# Drive of Open Source Idea Generation for Innovation

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**Abstract:**

The aim of the thesis is to introduce the source of idea generation for innovation. The scope is limited to provide general knowledge about relevant issues of the co-creation of products which play significant role for innovation. In product innovation, it is necessary to consider external valuable work and talent. Firms increasingly use open source models to collect external ideas for innovation, for instance, by means of websites where customers, suppliers and other external parties can submit ideas for innovations. Identifying, assessing, refining and developing an idea into a business concept are crucial and management weakness is more at the initial stage of an innovation process. Studying issues of the project is to find the different motives of contributors on the quantity, quality and innovativeness of their shared ideas and the effects of different types of rewards on this relationship for measuring innovation value (innovation benefits/innovation costs). Moreover, this project will make several contributions to the literature. First, it is contributing to the literature on open source innovation. This project adds to this literature by performing a more thorough empirical study of the effects of different motives which is not just the quantity, but also the quality and innovativeness of contributions. Second, it is contributing to literature how user driven innovation is organized, managed, and screened from large number of contributors as well as how innovation value measured.

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# 1 INTRODUCTION

Most innovations fail but organizations which do not innovate die (Chesbrough, 2003). In product innovation, it is necessary to consider external valuable work and talent (Goldman and Gabriel, 2005). Firms increasingly use open source models to collect external ideas for innovation (Chesbrough 2003; von Hippel 2006), for instance, by means of websites on which customers, suppliers and other external parties can submit ideas for innovations. Identifying, assessing, refining and developing an idea into a business concept are crucial and management weakness is more at the initial stage of an innovation process.

According to Bessant and Tidd (2007), it requires managing creativity to transform an idea into innovation. Schumpeter claimed innovation as a sole domain of the entrepreneur (McDaniel, 2000). The innovation process in an individual company is a great important for its own and national growth (Sundbo, 1998). Questions for these firms concern the effects of different types of rewards on the quantity, quality and originality of submitted ideas and how to integrate all the parties for an idea generation aiming to get better ROI (cost/benefit) are still almost unanswered. In general, business consists of enormous interacting customers and producers who co-create value.

Value is constantly shifting and making difficult to predict due to naturally emergent interactions among consumers and producers (Tung and Yuan, 2007). The easy access to internet tools and services for information sharing, interaction and communication have brought sweeping change of the end-users role from passive consumers to active co -creators (Freeman, 2007).

Creating an experience environment, where customers engage in active dialogue and co-create their personal experiences consequence might be same but customers may construct different experiences (Pr ahead and Ramaswamy, 2004a). Frigo and Ramaswamy (2009) believe that risk of innovation stems from inability to change or to create offering or to meet customers' needs compare to better competitors.

Limited theoretical attention is given in studies of firms evolution towards innovation product development (Kristensson et al., 2005; von Hippel E., 2006) despite firms collaboration with outsiders generates higher 2008; Nambisan, 2002; Sawhney et al percentage of sales from their new products (Rigby and Zook, 2002). However, there are an increasing number of researches on how interaction in virtual communities trigger creative activities (Franke and Shah, 2003; Nemiro, 2001; Sawhney and Prandelli, 2000).

Still, customer co-creation is a relatively recently emerged phenomenon in the academic discipline (Holt, 2004; Nambisan, 2002; Payne et al., 2008; von Hippel E., 2006; Zwick et al., 2008). Although there are enormous innovations but relatively few business models capture value of an innovation (Chesbrough, 2003). Complex challenge involved with open innovation is how to assess cost/benefit impact of factors like projected value, timescales, risk, licensing costs, opportunity cost, and technology integration (Barrett, 2010).

### 1.1 Background

Open innovation is a paradigm. It considers that organization can utilize external ideas along with internal ideas and thus creates value (Chesbrough et al., 2006).

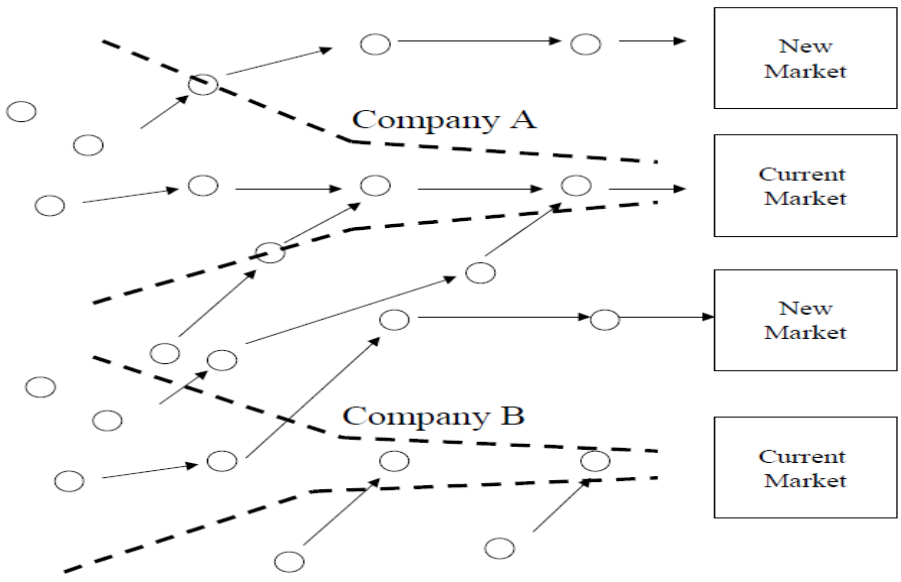


Figure1. The Knowledge Landscape in the open innovation Paradigm (Chesbrough H, 2003a, pp.44)

Figure 1 delivers a sketch of the knowledge landscape that results from the flow of internal and external ideas into and out of firms A and B. (Chesbrough H, 2003a, pp.43)

The knowledge about contributors and the motive to contribute in a virtual co- creation project are limited (Fuller, 2010; Kristensson et al , 2008; Verona et al , 2006). Contributors in many cases prefer community co-operation, entertainment, new ideas, and supporting tools. The investment of an organization on a web based open innovation platform is unworthy without motivation (Antikainen et al , 2010; Sawhney et al , 2005). Motivation can be tangible and intangible (Antikainen and Väätäjä, 2008; Antikainen and Vaataja, 2010; Fuller, 2006; Fuller, 2010; Nambisan and Nambisan, 2008). Lucrative incentive may attract many consumers even though they are not interested in the topic (Fuller, 2010). Even in some cases, users may reasonably expect a higher reward from innovating than manufacturer's standard (von Hippel, 2007). Customer co-creation during innovation processes appears to have become increasingly popular in recent years (Vargo and Lusch, 2004). However, there is a paucity of academic literature on the firms' experiences on open innovation through internet platform (Hale, 2009; Sawhney et al, 2005). In the Marketing Science Institute ranking of research priorities, in every stages of new product development, users' involvement is a top consideration of research interests. (MSI, 2004: MSI Research Priorities 2006-2008). Value can be created during consumption, usage and process (Merz et al ., 2009; Michel et al , 2008; Lusch et al., 2007). Matthing et al ., (2006) suggest that users with high technology accessibility should be encouraged to participate in user involvement project.

Similarly, Franke et al, (2006) suggest that only lead users should be involved in co-creation. On the contrary, engaging users as co-creator s (Kristensson et al, 2003, 2004), helps to understand the latent needs of customers (Matthing et al, 2006). Recently innovation has experienced fundamental changes (Chesbrough, 2003). Internal knowledge is not enough for organizations to generate ideas (Desouza et al., 2005; Hitt et al., 2000). Only one-fifth of R&D projects become successful (Rizova, 2006). In co-creation model, exchanging problem and ideas via the network enable faster innovation and enable to access to an extensive sources of expertise (Grand et al., 2004). Co-creation helps to find the latent needs of customers, and Senge (1990), believe that

latent need is that what customers value and real needs but had not experienced or even would not think of it. However, there are limited articles concerning involving customer on new service development (Alam, 2002). Prahalad and Ramaswamy (2004b), advocate that in the emergent economy, personalized co-creation experiences will be the central competition in the emerging economy.

The interaction between company and customers has become the centre of value and it is important for the company to understand the process of value co-creation (Schoeman and Finsterwalder, 2009). Prahalad and Ramaswamy (2004b), suggest four key blocks which integrate value co-creation process: dialogue, access, risk assessment and transparency. Co-creation is becoming the keystone of marketing and design practices and is rapidly gaining momentum both at professional and academic level. Sawhney et al., (2005) believe that the true co-creation will require support to have continuous dialogue with customers, and systematically share the knowledge generated through this dialogue within the firm.

### 1.2 Scope and sources of the thesis

The main objective of this research is to provide knowledge of open source innovation for the business opportunities in all over the world. Since the beginning it is tried to provide an easy package of knowledge about co creation, innovation and implementation. Attraction and motivation of the contributors are all the basic facts that are needed before sharing the ideas. After providing a general knowledge about innovation platform, this study tries to give an overview of innovation practices, and opportunities by online or other resources. One crucial challenge is to reward groups, as most of the mechanism is considering rewarding individuals (Antikainen et al, 2010). Fuller (2010) suggests that insight on virtual co-creation platform is necessary as it is bearing the risk of evoking little interest in participation and consequently not enhancing valuable consumer contributions.

It is of course impossible to identify the opportunities and propose the best entry mode for venture in one study since the activity area of each firm is varying from another, but all the way through this research, the intent is to make it easier for the reader to recognize the opportunities and select the best way to share their innovation idea.

## 1.3 Research Aim

The aim of the project is to find the different motivation of contributors on the quantity, quality and innovativeness of their shared ideas, and the effects of different types of rewards on this relationship for measuring innovation value (innovation Benefits/innovation costs).

A number of questions assisting in addressing the main question are-

1. How to attract, retain and help potential contributors in platform?
2. What motivates users to engage in open innovation platform?

## 1.4 Research Method

Both qualitative and quantitative method is used for the study purpose. With initial literature review, case studies are used on leading companies and intermediaries. Subsequently, quantitative method is to be considered to get insight of consumer experiences through a survey on large number of participatory consumers. In the first phase of the project the theoretical model for the different effects of rewards on motives and contributions to open source idea generation will be further developed. Appropriate measures of performance will be developed to assess innovation value measurement, quality and innovativeness. Subsequently case studies will be performed of open source idea generation initiatives of firms. For each idea generation system, a survey will be organized amongst contributors. The quantity of contributions will be measured from the firm s archives. The quality will be based on the outcome of the expert review process of firms. Innovativeness of contributions will be determined based on expert evaluations. Case firms will be selected considering noteworthy contribution by external idea submitters. Different sizes and different levels of rewards will be considered to analyze idea submissions. Experts' criteria for measuring each innovation value will be analyzed. In view of the fact an elevated amount of figures and observations will be used to evolution of the research.

# 2 Innovation and business implementation

## 2.1 Innovation and co-creation theory

As an international perspective on innovation, innovation consists of the generation of a new idea and its implementation into a new product, process or service which leading to the dynamic growth of the national economy and the increase of employment as well as to creation of pure profit for the innovative business enterprise. Innovation is also transform of knowledge into new products, processes and services. It involves more than just science and technology which also involves perceptive and meeting the needs of the customers.

Co-creation implies a mode in which an organization collaborates with its customers towards a shared goal that, in turn, constitutes one of the foundational premises of the services-dominant logic (Lusch et al., 2007). However, the term "co-creation" only implies the mutual collaborative efforts that occur during the consumption process which is the original implication or presumption. Co-creation commonly excludes the development of market offering itself, which is co-creation for others.

### 2.1.1 Co-creation versus traditional Markets

The true value of a market offering can only be evaluated through the lens of the customer. The focus is not on the market offering but on the customers value creation processes, in which value for customers emerges (Grönroos, 2000; Moeller, 2008).

These processes should be the point of departure when conducting market research, yet the literature remains preoccupied with decision making, focusing on what customers purchase rather than what they actually do (Xie et al., 2007). According to the literature, the difference between a passive customer and active one depends on whether a firm embraces a responsive or a proactive market orientation (Narver et al., 2004). Response market orientation concerns a firm's attempts to discover, understand and satisfy the expressed needs of its customers.

On the other hand, proactive market orientation has been describe as a 'customer-driven' process in which the firm must discover, understand and satisfy the latent needs of its customers or discover new market opportunities. This can be accomplished by working closely with lead users or by conducting market experiments to discover future needs (Jaworski et al., 2000; Slater and Narver, 1998; Atuahene-Gima et al., 2005; Narver et al., 2004).

The other common market research techniques that companies use to generate customer information include surveys, in-depth interviews and focus groups (Verma et al., 2008). These techniques which concentrate on capturing customers' previous experiences with a product or service have been designed so that the participants respond to stimuli from the company. In contrast, forward- looking techniques assist in the development of innovative new services that build on gaining greater access to customers' underlying values and behaviors (Johnson, 1998).

### 2.1.2 Co-creation Implication

Co-creation implies a mode in which an organization collaborates with its customers towards a shared goal which in turn constitutes one of the foundational premises of the service- dominant logic (Lusch et al., 2007). However, the term 'co-creation' only implies the mutual collaborative efforts that occur during the consumption process which was the original implication of presumption. Co-creation commonly excludes the development of the market offering itself which might be co-creation for others. Similarly, if it occurs during the innovation process, co-creation does not have any implications in terms of how and where customers can share their inventiveness. According to the researchers (Alam, 2002; Kristensson et al., 2004; Prahalad and Ramaswamy, 2000), customers should play an important role in the service innovation process. Organizations must develop their collaborative competence and view customers as active contributors with knowledge and skills rather than simply as sources of information.

### 2.1.3 Technological innovation

Technological innovation has become a key concept in corporate strategy. Technological innovation is a process which includes all the steps from the decision to conduct research to the identification of opportunities and paths for that research to contribute to society through diffusion and commercial application (Gary D. Libecap & Marie Thursby, 2008).Every organization worries about introduction of improvements in products, production and managerial processes in an attempt to stay ahead of competition. The innovation of the internet, a major technological innovation is happened at the end of the twentieth century. The internet is both of an idea of a technology and an implementation of the technology as a connected set of businesses.

## 2.2 Business Implementation

A venture of open innovation approach that implements the business processes covering an innovative platform. The global business implementations which attributes important to the value-creating process that involve the consumer as a co-creator of value (Lusch and vargo 2006, p.181). While the subjects of customer value has been addressed by a number of researchers (e.g. Holbrook 1996; Woodruff 1997).

### 2.2.1 Business Initiatives and Progress

By initiative towards new business activity it means that attempts to change or expand the business, for example developing new products or services, aiming at completely new customers or entering new markets.

### 2.2.2 Comparative Case Studies of Successful co-creation

By opening of the corporate structures the firms encourage customers to join them in developing products and by using new tools to tap distribute knowledge. Satisfied companies used some web tools which are more extensive for interactions with their customers, suppliers and outside experts – for example to engage customers and suppliers in product-development efforts also known as co creation (McKinsey, 2008).

An example of co-creation was Peugeot Company, which invited people to submit car designs online and attracted four million page views on its site. The company built a demonstration model of the winning design to exhibit at automotive marketing events and partnered with software developers to get it included in a video game (Bughin et al., 2008).

# 3. Open source Strategy

## 3.1 Open source and Intellectual Property (IP)

Open source is related to the intellectual property. Basically, when a company is starting an open source platform then intellectual property issues arise. Most of the open innovation platform they use copyright as a protection system for the Intellectual Property they contain (Jan Newmarch, 2000). This type of platforms, companies uses some functions that guarantee rights to copy or modify the contents without having to seek permission.

## 3.2 Open innovation Strategies and procedure

Many companies of the world uses logical support an internally oriented, centralized approach to research and development. Combining internal and external ideas and logic to market can develop the new technologies. This feature is made a new logic of open innovation. The goal is to create a strategic map which shows the sources of innovative ideas for the company (Chesbrough, 2003). Successful companies tend to choose some approaches such as need seekers, market readers and ways to create some value. However, "innovation is the result of mixing resources, ideas, and technologies in novel ways; a productive innovation environment requires the constant entry of knowledge from other

Places" (Fey & Birkinshaw, 2005).

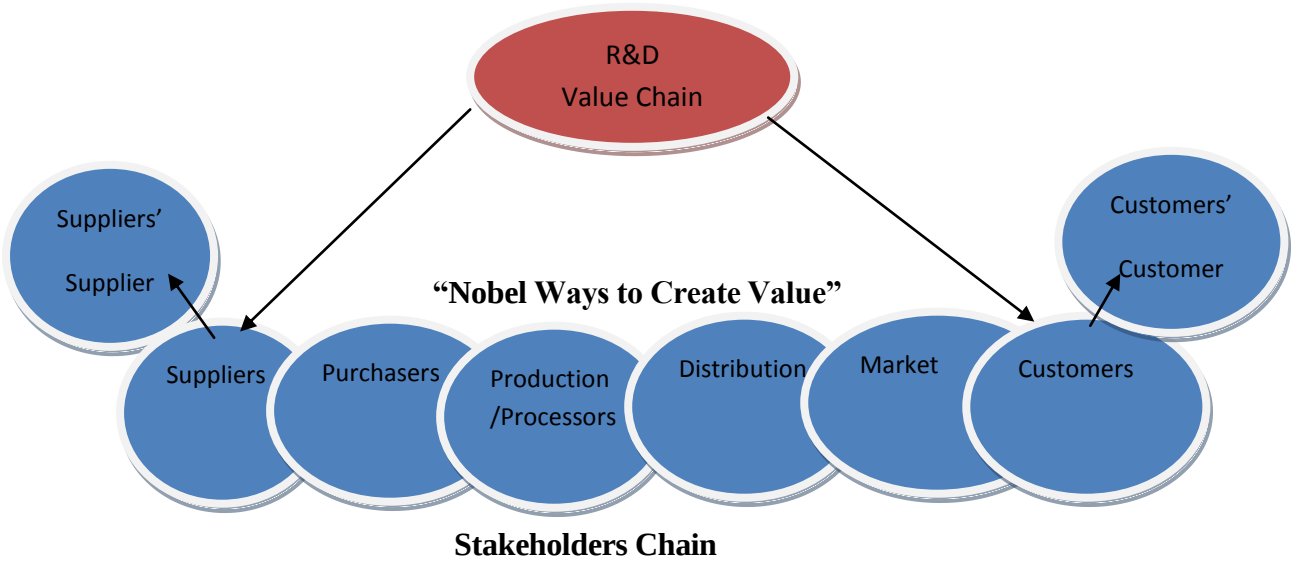


Figure 2: open innovation strategies and R&D supply chain management (strategy for R&D driven open innovation, V.G. Dhanakumar)

# 4 Model of Open Innovation platform

## 4.1 Model Open Innovation Platform 1: Owela (Open Web Lab)

Title: Co-creation platforms for the open source idea generations to field evaluations to selected segment of the innovation process.

"Owela is an online space for open innovation and co-design with end users, companies and researchers. It provides social media based tools and methods for understanding users' needs and experiences as well as designing new products and services together" (Official web site of Owela). Owela established in 2007 and it administrated by VTT Technical Research Centre of Finland. Owela is an open innovation platform where users can easily participate in innovation activities in any time and places. Owela is also a platform where companies can utilize different type of the innovation process such as consumer needs, testing and developing prototypes, marketing and consumer research etc.

Owela has been carried out many brainstorming and product development projects. The most famous development projects of this platform's are;

- F-Secure developed in conjunction with Owela types related to cloud services product concepts.
- TeliaSonera gathered Owela's user feedback and new ideas for the future of the address book. Owela proved to be an effective way to evaluate ideas with users.
- Lohja used Owela mm. municipal services in the development and evaluation of the draft master plan together with local residents.

*"Owela is a platform of whole development at the time was open to all ideas and discussion site where anyone interested in the subject may suggest ideas for new web service operations, to take a position and layout of the proposals such as the name of the site to vote. About ten people active user group met monthly co-development workshops, face to face. The results of the workshops were other comments of Owela, and Owela provide the ideas in turn undergo further processing in the workshops." (Official website of Owela)*

### 4.2 Model Open Innovation Platform 2: Nokia beta Labs

Title: Co-create with developers and consumers for improving products and accelerating innovation.

Nokia beta Labs is an open source idea generations platform where different kind of software, application and services being developed by teams in Nokia or beta labs selected 3rd party developers. Nokia Beta Labs was launched in April, 2007. Nokia Beta

Labs are open for all community and the process is to register from the platform's website. Open innovators is a part of a unique community of this platform and can get opportunity to influence the development of Nokia products by giving feedback and interacting with the developers.

From the Beta Labs site other developers or manufacturers could learn easily Nokia's apps progress and feedback. Open innovators can get the most value out of participating;

- To get comparatively new and advanced Nokia device
- To get ideas from improving products.
- To tolerate irregular limits for access of cool matter
- To make a difference of sharing ideas
- To win reward (money, product etc)

The famous development of the apps from open innovators are Nokia photo browser, mobile codes, wellness diary, Nokia Braille reader, mobile web server, Nokia Kamppi trial, Nokia magnifier etc.

From the survey report in December 2009, Nokia beta labs were recognized to relieve of finding attractive and comparative content**,** keeping in advanced with Beta Labs and Nokia employee contribution (betalabs.nokia.com).

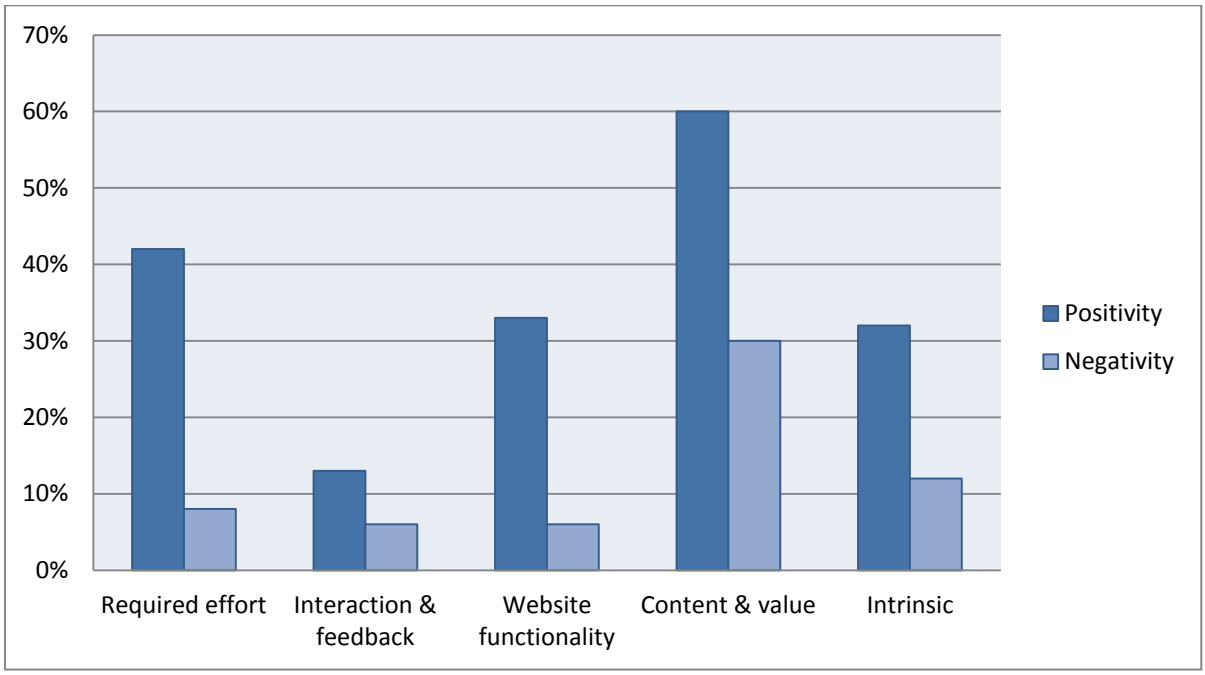


Figure 3: Nokia Beta Labs satisfaction survey results ("Your voice on how well Beta Labs is doing" survey results in December 2009)

"Website functionality and low effort required to participate are the most satisfactory dimensions. The least impact on overall satisfaction (positive and negative) has been with interaction & feedback, including example giving feedback, getting quick responses, troubleshooting and Nokia participation."(Nokia Beta Labs website)

### 4.3 Model Open Innovation Platform 3: COSS ry

Title: COSS would promote the growth and internationalization of open source businesses for the development of the Finnish information society.

COSS is the organization of Finnish Centre for Open Systems and Solution. COSS ry was founded in 2003 for an open source business ecosystem in Finland. The main focus of this open source platform is to develop public sector, mobile and embedded systems and enterprise solutions. COSS exploit low cost local business services such as support, maintenance, installation, training etc.


Figure 4: A map of the Open Source Ecosystem of COSS (Case study: Building up the Finnish open source ecosystem; URL:http://www.openforumeurope.org)

COSS is recognized as one of the Europe's oldest open source competence centre. The vision of COSS is to strengthen the Finnish software intensive business to generate new business and promote the growth of the information society technologies in the development of open and productive communities (Official website of COSS, URL: http://cross.fi).

## 5. Empirical research Framework

The thesis prepared by theoretical and empirical research. Empirical research is the research of findings on different study as its experiment of reality that performed to answer a specific question or analysis a hypothesis. This part of the thesis creates a framework for an empirical research of contributors' motivation and measurement of the firms benefit from the open innovation platform.

### 5.1 Research design:

Research design is conducted by the conceptual structure (C.R.Kothari, 2004). Research design is as a methodical framework for collecting and utilizing data from the outline of the study and it shows the details on study process at its conclusions and the limitations of the research.

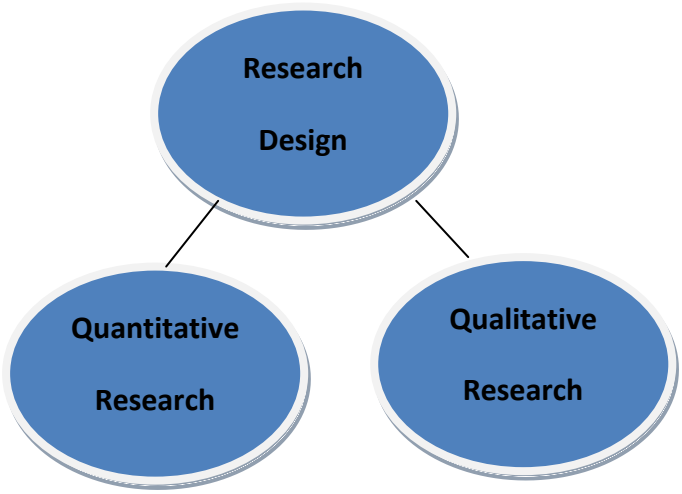


Figure5: Research Design; Qualitative and Quantitative approaches.

The purpose of the research is to fulfill the research objectives; two different research procedures were developed. To investigate contributors' attitudes towards different methods of ideas and opinions about attraction of different platform, quantitative research has been used. Qualitative research has been used to analyze the articles, crowd sourcing company's overview and to research case studies of different platforms.

### 5.2 Types of collecting data

The reliability of decisions depends on the quality of data (R.Panneerselvam, 2004). There are two types of collecting data; primary data and secondary data. Primary data is collected from the field under supervision of researcher. The review of literature from books, articles and journals is based on secondary data.

**5.2.1 Primary data:** the author used different methods for primary data collection. The research design can be grouped into two basic approaches;

- **Quantitative research:** Quantitative research is the collections of numerical data with the purpose of explain, forecast and control observable fact of interest (L.R.Gay, 1996). Quantitative research structured by survey questions, email & phone survey and use of online survey tools "Survey Monkey" (Appendix 1). Primary quantitative research gathers some information from informal interviews with unprofessional person who has some idea about open innovation. Those unstructured interview questions are based on ready topics and ideas rather than a diagram. The interviews contains multiple choices questions and some of "what", "how" and "why" questions. The author also used telephone interviews for research which is time conducting the interview of the sample. For the analysis of the survey result author used SPSS statistical software which put in the appendices (Appendix 2).

- **Qualitative research:** Qualitative research is the inductive and developing methodological design (John W. Creswell, 2002). The author focused on interviews and case study analysis as the qualitative research method. The researcher contact with some open innovators and interviewed them extremely. From the interviews, the author was trying to find some additional factors of innovation platform. The author also emails questionnaires to the potential respondents which email list provided by some organizations.

**5.2.2 Secondary data:** During the thesis work multiple secondary resources were analyzed. These resources are from articles, books, publication, web-pages and some electronic resources. From the beginning of the thesis the author was trying to analyze significantly the information of open innovation and tried to pick reliable data and sources. Though the secondary data is already analyzed and represented so it is very easy to collect and takes less time and effort.

# 6. Data analysis and result:

After collecting necessary data, the data analyses and explanation procedure was started. The author made a finalize analysis to related answer for the research questions. Data analysis is the process to find out the answer of the research questions which already set before study (J.V.Seidel, 1998). For the qualitative research survey of data collection, fourteen questions were conducted. These interview questionnaires were completed by the 10 respondents. The author also used online based data collection platform www.surveymonkey. The author registers in this platform and upload all the questionnaires. The purpose was to get reliable and accurate result to invest less time and money for data collection process.

## 6.1 Selections of respondents

This section of the study, the author used interview instrument to measure a variety of contributors. While the quantitative research of interview, the author selected some inexpert person who has some idea about open innovation. The author also got some feedback from the online survey. This survey was designed to certain of people in some European and Asian country, interviewed them tangibly and got instant feedback. Some information collected from social media platforms where shared the link (used suveymonkey.com) of questionnaire and some people also showed their interest in this survey. More than 232 respondents had been filled and the author selected best 200 respondents for research. Some of respondents are unfamiliar about open innovation. And the qualitative research, the author also used in-depth interviews of experienced person who had skilled and knowledge about open innovation or crowd sourcing.

### 6.2 Research problem of the thesis

The main obstacle is collecting qualitative information about co creation. Because the key contributors are professional people or retired specialists, they share their ideas with an enterprise and not to others. For example if someone contacts them to collect some information, they cannot get the whole response. In this case the data should be collected from reliable and valid sources, because all the respondents have filled out the questions but all the opinions are not represented in the result. It has possibility that the respondents did not understand all the questions.

### 6.3 Quantitative research result:

The quantitative portion of this thesis has been done through interviewing common people and an online survey. The questionnaire of 14 questions was designed where 3 questions were related to a demographic question and the rest of the questions were directly related to the researched objects.

As it's shown in the pie chart below, the respondents were divided by gender. This demographic survey is helpful for the researcher to find out the people who are interested in open innovation.

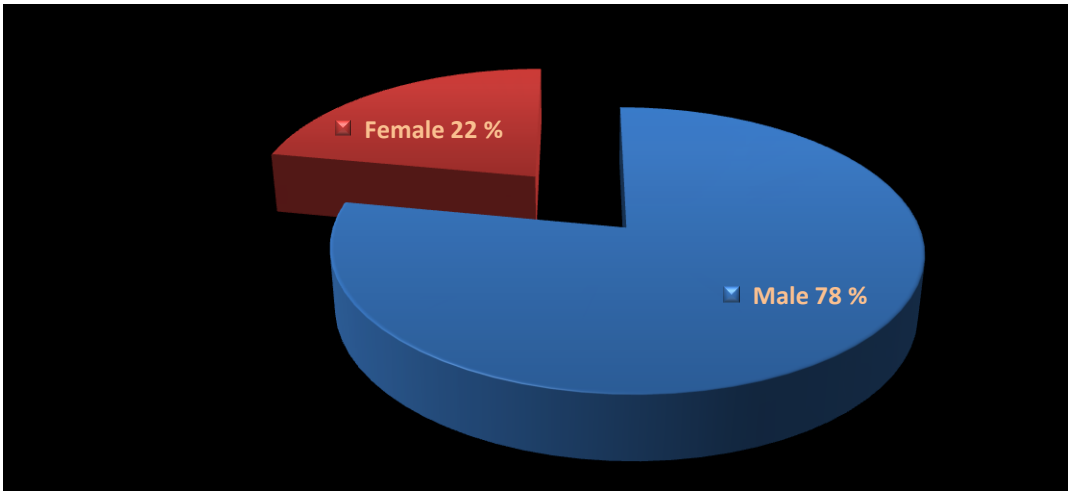


Figure 6: Gender of the quantitative result.(see Appendix 2 section 1(i))

The rate of survey respondents, from 200 respondents almost 78%(156/200*100) male and 22% (44/200*100) Female was participating in this survey.

1. A substantial majority of persons known about open innovation.

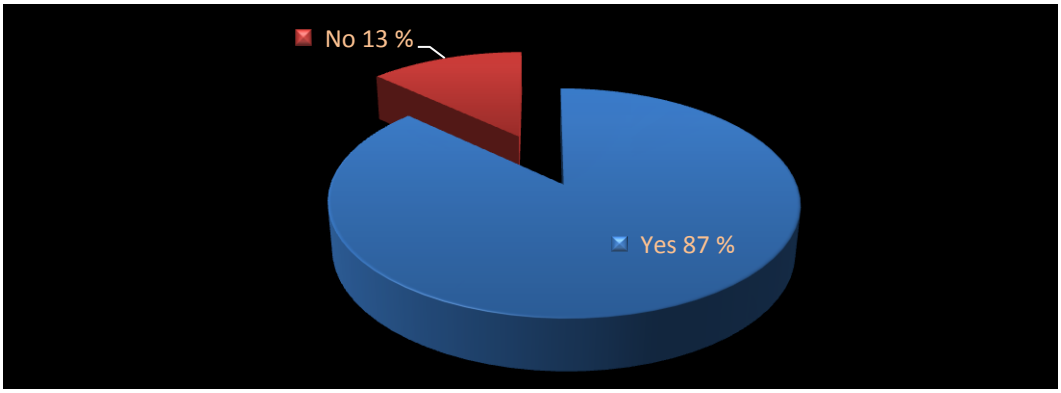


Figure 7; Illustration of the answers to the research question “Have you ever heard about open source innovation?” and the option of the answer was yes or no. (see Appendix 2 section 2)

On this survey, open innovation was familiar of 174 respondents Out of 200.

2. A substantial majority of persons visited an innovation platform.

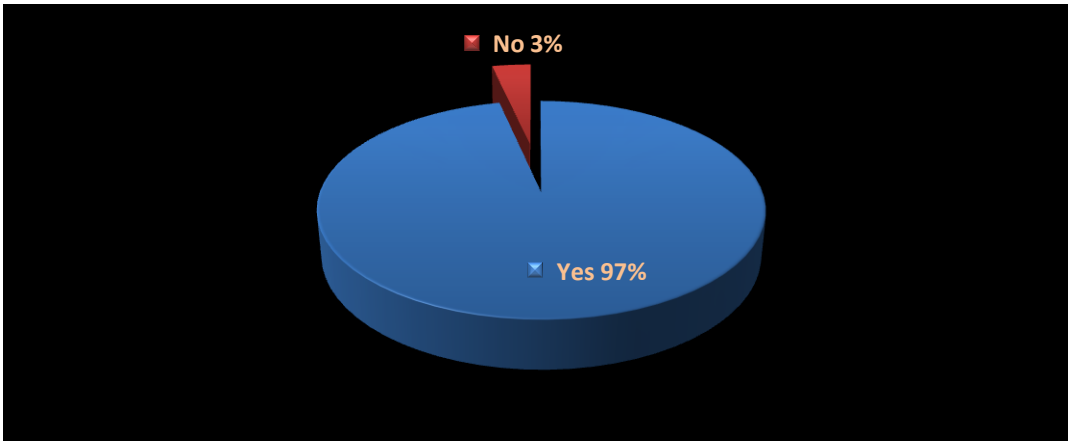


Figure 8; Illustration of the answers to the research question “Have you ever visited any innovation platform?” and the option of the answer was yes or no. (see Appendix 2 section 3)

This survey question is based on 174 respondents who have heard about open innovation. As the result of the segment, the amount of 97% or 168 respondents had visited an open innovation platform and 3% or 6 respondents had never visited any innovation platform.

3. A certain type of platform where people have visited:

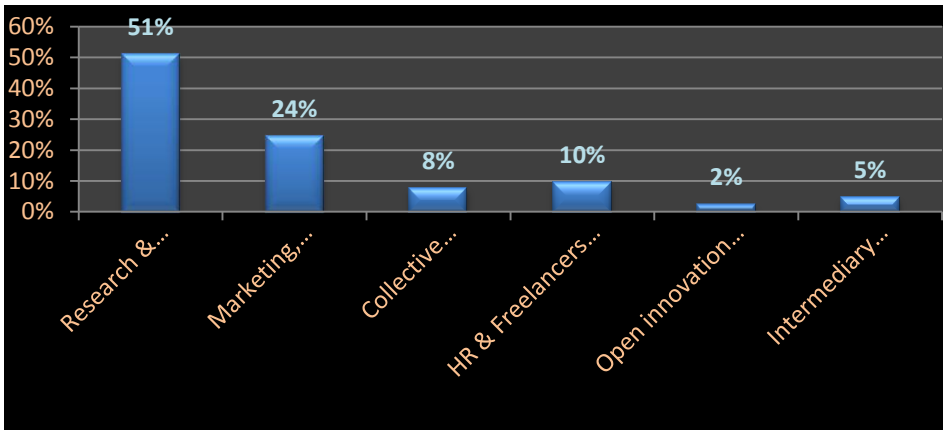


Figure 9: Illustration of the answers to the research question "What type of platform did you visit?" (see Appendix 2 section 4)

This survey's question is based on 168 respondents who had visited an open innovation platform. As the result of the segmentation, open innovation platforms were separated by forms of open innovators (the open innovation & crowd sourcing development site www.openinnovators.com). The amount of 51% or 86 respondents had visited on research and development platforms, 24% or 41 respondents on marketing, design & idea platforms, 8% or 13 respondents on collective intelligence & prediction platforms, 10% or 16 respondents on HR & freelancers platforms, 2% or 4 respondents on open innovation software and 5% or 8 respondents had visited on intermediary open innovation services platforms.

4. Feature of information people share in innovation platform.

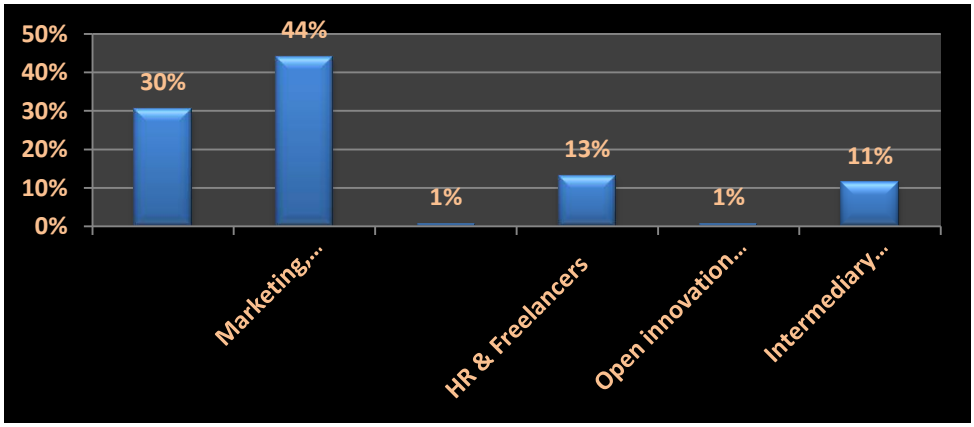


Figure 10: Illustration of the answers to the research question "What information do you share with others?" (see Appendix 2 section 5)

This survey's question is based on 168 respondents who have visited a different kind of innovation platform and shared their ideas. The amount of 30% or 51 respondents had shared information on research and development platforms, 44% or 74 respondents on marketing, design & idea platforms, 1% or 1 respondent on collective intelligence & prediction platforms, 13% or 22 respondents on HR & freelancers platforms, 1% or 1 respondents on open innovation software and 11% or 19 respondents were shared on intermediary open innovation services platforms.

5. Certain amount of time people spend to on sharing idea to execution.

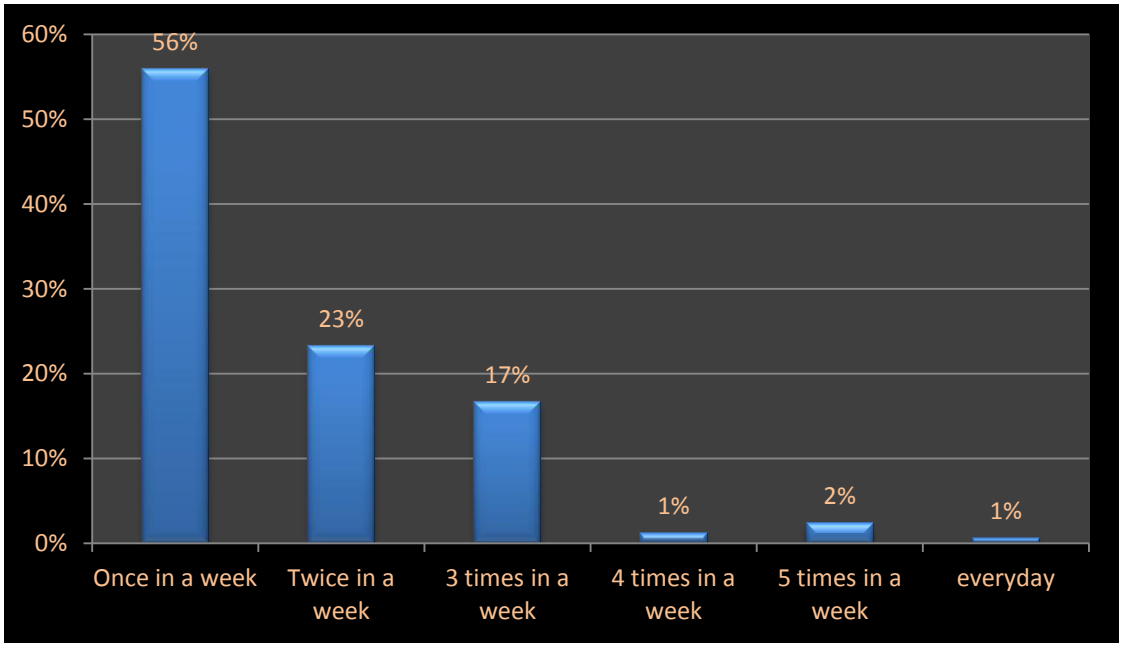


Figure 11: Illustration of the answers to the research where the question was “How much time would you like to spend on this opportunity idea to execution?” (see Appendix 2 section 6)
This survey's question was based on 168 respondents who spent their time on the innovation platform. The Time duration was divided by the expected duration in a week.

6. The purpose of visit of open innovation platform.

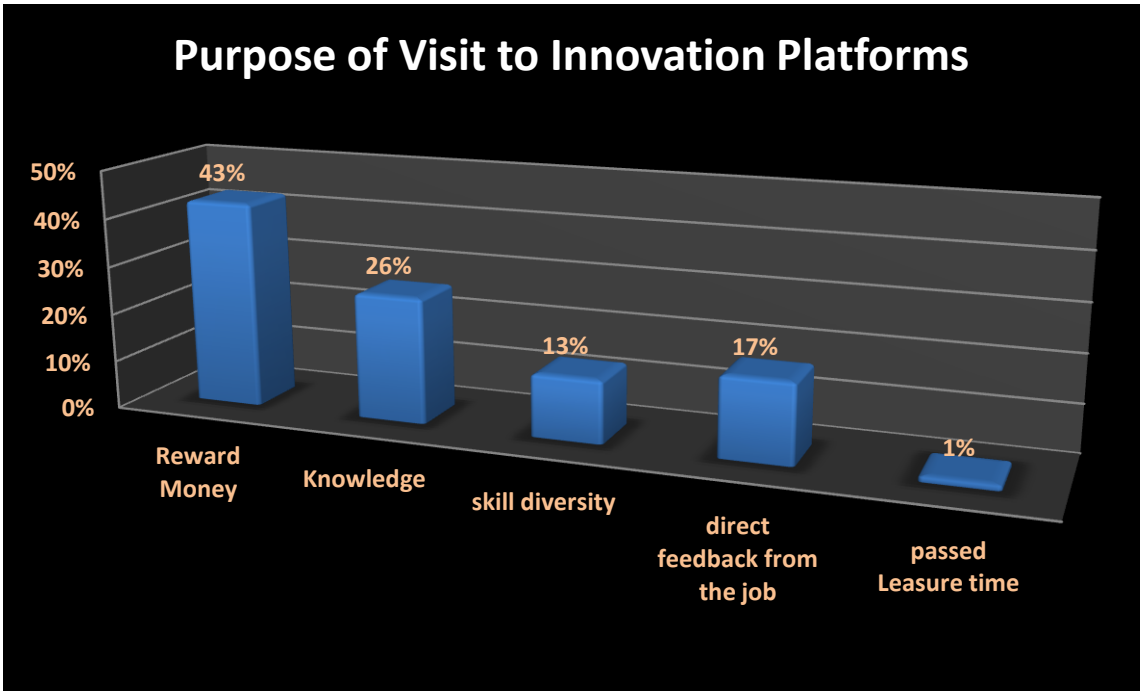


Figure12: Illustration of the answers to the research question was “Why did you visit these platforms?” (see Appendix 2 section 7)

This survey´s question is based on 168 respondents of their motivation to visit the innovation platform and to share their ideas. The amount of 43% or 72 respondents would visit the open innovation platforms for a reward- money, 26% or 44 respondents for knowledge, 13% or 22 respondents for skill diversity, 17% or 28 respondents for direct feedback from the job, 1% or 2 respondents for passed leisure time.

Table 1; Analysis of quantitative research of survey questionnaire answer

| Questions | Results |
|---|---|
| What kind of benefit did you get from these platforms? | **The response of this question- 79% of the respondents responded they get the idea & the requisite information, 13% of respondent's answers were to build a network and 8% of respondents got integrated in a community innovation from these platforms.** |
| Whose insights and guidance do you/would you engage? | **According to the result of this question, almost 92% have taken advices from the seniors who are involved in educational research and rest of them used their own curiosity.** |
| What kind of attraction do you need/ to motivate you for sharing ideas? | **For this question, 87% of the respondents were motivated by the international guidance regarding the subject for sharing ideas and 8% of the respondents attracted by the feedback from the workplace and the rest of them were attracted for increasing of the technological talent.** |
| What kind of problem did you find from these platforms? | **According to the result, 95% of the respondents got the problem due to communication gaps and the rest of the respondents faced a trust problem with the company.** |
| Why don't you like to share your ideas in an open platform? | **As the answer of this question, 15% of the respondents don't want to share these personal ideas to anybody.** |

### 6.4 Qualitative research results:

The qualitative portion of this thesis has been done through structured and standardized interviews by an expert or experienced people. The questions of this interview were the same as the 14 questions which were designed like quantitative research where 2 questions were related to a demographic question and the rest of the questions were directly related to the research objects. As the difficulty to contact with specialist of open innovation sector, so the amount of interviews conducted was comparatively small. The amount of 10 interviews, 4 are taken by email and rest taken in person. The interviewed people are from different companies and organizations such as Nokia, Nortel, Arcada and soacloud9 Oy.

As shown in the pie chart below, the respondents were divided by gender similar to quantitative research.

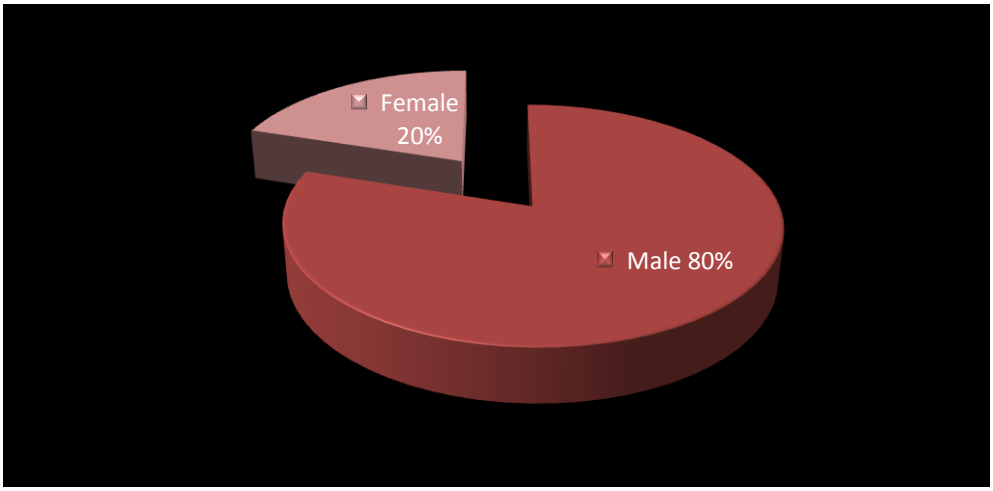


Figure 13: Gender of the qualitative result.(see Appendix 2 section 1(ii))

The rate of survey respondents, from 10 respondents almost 80%(8/10*100) male and 20% (2/10*100) Female were participating in this survey.

Table 2; Analysis of qualitative research of survey questionnaire answers

| Questions | Results |
|---|---|
| How many years are you working to share your ideas an innovation platform? | **The response of this question, 40% of the respondents responded they were working 2-3 years, 40% of respondents had 4-5years and 20% of respondents had 6-10 years experience about open innovation.** |
| What category of the Innovation Framework do you primarily invest your time and attention? | **According to the result of this question, The respondents were liked to visit software product, service system, technology execution, data centre design and functional activities frameworks.** |
| How could you pro-actively participate in innovative platform? | **Based on the response to this question, open innovators were participating an outwardly focused individual, and naturally seek opportunities to collaborate and increase their knowledge to innovate. Similarly, organizations are seeking new innovation as well as new product to achieve competitive advantage. If both things are match together then pro-actively participation comes automatically.** |
| What kind of service expectations do you want from open source innovation platform? | **Majority of respondents expected new products, new business solutions, new technologies, and new perspectives having prominent features on old problems from open source innovation platform.** |
| What has affected these expectations? | **Research and Development, Knowledge sharing scope, Market Orientation** |
| What are your needs from innovation platform? | **Gather Knowledge, Learn about Innovation process, Scope of work etc.** |

| Questions | Results |
|---|---|
| What kind of motivation is necessary to attract you for sharing ideas? | **Personal interest, Organizational inspiration, In team collaboration** |
| What is the most major strategy of the innovation activity growth in globally? | **According to the respondents, major strategy of the innovation activity growth is depends on the geographic location. It is different for one geographic location from another. But a common thing among them is that the new innovation must have a technological content for growth in globally.** |
| What kind of obstacles did you find in the innovation platform? | **Lack of know-how support, Lack of expert suggestion, Limited R&D scope etc.** |

### 6.5 Secondary research result:

In this section, analyzing case study and drawing up theoretical arguments in the literature review, the secondary research results are discussed. The author discussed and compared between traditional or close innovation and open innovation policy in theoretical part. Basically traditional innovation policy creates the most ideas inside the industry but open innovation makes the best use of internal and external ideas.

## 7. Discussion:

After collecting and analyzing the observations of this thesis, comes providing some basic knowledge about the external and internal innovation process of the company. Now days, the concepts of the open innovation are very familiar to the companies and the innovators. Open innovation offers a new and interesting perception for research and development departments of the company. The purpose of this thesis is to find out the contributors attraction and motivation and also to find out the measurement of open innovations value to the companies.

## 7.1 Review of the study:

The result obtained in the primary research demonstrated the fact that contributors like to share their ideas for knowledge and money. For the quantitative research part, the researcher wanted to have this research only to find out the contributors´ benefit to of sharing ideas. According to the result obtained from quantitative survey, most of the respondents liked to share their ideas in marketing and designing a platform and their expectation to gain some reward money. However, the qualitative survey respondents
Liked to visit software product, service system, technology execution, data centre design and functional activities frameworks and their expectation was to gain some personal interest, organizational inspiration and team collaboration.
Based on the case study, Owela, Nokia Beta Labs and COSS are the good example of the open innovation platform. Introducing the idea storming platform Nokia Beta labs is a creative freedom platform which needs to create the desired new markets, radical innovations and fresh business models.

## 7.2 Ideas for further research

The outcome of the research can be applied for companies with leading boundaries of practices in open innovation. Open innovation is a part of a growing global trend. The study contains a broad range of information about open innovation and the benefit of contributors. On the basis of this thesis, it is possible to turn up the further research question are;

- What is the comparative open innovation trend in developed and developing countries?
- How do firms measure open innovations value (innovation Benefits/innovation Costs) throughout the process?
- How can companies grow top line revenues through innovation ideas?

# 8. Conclusion

Open innovation is a comparably new and interesting perception to academics all around the world. The author acknowledges that open innovation is rapidly applicable to the firms or organizations. By co creation with customers and suppliers, it is possible to set up open innovation networks which can help to develop the design of future products for the existing and potential customers.

The thesis writing is a longer process and it has difficulties of finding the academic reliable literature and suitable research materials. The authors choose these topics and spend almost one year to complete it. The author already gathers lots of information about open innovation, but the whole thesis process and the discussion part are broader than the main thesis. The author tries to make it more narrow and reliable.

According to the case study of this thesis, the author chooses an open innovation platform which is in Finland. But it is quite difficult to collect information, because of the local languages.

This thesis makes several contributions to the literature. First, it contributes to the literature on open source innovation. This thesis adds to this literature by performing a more thorough empirical study of the effects of different motives on not just the quantity, but also the quality and innovativeness of the contributions. Second, it will be helpful to contribute for the literature on how user-driven innovation is organized, managed and screened from a large number of contributors as well as how the innovation value is measured.

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# APPENDICES

## Appendix 1. - Survey Questionnaire

### 1.1 Questionnaire 1; Interviewed common people

1. Sex

☐ Male ☐ Female

2 Write about you (age, background, profession etc.)?

3 Have you ever heard about open source innovation?

☐ Yes ☐ NO

4 Have you ever visited any innovation platform?

☐ Yes ☐ NO

5What type of platform did you visit?

- ☐ **Research & Development platforms**
- ☐ **Marketing, Design & Idea platforms**
- ☐ **Collective Intelligence & Prediction platforms**
- ☐ **HR & Freelancers platforms**
- ☐ **Open innovation software**
- ☐ **Intermediary open innovation services**

6 What kind of information do you share with others?

7 How much time would you like to spend on this opportunity, from idea to execution?

8 Why did you visit these platforms?

9. What kind of benefit did you get from these platforms?

10 Whose insights and guidance do you/would you engage?

11 What kind of attraction do you need to motivate you for sharing ideas?

12 What kind of problem did you find from these platforms?

13 Why don't you like to share your ideas in an open platform?

14 Is there anything you would like to add to this interview information?

### 1.2 Questionnaire 2 Interviewed specialist people

3 How many years are you working to share your ideas in an innovation platform?

4 What category of the Innovation Framework would you primarily invest
your time and attention in?

5 How could you pro-actively participate in an/the innovative platform?

6 What kind of service expectations do you have from the open source innovation platform?

7 What has affected these expectations?

8 What are your needs from the innovation platform?

9. What kind of motivation is necessary to attract you for sharing ideas?

10 What is the most major strategy of the innovation activity for growth in globally?

11 What kind of obstacles did you find in the innovation platform?

12 Is there anything you would like to add to this interview and information?

## 1.3 Questionnaire 3 online survey (Using www.surveymonkey.com)

**Open Source Idea Generation for Innovation**

1. Sex

- Male
- Female

2. Write about you (age, background, profession etc.)?

3. Have you ever heard about open source innovation?

- Yes
- No

4. Have you ever visited any innovation platform?

- Yes
- No

5. What type of platform did you visit?

- Research & Development platforms
- Marketing, Design & Idea platforms
- Collective Intelligence & Prediction platforms
- HR & Freelancers platforms
- Open innovation software
- Intermediary open innovation services

6. What information do you share with others? How much time would you like to spend on this opportunity, from idea to execution?

7. Why did you visit these platforms? What kind of benefit did you get from these platforms?

8. Whose insights and guidance do you/would you engage?

9. What kind of attraction to motivate you for sharing ideas? What kind of problem did you find from these platforms?

10. Why you don't like to share your ideas in open platform? Is there anything you would like to add to this survey information?

Done

Powered by SurveyMonkey
Check out our sample surveys and create your own now!

## Appendix 2. - Survey Results

For the survey result the author used IBM SPSS Statistics software of online and common people interviews.

1. Sex

(i) Gender

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Male | 1 | 156 | 78,00 | 78,00 | 78,00 |
| Female | 2 | 44 | 22,00 | 22,00 | 100,00 |
| *Total* | | 200 | 100,0 | 100,0 | |

(ii) Gender

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Male | 1 | 8 | 80,00 | 80,00 | 80,00 |
| Female | 2 | 2 | 20,00 | 20,00 | 20,00 |
| *Total* | | 10 | 100,0 | 100,0 | |

2. Have you ever heard about open source innovation?

Known_open_innovation

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Yes | 1 | 174 | 87,00 | 87,00 | 87,00 |
| No | 2 | 26 | 13,00 | 13,00 | 100,00 |
| *Total* | | 200 | 100,0 | 100,0 | |

3. Have you ever visited any innovation platform?

**Visited_open_innovation**

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Yes | 1 | 168 | 84,00 | 84,00 | 84,00 |
| No | 2 | 32 | 16,00 | 16,00 | 100,00 |
| *Total* | | 200 | 100,0 | 100,0 | |

4. What type of platform did you visit?

Type_of_Platform

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Research & Development | 1 | 86 | 51,19 | 51,19 | 51,19 |
| Marketing, Design & Idea | 2 | 41 | 24,40 | 24,40 | 75,60 |
| Collective Intelligence & Prediction | 3 | 13 | 7,74 | 7,74 | 83,33 |
| HR & Freelancers | 4 | 16 | 9,52 | 9,52 | 92,86 |
| Open innovation software | 5 | 4 | 2,38 | 2,38 | 95,24 |
| Intermediary open innovation services | 6 | 8 | 4,76 | 4,76 | 100,00 |
| *Total* | | 168 | 100,0 | 100,0 | |

5. What information do you share with others?

Type_of_infomation

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Research & Development | 1 | 51 | 30,36 | 30,36 | 30,36 |
| Marketing, Design & Idea | 2 | 74 | 44,05 | 44,05 | 74,40 |
| Collective Intelligence & Prediction | 3 | 1 | ,60 | ,60 | 75,00 |
| HR & Freelancers | 4 | 22 | 13,10 | 13,10 | 88,10 |
| Open innovation software | 5 | 1 | ,60 | ,60 | 88,69 |
| Intermediary open innovation services | 6 | 19 | 11,31 | 11,31 | 100,00 |
| *Total* | | 168 | 100,0 | 100,0 | |

6. How much time would you like to spend on this opportunity, from idea to execution?

Time_spend

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Once in a week | 1 | 94 | 55,95 | 55,95 | 55,95 |
| Twice in a week | 2 | 39 | 23,21 | 23,21 | 79,17 |
| 3 times in a wwek | 3 | 28 | 16,67 | 16,67 | 95,83 |
| 4 times in a week | 4 | 2 | 1,19 | 1,19 | 97,02 |
| 5 times in a week | 5 | 4 | 2,38 | 2,38 | 99,40 |
| everyday | 6 | 1 | ,60 | ,60 | 100,00 |
| *Total* | | 168 | 100,0 | 100,0 | |

7. Why did you visit these platforms?

Purpose_of_visit

| *Value Label* | *Value* | *Frequency* | *Percent* | *Valid Percent* | *Cum Percent* |
|---|---|---|---|---|---|
| Reward Money | 1 | 72 | 42,86 | 42,86 | 42,86 |
| Knowledge | 2 | 44 | 26,19 | 26,19 | 69,05 |
| skill diversity | 3 | 22 | 13,10 | 13,10 | 82,14 |
| direct feedback from the job | 4 | 28 | 16,67 | 16,67 | 98,81 |
| passed Leasure time | 5 | 2 | 1,19 | 1,19 | 100,00 |
| *Total* | | 168 | 100,0 | 100,0 | |