judgments, but it is clear that culture produces a more diverse group of innovators. The traits mentioned above might all play an important role for the innovators, but to what extent is up to the cultural influence. (Truong 2013: 130, 135).

The indicators that influence innovation are equivalent to the cultural dimensions presented by Hofstede (Efrat 2014: 13). Waarts and van Everdingen (2005: 608) found evidence that significant differences exist between European countries in the innovation adoption decisions, when the countries were compared using Hofstede's cultural dimensions. If such differences exist in Europe alone, we can assume differences can be found also between continents and the countries in them.

Efrat (2014: 19) states in his recent study, that even after years of globalization the previous research on culture's influence on innovation is still valid. Culture does have

an affect even though slight changes have happened in the course of time. He further reminds that the dimensions should not be viewed simply in isolation but the national culture as a whole. Some dimensions might alone appear to have a negative impact on innovation, but together with another dimension might actually work in a positive way.

4.5. Theoretical Framework and Hypotheses

The theoretical framework proposes that from two types of motivational factors, intrinsic and extrinsic, intrinsic motivations influence users to a greater extent. The role and influence of extrinsic motivations is not denied altogether, but their influence is believed to be of less importance. The importance of intrinsic motivations comes from its relationship to user communities. Previous research has found a strong link between user communities and intrinsic motivation. Culture on the other hand has an influence and relationship with both intrinsic and extrinsic motivations. Depending on the culture, either intrinsic or extrinsic motivations can have a stronger role. As culture can emphasize the importance of extrinsic motivations, their importance can grow in relation to users' motivation when the culture in question is right. For instance, a collectivistic culture can increase the importance of extrinsic motivation. Nevertheless, on a general level intrinsic motivations are believed to matter more. The framework can be seen figure 3.

On the basis of this framework, hypotheses are formed for the empirical study:

Hypotheses 1: Intrinsic motivations are more important than extrinsic motivations in motivating users in user communities.

Hypothesis 2: Indian and Dutch users find different motivations important.

Hypothesis 2a: Indian users find extrinsic motivations more important than Dutch users.

Hypothesis 2b: Dutch users find intrinsic motivations more important than Indian users.

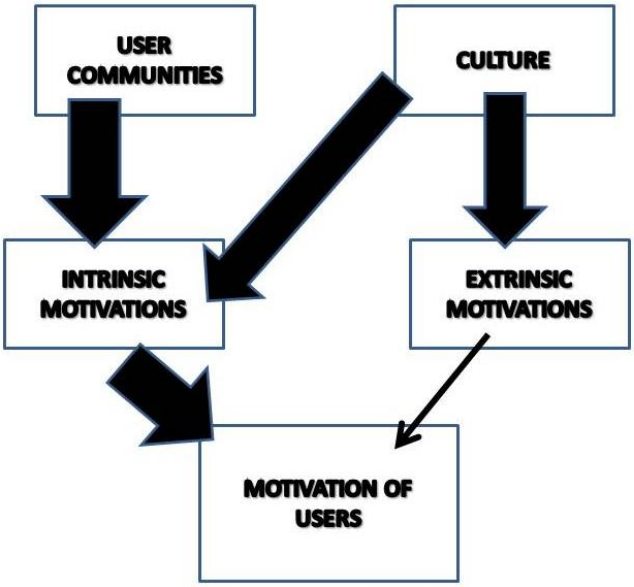


Figure 3. Theoretical framework on culture's and user communities' influence on motivation in user communities.

5. METHODOLOGY

This section on methodology will aim at explaining how this study was conducted and also why. Information will be given firstly on the approach taken to this study, with detailed descriptions on the data collection, along with phase to phase explanations of conducting the empirical research. The target group and basic information on it, will also be presented. Also, reliability and validity will be discussed last.

5.1. Cross-cultural Research

Cross-cultural research as a methodology aims at revealing and explaining behavioral differences between humans from two or more cultures, hoping so to give better understanding of the individual. In user community research, this methodology means comparing at least two cultures in one or many user communities. (Gallagher & Savage 2013: 1029.) Due to the resource limits of this study, only two cultures will be compared in the user communities of one company. In the research field, most studies are conducted examining two cultures and no more (Gallagher & Savage 2013: 1030). Two communities will be examined because of the division of users into communities based on their country of origin, but both communities are under the same portal provided by a single company. This study of more than one cultures in one user community is known as intra-comparative, compared to inter-comparative that studies many user communities in one culture (Gallagher & Savage 2013: 1035).

Cross-cultural research methodology can improve applicability and generalizability of findings, as since it takes cultural diversity into account and by focusing on more than one culture gives more credibility in terms of a wider online population (Gallagher & Savage 2013: 1029).

5.2. Research Approach

Quantitative and qualitative research methods are the two methodologies where a researcher can choose from when conducting research. The chosen method should be the best one for that particular study and therefore it should be chosen with care and in consideration of the upcoming research process. The quantitative method is best for

studies where the researcher knows what he wants to test or verify. This is usually done with hypotheses formed on the basis of previous research. The qualitative method is best used in studies where the researcher does not know what to expect from the findings and where the studied subject cannot be quantitatively measured. With this inductive method, the researcher can make new findings and also emphasize the opinion and point of view of the studied. (Creswell 1994.)

As the motivational factors are known beforehand and they are being tested, the quantitative method can be applied to this study. There already is a vast list of different intrinsic and extrinsic motivations that can be used as a basis for the study. In addition, the possibility to name any missing motivations will be given to the users participating in the survey. Any findings can be deducted in the analysis. When a quantitative method is being used in the form of a questionnaire, the study will try not to exclude any motivational factors straight from the beginning so that the importance of the relationship solvers have with the motivations might be easy to investigate without influencing the outcome. Therefore, as an example, the extrinsic motivations are included in the survey since even though previous research has to some extent questioned their importance, this assumption cannot be done without any proof and without affecting the study's outcome.

Both the differences and similarities among the targets are of interest in comparative research (Gallagher & Savage 2013: 1030). As with this study, the aim is to not only understand what differences exist between the motivations of Indian and Dutch users, but also if there are some motivations that are shared with the two cultures. Again, this is more reason to include also the extrinsic motivations in the study. Naturally, differences and similarities are also sought in the motivations that are found unimportant.

In summary, the research approach chosen is deductive, the research strategy of this study is a survey, the study is quantitative and a mono method will only one method used, it is cross-sectional as answers are gathered in one point of time per user, data will be gathered with a questionnaire and analyzed using average scores, ranking and the Mann-Whitney U-test.

5.3. Data Collection

The two most commonly used methods to conduct cross-cultural online community research have been observation and opinion research. This study will be using the opinion research method, which can take the form on surveys. (Gallagher & Savage 2013: 1034.)

The data was collected through an online survey, or questionnaire focusing on what motivates the individual user to participate in a user community. From the previous research, similar questionnaires were used also by e.g. Vasalou et al. (2010), Kim et al. (2011). Unfortunately, these studies were very specific in regard to the online community they were studying, in that the questions and measurements were designed to fit that particular community through its characteristics (Vasalou et al. 2010) and maybe only others that are very similar. That is why the questionnaire of this study cannot be compared to the questionnaires of previous studies.

The users were presented first with very basic questions to gather information on the user, such as nationality, age and how active they are in user communities. Then they were presented with a list of intrinsic and extrinsic motivations in the form of claims. The user then rated how important each claim is to them, indicating if the motivation is important to them, only somewhat important or not important at all.

The users taking part in the survey were chosen among users in specific communities that are related to multinational enterprises, Adobe's and Google's through their own user communities. Multinational enterprises are chosen because they are known in many countries and because of their size. Being large and global companies, the companies will have users in their communities from around the world. Naturally, it is important to reach users from different cultures for this study.

The user communities used in this study can be found through Adobe's and Google's Internet pages (Adobe 2014 b; Google 2014 b.) A message was posted in these user groups during the months of May to September. The message, appendix 1, can be found at the end of this study. It was written in a personal style, as there is no relationship to the users and they must be willing to help and use their own time to participate in the survey. The survey was open for the whole time from May to September, but as there are so many posts in the groups, the message had to be posted several times. Frankly, the visibility of a single message is short because of the amount of posts and the fact

that nobody searches this kind of subject.

After the participants had answered the survey, the answers were arranged in a form suitable for analysis. The results of the survey will be presented in full and then analyzed to see which motivational factors the users find important and which ones not. Then comparisons will be made between the Indian users' answers and the Dutch users' answers. Any similarities of differences will be pointed out along with a discussion on the importance and implications of the findings.

5.3.1. Sample

The sample of users is chosen to consist of Indian and Dutch users. When choosing the different cultures for cross-cultural research, the cultural distance of the cultures measured on some dimension (e.g. Western vs. Eastern) and their online community activity rate are the most used criteria (Gallagher & Savage 2013: 1034). Both criteria are also used in this study. India and the Netherlands were chosen on one hand because of their differences when measured on cultural dimensions and on the other hand because these cultures showed to have enough participants in Adobe's and Google's user communities. Thirdly, the chosen companies limit the option of cultures, as a criterion was to find user communities divided between different nations and naturally, for a culture to be picked it had to have its own user community.

In conclusion, the decision of cultures, companies and specific user communities were done simultaneously in order to find a solution were the sampling could be gathered from only two companies' user communities, consisted of members from two different cultures and so that the culture of the members could be easily defined.

Apart from belonging to a specific culture and user community, no other characteristics limit the participation of users in this study. As the link to the online summary was posted in the user communities for everyone to see, users' own enthusiasm has randomly picked out the individuals participating in the survey.

5.4. Target Group

The users who participated in taking the survey were users from Adobe's and Google's online communities. However, they are not all from one Google's or Adobe's

community. The survey was posted to many user communities in order to reach as many interested users as possible. Some of these user communities were particularly meant for users from a specific geographical region; in this case the Netherlands or parts of India. First, the idea was to only post in these geographical communities, but the users were not active enough in answering the survey and it has to be distributed more widely.

Other than nationality and the company related to the user community, there were no other restrictions to the attributes of participating users. Information was gathered on the gender, age and level of community activity, but this information will not be of importance in the analysis. The main focus is in comparing the answers between different cultures, Indian and Dutch, and not for example between genders or different age groups. This extra information can however give us insight to the diversity in user communities beyond nationality.

Unfortunately, the size of the target group remained small even though the survey was distributed to many communities. In the end, the survey was taken by 24 individual users. Of the whole target group, 13 were Dutch users and 11 were Indian users.

5.4.1. General Notions

Community. Of all users, 42% were users in an Adobe's user community and 58% were users in a Google's user community. Of the Indian users, 54% were from Adobe's communities and 46% were from Google's communities. Of the Dutch users, 30% were users in Adobe's communities and 70% were users in Google's communities.

Gender. It can be very clearly noted, that the vast majority of the survey participants are male. Of all the users answering the survey, only two Dutch and one Indian were female. It could be that male users are more willing to participate in such surveys, but it is still fairly safe to assume that the real reason is that men outnumber women in the user communities.

Level of Activeness. All of the participants seem to participate above average in user communities. Everyone answering the survey indicated that they had posted 4 or more times to the online user forum and over half of them were members of 4 or more user communities in addition to Adobe's/Google's. All in all, there was only one user who answered he wasn't a member of any other community and one user who was a member in only one other community.

Age. Answers were collected from users with a wide age range, beginning from under 20 years old and ending at over 50 years old. However, only one user was 20 years or younger. Among the Indian users, most of them were between ages 21-40. With Dutch users, most of them were over 30 years old and the a lot more older users could be found among them.

		Dutch	Indian	Total
Community	Adobe	4	6	10
	Google	9	5	14
Gender	Male	11	10	21
	Female	2	1	3
Age	Under 20	1	0	1
	21-30	2	6	8
	31-40	3	4	7
	41-50	3	1	4
	Over 50	4	0	4
# of posts	Less than 4	0	0	0
	4 or more	13	11	24
# of other	0	0	1	1
communities	1	0	1	1
	2 to 3	5	4	9
	4 or more	7	5	13

Table 6. Characteristics of target group users.

5.4.2. MNEs and User Communities

There are two MNEs that facilitated the user communities from which the members of the target group is comprised of. The two MNEs are Adobe and Google, both from the software application industry. Adobe is a global firm that offers tools and services for digital media solutions and digital marketing, their most popular products being among others Acrobat Reader, Creative Cloud and Photoshop (Adobe 2014 a). Google operates globally alike and offers many products and services for marketing solutions and with the aim to better the Internet experience of users with products such as Gmail, Google maps, Google Earth, Blogger and Google Chrome (Google 2014 a).

According to the Mortara and Minshall (2011: 591-592) classification of companies' approach to open innovation, Adobe and Google would either be conscious adopters or precursors. It cannot be known for certain if implementing these user communities has been a natural and not a strategic part of the companies' development as with

precursors. It is however quite clear that today the companies operate as conscious adopters and use the user communities to their advantage. This is can be seen for instance in the way the companies admin the user communities and have set them up in relation to their own companies. Of course, other user communities that are not linked to the official company websites have arisen in addition to these ones.

The user communities in question are online forums, were anyone willing can participate and the only requirement is simple registration and acceptance by administrators. The MNEs do not decide what topics are discussed though there are many different forums with a broad main topic, such as a specific product of the company and/or a geographical location of the users. Thus, the user themselves are free to discuss topics of their interest, post questions and share ideas and tips. The users of the community can post questions and start discussion or look through the already existing posts.

5.5. Reliability and Validity

All in all, comparing cultures and nations is complex and challenging work, mainly because of conceptual and interpretive difficulties. These difficulties can arise for example from data comparisons or choosing suitable samplings. One important issue to consider is the measurement equivalence across cultures, as concepts can be understood differently in different cultures. (Gallagher & Savage 2013: 1030.) This is a valid concern in this particular study, as in order to compare findings of motivational factors, the motivation options must be understood in the same way in both cultures. That is why the motivational factors have been presented in a simple manner using as easy language as possible. Even though the survey was written in English, it is safe to assume that the users which are familiar with user communities understand English well. At least, the general level of knowledge of the English language is good in both India and the Netherlands.

In this study, the two cultures on Indian and Dutch are defined using the nations' boundaries. This approach can be criticized, since the borders of countries are not closed and nowadays a lot of labor, individuals, culture and economy move across country lines (Gallagher & Savage 2013: 1030). This fact cannot be corrected altogether, but it needs to be addressed as a limitation especially to the verifiability of the findings. However, to minimize this problem, the study uses in its sampling user

communities that are divided among nationalities. Hence, Indian and Dutch users have their own user communities related to Adobe and Google; just like many other cultures/countries as well. The users are in addition asked their nationality, not the country where they live to ensure they really are members of the culture. Also, using the minimum of two cultures for comparison helps narrowing down possible problems.

Different cultures have many differences between themselves, for instance social class, geographical and social mobility and many other variables. It is not meaningful to address all of the differences. In addition, comparison can be difficult between cultures as the sampling might not give a picture of the population as a whole, if the sampling consists only of certain type of individuals and when the sample is small. (Gallagher & Savage 2013: 1035.) Nevertheless, I claim the findings to have validity as I believe them to represent those types of individuals, who are most likely to participate in user communities. It can be argued that studying other types of users could lead to understand how they might be interested in participating, but in that case the study should be conducted outside the user communities.

6. RESULTS

In this section, the result of the empirical study will be presented. First, the actual survey is discussed and some general comments are made on the target group. Then, the results of the Indian users will be presented, followed by the results of the Dutch users. The empirical part was conducted as an online survey to both Indian and Dutch users from online communities of particular companies. The survey answers of both cultures are presented separately and a closer comparison will occur in the discussion section.

6.1. The Survey

In the survey, there were different claims that could explain the reasons for participating in user communities. The survey consisted of 17 claims altogether, that measured the importance of these claims for the users. In other words, the users gave a score from 1 to 5, on the basis how important a certain claim was regarding their participation choice. A low score of 1 meant that the claim did not apply to them at all; that the claim was not important. A high score of 5 on the other hand, indicated that this was something that played a big role in the users' participation choice and therefor was important to them.

The specific list of claims can be seen below in Table 7 divided between the intrinsic and extrinsic motivations.

CLAIMS	
Intrinsic Motivations	**Extrinsic Motivations**
It is interesting	I get/hope to get money from it
I am Adobe's/Google's customer	I can learn new things/skills
Participating is important	I hope it helps with my career
I want to help others	Others are participating also
It is fun	It helps me build up my reputation
It brings me pleasure	I hope to get job offers
I am challenged intellectually	I need to find information
I feel like part of a group	
The other members are my friends	
I feel part of something bigger	

Table 7. The possible motivations of users for participating in user communities.

The different claims represented both intrinsic and extrinsic motivations. The first ten claims were intrinsic motivations and the seven last ones were extrinsic motivations. In addition, there was one last question, where the users could write their own reasons for participating if they felt it was missing from the list.

6.2. Results of Indian Users

The individual answers of the Indian users can be seen in the Table 8 below.

No.	1	2	3	4	5	6	7	8	9	10	11
Nationality	Indian	Indian	Indian	Indian	Indian	Indian	Indian	Indian	India	Indian	Indian
Community	Adobe	Adobe	Adobe	Adobe	Adobe	Adobe	Google	Google	Google	Google	Google
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Female	Male	Male
Age	31-40	31-40	21-30	21-30	21-30	31-40	21-30	41-50	21-30	21-30	31-40
# of posts	4-	4-	4-	4-	4-	4-	4-	4-	4-	4-	4-
# of other communities	4-	0	4-	4-	2 to 3	4-	1	2 to 3	4-	2 to 3	2 to 3
It is interesting	4	4	3	3	4	3	5	5	3	5	3
I am Adobe's/Google's customer	2	1	3	3	1	3	3	1	1	1	1
Participating is important	3	5	5	2	2	4	3	4	2	2	3
I want to help others	5	5	3	4	3	5	3	3	3	5	3
It is fun	4	5	5	3	3	3	4	3	3	4	3
It brings me pleasure	3	5	4	4	4	4	4	5	3	4	4
I am challenged intellectually	3	1	2	1	3	3	4	4	4	4	4
I feel like part of a group	3	5	4	4	4	5	4	3	2	5	4
The other members are my friends	2	1	1	5	1	5	4	5	2	1	2
I feel part of something bigger	5	5	5	5	5	5	4	5	3	3	4
I get/hope to get money from it	1	1	1	1	1	1	1	1	1	1	1
I can learn new things/skills	5	5	5	5	5	5	5	5	5	5	5
I hope it helps with my career	3	5	4	4	4	4	4	4	3	4	4
Others are participating also	1	1	4	2	1	4	4	3	2	4	1
It helps me build up my reputation	3	5	5	4	2	5	4	5	2	2	3
I hope to get job offers	1	1	1	1	1	4	2	1	1	1	4
I need to find information	4	5	5	3	2	5	4	4	5	5	4
Other reasons	0	0	0	0	0	0	0	0	0	0	0

Table 8. Indian users' survey answers.

As it shows, there is a lot of variety in the answers. As an exception, there are two

claims that received the same scoring with among all the users. This is quite rare and a similar situation cannot be found among the answers of the Dutch users.

The claims that were not important or had only little importance to Indian users were the following claims starting from the least important one: I get/hope to get money from participating, I hope to get job offers, I am Adobe's/Google's customer, others are participating also. The claims got an average score of 1 to 2.5. There were a few claims that where somewhat important to Indian users and got an average score from 2.6 to 3.2. These claims were: the other members are my friends, I am challenged intellectually, participating is important.

A total of ten claims were considered quite important or important. The range between these claims' average scores was from 3.6 to 5. The list of the claims in an ascending order in importance is as follows: it is fun, it helps me build up my reputation, it is interesting, I want to help others, I feel like part of a group, I hope it helps with my career, it brings me pleasure, I need to find information, I feel part of something bigger, I can learn new things/skills.

As can be noted from the claims' maximum scores, minimum scores and variance (Table 8.), there seems to be a lack of consensus to some degree between the users regarding the importance of the claims. The variance is 0 only in two of the claims: "I get/hope to get money from it", which is of no importance and "I can learn new things/skills", which is very important. Many of the claims have a variance under 1, but some have an even higher variance. Such claims as "I hope to get job offers", "Others are participating also", "I am intellectually challenged", "Participation is important" and "It helps me build up my reputation" have a variance over 1. The claim that has the highest variance, a 2.78, is "The other members are my friends".

	Avg.	Max	Min	Variance
I get/hope to get money from it	**1**	1	1	**0,00**
I hope to get job offers	**1,6**	4	1	**1,32**
I am Adobe's/Google's customer	**1,8**	3	1	**0,88**
Others are participating also	**2,5**	4	1	**1,70**
The other members are my friends	**2,6**	5	1	**2,78**
I am challenged intellectually	**3**	4	1	**1,27**
Participating is important	**3,2**	5	2	**1,24**
It is fun	**3,6**	5	3	**0,60**
It helps me build up my reputation	**3,6**	5	2	**1,50**
It is interesting	**3,8**	5	3	**0,69**
I want to help others	**3,8**	5	3	**0,88**
I feel like part of a group	**3,9**	5	2	**0,81**
I hope it helps with my career	**3,9**	5	3	**0,26**
It brings me pleasure	**4**	5	3	**0,36**
I need to find information	**4,2**	5	2	**0,88**
I feel part of something bigger	**4,5**	5	3	**0,61**
I can learn new things/skills	**5**	5	5	**0,00**
Other reasons				

Table 9. Summary of Indian users' answers.

6.3. Results of Dutch Users

The results from the Dutch users' answers are presented in Table 9 below. Again, it is evident, that not all Dutch users feel the same importance towards the claims. Whereas the Indian users had two claims that received the same scoring from all, the Dutch users only have one claim where opinions were close. The claim is "I can learn new things/skills" and it is considered important, as with the Indian users. However, not even this claim received the same score from all but a scoring from 4 to 5.

Other claims that were found important among the Dutch users were as follows: I want to help others, I am challenged intellectually, it is interesting, it brings me pleasure, it is fun. Somewhat important claims were: I am Adobe's/Google's customer, I need to find information, the other members are my friends, I feel like part of a group. The unimportant claims were: I feel part of something bigger, I hope it helps with my career, participating is important, it helps me build up my reputation, others are participating also, I hope to get job offers, I get/hope to get money from it.

No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Nationality	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch	Dutch
Community	Adobe	Adobe	Adobe	Adobe	Google	Google	Google	Google	Google	Google	Google	Google	Google
Gender	Male	Male	Male	Male	Male	Male	Male	Male	Female	Male	Female	Male	Male
Age	41-50	50-	31-40	50-	50-	21-30	41-50	-20	50-	31-40	31-40	21-30	41-50
# of posts	4-	4-	4-	4-	4-	4-	4-	4-	4-	4-	4-	4-	4-
# of other communities	4-	2 to 3	2 to 3	4-	2 to 3	4-	2 to 3	4-	4-	4-	4-	2 to 3	4-
It is interesting	2	3	4	5	4	4	4	5	4	2	5	5	4
I am Adobe's/Google's customer	4	5	2	4	1	5	3	2	2	2	1	2	5
Participating is important	3	3	3	3	3	1	1	2	1	2	3	1	1
I want to help others	4	3	5	3	5	4	4	5	3	4	5	4	4
It is fun	1	3	4	4	4	4	4	5	3	5	5	3	2
It brings me pleasure	2	3	4	3	4	5	3	5	4	3	5	5	5
I am challenged intellectually	5	3	5	3	4	4	3	5	4	4	4	4	4
I feel like part of a group	1	3	4	1	4	2	1	4	1	4	5	2	2
The other members are my friends	3	3	3	4	4	1	4	4	1	2	2	1	4
I feel part of something bigger	1	3	4	1	4	3	1	2	1	1	5	3	4
I get/hope to get money from it	1	1	1	1	2	1	1	1	3	2	1	1	2
I can learn new things/skills	4	5	4	4	4	4	4	5	4	5	5	4	5
I hope it helps with my career	2	3	2	3	2	1	1	3	2	1	3	3	1
Others are participating also	1	3	3	1	3	1	1	1	1	1	3	1	3
It helps me build up my reputation	4	1	1	1	3	1	1	1	1	3	4	4	1
I hope to get job offers	1	3	2	1	2	1	1	1	1	1	1	2	1
I need to find information	1	5	2	5	2	1	3	1	4	1	5	4	2
Other reasons	0	0	0	0	x	x	0	x	0	0	0	0	0

Table 10. Dutch users' survey answers.

Three of the Dutch users were the only ones to answer in the last question, which was an open end question where the users could point out any other motivations for participating. Nevertheless, these answers did not offer any new motivations as they the answers only highlighted some of the motivations mentioned in the previous claims.

One user stressed that participation was fun. Another stated that he found pleasure in helping others, participation was interesting and it helped him out sometimes. This user did not specify how it helped him, but we can assume he either finds information he needs or learns something. The third user to answer this question pointed out that he knows a lot about Google's products.

	Avg.	Max	Min	Variance
I get/hope to get money from it	**1,4**	3	1	**0,39**
I hope to get job offers	**1,4**	3	1	**0,39**
Others are participating also	**1,8**	3	1	**0,95**
It helps me build up my reputation	**2,0**	4	1	**1,69**
Participating is important	**2,1**	3	1	**0,84**
I hope it helps with my career	**2,1**	3	1	**0,69**
I feel part of something bigger	**2,5**	5	1	**1,94**
I feel like part of a group	**2,6**	5	1	**1,93**
The other members are my friends	**2,8**	4	1	**1,41**
I need to find information	**2,8**	5	1	**2,49**
I am Adobe's/Google's customer	**2,9**	5	1	**2,07**
It is fun	**3,6**	5	1	**1,31**
It is interesting	**3,9**	5	2	**0,99**
It brings me pleasure	**3,9**	5	2	**0,99**
I am challenged intellectually	**4,0**	5	3	**0,46**
I want to help others	**4,1**	5	3	**0,53**
I can learn new things/skills	**4,4**	5	4	**0,24**
Other reasons				

Table 11. Summary of Dutch users' answers.

As with Indian users, there are difference between the opinions and answers of the Dutch users. No claim has a variance of 0, but the two claims that have a variance of 0

among the Indian users are the claims with lowest variance among Dutch users as well. These claims were “I can learn new things/skills” and “I get/hope to get money from it”. In addition, the claim “I hope to get job offers” has a very low variance.

The variance of many claims is under 1, but several score higher: “It helps me build up my reputation”, “The other members are my friends”, “It is fun”. There are four claims with a variance of almost or over 2: “I feel like part of a group, “I feel part of something bigger”, “I am Adobe’s/Google’s customer” and with 2.49 “I need to find information”.

6.4. Measuring the Difference

A Mann-Whitney U-test was run on the data in order to find out, not only if there is difference in the ranking of claims between the cultures, but also if a single claim is considered as important by the cultures regardless its rank. The Mann-Whitney U-test was chosen instead of for instance a T-test, because of the small sample size. It also suits a sample of two independent groups and measuring the differences between them.

The U-test tells if there is a significant difference between the two cultures. It is therefore culture that is the variable dividing the two samples. The claims form up the variables which scores are being compared between cultures. The so called null hypothesis is that there is no difference between the groups, but they are the same. If this hypothesis is rejected, it means there is a significant enough difference between the groups. The significance level that cannot be crossed is 0.5. The results of the test can be seen below in table 12.

There are eight claims were the significance level of 0.5 was not exceeded: participation is important, I am intellectually challenged, I feel like part of a group, I feel part of something bigger, I can learn new things/skills, I hope it helps with my career, it helps me build my reputation and I need to find information. Thus these null hypotheses are rejected meaning there is a difference in the importance of the claims being compared.

The rest of the claims, nine altogether were claims were the significance level on the other hand was exceeded indicating a similarity between the groups. These claims are: participating is interesting, I am Adobe’s /Google’s customer, participating is fun, I want to help others, I find pleasure in participating, the other members are my friends, I get/hope to get money from it, others are participating also and I hope to get job offers.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Interesting is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.627	Retain the null hypothesis.
2	The distribution of Customer is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.064	Retain the null hypothesis.
3	The distribution of Important is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.037	Reject the null hypothesis.
4	The distribution of Help is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.442	Retain the null hypothesis.
5	The distribution of Fun is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.760	Retain the null hypothesis.
6	The distribution of Pleasure is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.951	Retain the null hypothesis.
7	The distribution of Intellectual is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.031	Reject the null hypothesis.
8	The distribution of Group is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.029	Reject the null hypothesis.
9	The distribution of Friends is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.812	Retain the null hypothesis.
10	The distribution of Bigger is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.002	Reject the null hypothesis.
11	The distribution of Money is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.049	Retain the null hypothesis.
12	The distribution of Skills is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.002	Reject the null hypothesis.
13	The distribution of Career is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
14	The distribution of Others is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.150	Retain the null hypothesis.
15	The distribution of Reputation is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.007	Reject the null hypothesis.
16	The distribution of Job is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.942	Retain the null hypothesis.
17	The distribution of Information is the same across categories of Culture.	Independent-Samples Mann-Whitney U Test	.036	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Table 12. Results of the Mann-Whitney test.

7. CONCLUSIONS AND DISCUSSION

This section will have a discussion on the result of the survey conducted, which were presented in the previous section. There will be a general discussion on the importance of the intrinsic and extrinsic motivations based on both the Indian users' and the Dutch users' results. In addition, the results of these two cultures will be discussed separately and compared with each other to find any similarities or differences between them. Any implications on findings related to motivation and culture are therefore presented. This is followed by theoretical implications, implications for managers, a summary and some limitations of the study. Finally, the suggestions for future research will be addressed.

7.1. Importance of Intrinsic and Extrinsic Motivations

Intrinsic motivations do seem to be more important motivations for user community users than extrinsic motivations, when the cultural aspect of the users is not taken into account. When the average scores of both cultures are added up, the most important motivations are mainly intrinsic motivations with a few exceptions. The biggest difference is, that the most important motivation is an extrinsic one which comes to say, that extrinsic motivations do still matter even though not as vastly as intrinsic ones.

7.2. Motivational Factors of Indian Users

In general, the Indian had a mixed relationship with extrinsic motivations. As the extrinsic motivations were measured by seven different claims, three of these scored an average score that indicated unimportance and four of them scored a higher average score that indicates importance to the users. They did not participate in the hope of money or job offers or because others around them were doing so. They were however participating because it builds their reputation, they needed information and in order to learn.

What is interesting is that even though the Indian users did not expect money or job offers, they were still motivated by the fact that participation could help them with their career. It would seem that they see participation in user communities as something that does not straightforward lead to jobs, but can help acquiring one or advancing in their

career. Perhaps this is linked to the importance of finding out information and especially learning new skills.

With intrinsic motivations, the importance was again mixed. One claim was of little importance, three somewhat important and five of high importance. Being a customer of the company did not matter to the Indians. They do participate because it is fun, interesting and pleasurable and since they can help others and are part of something.

All this indicates that both extrinsic and intrinsic motivations are important, but not all motivations within the categories. In addition, from 17 claims 10 were considered to have high importance which means that there are many reasons for participation instead of a few.

7.3. Motivational Factors of Dutch Users

For Dutch users, the extrinsic motivations do not seem to be that important. Only one of the claims, “I need to find information” was somewhat important and another, “I can learn new things/skills” was of high importance. All other were in the group of least important motivations. The Dutch are not motivated by money, job offers, reputation, career or other’s actions regarding user communities.

Intrinsic motivations on the other hand were more important; only two are in the bottom category according to their impact. On the contrary, five intrinsic motivations are in the top list of important motivations. The Dutch do not feel it is important to participate or that they are part of something bigger. They do however find participation fun, interesting, pleasurable, and intellectually challenging and they want to help others.

Intrinsic motivations have a higher importance with the Dutch than extrinsic motivations, but extrinsic motivations are not without any importance. The ratio between motivations that matter and that do not matter is quite even.

7.4. Comparison between Indian and Dutch Users

A clear difference between the cultures is that there are more reasons for Indian users to participate in user communities than to Dutch users. The list of important motivations is

almost the same for both cultures, but Indian users have more motivations in the list in addition to the ones Dutch users have. Interestingly, the motivations that are these extra ones compares to the Dutch's motivations are mainly extrinsic motivations.

This brings us to another difference between the cultures. There are more extrinsic motivations with importance in the Indian users' list than there are with the Dutch. Nevertheless, it does not go the other way around. The Indian find intrinsic motivation important very similarly to the Dutch users.

As mentioned above, the motivations that actually matter for users were shared between both cultures. It is very important to users that they feel like the activity is fun and interesting. Therefore they find pleasure in participation, which strongly indicates that participation does not happen only in order to acquire external value. There is also a want to help others and the most important motivation for both cultures was learning something new. What is in addition important to the Indian users is building reputation, help concerning their careers and a collectivistic feeling of being part of a group and something bigger.

The least important motivation is the same also for both cultures: getting or hoping to get money from participating. The claim "I hope to get money from it" had the second least importance to both users and the claim "Others are participating also" was among the least important claims with both groups also. Hence, it is very clear that the possibility of money or job offers is not a valid motivation for users to participate in user communities – regardless the culture of the users.

The four claims that were as important in rank for both Indian and Dutch users were: I get/hope to get money from it, I hope to get job offers, it brings me pleasure, and I can learn new things/skills. As discussed, these claims were in the bottom and top rank of important motivations. This of course is great for companies, who cannot differentiate their means of motivating participation. On the other hand, it even indicates that there is not that much reason for fully use different methods of motivating when the most important motivations and the least important ones are shared across the cultures.

There are also four claims that have a big difference in their rank among Indian and Dutch users: I hope it helps with my career, I feel part of something bigger, I am Adobe's/Google's customer and I am challenged intellectually. The Indian users hope to gain some advantage regarding their career, whereas the Dutch do not feel a connection

between the user communities and their careers. The feeling of being something bigger is also important to the Indian but not to the Dutch. Where the Indian find importance of being part of something, the Dutch find some importance in being a customer of the MNEs in question. This is not important at all to the Indian. Finally, the Dutch like to challenge their intellect, but Indians are less motivated by this.

Dutch	Avg.	Indian	Avg.
I get/hope to get money from it	**1,4**	**I get/hope to get money from it**	**1**
I hope to get job offers	**1,4**	**I hope to get job offers**	**1,6**
Others are participating also	**1,8**	I am Adobe's/Google's customer	**1,8**
It helps me build up my reputation	**2,0**	**Others are participating also**	**2,5**
Participating is important	**2,1**	The other members are my friends	**2,6**
I hope it helps with my career	**2,1**	I am challenged intellectually	**3**
I feel part of something bigger	**2,5**	Participating is important	**3,2**
I feel like part of a group	**2,6**	It is fun	**3,6**
The other members are my friends	**2,8**	**It helps me build up my reputation**	**3,6**
I need to find information	**2,8**	It is interesting	**3,8**
I am Adobe's/Google's customer	**2,9**	I want to help others	**3,8**
It is fun	**3,6**	I feel like part of a group	**3,9**
It is interesting	**3,9**	**I hope it helps with my career**	**3,9**
It brings me pleasure	**3,9**	It brings me pleasure	**4**
I am challenged intellectually	**4,0**	**I need to find information**	**4,2**
I want to help others	**4,1**	I feel part of something bigger	**4,5**
I can learn new things/skills	**4,4**	**I can learn new things/skills**	**5**

Table 13. Indian & Dutch users' rankings of motivation claims by average score.

7.4.1. Motivation and Culture

It was claimed that monetary rewards are more important to Asian cultures, than to Western cultures (Haslam et al. 2000: 322; Fey 2005: 345). This claim is not supported by the results of this study, as both Indian and Dutch users answered that they were not motivated by money or the possibility of receiving it. Therefore, at least when it comes to joining and participating in user communities, monetary rewards are as unimportant to both cultures representing an Asian and a Western culture.

The Indian have a collectivistic culture, which means they greatly value relationships and group identities (Kim et al. 2011: 367). As anticipated, this shows in the difference between how Indian and Dutch users felt the importance of two specific claims: I feel like part of a group and I feel like part of something bigger. These facts are important to the Indian users whereas not surprisingly the Dutch do not find the same importance in them. However, there is still one claim that belongs to the same category: the other members are my friends. This claim did not cause differences between the cultures, as both found this claim only somewhat important. Perhaps this claim was not more important to even the Indian users, because the online environment is challenging in producing such strong relationships.

It was also anticipated, that the Dutch users would respond stronger to the motivations around individual characteristics. These would be such as teaching oneself new skills, the needs of the user and knowledge self-efficacy. Unlike was expected, these motivations were not only important to the Dutch but also to the Indian users. Learning new skills was the number one motivation for both of the cultures, with little or no variation in the answers. The claim “I am challenged intellectually” did score higher with the Dutch users, being still somewhat important motivation to the Indian users. Nevertheless, needing to find information which is a very individualistic need was found important only among the Indian users and only somewhat important with the Dutch users.

Since the Dutch culture is low in power distance and everyone is expected to have equal opportunities to participate (Geert Hofstede 2014 a), it is interesting that the claim “Participating is important” was not found important and scored even a lower score than with the Indian users. If speculated on the reasons of this finding, it can be suggested that the Dutch are so used to having everyone’s voice heard that they do not actively seek it. Another possible reason is that participation might be perceived as important,

but more important is that it is voluntary and not done of mere obligation.

7.5. Summary and Key Findings

Unlike some research has stated (e.g. Boudreau & Lakhani 2009: 71-72), extrinsic motivations do play a role in the participation motivations of users in online communities the same as intrinsic motivations. Still, as anticipated the extrinsic motivations were more important to the Indian users than to Dutch users. This was anticipated already in the theoretical part, as extrinsic motivations do tend to play a bigger role with Asian cultures.

What offers many different ways to motivate users, but also a lot of challenges, is that there were several motivations that the users found important. With Indian users the amount if important motivations was even higher than with the Dutch users. The motivations that were found important for both cultures were: it is fun, it is interesting, it brings me pleasure, I want to help others and I can learn new things/skills.

Some motivations were found as unimportant, which means that there is no need to try to use these motivations to get users to participate. The motivations that were not important to either of cultures were: I get/hope to get money from it, I hope to get job offers and others are participating also.

As all users participating in the survey were active users; they are users that Lai & Chen described as poster in their classification of users. Posters were claimed to be more motivated by intrinsic motivations and the opposite group of users, lurkers were said to be motivated more by extrinsic motivations. (Lai & Chen 2014: 295, 298.) Since, there were no lurkers involved in this study, two conclusions can be made. First of all, posters are more likely to participate in a survey like this because of their characteristic trait of interest in participation. Hence, we cannot claim that the user communities only consists of posters but other means of studying the users should be used to reach out to the lurkers also. Secondly, the posters of this study seem to be motivated by both intrinsic and extrinsic motivations and differences can only be found between cultures – though even they are not significant.

7.5.1. Research Question and Hypotheses

In short, the research question was answered with these findings. First of all, the similarities of motivations' importance lie with the following motivations: finding participation interesting, being the company's customer, wanting to help others, finding participation fun and pleasurable, considering users as friends, hoping to get money or job offers, participating because other are also. Secondly, the differences were with these motivations: finding information, building a reputation, getting help with the career, learning new skills, feelings of being part a group or something bigger, being intellectually challenged, finding participation important.

These similarities and differences do not however, tell us straightforward if the motivation is important or not. It does however tell to some extent if a motivation will work with both cultures or only one. Still, learning new skill for instance was found important with both cultures, even though there is a difference in to what extent this importance is felt.

Hypothesis 1 was supported, when culture is not taken into account. Intrinsic motivations in general are more important in user communities than extrinsic motivations but the extent of extrinsic motivations' influence in not without meaning altogether.

When culture is added in the equation, hypothesis 2 is partially supported. As the Mann-Whitney U-test revealed, the Indian and Dutch users have difference between them when it comes to the importance of motivations. Nevertheless, even some motivations have alteration in their scorings between cultures, they can still be found important or unimportant by both cultures. Hence, it should be more clearly stated what is meant by the differences. It is concluded that the differences exist but are not substantial for most part.

Hypothesis 2a was supported, as Indian users rated more extrinsic motivations as important than the Dutch users did. Hypothesis 2b was however not supported. The Indians rated the intrinsic motivations important very similarly to the Dutch users and to be exact, the Indian users even rated important one intrinsic motivation more than the Dutch.

7.6. Theoretical Contributions

The study implicates that there is not as big a difference between the importance of intrinsic and extrinsic motivations in user communities, as has been stated by previous research. In addition, in contradiction to previous research, culture did not cause that many differences in motivational factors. That said, there were differences between the answers of the two cultures, but not necessarily to the extent that was expect. What was probably most surprising was that the differences were found mainly in the group of somewhat important motivations. The motivations that were very important or not important at all were very similar across the two cultures.

It should be remembered, that these conclusions apply only to user communities and do not tell the whole truth about certain cultures' relationship to motivations. As an example, the reason money is not an important motivation for either culture might be that receiving money for participating in user communities is no perceived as realistic. This does not mean that in other contexts, money would be as unimportant of a motivation as this study implicates.

7.7. Managerial Implications

Online communities in different forms can be extremely popular in one country or region, but fail to arouse interest in another (Shin 2010: 474). Understanding the motives of users can help understand why a community might not be popular somewhere and what kind of changes could help with the problem.

This study helps managers know which motivations are of importance and which are not. This information can be further used to modify the user communities so that they represent such qualities that bring out the motivation in users. In other words it can help with facilitating user communities in a more efficient way. Naturally, it is not an easy job taking advantage of important motivations but more importantly managers know which motivations are not efficient and can use resources in a better way than implementing unimportant motivations.

They study is promising for managers as they have many possibilities to motivate participation, as several motivations were found to be important. Another positive finding is that the most important motivations were shared across cultures, which

enables managers to use the same motivations to influence all users. There were also differences between how important some motivations were between the Dutch and the Indian. This means that there is also room to differentiate the ways of motivating users from different cultures, if there is need for it. For example, the user communities that are targeted at certain geographical regions could also have differentiated features. However, most user communities are characterized by the fact that anyone from anywhere in the world can join them via the Internet.

7.8. Limitations of the Study

A limitation of the study is that the solvers are not categorized in any way to find out if differences exist between different types of users besides culture, which could be a beneficial knowledge for companies. The survey gathers information on the gender, age and level of activeness of the users but these are not taken into account in the discussion section as the main focus is on the differences and similarities between members of different cultures.

The study does not take into account any relationships that extrinsic and intrinsic motivations might have between them. Previous research has claimed that for instance the increase of extrinsic motivations can lower the intrinsic benefits but in some cases the extrinsic motivations can serve as complements for the intrinsic motivations (Jin et al. 2013: 94). As this is not considered in the study, it is possible and even plausible that not all motivational factors of a user are similar in their importance to the individual.

The chosen frameworks for comparing the cultures cause a limitation. Since, the scoring of Hofstede's model is based on a national medium it is possible that the sampling of users include individuals who have very different values from the majority of individuals from that culture (Thomas 2008: 50). With a bigger sampling, this limitation could be reduced. Even though the limitations of cultural distance frameworks need to be kept in mind, especially when generalizing findings to cover all members of a society, they still serve as a good tool for choosing cultures for comparison – as done in this study (Thomas 2008: 69).

Shin (2010: 487) states that differences exist between online communities and their users. Therefore, the findings of this study cannot be generalized for all communities, especially to other industries. However, if differences exist between the users of

different communities, using user communities of as few companies as possible in this study has increased the comparability of the motivational factors of the users'.

7.9. Future Research Suggestions

Even though this study would indicate that the motivations for participating in user communities are fairly similar across two very different cultures, more research with other cultures and bigger target groups should be conducted before drawing this conclusion for certain. There is also an opinion, that comparisons between cultures should be done between cultures that are closer to each other in order to get more concrete findings. Hence, a similar study could be conducted with similar cultures. This study should however be more in depth to find the possible differences. An interesting approach would be to use interviews instead of a survey, which will enable reaching more details of the motivations.

In addition, it should be remembered that Gallagher and Savage (2013: 1030) state there are other ways motivation has an effect on user communities: motivation does not only affect reasons for participation, but also what users share in the communities, how they perceive privacy, how they communicate and how much. These other aspects are worth researching also, to get a more thorough understanding of the relationship between motivation, culture and user communities. For managers of MNEs using user communities to harvest information, it would be of high importance to understand subjects like how much is communicated and in what way in the communities – and the affect motivation has on this.

A clear suggestion for future research is understanding how managers can best utilize the motivations of users. This kind of research could be done by finding suitable companies and their user communities and observing them. How they use the motivations and what kind of difference it makes if a company implements structures that utilize the important motivations.

REFERENCES

Abdul-Jalal, Hayati, Paul Toulson & David Tweed (2013). Knowledge Sharing Success for Sustaining Organizational Competitive Advantage. *Procedia Economics and Finance* 7, 150-157.

Adobe (2014) a. *Adobe. Company.* Available from World Wide Web: <URL: http://www.adobe.com/company.html>

Adobe (2014) b. *Adobe. Communities.* Available from World Wide Web: <URL: https://www.adobe.com/communities/>

Albors, J., J.C. Ramos & J.L. Hervas (2008). New Learning Network Paradigms: Communities of Objectives, Crowdsourcing, Wikis and Open Source. *International Journal of Information Management* 28:3, 194-202.

Avloniti, Anthi & Fragkiskos Filippaios (2014). Unbundling the Differences between Psychic and Cultural Distance: An Empirical Examination of the Existing Measures. *International Business Review* 23:3, 660-674.

Baldwin, Carliss, Christoph Hienerth & Eric von Hippel (2006). How User Innovations Become Commercial Products: A Theoretical Investigation and Case Study. *Research Policy* 35:9, 1291-1313.

Belcourt, Monica (2006). Outsourcing – The Benefits and the Risks. *Human Resource Management Review* 16:2, 269-279.

Bengtsson, Lars & Natalia Ryzhkova (2013). Managing a Strategic Source of Innovation: Online Users. *International Journal of Information Management* 33:4, 655-662.

Blocker, Christopher P. (2011). Modeling Customer Value Perceptions in Cross-Cultural Business Markets. *Journal of Business Research* 64:5, 533-540.

Boudreau, Kevin J. & Karim R. Lakhani (2009). How to Manage Outside Innovation. *MIT Sloan Management Review* 50:4, 68-77.

Bruno, Bruna & Damiano Fiorillo (2012). Why Without Pay? Intrinsic Motivation in the Unpaid Labor Supply. *The Journal of Socio-Economics* 41:5, 659-669.

Burger-Helmchen, Thierry & Patrick Cohendet (2011). User Communities and Social Software in the Video Game Industry. *Long Range Planning* 44:5-6, 317-343.

CCL (2014). *Center for Creative Leadership. Leadership Developments. Assessments. Globe Study.* Available from the World Wide Web: <URL: http://www.ccl.org/leadership/pdf/assessments/GlobeStudy.pdf>

Chand, Masud & Majid Ghorbani (2011). National Culture, Networks and Ethnic Entrepreneurship: A Comparison of the Indian and Chinese Immigrants in the US. *International Business Review* 20:6, 593-606.

Chesbrough, Henry W. (2003). The Era of Open Innovation. *MIT Sloan Management Review* 44:3, 35-41.

Chesbrough, Henry W. (2006). *Open Innovation – The New Imparative for Creating and Profiting from Technology*. 1st ed. United States of America: Harvard Business School Publishing Corporation. 227 p. ISBN 1-4221-0283-1.

Chiu, Ming Ming & Bonnie Wing Yin Chow (2010). Culture, Motivation and Reading Achievement: High School Students in 41 Countries. *Learning and Individual Differences* 20:6, 579-592.

Chui, Andy C. W. & Chuck C. Y. Kwok (2009). Cultural Practices and Life Insurance Consumption: An International Analysis Using GLOBE Scores. *Journal of Multinational Financial Management* 19:4, 273-290.

Creswell J. (1994). Research design: qualitative and quantitative approaches. Sage.

Denyer, David, Emma Parry & Paul Flowers (2011). “Social”, “Open” and “Participative”? Exploring Personal Experiences and Organisational Effects of Enterprise2.0 Use. *Long Range Planning* 44:5-6, 375-396.

Di Cesare, Justine & Golnaz Sadri (2003). Do All Carrots Look the Same? Examining

the Impact of Culture on Employee Motivation. *Management Research News* 26:1, 29-40.

Efrat, Kalanit (2014). The Direct and Indirect Impact of Culture on Innovation. *Technovation* 34:1, 12-20.

Emery, Charles R. & Simon Oertel (2006). An Examination of Employee Culture-Based Perceptions as a Predictor of Motivation. *Journal of Organizational Culture, Communication and Conflict* 10:2, 13-29.

Fey, Carl F. (2005). Opening the Black Box of Motivation: A Cross-Cultural Comparison of Sweden and Russia. *International Business Review* 14:3, 345-367.

Fiedler, Marina & Marko Sarstedt (2014). Influence of Community Design on User Behaviors in Online Communities. *Journal of Business Research* 67:11, 2258-2268.

Frey, Bruno S. (1997). On the Relationship Between Intrinsic and Extrinsic Work Motivation. *International Journal of Industrial Organization* 15:4, 427-439.

Frey, Karsten, Christian Lüthje & Simon Haag (2011). Whom Should Firms Attract to Open Innovation Platforms? The Role of Knowledge Diversity and Motivation. *Long Range Planning* 44:5-6, 397-420.

Freytag, Per V., Ann H. Clark & Majbritt M. Evald (2012). Reconsidering Outsourcing Solutions. *European Management Journal* 30:2, 99-110.

Füller, Johann, Gregor Jawecki & Hans Mühlbacher (2007). Innovation Creation by Online Basketball Communities. *Journal of Business Research* 60:1, 60-71.

Füller, Johann & Kurt Matzler (2007). Virtual Product Experience and Customer Participation – A Chance for Customer-Centred, Really New Products. *Technovation* 27:6-7, 378-387.

Gallagher, Silvia Elena & Timothy Savage (2013). Cross-Cultural Analysis in Online Community Research: A Literature Review. *Computers in Human Behavior*

29:3, 1028-1038.

Geert Hofstede (2014) a. *The Hofstede Centre. Cultural Tools. Country Comparison. Netherlands.* Available from the World Wide Web: <URL:http://geert-hofstede.com/netherlands.htl>

Geert Hofstede (2014) b. *The Hofstede Centre. Cultural Tools. Country Comparison. India.* Available from the World Wide Web: <URL:http://geert-hofstede.com/india.html>

Geert Hofstede (2014) c. *National culture.* Available from the World Wide Web: <URL: http://geert-hofstede.com/national-culture.html>

Gonzalez, Jorge A. & Subhajit Chakraborty (2014). Expatriate Knowledge Utilization and MNE performance: A multilevel framework. *Human Resource Management Review* 24:4, 299-312.

Google (2014 a). *Google. Company. Products.* Available from World Wide Web: <URL: https://www.google.com/about/company/products/>

Google (2014 b). *Google. Groups.* Available from World Wide Web: <URL: https://groups.google.com/forum/#!browse>

Haslam, S. Alexander, Clare Powell & John C. Turner (2000). Social Identity, Self-categorization, and Work Motivation: Rethinking the Contribution of the Group to Positive and Sustainable Organisational Outcomes. *Applied Psychology: An International Review* 49:3, 319-339.

Hau, Yong Sauk, Byoungsoo Kim, Heeseok Lee & Young-Gul Kim (2013). The Effects of Individual Motivations and Social Capital on Employee's Tacit and Explicit Knowledge Sharing Intentions. *International Journal of Information Management* 33:2, 356-366.

Hau, Yong Sauk & Young-Gul Kim (2011). Why Would Online Gamers Share Their Innovation-Conducive Knowledge in the Online Game User Community? Integrating Individual Motivations and Social Capital Perspectives. *Computers in Human Behavior* 27:2, 956-970.

Hoarau, Hindertje & Carol Kline (2014). Science and Industry: Sharing Knowledge for Innovation. *Annals of Tourism Research* 46, 44-61.

Hofstede, Geert (1983). Natural Cultures in Four Dimensions. A Research-Based Theory of Cultural Differences among Nations. *International Studies of Management & Organization* 13:1-2, 46-74.

House, Robert J., Narda R. Quigley & Mary Sully de Luque (2010). Insights from Project GLOBE. Extending Global Advertising Research Through a Contemporary Framework. *International Journal of Advertising* 29:1, 111-139.

Huang, Xu & Evert van de Vliert (2003). Where Intrinsic Job Satisfaction Fails to Work: National Moderators of Intrinsic Motivation. *Journal of Organizational Behavior* 24:2, 159-179.

Huizingh, Eelko K.R.E. (2011). Open Innovation: State of the Art and Future Perspectives. *Technovation* 31:1, 2-9.

Hung, Kuang-Peng & Christine Chou (2013). The Impact on Open Innovation on Firm Performance: The Moderating Effects of Internal R&D and Environmental Turbulence. *Technovation* 33:10-11, 368-380.

Hung, Shin-Yuan, Alexandra Durcikova, Hui-Min Lai & Wan-Mei Lin (2011). The Influence of Intrinsic and Extrinsic Motivation on Individuals' Knowledge Sharing Behavior. *International Journal of Human-Computer Studies* 69:6, 415-427.

Jadin, Tanja, Timo Gnambs & Bernad Batinic (2013). Personality Traits and Knowledge Sharing in Online Communities. *Computers in Human Behavior* 29:1, 210-216.

Javidan, Mansour, Günter K. Stahl, Felix Brodbeck & Celeste P.M. Wilderom (2005). Cross-border Transfer of Knowledge: Cultural Lessons from Project GLOBE. *Academy of Management Executive* 19:2, 59-76.

Jin, Xiao-Ling, Zhongyun Zhou, Matthew K. O. Lee & Christy M. K. Cheung (2013). Why Users Keep Answering Questions in Online Question Answering

Communities: A Theoretical and Empirical Investigation. *International Journal of Information Management* 33:1, 93-104.

Kim, Yoojung, Dongyoung Sohn & Sejung Marina Choi (2011). Cultural Difference in Motivations for Using Social Networking Sites: A Comparative Study of American and Korean College Students. *Computers in Human Behavior* 27:1, 365-372.

Krishnamurthy, Sandeep, Shaosong Ou & Arvind K. Tripathi (2014). Acceptance of Monetary Rewards in Open Source Software Development. *Research Policy* 43:4, 632-644.

Koch, Stefan & Markus Kerschbaum (2014). Joining a Smartphone Ecosystem: Application Developers' Motivations and Decision Criteria. *Information and Software Technology.* In Press.

Kozinets, Robert V. (2002). The Field behind the Screen: Using Netnography for Marketing Research in Online Communities. *Journal of Marketing Research* 39:1, 61-72.

Lai, Hui-Min & Tsung Teng Chen (2014). Knowledge Sharing in Interest Online Communities: A Comparison between Posters and Lurkers. *Computers in Human Behavior* 35, 295-306.

Latham, Gary P. & Craig C. Pinder (2005). Work Motivation Theory and Research at the Dawn of the Twenty-First Century. *Annual Review of Psychology* 56:1, 485-516.

Lewin, Jeffrey E., Wim Biemans & Wolfgang Ulaga (2010). Firm Downsizing and Satisfaction Among United States and European Customers. *Journal of Business Research* 63:7, 697-706.

López-Duarte, Cristina & Marta M. Vidal-Suárez (2013). Cultural Distance and the Choice between Wholly Owned Subsidiaries and Joint Ventures. *Journal of Business Research* 66:11, 2252-2261.

Maehr, Martin L. (2008). Culture and Achievement Motivation. *International Journal of*

Psychology 43:5, 917-918.

Mortara, Letizia & Tim Minshall (2011). How Do Large Multinational Companies Implement Open Innovation? *Technovation* 31:10-11, 586-597.

Munar, Ana Maria & Jens Kr. Steen Jacobsen (2014). Motivations for Sharing Tourism Experiences Through Social Media. *Tourism Management* 43, 46-54.

Park, Jae Hong, Bin Gu, Alvin Chung Man Leung & Prabhudev Konana (2014). An Investigation of Information Sharing and Seeking Behaviors in Online Investment Communities. *Computers in Human Behavior* 31: 1-12.

Pénin, Julien, Caroline Hussler & Thierry Burger-Helmchen (2011). New Shapes and New Stakes: A Portrait of Open Innovation as a Promising Phenomenon. *Journal of Innovation Economics* 7:1, 11-29.

Peterson, Mark F. & S. Antonio Ruiz-Quintanella (2003). Cultural Socialization as a Source of Intrinsic Work Motivation. *Group and Organization Management* 28:2, 188-216.

Pi, Shih-Ming, Chen-Huei Chou & Hsiu-Li Liao (2013). A Study of Facebook Groups Members' Knowledge Sharing. *Computers in Human Behavior* 29, 1971-1979.

Pisano, Gary P. & Roberto Verganti (2008). Which Kind of Collaboration is Right for You? *Harvard Business Review* 86:12, 78-86.

Prahalad, C. K. & Venkat Ramaswamy (2004). Co-Creation Experiences: The Next Practice in Value Creation. *Journal of Interactive Marketing* 18:3, 5-14.

Roe, Robert A., Irina L. Zinovieva, Elisabeth Dienes & Laurens A. Ten Horn (2000). A Comparison of Work Motivation in Bulgaria, Hungary, and the Netherlands: Test of a Model. *Applied Psychology: An International Review* 49:4, 658-687.

Rost, Katja (2011). The Strenght of Strong Ties in the Creation of Innovation. *Research policy* 40:4, 588-604.

Ryan, Richard M. & Edward L. Deci (2000). Intrinsic and Extrinsic Motivations:

Classic Definitions and New Directions. *Contemporary Educational Psychology* 25:1, 54-67.

Schaarschmidt, Mario & Thomas Kilian (2013). Impediments to Customer Integration into the Innovation Process: A Case Study in the Telecommunications Industry. *European Management Journal.* In Press.

Shin, Dong-Hee (2010). Analysis of Online Social Networks: A Cross-National Study. *Online Information Review* 34:3, 473-495.

Szabo, Erna, Felix C. Brodbeck, Deanne N. Den Hartog, Gerhard Reber, Jürgen Weibler & Rolf Wunderer (2002). The Germanic Europe Cluster: Where Employees Have a Voice. *Journal of World Business* 37:1, 55-68.

Thomas, David C. (2008). *Cross-Cultural Management: Essential Concepts*. 2nd ed. Los Angeles: Sage Publications. 327 p. ISBN 1412939560.

Torres, Edwin N., Xiaoxiao Fu & Xinran Lehto (2014). Examining Key Drivers of Customer Delight in a Hotel Experience: A Cross-Cultural Perspective. *International Journal of Hospitality Management* 36, 255-262.

Truong, Yann (2013). A Cross-Country Study of Consumer Innovativeness and Technological Service Innovation. *Journal of Retailing and Consumer Services* 20:1, 130-137.

Vasalou, Asimina, Adam N. Joinson & Delphine Courvoisier (2010). Cultural Differences, Experience with Social Networks and the Nature of "True Commitment" in Facebook. *International Journal of Human-Computer Studies* 68:10, 719-728.

Verner, J. M., M. A. Babar, N. Cerpa, T. Hall & S. Beecham (2014). Factors That Motivate Software Engineering Teams: A Four Country Empirical Study. *The Journal of Systems and Software* 92, 115-127.

von Hippel, Eric (1976). The Dominant Role of Users in the Scientific Instrument Innovation Process. *Research Policy* 5:3, 212-239.

von Hippel, Eric (1978). A Customer-Active Paradigm for Industrial Product Idea Generation. *Research Policy* 7:3, 240-266.

von Hippel, Eric & Ralph Katz (2002). Shifting Innovation to Users via Toolkits. *Management Science* 48:7, 821-833.

von Hippel, Eric. (2005). *Democratizing Innovation*. 1st ed. Cambridge: The MIT Press. 204 p. ISBN 0-262-00274-4.

von Hippel, Eric (2007). Horizontal Innovation Networks – by and for users. *Industrial and Corporate Change* 16:2, 293-315.

von Hippel, Eric (2010). Open User Innovation. In: *Handbook of the Economics of Innovation* 1, 411-427. Ed. Bronwyn H. Hall & Nathan Rosenberg. Amsterdam etc.: Elsevier.

von Krogh, Georg & Eric von Hippel (2003). Special Issue on Open Source Software Development. *Research Policy* 32:7, 1149-1157.

Waarts, Eric & Yvonne van Everdingen (2005). The Influence of National Culture on the Adoption Status of Innovations: An Empirical Study of Firms across Europe. *European Management Journal* 23:6, 601-610.

West, Joel, Ammon Salter, Wim Vanhaverbeke & Henry Chesbrough (2014). Open Innovation: The Next Decade. *Research Policy* 43:5, 805-811.

Wu, Sou-Chin & WenChang Fang (2010). The Effect of Consumer-to-Consumer Interactions on Idea Generation in Virtual Brand Community Relationships. *Technovation* 30:11-12, 570-581.

Yang, Dong-Hoon, Seongcheol Kim, Changi Nam & Ja-Won Min (2007). Developing a Decision Model for Business Process Outsourcing. *Computers & Operations Research* 34: 12, 3769-3778.

Ye, Jonathan & Atreyi Kankanhalli (2013). Exploring Innovation Through Open Networks: A Review and Initial Research Questions. *IIMB Management Review* 25:2, 69-82.

Zhang, Sha Sandy, Jenny van Doorn & Peter S. H. Leeflang (2014). Does the Importance of Value, Brand and Relationship Equity for Customer Loyalty Differ Between Eastern and Western Cultures? *International Business Review* 23:1, 284-292.

APPENDIXES

Appendix 1. Message posted in the user groups

Topic: Enjoy participating? Help with my thesis and answer short survey.

Please help me with my Master's thesis! I am looking for Dutch and Indian members to answer 2 min. survey about participating in Google's communities!

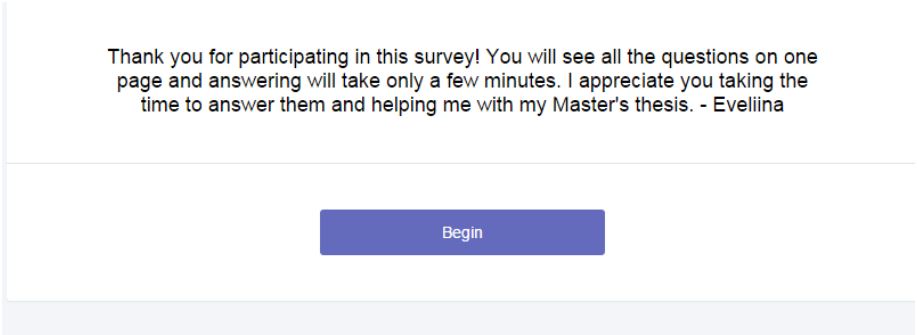
I am a Finnish International Business student from the University of Vaasa, Finland. I am writing my Master's thesis on what motivates individuals to participate in online communities, such as this one. I am looking for Dutch and Indian members to answer a very short survey, since I am doing a comparison between the cultures.

The link to my survey is this: http://bit.ly/1pU1IyJ

There are only 7 short questions and answering will not take more than a couple of minutes. Thank you for your time and help!

Best regards, Eveliina Haimakainen

Appendix 2. Survey questions.



Basic information:

Question 1 of 7

What is your nationality? *

Question 2 of 7

What is your gender? *

- Male
- Female

Question 3 of 7

What is your age? *

- Under 20 years
- 21-30 years
- 31-40 years
- 41-50 years
- Over 50 years

Question 4 of 7

How many times have you posted in the online discussion forum? *
During the past 3 months

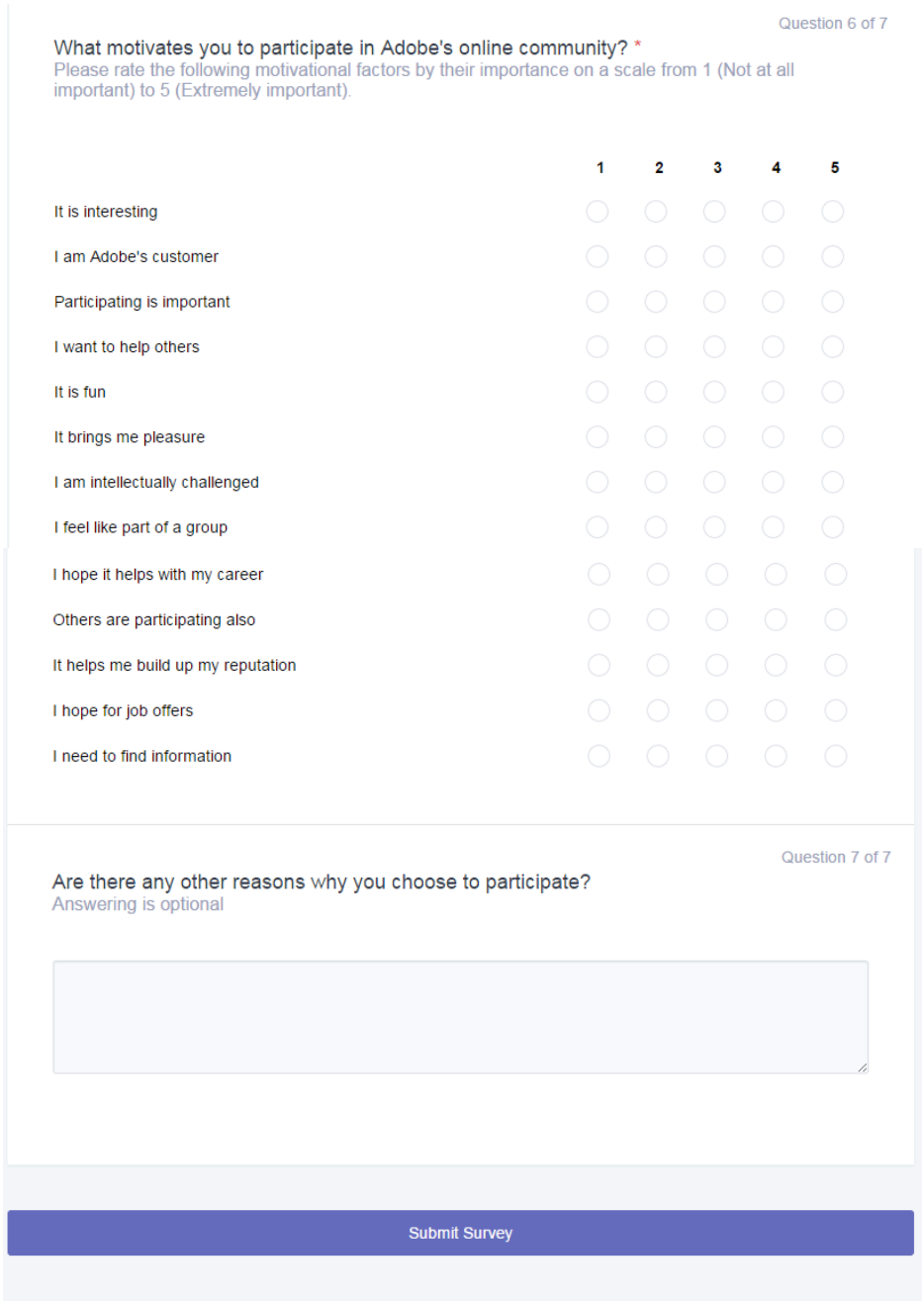
- 0 times
- 1 time
- 2-3 times
- More than 3 times

Question 5 of 7

Do you take part in other online communities in addition to Adobe's? *

- No
- 1 other
- 2-3 other
- More than 3 other

The claims:



Question 6 of 7

What motivates you to participate in Adobe's online community? *

Please rate the following motivational factors by their importance on a scale from 1 (Not at all important) to 5 (Extremely important).

	1	2	3	4	5
It is interesting	○	○	○	○	○
I am Adobe's customer	○	○	○	○	○
Participating is important	○	○	○	○	○
I want to help others	○	○	○	○	○
It is fun	○	○	○	○	○
It brings me pleasure	○	○	○	○	○
I am intellectually challenged	○	○	○	○	○
I feel like part of a group	○	○	○	○	○
I hope it helps with my career	○	○	○	○	○
Others are participating also	○	○	○	○	○
It helps me build up my reputation	○	○	○	○	○
I hope for job offers	○	○	○	○	○
I need to find information	○	○	○	○	○

Question 7 of 7

Are there any other reasons why you choose to participate?

Answering is optional

Submit Survey