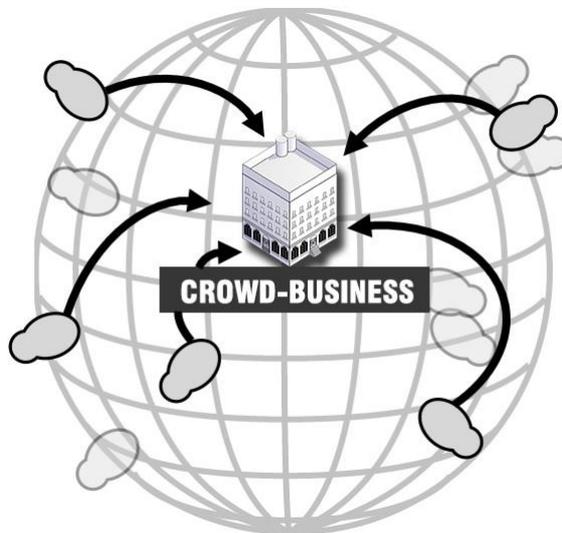




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Value Creation in Crowd-Business: Developing a Framework for Successful Implementation of Crowdsourcing Initiatives



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**Value Creation in Crowd-Business: Developing a Framework for
Successful Implementation of Crowdsourcing Initiatives**

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Lappeenranta, November 14, 2014

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ABSTRACT

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Keywords: crowdsourcing, success factors, search problem, innovation management, crowd incentives	
<p>By recent years the phenomenon called crowdsourcing has been acknowledged as an innovative form of value creation that must be taken seriously. Crowdsourcing can be defined as an act of outsourcing tasks originally performed inside an organization, or assigned externally in form of a business relationship, to an undefinably large, heterogeneous mass of potential actors. This thesis constructs a framework for successful implementation of crowdsourcing initiatives.</p> <p>Firms that rely entirely on their own research and ideas cannot compete with the innovative capacity that crowd-powered firms have. Nowadays, crowdsourcing has become one of the key capabilities of businesses due to its innovative capabilities, in addition to the existing internal resources of the firm. By utilizing crowdsourcing the business gains access to an enormous pool of competence and knowledge. However, various risks remain such as uncertainty of crowd structure and loss of internal know-how.</p> <p>Crowdsourcing Success Framework introduces a step by step model for implementing crowdsourcing into the everyday operations of the business. It starts from the decision to utilize crowdsourcing and continues further into planning, organizing and execution. Finally, this thesis presents the success factors of crowdsourcing initiative.</p>	

TIIVISTELMÄ

Tekijä: Juhana Aleksanteri Laasonen	
Työn nimi: “Arvonluonti crowdsourcingia hyödyntävässä liiketoiminnassa: viitekehys crowdsourcing-hankkeiden onnistuneeseen toteutukseen”	
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Hakusanat: crowdsourcing, menestystekijät, hakuongelma, innovaatiojohtaminen, joukon motivaatiotekijät	
<p>Viime vuosien aikana ilmiö nimeltä crowdsourcing (joukkoistaminen tai joukkouttaminen) on saanut yhä suurempaa kannatusta ja se on tunnustettu sellaiseksi innovatiiviseksi arvon luonnin muodoksi, joka on syytä ottaa vakavasti. Crowdsourcing voidaan määritellä aikaisemmin organisaation sisällä suoritettujen tehtävien ulkoistamiseksi ennestään tuntemattomalle heterogeeniselle joukolle potentiaalisia toimijoita. Tämä diplomityö rakentaa viitekehysten crowdsourcing-hankkeiden onnistuneeseen toteutukseen.</p> <p>Yritykset, jotka luottavat täysin omiin sisäisiin resursseihinsa ja ideointi menetelmiinsä, eivät kykene vastaamaan crowdsourcingia hyödyntävien organisaatioiden innovatiivisiin valmiuksiin. Nämä kyvykkyydet ovat nykyisin avainasemassa yritysten sisäisten resurssien ohella, kun ajatellaan tekijöitä, jotka muodostavat yrityksen ydinosaamisen. Sisällyttämällä crowdsourcing-prosesseja jokapäiväiseen liiketoimintaan, yritys pääsee käsiksi valtaviin osaamisen ja tiedon resursseihin. Toisaalta, samalla se asettaa itsensä alttiiksi erinäisille riskitekijöille, joita epävarmuus ulkoisen joukon rakenteesta sekä sisäisten kyvykkyyksien mahdollinen menettäminen aiheuttavat.</p> <p>Crowdsourcing-viitekehys esittelee vaiheittaisen mallin hankkeiden onnistuneeseen toteutukseen ja sulauttamiseen yrityksen jokapäiväisiin toimintoihin. Työn lopuksi käsitellään näiden hankkeiden menestystekijöitä.</p>	

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Imatra, October 11th 2014

Juhana Aleksanteri Laasonen

“读书须用意，一字值千金”

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TERMINOLOGY AND ABBREVIATIONS

ASUG	Americas' SAP Users' Group
CED	Community, Education and Direct (community management group at LEGO)
CRM	Customer Relationship Management
crowd	A distinct collective intelligence, particularly, that has the ability to collectively reach goals by their participation via the Internet, which individuals or even organizations were not able to achieve.
crowdsourcee	Undefinable large, heterogeneous mass of users
crowdsourcer	Initiator of the open call
CSF	Crowdsourcing Success Framework
ERP	Enterprise Resource Planning
ESN	Enterprise Social Network
FAQ	Frequently Asked Questions
FT	Financial Times
HR	Human Resources
IoT	Internet of Things; embedded computing devices that utilize the existing Internet infrastructure
IP	Intellectual Property
IT	Information Technology
LoB	Line of Business
OCR	Optical Character Recognition
P&G	Procter & Gamble
Q&A	Questions and Answers

RFP	Request for Proposal
R&D	Research and Development
SCN	SAP Community Network
SME	Small and Medium-sized Enterprise
'spec' work	Speculative work that is likely not paid any compensation.
TCA	Transaction Cost Analysis
Web 2.0	An advanced Internet technology that is particularly used in sharing information.

1 INTRODUCTION

An empty conference room's lights are lit. People start walking in, take their seats and organize their pads and laptops. Some are even using pen and paper. They prepare for a discussion. What is about to begin is an age old method of finding new innovative ideas and answers to problems: brainstorming.

A modern day brainstorming is not limited to a conference room, or seats available in the room. In the new era, the only limit is access to Internet. Anyone with a laptop or smartphone can contribute to this transaction of information. The modern problem solving in Internet can be done in spite of location and time zone. Global participation enabled by the worldwide network makes access to new ideas easier and faster than ever.

1.1 Background

The Internet is transforming the way business is done nowadays. The digitalization of the modern enterprise creates new emerging business models that simply were not possible for a couple of decades ago. According to Professor Michael Rappa (2011), this is the result of widespread diffusion of Internet. Especially, over the past decade, the amount of data such as customer, employee information and information about the products has increased significantly. Whole industries from photography and publishing to banking and healthcare have experienced this change. (Rappa, 2011)

In addition, the new environment gives birth to new kinds of challenges. Not only variety of products are digitalized, but even ideas can arise from this digital environment and find their way to organization via Internet. Not so long ago still, practically all of the new ideas came from within the organization. Thus, the ideas that organization had access were widely internal. The new method is to utilize an external entity, people outside an organization. The Internet allows access to the

external ideas easier and with transaction cost to near zero, which has only been possible in recent years. The easy access to these ideas brings some issues though, that must be evaluated. Organization must set policies of using the external entity, and determine what it can reveal to outsiders, when accessing their ideas.

The external entity in this thesis has a widely accepted name: it's called the crowd. More importantly, the method of leveraging the crowd is called crowdsourcing.

This thesis discusses the utilization of crowdsourcing in generating ideas, innovating new solutions and solving problems. Case example and literature analysis light the process of how organizations have facilitated the use of crowdsourcing. The process includes among others selecting the platform, defining the search problem and realizing the importance of managing communities. A lot of emphasis is put on the motivational issues of the crowd. The questions tackled here are what makes the crowd participate and in what kind of problem solving the crowd is most suitable to answer.

Finally, this thesis constructs a framework for successful implementation of crowdsourcing initiatives. The framework is the main contribution of this thesis: it introduces a method of how to take control of the external talent pool that is the crowd - instead of losing control to it. The framework consists of series of steps and introduces elements that are key to successful crowdsourcing. Hence, the name crowd-business in the topic of this thesis.

This thesis is not for the old-fashioned closed-businesses. Crowdsourcing requires open-minded approach to be successful. It requires people who can see the value in accessing the crowd. Therefore, this thesis is for a business that wants to be called a crowd-business.

1.2 Research Question and Limitations

The term crowdsourcing is a multi-faceted term consisting of several different areas of interest. The aim of this thesis is not to focus on these facets on its own, but rather focus on the crowdsourcing process as a whole. The issues that all the crowdsourcing initiatives face are quite similar, so the framework can be utilized in various situations and is not limited to a particular type of crowdsourcing. That said, this thesis introduces following research question and objective:

***RQ:** How can traditional businesses create value by utilizing strategy based on crowdsourcing?*

***O:** To find the underlying principles that make crowdsourcing work by creating a framework for successful implementation of crowdsourcing initiatives*

The research question concentrates on traditional businesses and value creation by utilizing a strategy based on crowdsourcing. The limitation of traditional business perspective refers to a situation, where an established company implements crowdsourcing into its operations. Traditional business in this case means a company that has an established market position either currently or previously and is now searching for new ways of growth. This thesis does not focus on companies which operations can be characterized as offering crowdsourcing services to other companies; or on a start-up business that hasn't got a proven established market share and is using crowdsourcing to run its operations.

Start-up businesses face rivalry and competition where crowdsourcing might give them edge over their bigger established counterparts. The uncertainty of the future of the company doesn't guarantee that the framework proposed in this thesis would give them sufficient edge over financially stronger competitors who utilize similar approach to crowdsourcing. However, the components in the framework can be useful for smaller and start-up businesses alike. Smaller businesses that build their

operations around crowdsourcing, where crowdsourcing is at the core of their business model, are then left out of the examination in this thesis. These kind of companies' business model is used only as a comparison to what traditional businesses can achieve when utilizing crowdsourcing to the maximum in their operations.

It's important to notice that the objective of this research is to focus particularly on the whole process of successful implementation of crowdsourcing as opposed to different types of crowdsourcing and their implementation. Thus, the framework created in this thesis is a general depiction of issues that the companies must face in order to have successful crowdsourcing campaigns. As such, this thesis argues that the type of crowdsourcing doesn't change the overall process depicted in the framework. In order to be successful, same phases and issues influence in all the forms of crowdsourcing.

1.3 Research Approach and Methods of Research

This thesis follows Johnson and Clark's (2006) statement that in business and management literature there is a need to be aware of the philosophical commitments made through the choice of research strategy. This is true as these commitments have significant impact on what the researcher does but also on what is the understanding of what is being investigated. That in mind, a pragmatist position is chosen due to the nature of the research question and objective of the research. Thus, the goal of this thesis is to create a practical model in form of a framework for successful implementation of crowdsourcing initiatives.

Additionally, this thesis follows Yin's (2003) guideline in devising the framework. It begins from identifying the main variables, components and issues in the research project and continues by revealing the predicted and/or presumed relationships between them. (Yin, 2003) This attempts to clarify the background of the components in the framework and sheds light on how the value creation process works.

The nature of the research question and creation of a crowdsourcing framework demands the use of a qualitative research method. In practice this means that this thesis utilizes literature analysis and case study as the primary data collection methods. The benefits of literature analysis include its ability in evaluating existing theory, identifying problems, and giving an opportunity to see how the topic has developed over time. (Baumeister & Leary, 1997, p.312) The second method, case study, not only allows exploring the existing theory, but also to challenge it and provide a source for new research questions (Saunders et al., 2009, p.178). Other beneficial feature of utilizing case study method is that it allows to triangulate the data to ensure the reliability and validity of the research.

The figure 1 below represents the research choices available for this thesis. The introduction of case study to accompany literature analysis turns this thesis into a multi-method qualitative study. Multi-method approach attempts to increase the likelihood that the results are accurate and trustworthy. Multi-method qualitative analysis helps in building the sufficient background for creating a framework for successful implementation of crowdsourcing initiatives, and ensure its suitability in real life conditions. (Saunders et al., 2009, p.152)

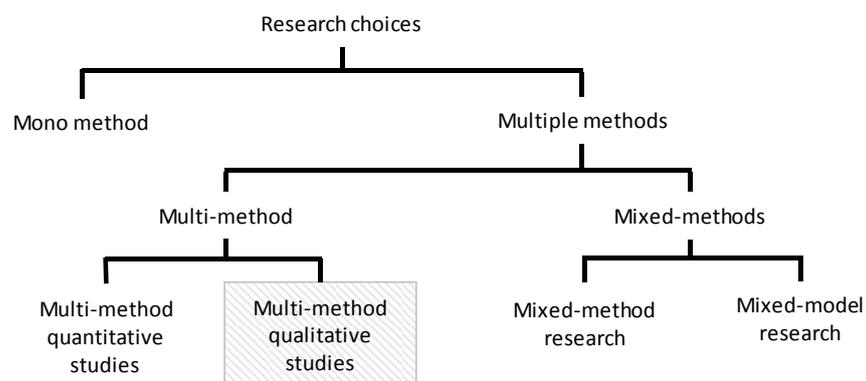


Figure 1. Research Choices (Saunders et al., 2009, p.152)

The literature for this thesis has been collected from both academic sources and outside. The rapid developments in the field of crowdsourcing justify collecting data from various sources as relevant academic literature still has not widely emerged. However, certain topics can be widely found from the scientific journals databases, particularly those focused on business models and sources of competitive advantage and resource configurations of the firms. Web based sources have provided the missing data and aided in developing the understanding of crowdsourcing practices today. Table 1 demonstrates how the sources can be divided into primary and secondary sources. Primary sources include works such as reports, and information obtained directly from company Websites. Secondary sources include journals and books and newspapers alike.

Table 1. Sample Sources Used in This Thesis Categorized by Keywords, Literature Source Type and Database.

Source	Keywords	Literature source	Database etc.
Abrahamson et al. 2013. Crowdstorm - The Future of Innovation, Ideas and Problem Solving. p. 242	Crowdsourcing, open innovation, transaction costs.	Secondary	EBSCO – Academic search elite. Wiley.
Crowdsourcing.org 2014.	Crowdsourcing types, success factors, global sourcing	Primary	Crowdsourcing Community Website
Dawson, R. & Byngghall, S., 2011. Getting Results from Crowds - The Definitive Guide to Using Crowds to Grow Your Business. p. 206	Business models, value creation, success factors	Secondary	Wiley. http://www.results-fromcrowds.com/
Porter, M.E. 2001. Strategy and internet. p. 21.	Strategy, competitive advantage	Secondary	Harvard Business Review. EBSCO.
Hammon, L. & Hippner, H., 2012. Crowdsourcing. p. 4.	Crowdsourcing, know-how, innovation, risks	Secondary	Business and Information Systems Engineering. SpringerLink eJournals.
SAP. 2014a-f.	Co-innovation, crowdsourcing, platform	Primary	SAP company and Ideaplace Community Websites
Brightidea. 2014.	Crowdsourcing, innovation management, collaboration, platform	Primary	Brightidea Website.

Consequently, literature was not widely available on the processes to implement crowdsourcing. In order to formulate a framework for implementing crowdsourcing initiatives, a crowdsourcing landscape examination meant researching multiple business models that utilize crowdsourcing. The Websites of these crowdsourcing based companies have been the primary source in finding relevant data here. Appendix 1 and 2 include a detailed look on these companies or organizations and short descriptions on each of them. The information gained from this whole landscape has been then further used in devising the framework and finding out those relevant sources that construct the elements in the framework. Therefore, the crowdsourcing business models and crowdsourcing landscape has been used as a basis of categorization of the found sources. Furthermore, the case study has helped in triangulating the data to find valuable knowledge in terms of creating the framework and its elements. Accordingly, this thesis aims to answer the research gap created by the lack of relevant literature that would focus on practical implementation and processes related in crowdsourcing.

1.4 The Structure of the Research

The structure of the research is demonstrated simplified in table 2. The chapters 1 to 3 lay the theoretical foundation of the research by introducing the topic and conducting a literature review in the area of crowdsourcing.

In chapter 2 the varying definitions of crowdsourcing are presented. Another aim of this chapter is to create as clear and concise view of the scope of crowdsourcing as possible. To ensure this, it introduces a landscape of the current business models of crowdsourcing. The full landscape with case companies is presented in the appendices section of this thesis (appendix 1). The theoretical part includes the simplification of the landscape, which is considered sufficient for understanding the variety of business models built around crowdsourcing.

Chapter 3 focuses on key aspects of crowdsourcing that include the type of search problem, platforms used in crowdsourcing, realizing the importance of communities and community manager. Last but not least is the emphasis on the motivational aspects of crowdsourcing. In order to function in the long term, crowdsourcing requires the use of incentives that keep the crowd contributing, and thus allowing crowdsourcing to have sustainable benefits.

Chapter 4 includes the main contribution of this thesis: the crowdsourcing success framework. It discusses what is needed for successful implementation of crowdsourcing initiatives and constructs a model that aims to clarify the process. The case company is presented here in order to clarify the different phases of the model and their real life implementation.

The last chapters focus on reviewing and summarizing the results of the research. Chapter 5 considers the significance of the results, whereas chapter 6 concludes the research and discusses the theoretical and managerial contributions of the research. It also assesses the reliability and validity of the results. Finally, it examines the area of this thesis and proposes subjects for future research based on findings during the making of this thesis.

Table 2. The Structure of the Research

CHAPTER	OUTPUT
Chapter 1: Introduction	Introduces the background of the chosen subject, research question, objectives and methods, restrictions and limitations.
Chapter 2: The Scope of Crowdsourcing	Defines the term crowdsourcing and demonstrates the crowdsourcing landscape.
Chapter 3: Key Aspects of Crowdsourcing	Gathers and presents key aspects in crowdsourcing such as type of search problem, community management, and incentives of the crowd.
Chapter 4: Crowdsourcing Success Framework	Compiles the framework for successful crowdsourcing initiative and demonstrates the real life implementation of the elements in the framework.
Chapter 5: Review of the Results	Discusses the significance of the results.
Chapter 6: Conclusions	Summarizes the answer to the research question, and presents the theoretical and managerial contributions. Assesses the reliability and validity of the results. Proposes future research subjects.

2 SCOPE OF CROWDSOURCING

This chapter seeks to enlighten the background of the term crowdsourcing. The beginning of the chapter is devoted to collecting the definitions discovered from various sources, starting from literary references to Web based sources. The utilization of Web based sources, such as blogs and online magazines can be justified as the phenomenon of crowdsourcing is still relatively new and still finding its shape. According to Giudici, Nava, Lamastra and Verecondo (2012) the discussion of various aspects of crowdsourcing develops both within and outside of the traditional outlets of academic debate. They point out that conversations occur in both scientific papers and articles in newspapers and Web magazines. (Giudici et al., 2012, p.3)

2.1 Definitions and Background of Crowdsourcing

By recent years the phenomenon called crowdsourcing has been acknowledged as an innovative form of value creation that must be taken seriously. Hammon and Hippner's (2012) study approaches the phenomenon from both a practical and theoretical point of view to deduce a general definition:

Crowdsourcing is an act of outsourcing tasks originally performed inside an organization, or assigned externally in form of a business relationship, to an undefinably large, heterogeneous mass of potential actors.

(Hammon & Hippner, 2012, p.163)

Hammon and Hippner (2012) come into conclusion that when crowdsourcing is implemented correctly and certain risks are taken into account, organizations can use the potential of the crowd profitably and strengthen their competitive position. They prefer the use of a word 'organization' as opposed to 'company' due to reason that the term 'company' often implies the aim of profit making. (Hammon & Hippner, 2012) Many crowdsourcing projects are also non-profit or set up for charitable common good purposes. This thesis adopts the use of business over the

organization and company. The headline of this thesis introduces term crowd-business that represents an organization that utilizes crowdsourcing in its business operations. However, the organization can be non-profit as well as a traditional company that exists to make profit for its stakeholders.

Hammon and Hippner (2012) also introduce concepts of *crowdsourcer* and *crowdsourcee*. Crowdsourcer refers to the initiator of the open call (often company or organization), whereas crowdsourcee refers to undefinably large, heterogeneous mass of users. Leimeister (2010) conceptualizes the term *crowd* (as mentioned in Hammon and Hippner, 2012), that is characterized by a distinct collective intelligence, particularly, that has the ability to collectively reach goals by their participation via the Internet, which individuals or even organizations were not able to achieve.

Several sources credit the author and journalist Jeff Howe for coining the term crowdsourcing. Jeff Howe (2006) describes in his article that the new pool of cheap labor are the everyday people using their spare cycles to create content, solve problems and even do corporate research and development (R&D), instead of outsourcing to countries that are a traditionally characterized by cheap labor such as China and India. His definition according to a white paper version is:

“Crowdsourcing is the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call.”

(Howe, 2006)

This is the original definition of crowdsourcing. Since then there are number of other definitions emerged that each try to sum up the true nature of the phenomenon in their own way. Financial Times (FT) Lexicon (2014a) presents the following definition: “A business model or function that relies on a large group of users as third parties for outsourcing certain tasks. The popular use of Internet makes

communication and coordination progressively cheap: tasks that would have been impossible to communicate and coordinate before have become extremely easy to set up and coordinate.” (Financial Times, 2014a)

In order to become easy to set up and coordinate as Financial Times (2014a) definition implies, number of enablers or trends must be on place. Dawson and Bynghall (2011) mention six factors that support and continue to drive the rise of crowdsourcing. These trends are presented in table 3:

Table 3. Trends Behind the Rise of Crowdsourcing (Dawson & Bynghall 2011)

TRENDS	EXPLANATION
<ul style="list-style-type: none"> ▪ Connectivity 	<p>Available bandwidth per individual and organizations has risen exponentially. Developed countries: broadband is pervasive. Developing countries: Internet access is easy and low cost.</p>
<ul style="list-style-type: none"> ▪ New collaboration tools 	<p>Facilitators of remote work have been widely introduced: free voice and video calls, project management, shared desktops, collaborative design tools.</p>
<ul style="list-style-type: none"> ▪ Development of crowdsourcing platforms 	<p>Service providers have developed increasingly useful and solid platforms for crowd work (Appendix 2).</p>
<ul style="list-style-type: none"> ▪ Awareness of crowdsourcing 	<p>Introducing the term ‘crowdsourcing’ has made widespread media attention to the concept possible: advertising campaigns and prominent crowdsourcing platforms.</p>
<ul style="list-style-type: none"> ▪ Comfort with remote work 	<p>Managers’ attitude changes in recent years supported by the increase in employee telecommuting and being exposed to work done by remote freelancers.</p>
<ul style="list-style-type: none"> ▪ Cost and efficiency pressures 	<p>Drive to lower costs and greater efficiency advocates the use of crowdsourcing in seeking new ideas and solve problems.</p>

Special attention can be given to the fourth trend, the awareness of crowdsourcing. Without a specific term to describe the phenomenon, we would be unlikely to see crowdsourcing to penetrate the business landscape in a way that we see today. Of course, connectivity holds even greater importance to the awareness of crowdsourcing. The importance of connectivity and transaction cost of doing business is dealt more thoroughly in chapter 2.2.

Undoubtedly the effect of Web 2.0 has helped in the expansion and adaptation of crowdsourcing by businesses globally. FT defines Web 2.0 as an advanced Internet technology that is particularly used in sharing information (Financial Times, 2014b). According to Dawson & Byngall (2011) the Web 2.0's essence in creating collective value from mass participation makes it particularly important in this sense. Web 2.0 contains the tools to aggregate the activities of many in useful ways. Due to this many aspects of Web 2.0 are in fact crowdsourcing. They define crowdsourcing in a short and to the point way:

“Tapping the minds of many.”

Dawson & Byngall (2011)

2.2 Transaction Costs, Value-Chain and the Role of Digital Connectivity

Transaction cost analysis dates back to Ronald Coase's early work 'The Nature of the Firm' (1937), where he discussed the costs of using the price mechanism. The foundations of the transaction cost analysis (TCA) model drives from two concepts: Firm's tendency to expand until the cost of organizing an extra transaction within the firm will become equal to the cost of carrying out the same transaction by means of an exchange on the open market; and if the costs between buyer and seller are higher than through internal hierarchical system then the firm should internalize (that is, to do business through its own internal system such as subsidiaries). (Coase, 1937; Ulen, 1993) It's important to notice what this means in the case of a business

utilizing crowdsourcing in its operations. The cost of external resources is now in some cases significantly lower than internal.

Abrahamson, Ryder and Unterberg (2013) explain Coase's theory further. Digital connectivity everywhere has lowered the traditional cost of transactions in doing business. In 1937, where the theory originates, the costs in the model were largely determined by the business processes of the time, this including communication options available. Today the online platforms and social networks (Web 2.0) are reducing some of the transaction costs and the effect of increasingly competitive global market is escalating the costs of misallocated resources inside the firm. (Abrahamson et al., 2013)

According to Abrahamson et al. (2013) this is a perfect time to revisit the balance between internal and external resources. Internal resources refer to employees and other assets within the organization; and external to the discovery of people who have the background, interest, or enthusiasm to engage with the organization and contribute to the common good.

At this stage it is apt to introduce Porter's (1985) value chain to explain the influence of crowd in its different phases. The value chain provides a template for understanding the cost position, because the activities are the elemental unit of cost behavior. The value chain also helps in systematically to understand the sources of buyer value and hence differentiation (Porter, 1991). It consists of value activities and margin. The value activities are presented in figure 2. They are the building blocks by which a firm creates a product that is valuable to its buyers. Margin is difference between total value and the collective cost of performing the value activities. (Porter, 1985)

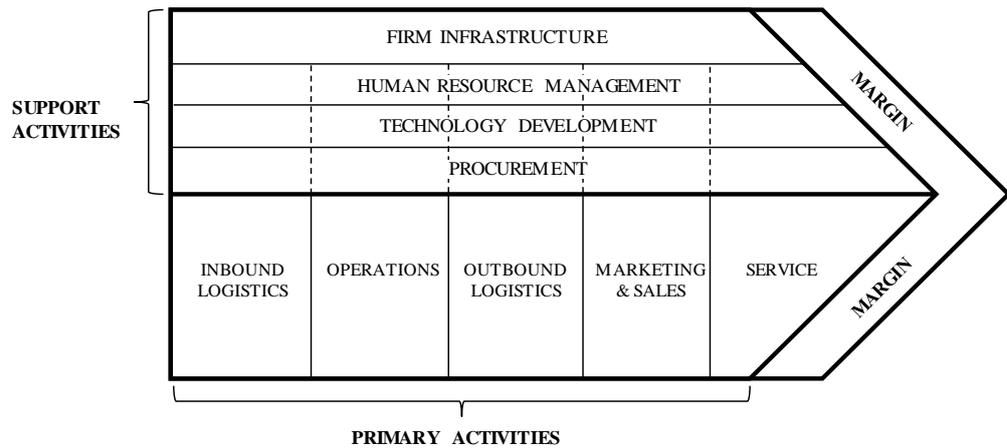


Figure 2. The Generic Value Chain (Porter 1985, p. 37)

Cavusgil, Knight and Riesenberger (2012) explain the internalization theory as a process by which firms acquire and retain one or more value-chain activities inside the firm, minimizing the disadvantages of dealing with external partners and allowing for greater control over foreign operations. Even though, the internalization theory is originally meant to describe the environment of a multinational corporation, however, the pervasiveness of digital connectivity can make every organization a ‘multinational’ – at least in the sense that it can access the external resources in a global scale, and anybody with an access to the Internet can contribute. This contribution is visible in the whole length of the value-chain of the organization. Figure 3 demonstrates the influence of crowdsourcing in all the phases of value-chain activities. Basically by utilizing crowdsourcing, and thus lowering costs of different value activities, business can increase its margin (profits). An advantage that surely is worth pursuing.

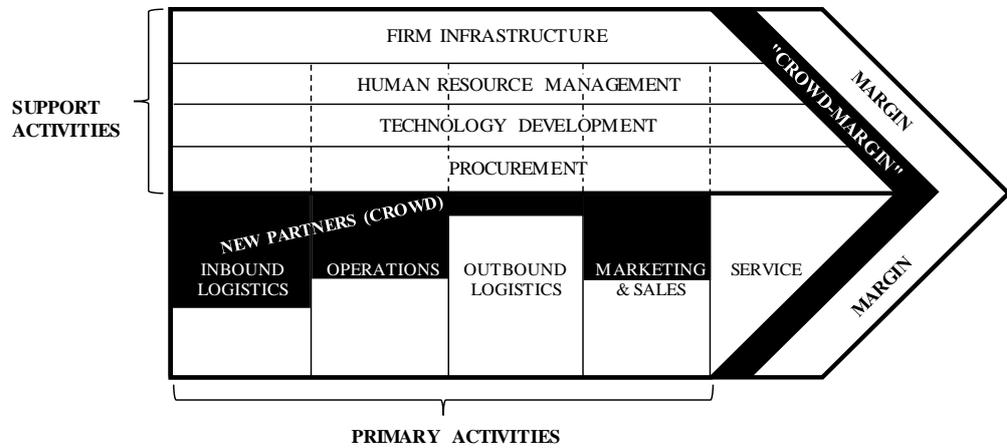


Figure 3. The Influence of Crowdsourcing in Value Chain Activities (adapted from Porter 1985; Abrahamson 2012)

Black bars in the value activities represent an example of the effect of new partners acquired via crowdsourcing in the particular activity. When integrating crowdsourcing in value chain activities, business can lower the collective cost of these activities and therefore increase the margin. Hence the term ‘crowd-margin’. Various benefits of integrating crowd in the value-chain are listed in chapter 2.6 which deals with the risks and chances of crowdsourcing.

Analyzing crowdsourcing from the point of view of TCA model, costs of conducting some of the same procedures internally has become more expensive than leveraging external talent. However, the major costs in crowdsourcing are coming from monitoring and controlling the process. This is critical for the success of leveraging the crowd. However, as Dawson and Bynghall (2011) point out, new tools to facilitate the use of crowds have entered the market (appendix 2), and streamlined the process to a level that helps in keeping things under control.

2.3 Types of Crowdsourcing

Crowdsourcing is realized in various forms. Crowdsourcing.org, an industry leading Web resource on special tools and crowd-related initiatives introduces the common types found in the field today. These types of crowdsourcing include: crowdfunding, cloud labor, crowd creativity, distributed knowledge and open innovation. (Crowdsourcing.org, 2014) The types of crowdsourcing listed on this resource are explained here to increase understanding of the different crowdsourcing business models.

Later in this thesis the different types of crowdsourcing do not play a particularly big role. They are merely mentioned to give reader an understanding of various types on crowdsourcing activities in use today. Another function of listing out the types of crowdsourcing is to assist in understanding of the crowdsourcing success framework (CSF). To utilize the framework demands pre-existing knowledge on these types.

2.3.1 Crowdfunding

Crowdsourcing.org (2014) has the following definition for crowdfunding: “Financial contributions from online investors, sponsors or donors to fund for-profit or non-profit initiatives and enterprises. This definition takes into account both ventures that aim for financial gains and charitable initiatives. It continues to define three types of crowdfunding models: (1) donations, philanthropy and sponsorship (without expected financial return), (2) lending, and (3) investment in exchange for equity, profit or revenue sharing. (Crowdsourcing.org, 2014)

Griffin (2012) defines crowdfunding as “a means of capital formation that connects entrepreneurs with investors over internet”. It gives entrepreneurs a chance to post their plans on crowdfunding Websites, where anybody connected to the Internet can

contribute or invest in the companies. (Griffin, 2012) Crowdfunding typically is a method of finding the needed funding that start-up businesses use. For this reason, crowdfunding is not dealt further in this thesis. However, “Crowdfunding Bible” states that there’s no denying that crowdfunding presents a fundamental change in the way products and technologies and enterprises are evaluated. (Steinberg & DeMaria, 2012) The area of crowdfunding is changing rapidly and it’s impossible to say how it will look in a couple of years’ time. It’s important to keep up to date and to follow the crowdfunding Websites to stay informed rather than wait for new management literature to emerge.

2.3.2 Cloud labor

Cloud labor stands for leveraging a distributed virtual labor pool that is available on demand to fulfill a range of tasks that are both simple and complex by nature. Crowdsourcing is used as a tool to connect with the labor demand and supply. (Crowdsourcing.org, 2014) It is useful to notice that using external workforce doesn’t have to mean that the tasks need to be simple. Also tasks that require specialized set of skills can be crowdsourced.

Analyzing literature brings out number of differing definitions for cloud labor. Other popular terms according to Dawson and Bynghall (2011) are on-demand workforce or labor-as-a-service, which refers to tapping workers to deliver services as required. They continue that this is usually implemented via service marketplaces. (Dawson & Bynghall, 2011, p.6)

There are various different channels to access cloud labor that depend on the nature of the work and the skills that are required for the task. According to industry expert Massolution.com, suitable providers can be identified mainly in two categories: “Producer communities that are responsible for the work output” and “broker communities that facilitate the process of connecting demand to supply” (Massolution, 2014)

2.3.3 Crowd Creativity

Crowd creativity refers to utilizing creative talent pools to design and develop original art, media or content. Typically this means tapping into online communities where thousands of people join to showcase their creations. The works in this category can include anything ranging from photography to advertising, video production to graphic design and consumer goods to branding concepts. (Crowdsourcing.org, 2014) Some of the communities allow people not only to showcase their work, but also to sell and get in touch with other people or businesses seeking their particular talent. (Dawson & Bynghall, 2011)

2.3.4 Distributed Knowledge

Crowdsourcing.org defines distributed knowledge as assets or information resources from a distributed pool of contributors. “Crowdsourcing is used to develop, aggregate, and share knowledge and information through open Q&A, user-generated knowledge systems, news, citizen journalism, and forecasting.” (Crowdsourcing.org, 2014) A major example of this type of crowdsourcing is the Website Wikipedia, an online “encyclopedia that anyone can edit” (Abrahamson et al., 2013).

2.3.5 Open innovation

Last but not least of the types of crowdsourcing is open innovation. Since Henry Chesbrough’s book started an open innovation paradigm, crowdsourcing has experienced rapid popularity among organizations. Crowdsourcing.org (2014) defines open innovation as utilizing resources outside the entity or group to generate, develop and implement ideas. It continues that the boundaries between firm and its environment have become more permeable. That’s why it’s no longer enough to rely entirely on own research and ideas to maintain a competitive advantage. According to Chesbrough and Brunswicker (2014) customer co-

creation, informal networking and university grants were the leading practices in 2011. The results of their recent research show that open innovation is not a passing fad, but many firms that have started to utilize it are practicing it even more intensely than before. (Chesbrough & Brunswicker, 2014).

Open innovation perhaps most clearly describes the situation why crowdsourcing has penetrated the business landscape. John Heap (2010) uses the word collaboration to explain this. Companies have realized to look not only inside (existing employees), but also outside their companies for new ideas and innovations. However, the developments in electronic communication show that is now completely feasible to collaborate with others on the other side of the globe. This includes realization that you don't have to invent the product (or technology or process) to profit from it. Challenges however exist, such as often needed change in organization culture, and different attitude to intellectual property (IP) rights– to see it as a marketable asset which can be bought or sold rather than simply protected. (Heap, 2010) The role of IP is discussed further in chapter 3.1.3.

2.4 Crowdsourcing Landscape

Dawson and Bynghall (2011) have created a useful taxonomy to identify the current crowdsourcing landscape. This landscape includes 22 categories of crowdsourcing tools that are divided into 8 consequent business models (figure 4). The idea of the landscape is to communicate the different crowdsourcing choices available for businesses. In order to truly benefit from crowdsourcing, it is required to focus on the chosen type of crowdsourcing tools and to understand their relation towards the crowdsourcing landscape. One of the phases of CSF, presented in chapter 4, is exactly this: to select the desired crowdsourcing tools and to understand their position in the landscape to facilitate focused efforts.

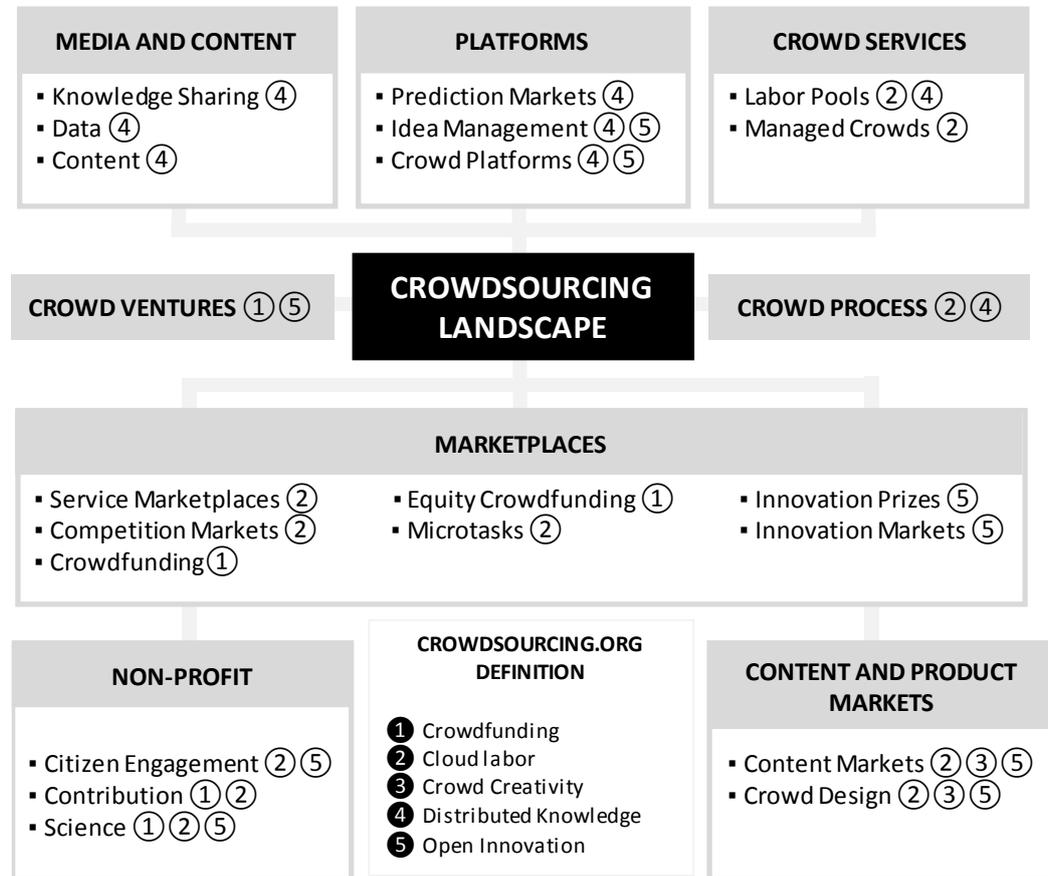


Figure 4. Crowdsourcing Landscape (adapted from Dawson & Bynghall 2011; Crowdsourcing.org 2014)

Crowdsourcing landscape in figure 4 identifies eight (8) business models - starting from top: media and content, platforms, crowd services, crowd ventures, crowd process, marketplaces, non-profit and content and product markets. Table 4 opens up each crowdsourcing tool and provides a definition for the business models. Dawson and Bynghall (2011) mention that many don't consider service marketplaces as a true form of crowdsourcing, because work is done by individuals or small teams rather than "distilling the wisdom of many". They continue to point out though, that using service marketplaces is one of the primary ways in which crowds are creating value these days. A more comprehensive crowdsourcing

landscape, accompanied with various examples of case companies in each category, can be found in the appendix 1.

Table 4. Crowdsourcing Landscape Definitions (Dawson & Byngall 2011)

Business Model	Crowdsourcing Tool	Definition
Media and Content Creation of media content and data by crowds	Knowledge Sharing	Sharing knowledge, experience and insights
	Data	Gathering or refining data in specific domains
	Content	Creating media content
Platforms Software and processes to run crowd works and crowd projects, for use with internal or external crowds	Prediction Markets	Coalescing diverse views into collective forecasts
	Idea Management	Processes to propose, rank and improve on ideas
	Crowd Platforms	Software used to support crowdsourcing processes
Crowd Services Services that are delivered fully or partially by crowds	Labor Pools	Access to groups of specialists
	Managed Crowds	Aggregated services provided by selected specialists
Crowd Ventures Ventures that are predominantly driven by crowds, including idea selection, development and commercialization	Crowd Ventures	Businesses conceived and managed by crowds
Crowd Process Services that provide value-added processes or aggregation to existing crowds or marketplaces	Crowd Process	Aggregation and value added to marketplaces

(continue...)

(table 4 continues)

Marketplaces Matching buyers and sellers of services and financing through mechanisms including bidding and competitions	Service Marketplaces	Matching buyers and sellers of services
	Competition Markets	Competitions awarding prizes for selected entries
	Crowdfunding	Donating to creative ventures, sometimes a pre-sale
	Equity Crowdfunding	Equity funding from many small investors
	Microtasks	Markets for very small well-defined tasks
	Innovation Prizes	Prizes for single, defined innovation outcomes
	Innovation Markets	Matching clients and researchers for innovation
Non-Profit Tapping crowds to create non-financial value	Citizen Engagement	Contribution to civic or government initiatives
	Contribution	Philanthropic fundraising and ventures
	Science	Contribution to scientific endeavors
Content and Product Markets Sale of content or products that are created, developed or selected by crowds	Content Markets	Enabling creators to sell their content
	Crowd Design	Product design, selection, development and marketing

2.5 Competitiveness Perspective and Value Creation

Porter (2001) discusses the effect of Internet into business models and value creation. By integrating Internet initiatives to the business model, the ability of the company to “produce and develop unique products, proprietary content, distinctive processes, and strong personal service” rises to another level. The value created in this way enables competitive advantage to emerge. (Porter, 2001) Even though Porter’s statement dates back in 2001, it is very much valid when examined the effect of crowdsourcing into business models today. Eisenhardt and Martin (2000) suggest that the long term competitive advantage is in the resource configurations, and that innovation becomes important in the rapidly changing environment. Thus, utilizing crowdsourcing as the source of innovation, becomes valuable tool for the firm to gain competitive edge.

To find innovations via crowdsourcing means in practice open innovation, that is, the use of resources outside of the entity or group to generate, develop and implement ideas. (Crowdsourcing.org 2014) Firms that rely entirely on their own research and ideas cannot compete with the innovative capacity that crowd-powered firms have. However, the innovation of new business models have a habit of creating an organizational change, that according to Chesbrough & Brunswicker (2014) most firms tend to consider as a significant challenge. They continue that implementing open innovation program is not easy and requires a range of organizational changes at various levels of the firm. (Chesbrough & Brunswicker 2014)

The configuration of these innovative resources is presented in the business models of these firms. According to Drucker (2002) the long term competitive advantage lies in the resource configurations that firms build using their internal capabilities. He defines innovation as a function of entrepreneurship, and that innovations are an effort to create purposeful and focused change in the firm’s economic or social potential. Nowadays, crowdsourcing is becoming one of the key capabilities of businesses due to its innovative capabilities, in addition to the existing internal

resources of the firm. (Drucker 2002, Hammon & Hippner 2012) Hammon and Hippner (2012) mention that certainly it's no longer required for the company to be born innovative, thus, an increasing number of 'traditional' businesses are integrating crowdsourcing into their business processes.

2.6 Chances and Risks in Crowdsourcing

According to Dawson and Bynghall (2011) crowdsourcing allows businesses to increase flexibility, reduce costs and time-to-market and increase their capabilities among the important access to abundant talent and ideas. However, they continue that it's also important to recognize the possible risks and costs involved in using crowds to create value. (Dawson & Bynghall, 2011) Hammon and Hippner (2012) have collected various chances and risks related to crowdsourcing initiatives found from literature. These are presented in the table 5.

The chances in crowdsourcing are abundant, from already many times mentioned applications in the field of problem solving to further advantages such as enhanced relationship between the organization and customer. Increased brand loyalty though is a benefit of crowdsourcing that requires the organization to deliver on its promises. In spite of the incentives that are offered delivering on the promises is critical to ensure access to talent, that is the pool of competence and knowledge. (Abrahamson et al., 2013; Hammon & Hippner, 2012) Other benefits are gained when utilized modular processes, which in turn lead to less time-to-market for products.

Table 5. Selected Chances and Risks of Crowdsourcing. (Hammon & Hippner, 2012, p.165)

CHANCES
<ul style="list-style-type: none"> ▪ Access to an enormous pool of competence and knowledge ▪ Enhancement of the relationship between organization and customers ▪ Increase of brand loyalty ▪ Anticipation of consumers' needs ▪ More innovative problem solutions ▪ Highly modular and flexible processes and less time-to-market ▪ Cost cutting potential
RISKS
<ul style="list-style-type: none"> ▪ Difficulties in calculating project costs ▪ Necessity of precise project definition ▪ Necessity of feedback loops for communication with participants ▪ Uncertainty of crowd structure (e.g., regarding expertise) ▪ Risk of losing control (e.g., boycott or obstruction) ▪ Loss of internal know-how ▪ Consideration of legal framework conditions ▪ Creation of a motivating incentive structure

The risks here are associated in the difficulties that occur during the projects; meaning the risks in the implementation phase of crowdsourcing initiatives. Issues here include project management problems and loss of control that's related to lack of understanding of the crowd structure. (Hammon & Hippner, 2012) Porter (2001) discusses about distorted market signals that occur at the rollout of any important new technology. These technologies have a tendency to trigger 'rampant experimentation' that is often economically unsustainable. Porter (2001) concludes though that as market forces play out, old rules regain their currency. This means that the businesses that are able to control their crowdsourcing process, and thus create true economic value, will be successful in the long term.

One example of controlling this process is the open innovation platform OpenIDEO (appendix 2). Its former CEO Tim Brown argued that “the idea of crowdsourcing innovation is still — a big experiment” (Brown, 2010). Abrahamson et al. (2013) have studied the case and mention that OpenIDEO’s process was to ask their community to give feedback about the platform and how to use OpenIDEO to increase its social impact. (Abrahamson et al., 2013, p.204) This demonstrates the powerful feature of crowdsourcing: the people who participate in the process can also help to improve it, thus crowdsourcing can improve itself when the process is managed properly.

In conclusion, crowdsourcing can offer many benefits for organizations. Dawson and Bynghall (2011) state couple of primary benefits that crowdsourcing offers: increased flexibility and reduced time-to-market. The need for rapid scalability (from nothing to extremely high levels if required) is particularly important when companies try out new ventures which success is uncertain. As Porter (2001) explains, this is the case many times when new technology is introduced. With instant access to cloud labor, resources can be drawn on to what is needed to establish the project. If things don’t work out, the resources can be freed easily. In opposite case, that is the desired outcome, operations can be scaled up rapidly. (Dawson & Bynghall, 2011, p.14) For smaller companies and startups this makes crowdsourcing an attractive choice. For bigger, established companies this enables experimentation with ideas that otherwise might not be considered worth the effort. Companies also have great pressure on bringing new products or services faster to the market. The support of the crowd can be applied into the product development and management and thus integrated into the value-chain of the company (see figure 3). Dawson and Bynghall (2011) point out though, that without experience in using crowds, resources might not be quickly usable. However, when there are established relationships and previous experience faster project delivery is very much possible.

3 KEY ASPECTS OF CROWDSOURCING

The purpose of this chapter is to find the factors that are required to transform traditional business into a crowd-business. Starting from the fundamentals such as defining the search problem, selecting platform and intellectual property rights, the chapter continues to examine community building process. This process includes motivational and recruitment aspects and ends in issues dealing with managing and rewarding the community. All these sections are important in understanding the crowdsourcing success framework (CSF) in chapter 4.

3.1 Fundamentals

We have now arrived in a situation where the decision to utilize crowdsourcing is made. The business is considering of using crowdsourcing to gain competitive advantage. This chapter provides background for making that decision, which in turn helps to plan and organize efforts to facilitate crowd-based value creation.

3.1.1 Inside vs. Outside

Even in the time of crowdsourcing some activities are better performed inside rather than outside of the organization. Therefore, a careful consideration should be made on what are the core processes that are better kept inside and in full control and what can be performed outside. Abrahamson et al. (2013) point out that many of the biggest organizations are looking outside - in spite of the risks that they reveal lot of information that would have been previously reviewed sensitive. Thus, these organizations are taking a chance that competitors answer with their internal resources. According to Dawson and Bynghall (2011) the preparedness of the organization to use external crowd plays an important role. Certain processes and structures have to be in place, but also that the business is culturally ready to tap the knowledge of the crowd. In the end, it is likely that the competitors are forced to use the same methods. The understanding of the different processes and communication needed for successful implementation of crowdsourcing takes time

to develop. In addition to this, it's useful to know the issues that could limit the use of crowdsourcing. These issues are presented in figure 5.



Figure 5. Issues That Limit the Use of Crowdsourcing (adapted from Dawson & Bynghall 2011)

Regulation issues refer to privacy, such as social security information and other private data. However, often the data can be encrypted or replaced with an example data set that doesn't include such information. Confidentiality issues can be solved when sufficient trust is developed with external providers. This means of course situation where the business would utilize external workforce to complete tasks. While this may be useful in some cases, it must be paid attention to the fact that some sensitive information should never be shared with outsiders. The core competences that are central to the strategic positioning of the organization should be kept in internal control. According to Dawson and Bynghall (2011) these capabilities should be frequently reviewed though.

Context understanding largely deals with work being done effectively. For some tasks, it takes time to develop sufficient understanding to perform them properly. If this is the case, crowdsourcing is not a valid option. Teamwork can also be performed in many different ways. Some teams that are loosely defined but however require an ongoing interaction are better performed internally. Using outsiders is not out of the question though if there is good amount of trust to the

individuals and they have good communication skills to work in distributed teams. (Dawson & Bynghall, 2011)

3.1.2 When the Crowd Is Wise

New York Times reporter David Leonhardt (2012) makes a case of the wisdom and madness of crowds when evaluating the performance of prediction market platforms. He states that if the size of the circle of people who possess the information is small enough, the crowds don't have much wisdom to share. Abrahamson et al. (2013) also mention that "having many people who know nothing about advertising or investing is not going to increase — chances of picking the best ideas". Leonhardt's answer to situations like these is to take best of what both experts and markets have to offer. Markets here being the diversified crowd of ordinary people and experts those who possess the domain knowledge of the field that the crowdsourcer is interested. He continues that experts are most useful when a system exists to identify the most truly knowledgeable, whereas markets are at best when they can synthesize large amounts of disparate information. (Leonhardt, 2012)

This thesis argues that Leonhardt's statement about expertize vs. diversity can be adapted to the whole crowdsourcing landscape, not just platforms such as prediction markets. Therefore, it is useful to ask about opinions of new product or design from a group of potential users, but when a certain level of expertise is required then the diversity might not help to find the best solutions (Abrahamson et al., 2013). Ben Kaufman (2013), the founder of Quirky (community of crowd-based product creation), makes a point that the feedback from all the people is not valuable, and it should be limited who can contribute to what kind of decisions. Practically, this means that, when the product clearly is not meant for certain group of people their opinions and interaction should be excluded from evaluation. Even in the case of product being most suitable for crowdsourcing not all people should be allowed to influence in the outcome. In conclusion, the platform used in crowdsourcing initiative needs a method to recognize those people, whose vote is valuable for the

case in question, whether they are experts in the field or potential users of the product or service.

3.1.3 Intellectual Property Issues

There's no question that intellectual property (IP) is an important asset for businesses. The question that arises is how it can be justified to let outsiders use this asset. Abrahamson et al. (2013) mention that the desire for control and ownership shouldn't be confused with benefits of cooperating with outsiders. In order to use crowdsourcing to the full potential doesn't mean that collaborating with outsiders requires giving up IP ownership. The key is to understand IP ownership and IP access. Table 6 aims to clarify the differences between these two from the point of view of using outside talent in innovation.

The use of ideas doesn't require the ownership of the IP. There are many ways that IPs can be handled. It's "an asset that companies can buy, sell, rent (license), finance" among others (Abrahamson et al., 2013, p.31). When taking an open approach it's all about negotiating the terms for using the IP when it is owned by others or giving access to this asset to others when the business has the ownership of the IP.

The approach to IP that doesn't allow outsiders to contribute, blocks the many benefits of crowdsourcing (for the benefits: see table 5). For larger organizations there is of course the benefit of accessing ideas internally from existing employees. When the innovations are acquired from employees of the organization, the IP ownership issues don't exist. In these cases development costs of innovations are included in the normal operations of the business. However, Abrahamson et al. (2013) mention that in reality the best talent and ideas are outside the organization.

Table 6. Own IP vs. Access IP in Crowdsourcing (Abrahamson et al., 2013, p.29)

Own IP	Access IP
<ul style="list-style-type: none"> ▪ No transaction costs, since all transactions occur between people who have agreed that IP belongs to the firm. ▪ Provides the ability to block others from using IP and retaining the option to use it in the future. 	<ul style="list-style-type: none"> ▪ If there is IP that the business does not own, but can use from external source, terms can be established for using the IP ▪ The development costs are lower (both capital and time) and the overall risk of failure is lower.
Negatives in Own IP	Negatives in Access IP
<ul style="list-style-type: none"> ▪ Limited supply of ideas. Capacity limitations of internal workforce and the reality that best ideas and talent are outside organizations. ▪ High development costs/risks – being late in development schedule or overrunning the budget. ▪ Enforcement costs/risks don't go away, even if the IP is owned. 	<ul style="list-style-type: none"> ▪ Transaction costs can become high due to negotiation of terms ▪ Future options require new negotiations – problem when there's high dependency on the IP ▪ No ability to block competitors unless the ownership of IP is acquired or negotiations include exclusive use of the asset.

How to access these ideas will be crucial when lowering development costs and risks involved in new ventures. When the ideas are coming from outside, there's also the added benefit of increased brand loyalty and solutions that better answer consumers' needs. Dawson and Bynghall (2011) also make a point that while there are many risks in entrepreneurial ventures, taking calculated risks that are relative to the potential benefit is what drives the success. The argument here is that too much protection vastly reduces the chances of success. When problems can be solved and innovations created faster, the business upside outweighs the risks of sharing this confidential information (Abrahamson et al., 2013, pp.31-2).

3.1.4 Search problem

Abrahamson et al. (2013) have identified three patterns that reflect the different roles of participants in crowdsourcing. The patterns describe roles of both inside and outside of an organization. The patterns are illustrated in figure 6.

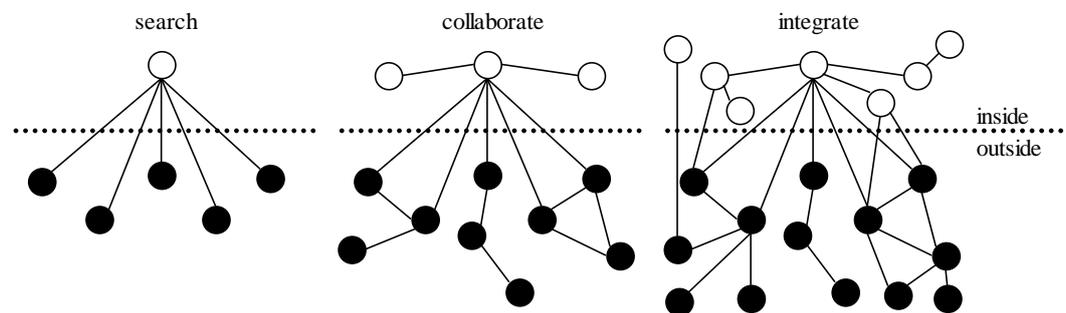


Figure 6. Search Patterns in Crowdsourcing (Abrahamson et al., 2013, p.105)

Simple search pattern is characterized by the focus of finding and recruiting external talent for example by asking them to submit ideas based on their expertise to solve a particular problem. Interaction is minimal and no idea sharing or feedback occur in this type of search pattern. Traditionally, best ideas are selected by the employees inside the organization. (Abrahamson et al., 2013)

In collaboration pattern the participants have more roles than just submitting ideas. Participants can be asked to provide feedback and evaluate the submitted ideas. These kind of supporting roles require using community managers to encourage and manage the interaction that's happening. In this pattern the feedback gained from outsiders is especially important in finding the best solutions. Also, managing the outside community becomes more important in this type of search problem. (Abrahamson et al., 2013)

Integration pattern is very similar to collaboration but focus is in even more communication across the organization. Aim is to merge crowdsourcing into the

business operations and, thus, into the core of the business model of the firm. Abrahamson et al. (2013) continue that the number of processes involved will rise exponentially. Therefore, having tools to manage these processes is crucially important.

3.1.5 Platform selection

The platform for crowdsourcing is fundamentally a question of what the business wishes to accomplish with crowdsourcing. There are existing platforms for crowdsourcing initiatives that already have set up everything from infrastructure to people and community management processes. When there's a need for more specialized infrastructure, the crowdsourcing platform can always be built by the companies themselves. Abrahamson et al. (2013) have used these characteristics and the search patterns to distinguish the platform choices from one another and the same analogy is used in this thesis to sort the crowdsourcing tools. Table 7 collects and evaluates various platforms businesses currently are using.

Even this is not a comprehensible table of platforms that are utilized in crowdsourcing, it shows that many of the platforms are capable of supporting interaction beyond just simple submission acceptance. Collaboration and integration patterns demand the ability to manage support roles when people do actions such as comment and voting. When these roles are employed to the full potential, infrastructure for hire platforms here have developed certain tools to manage the process. These tools include recognizing the most valuable participants in addition to which they have mechanisms to incentivize participation.

Table 7. Platforms for Crowdsourcing Sorted by Their Characteristics and Search Pattern (adapted from Abrahamson et al. 2013, Dawson & Byngall 2011, Crowdsourcing.org 2014, Resultsfromcrowds.com 2014)

Platform type¹	Simple search	Collaboration	Integration
Existing communities	InnoCentive* (P&G) Victors and Spoils (Adidas, Coca-Cola) XPrize (Nokia, Google)	Jovoto (Victorinox, Coca-Cola Deutschland) OpenIDEO (Coca-cola)	Quirky Local Motors Threadless (GAP)
Infrastructure for hire		Cuusoo Social Creation Platform* (TEPCO) Brightidea (SAP, Cisco) IBM Connections 5 (CEMEX) Microsoft Yammer (Deloitte, DHL, Shell) GetSatisfaction (mycoke rewards) Salesforce Radian 6 (Vodafone, Cisco, Volvo) Spigit & Mindjet* (Siemens, BMW, DOW) Chaordix (American Airlines, AT&T) Crowdicity (Deloitte)	Lithium* (Lenovo, Sky, Giffgaff)
Proprietary infrastructure	P&G Connect and Develop* DARPA Springwise Access (Coca-Cola)	DELL (Ideastorm: DELL's community Website)	LEGO Ideas*

¹sample companies utilizing platforms (in parentheses)

* **opened up in text**

** check appendix 2 for descriptions on each of the platforms

A good example of infrastructure for hire platforms is Mindjet. It introduces itself on its Website as a network provider for building sustainable, predictable and repeatable innovation process. They have platforms for both enterprise innovation, that is internal crowdsourcing (for employee innovation), and also for external crowdsourcing via customer idea portals and community driven contests and promotions. Behind the scenes it uses game mechanics to incentivize participation, voting evaluation methods for fair idea selection and big data analytics to make innovation processes repeatable. (Mindjet, 2014a; Mindjet, 2014b)

Innocentive is an example of an existing community where businesses, governments and other institutions can seek open innovation solutions using their platform in managing the search. When people choose to take part in the challenges on the platform they give all the IP rights to the company running the challenge. Other participants won't be able to see each other's submissions. In case the idea is not chosen as winner, the participants continue to own all the rights to their ideas. (Innocentive, 2014) Thus, the IP issues are solved on behalf of the businesses. Also, it executes a simple search pattern because interaction is limited to idea submission. P&G has been using Innocentive's platform, however, it also has a proprietary solution for crowdsourcing. This solution is P&G's Connect and Develop program. It is designed to be a simple search platform for collecting submissions, and focuses on licensing the ideas through Connect and Develop Website. (P&G 2014a, P&G 2014b) Where Innocentive is an innovation market platform (see table 4), Connect and Develop takes more subtle approach and is more integrated within P&G brand.

The solutions when more interaction is needed also exists. An example of infrastructure for hire platform that support integration pattern is company called Lithium. It offers a tools to reinvent the way to connect with the customers and crowdsource new ideas. It combines social media platform to connect the customers to the brands, thus, exposing the company to be directly responsible for their customers. (Lithium 2014a, Lithium 2014b) To utilize this platform it is required that the business will let the customer at the core of their business. Therefore, it's not a choice for everyone.

When a more customized solution for integration pattern is needed, then there's always the chance to build a platform in-house. LEGO is an innovation pioneer in engaging external contributors to innovation processes. (Ideaconnection, 2014) It started at first by utilizing infrastructure for hire platform Cuusoo. The Cuusoo Social Creation Platform offers a customer-driven product development by accelerating interactions between user communities and businesses. (Cuusoo, 2014) Recently Lego has implemented its own optimized platform called LEGO Ideas, which is fully integrated to be part of the LEGO group of Websites. (TheBrickBlogger.com, 2014) Similarly than before, the community on this Website can submit their own product ideas and with enough support from the community the ideas get into production. At the moment 10.000 supporters is enough to get the ideas in LEGO's in-house review process, which it describes fair on its FAQ-section. (LEGO 2014a, LEGO 2014b) The company has its last word but, however, gives a fair chance for the crowd to realize their LEGO product ideas.

3.2 Building the Community

This chapter pursues to explain processes behind building a community for crowd-business. When business seeks to collect ideas from a vast number of outsiders, there is not only the question of finding these people but how to maintain them in the crowdsourcing space and keep them contributing after the initiative. Of course needs of businesses vary, and the type of search pattern explains a lot how deep the involvement with these contributors will be in the future. When business seeks to gain ongoing benefits from crowdsourcing and it incorporates collaboration or integration pattern in its crowdsourcing efforts, the motivational aspects of the crowd become more important. This means that the business needs to find the key incentives to keep the outsiders interested and manage the community effectively.

3.2.1 Motivation

In many of the infrastructure for hire platforms (e.g. Mindjet 2014) behind the participant motivation are the utilization of proven game mechanics and social dynamics. Incentivizing crowd in the right way, increases the chances of successfully accomplishing the crowdsourcing initiative. When looked upon reasons for failed crowdsourcing attempts, the motivational issues play a great role.

Abrahamson et al. (2013) have devised a framework to illustrate the mix of incentives that businesses should pay attention to when building their community. This framework is presented in figure 7.

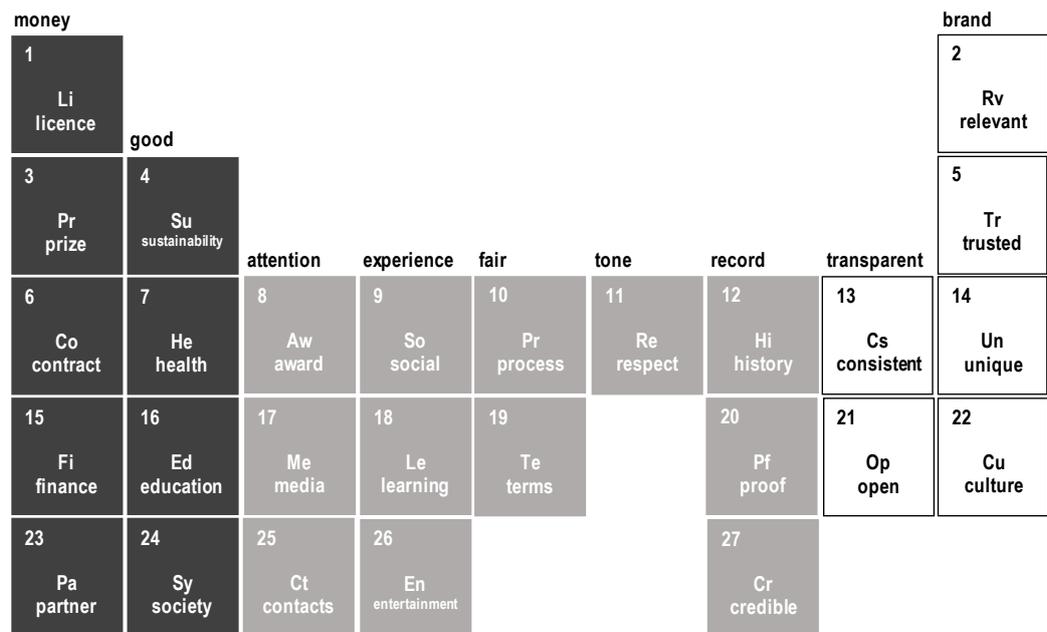


Figure 7. The Incentives Mix Framework (Abrahamson et al., 2013)

The incentives mix framework summarizes the requirements of motivating crowds to participate and keep contributing. Several different combinations of the framework elements can be used in crowdsourcing campaigns. Abrahamson et al. (2013) continue that these varying combinations in turn attract different combination of participants. Table 8 opens up the various elements of the model in more detail.

Table 8. Elements of Incentives Framework (adapted from Abrahamson et al., 2013)

Element	Detail
Good	Contributing to social good (even without monetary gain) is one of the key motivators. Sustainability, health, education and social issues are good areas where there can be readily found groups of people who are motivated to make a change.
Attention	Opportunity to gain visibility and being recognized is a great motivator. Attention from broader community via media and in form of awards enables participants to create new connections.
Money	Financial gain is one of the key extrinsic incentives
<ul style="list-style-type: none"> • Prizes 	<p>‘Winner takes it all’ –model or prizes for runner-ups. Who receives and the amount of the reward depend on:</p> <ul style="list-style-type: none"> ▪ Type of task ▪ Complexity (time for the challenge) ▪ Type of business (large, small, non-profit)
<ul style="list-style-type: none"> • Contracts & partnerships 	Used when search is more in identifying talent as opposed to idea generation. Resembles traditional RFP (request for proposal) process.
<ul style="list-style-type: none"> • Licencing & revenue sharing • Equity investments 	<p>Emphasizes shared risk and reward. When product will sell multiple units, can be used per-unit compensation model.</p> <p>Especially good for larger challenges, where value is created by teams and is likely to require a creation of new organization.</p>
Experience	Opportunity to work on challenging problem: both function of what and with whom the work is performed. Enables a portfolio building, which is a significant incentive for crowds.
<ul style="list-style-type: none"> • Learning 	New skills, getting feedback (comments and critique) from experts allows improvement opportunities for crowds.
<ul style="list-style-type: none"> • Social 	Structure that allows building networks and interaction is important motivator.
<ul style="list-style-type: none"> • Playful 	Game mechanics to encourage specific behaviors. E.g. point systems that are linked to various rewards. Primarily for signaling status and achievements to other participants.
Delivering on Promises	The credibility of the business relies on its ability to deliver on its promises
<ul style="list-style-type: none"> • Fairness and tone 	Fair process and respect towards participants is important for the success of crowdsourcing initiative
<ul style="list-style-type: none"> • Clear terms 	Clearly stated and established rules to govern compensation in order to reinforce appropriate behavior from the community.
<ul style="list-style-type: none"> • Track record 	There’s no place to hide, customers will quickly discover if business has failed to deliver on its promises. Contrarily, when the invested time and money yields in real results, the brands are readily embraced by the broad community.
<ul style="list-style-type: none"> • Transparency 	Informing people about the specific terms, why they are this way and reasons behind decision making to facilitate understanding in the community. Openness is the key trust builder.
<ul style="list-style-type: none"> • Brand 	Brand image plays important role in recruiting the best talent from outside the business. Failure to deliver on promises may cut the business out of the talent.

3.2.2 Recruitment

Recruiting the right people is not a matter of luck. Strategies to facilitate this process can be found from marketing tactics literature, but this thesis adopts a depiction of ‘participant journey’ devised by Abrahamson et al. (2013) (figure 8). It consists of five stages: awareness, consideration, participation, experience and advocate.

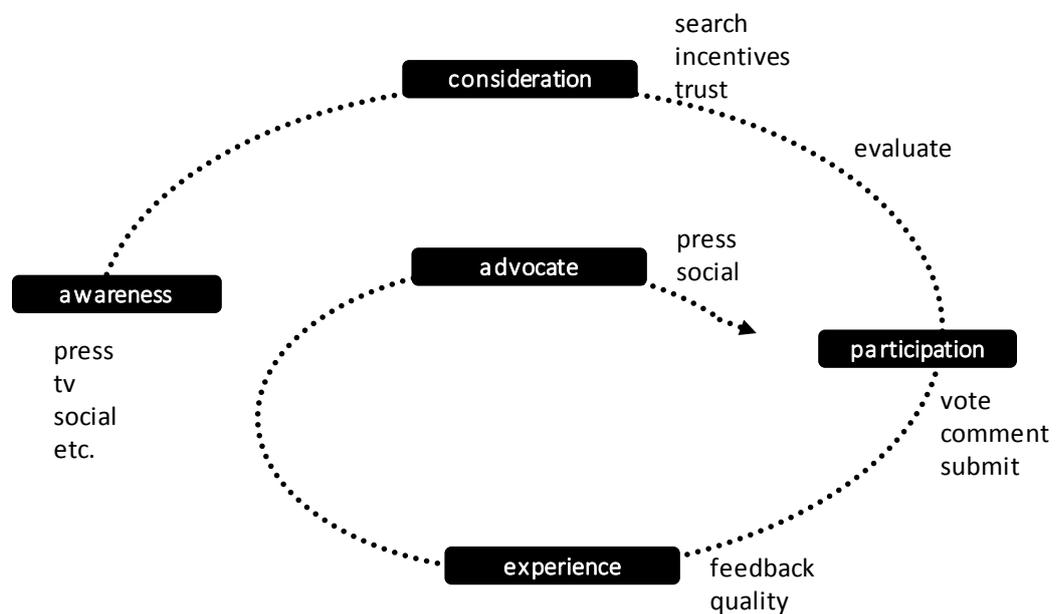


Figure 8. ‘Participant Journey’ - Participant Decisions in Recruiting Process (Abrahamson et al., 2013, p.110)

When the crowdsourcing initiative is starting, what you want to do is to build awareness. Traditional media partners are important factors at this stage, but however, modern channels such as social media utilization are very useful and thus a key part in building awareness among potential participants. Consideration stage pays attention to the mix of incentives and perceived trust of the crowdsourcer. Again, the perception of the brand and demonstrated ability to deliver on promises are key factors when people consider participating. Participation doesn’t mean just submitting ideas. The value of supporting roles such as voting and commenting shouldn’t be undermined. The phenomenon has popular definition called 1 % rule.

It stands for a situation where out of a group of 100 people one creates the content, 10 contribute by interacting with it (commenting and voting) and the rest just view the content. (Arthur, 2006) Positive experiences are important because without them the participants will leave. Also bad experiences have negative influence on participation. Word of mouth is very much working in crowdsourcing. When people have enjoyed taking part in the crowdsourcing campaign, they are likely to recruit others to the community as advocates. (Abrahamson et al., 2013)

3.2.3 Management

Managing the community created by crowdsourcing initiative, is not as straightforward as it might seem. Without proper oversight of the participants and their behavior, the results of crowdsourcing might just run dry. The extent which communities need managing depends on the search pattern. Simple search pattern that's mainly focused on idea submissions and doesn't include supporting roles such as commenting and voting doesn't require as much interaction between the business and the community. Collaboration and integration patterns need constant monitoring in order to have great outcomes.

Because crowdsourcing can be identified as a utilization of "common-pool resources" (Rimmer, 2012) where different entities own the resources than those who are contributing to the process, Elinor Ostrom's institutions are excellent in explaining the community management issues. These institutions are monitoring, support, advocacy, value exchange, sanctions, collective choice, membership and nesting. Abrahamson et al. (2013) discuss their meaning from crowdsourcing point of view, and their observations are summed up in table 9.

Crowdsourcing initiatives that rely on feedback and supporting roles in addition to idea submissions have greater need for designated personnel to take charge of the community. This designated person is called the community manager. David Robertson (2009) describes the new management groups that LEGO has introduced to facilitate its crowdsourcing efforts. One of the groups is called CED, which

stands for community, education and direct. CED's role is to support customer communities and tap them for product ideas. Basically, it will help in forming the online community and supports sales through LEGO stores and online retailers. (Robertson & Hjuler, 2009)

Table 9. Managing Shared Resources (Abrahamson et al., 2013)

Elements for Strategic Community Management	
1) Monitoring	Oversee the community actions in order to be aware of what the community is doing.
2) Support	Communicate rules and policies, choose a style of interaction that encourages the right behavior, take action against copycatting and bashing, set up FAQ (frequently asked questions) section.
3) Advocacy	Understand customers' needs and work on their behalf on what they need
4) Value Exchange	Provide ideas, time and knowledge to the community
5) Sanctions	Enforce community behavior in cases where participants break common guidelines and set rules.
6) Collective Choice	Set up communication channels to review and share opinions. One of the key reasons for joining communities is taking part in decision making process, so this should be made easy for the participants.
7) Membership	Communicate values and interests of the community and other terms of the membership.
8) Nesting*	Divide community managers' responsibilities on project structure or based on other appropriate activities of the community.
* Important in large (scaled-up) communities that involve a lot of interaction and require management presence to foster the relationship between business and participants.	

3.2.4 Rewarding

Rewarding has a great deal to do with understanding the value of contributions. Having a functional monitoring system is essential in evaluation process. Community managers are in key position to recognize the most valuable contributions and their work cannot be performed without using reliable monitoring system. Abrahamson et al. (2013) mention that organizations tend to see lot of trouble to ensure a fair process in evaluating contributions, because these are directly linked to compensation. In addition, there is the question of the amount of reward that should be given to participants. This is inherent for crowdsourcing initiatives and a major source of debate due to the ethical reasons. The argument goes that, when professionals do “on spec” (‘spec’ standing for speculative) work that they will likely be not paid for, it devalues their work (NO!SPEC, 2014). Additionally, it leaves them open to intellectual property theft. (Dawson & Bynghall, 2011) However, there are other reasons why professionals might choose to participate with little or no reward, if the incentives mix and sense of purpose can be communicated by other means. If a company offers small cash prizes in exchange of ideas that will greatly benefit the organization, the campaign surely won’t attract the best talent. (Abrahamson et al., 2013) Of course other forms of compensation than money can be used, but again these should be in relation to the task and the purpose of the process in order to appear fair to the participants. Case example examines the reward structures in practice and methods used to ensure the fairness of the process.

4 CROWDSOURCING SUCCESS FRAMEWORK

This chapter presents the crowdsourcing success framework (CSF) based upon conducted literature review. The different phases of the model are lightened up by using a case company. The chosen case is a traditional business that doesn't use crowdsourcing at the core of its business model. However, it is able to demonstrate substantial benefits and increase discussion among the customers, thus, strengthening the brand image and increase sales with the help of crowdsourcing. What kind of actions the company has done in respect to the stages of CSF are then opened up in the text. In order to get benefits from crowdsourcing, it is not compulsory to integrate it fully into the business model. When this is done, the boundaries of the firm tend to get blurred. This same expansion of the business to the outside is made visible in the model, as the borders in the elements gradually fade out, therefore, creating the crowd-business.

4.1 Framework for Successful Crowdsourcing Initiative

Crowdsourcing success framework introduces a step by step model for implementing crowdsourcing into the everyday operations of the business. It starts from the decision to utilize crowdsourcing and continues further into planning, organizing and execution. Finally, it suggests to refine the process based on experiences. The planning phase consists of choosing the crowdsourcing tools, finding the mix of incentives for participant motivation and IP issues. Organizing phase includes decisions on selecting the right platform and recruiting the participants. The final stage is execution, which consists of managing the community and understanding the value of participant contributions and how to reward them for their efforts in the crowdsourcing initiative. The various phases in CSF are backed up by an extensive literature analysis in the field of crowdsourcing. Even though this is not foolproof method for successful incorporation of crowdsourcing into the business, it exists to guide in the decision processes involved in implementation of crowdsourcing initiatives. The chapter ends in representing the success factors of crowdsourcing process that are based on both

findings of the literature review and case examination. CSF is presented in figure 9.

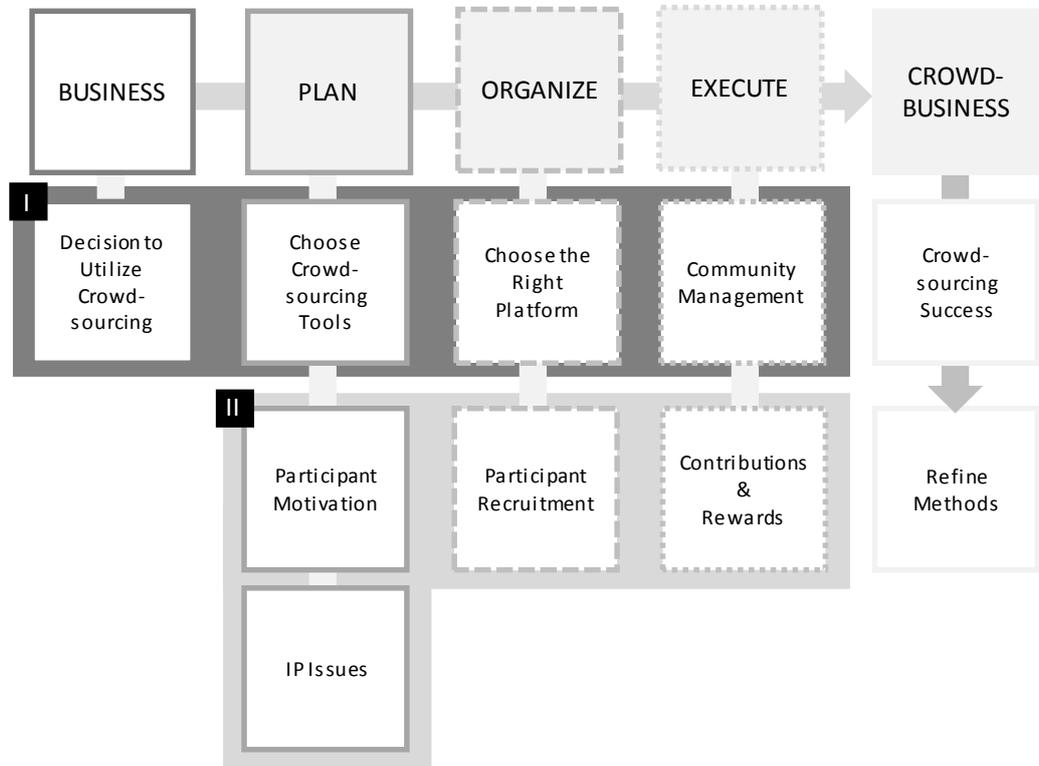


Figure 9. Crowdsourcing Success Framework

CSF has both vertical and horizontal dimension. Vertical dimension is already introduced in this chapter through opening the planning, organizing and execution phases. However, the model can also be viewed in horizontal mode, where elements are divided into primary and support elements. Primary elements have been highlighted with the dark background color and by using roman index number, I, in the far left corner of the CSF. Support elements have Roman numeral II in the upper left corner as well. Case example tells the story by utilizing the horizontal dimension by explaining actions made on primary elements on the CSF and continuing to support elements afterwards. Appendix 3 presents the full framework by opening up the contents of each individual element of CSF.

Dawson and Bynghall (2011) created a taxonomy for crowdsourcing business models that have been updated for the uses of this thesis by conducting literature analysis and Web based search outside scientific journals. Main scientific literature is collected from following journal databases: EBSCO, Emerald Journals and Springer. Findings from these databases are based on keywords such as ‘crowdsourcing’, ‘competitive advantage’, ‘business model’, ‘open innovation’, ‘crowdfunding’, ‘transaction costs’ (TCA), ‘sourcing’, ‘global sourcing’, ‘success factor’ and a combination of these words. Additionally, known crowdsourcing companies such as LEGO and P&G (Connect & Develop) and DELL (Ideastorm) have been used in conjunction with these keywords. Transaction cost theory is the basis of the examination of the effect of Internet in the business models today. Because crowdsourcing wouldn’t be possible in the form that it is realized today without the widespread diffusion of Internet, the transaction cost perspective is important to notice in order to understand why crowdsourcing has become a popular form of value creation. The elements in the framework constitute a process that aims to facilitate the value creation process when utilizing strategy based on crowdsourcing. Web based information is originated from the various company Websites and crowdsourcing industry Web resource crowdsourcing.org (2014). The companies that are used as a basis of gaining the knowledge on current state of businesses utilizing crowdsourcing in their operations can be found from appendices 1 and 2 accompanied with short descriptions.

Abrahamson, Ryder and Unterberg’s (2013) book about crowdsourcing methods in idea creation from external entity and Dawson and Bynghall (2011) initial crowdsourcing landscape are the two primary literal sources of this thesis. Abrahamson et al. (2013) have investigated the methods behind companies and organizations that practice co-innovation with their customers and other interested participants. Their practical advice have been used to construct the primary and support elements in the CSF and connecting them to the findings with the help of supporting literature and Web based resources on the field of crowdsourcing. The results of this categorization are division to most important issues in crowdsourcing: the decision (suitability of the company to crowdsourcing), crowdsourcing tools

(landscape position), platform selection and community management. Other aspects have been categorized as supportive to these primary elements: motivation (incentives of the crowd), intellectual property (legal issues), recruiting the participants and choices made on rewarding the participants. Perhaps the widest influence in the way the framework has been constructed is via the knowledge gathered from the actual companies that utilize crowdsourcing. The following case company demonstrates one way to utilize crowdsourcing, but many more different approaches have been implemented as well. In spite of the fact that all of the approaches slightly vary from each other, generally, the same phases than demonstrated in CSF can be found behind most of the current crowdsourcing initiatives out there. The basic understanding of these initiatives have been collected based on the information available on their respective crowdsourcing community Websites and portals (appendix 1 & 2).

4.2 Case SAP

The chosen case company for this thesis is a European software manufacturer SAP SE. The company was founded in 1970 and is one of the leading enterprise software manufacturers in the world. Additionally, it provides applications, and backed up analytics and modular solutions to facilitate customization at scale. It serves over 260.000 customers in over 190 countries where majority (80%) of the customers are small and medium sized enterprises (SMEs). (SAP, 2014a; SAP, 2014b)

SAP divides its solutions by line of business (LoB). LoB solutions include asset management, finance, human resources and manufacturing, marketing, sales and supply chain services among others. (SAP, 2014c) SAP describes its business model to depend on the “ability to innovate, address global challenges, serve customers, and become leader in the cloud.” (SAP, 2013a) Crowdsourcing methods are a great way to implement the long term view of SAP’s business model and to increase depth of customer service by directly responding to their needs.

SAP faces fierce competition from large software industry giants such as IBM, Microsoft and Oracle. These companies provide alternative solutions and services to SAP's software. (Yahoo Finance, 2014) SAP's sales model is focused on providing its products via its cloud service. Cloud service offers a subscription based licensing model, and thus, enables continuous revenue stream. Long history of the company in providing enterprise resource planning (ERP) systems have traditionally kept SAP in front of the strong competitors. It held the first place in 2012 worldwide market share of ERP software by 24.6%, Oracle coming second at 12.8%. (Columbus, 2013) One of the key products to keep the market share, in addition to its traditional ERP solutions, has been SAP Jam. SAP Jam is an enterprise social network (ESN) that connects customers, partners and employees into the cloud, and facilitates collaboration that aims to increase engagement levels of stakeholders of the users. (SAP, 2014d)

Although SAP provides many tools for its customers to collaborate, it has decided to use crowdsourcing expert and innovation management software provider Brightidea to engage customers to co-innovate its future solutions. SAP's co-innovation platform is called Idea Place. It's aimed to facilitate collection of new ideas from SAP customers and partners by providing an ecosystem to collect these ideas. The platform not only allows searching for new ideas, but also engaging the customers through the entire product development cycle. By incorporating Brightidea in the platform, SAP is readily benefiting from proven idea management process that will give better experience for the Idea Place participants. (Yahoo Finance, 2013) According to Brightidea the end user value accumulates in collecting the right ideas and performing an effective feature prioritization that ultimately leads to sustainable growth. Collaborative platform tools offer ability to collect end-user feedback and validate product ideas in early stages of development lifecycle. (Brightidea, 2014) The later chapters will go in more detail into the benefits that SAP is gaining by utilizing Brightidea's solutions.

4.3 SAP Decisions on Primary Elements

SAP launched its Idea Place platform originally for a couple of years ago. The revamped version has been up and running since the spring of 2013. The previous Idea Place platform was criticized for having low engagement levels. The new platform has implemented processes that aim to fix those issues. Idea Place is a part of bigger SAP community network (SCN), a network for SAP professionals to discuss various topics related to SAP software and issues in the software. The key difference, however, is that Idea Place is built to provide disruptive and breakthrough ideas, which SAP otherwise wouldn't be getting. This is happening by connecting a new audience of users that previously have not been participating in the existing SAP Community Network. (Yolton, 2013)

When SAP started to consider the use of crowdsourcing, they first had to make a decision to utilize it. By having previously a successfully implemented SAP Community Network, that is basically internal crowdsourcing, the leap to utilizing external crowdsourcing is not as big anymore. The new audience that SAP can tap for ideas stands for those external stakeholders who normally wouldn't contribute to SCN forums for idea submission. Yolton (2013) introduces the results of SAP Idea Place in numbers, which proves the functionality of the concept. By March 2013, the Idea Place has generated 8,700+ submitted ideas, over 9,000 comments and 53,000+ votes, 380+ delivered features and 260+ ideas that are in development or testing.

Another key question SAP needed to ask itself before setting up Idea Place was whether the circle of people who possess the information to develop SAP software exists or is large enough. The best ideas for submission can come from a group of super users of SAP software that have developed expertise via using it on daily bases. Another group of users are the larger crowd, who may not have detailed understanding of SAP products, but still wish to contribute for developing future versions, or otherwise just post a suggestion that they might find interesting and missing in software. This latter crowd can be the source of the disruptive innovative

ideas that SAP is searching, in addition to the core group of experts. Experts here being SAP internal employees as well as other professionals that are using SAP products and services. Idea Place mechanisms, thus, allow getting best from both of the groups. It reminds the process that OpenIDEO has been examining, when it has been in pursuit of finding out whether the crowd can outperform the internal team. Their view has been the realization that small teams are good at some things and broader community good in others. (Brown, 2010) The challenge for SAP is really in orchestrating the collaboration between these two groups to achieve wanted results.

Figure 10 opens up the decision to utilize crowdsourcing element of CSF. It shows two issues that are important in decision making. The first one is the quality of the crowd that was just discussed, and whether the crowd is large enough to possess useful ideas that help in developing SAP software. The results show, that there is a large and heterogeneous group of users and enthusiasts that are able to provide feasible ideas for improving SAP products and services. The second question is determining whether there exists a suitable development target that can be opened up to the crowd. That is, what kind of information the business can reveal to the crowd and what are those core strategic issues that should be kept inside.

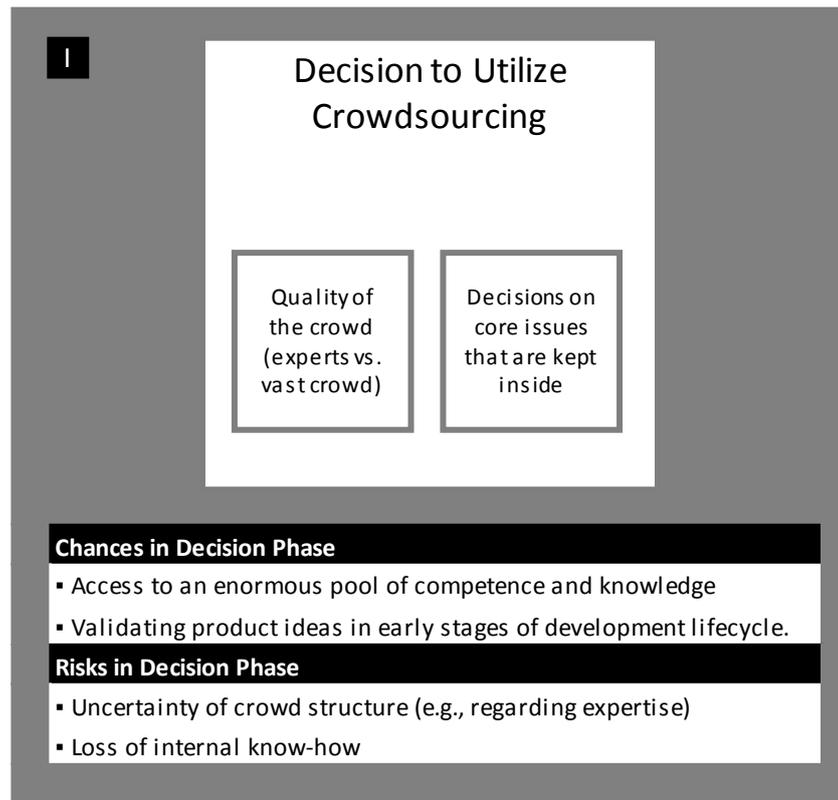


Figure 10. Decision to Utilize Crowdsourcing in CSF

By implementing crowdsourcing and the use of external ideas SAP opens up to a number of benefits from crowdsourcing. However, certain risks are derived from the issues that limit crowdsourcing. The figure includes a small table that identifies the specific risks and chances and how they reflect to the particular situation of SAP. One of the primary benefits is exactly the pool of competence and knowledge that SAP now has improved access to. The validation of product ideas at early stages wouldn't be possible without the help of crowdsourcing methods. SAP has also been answering to the risks shown in figure 10 by limiting the information it has made available through Idea Place platform. It focuses on fostering the contribution of the crowd and not revealing key strategic issues to outsiders. However, there remains uncertainty of the crowd structure and that is something the second primary element in CSF helps to answer. Figure 11 shows the detailed view of the contents of this element.

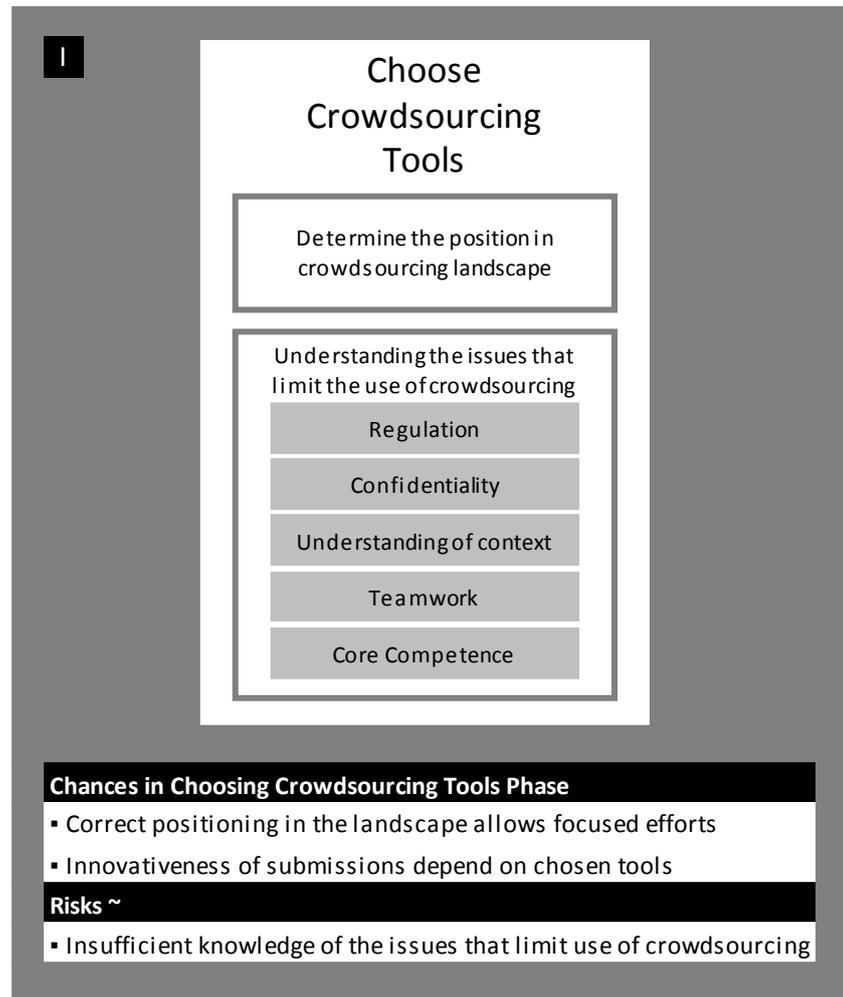


Figure 11. Choosing Crowdsourcing Tools in CSF

When business is searching proper crowdsourcing tools for its initiative it is useful to examine the entire crowdsourcing landscape. When business is aware of the available options and it understands their relation to each other that in turn helps to focus the crowdsourcing efforts more accurately. Even though SAP has probably not been aware of all the various business models presented in this thesis – as the theory behind the landscape is relatively new – SAP location in the landscape is still very much suitable for the business. By using innovation management specialist Brightidea’s solution, Idea Place can directly gain benefits of proven methods to facilitate idea generation and manage the community effectively. This is exactly what is needed in order to facilitate focused efforts in crowdsourcing

initiative. Rather than ‘reinventing the wheel’ using ready-made solutions is a significant time and money saver for SAP. The choices made here position SAP Idea Place into the innovation management category of crowdsourcing landscape (see figure 4 and appendix 1 and 2 for reference and details).

Regulation and confidentiality issues are directly solved for SAP by not exposing private data on the platform, but rather just focusing on idea submissions and voting made by participants. The context understanding through the platform is executed wisely in a way that allows not only idea submissions but commenting and voting on proposed ideas. Therefore instead of having hundreds of separate ideas, SAP have proposals for improvement that have collective feedback and commenting, and a ranked list based on even larger amount of voters. The participants can contribute without spending much time to understand context issues that in turn allows people with less expertise of SAP solutions to take part. All the necessary information on submissions can be easily viewed by all the participants. These kind of community mechanisms also allow certain amount of group work when improvement of suggestions can be done on the same platform in form of comments and feedback from other users. Additionally, SAP doesn’t have to reveal their core strategic competences when its community is merely providing new development proposals. Lastly, there is a chance for participants to suggest improvements on whole Idea Place functionality and host contests on various challenges that relate to important issues for SAP.

The next step in CSF is choosing the correct platform. This primary element is already focused on organizing phase of CSF. Even though we have discussed about Idea Place platform in some detail, this section brings knowledge on choosing the platform based on the set criteria that the business wishes to achieve from crowdsourcing. The quality and scope of the ideas that business wishes to get determine largely the search pattern that will be used. The type of search pattern is also directly linked to the platform types available for the business. Figure 12 describes the contents of Platform selection element of CSF.

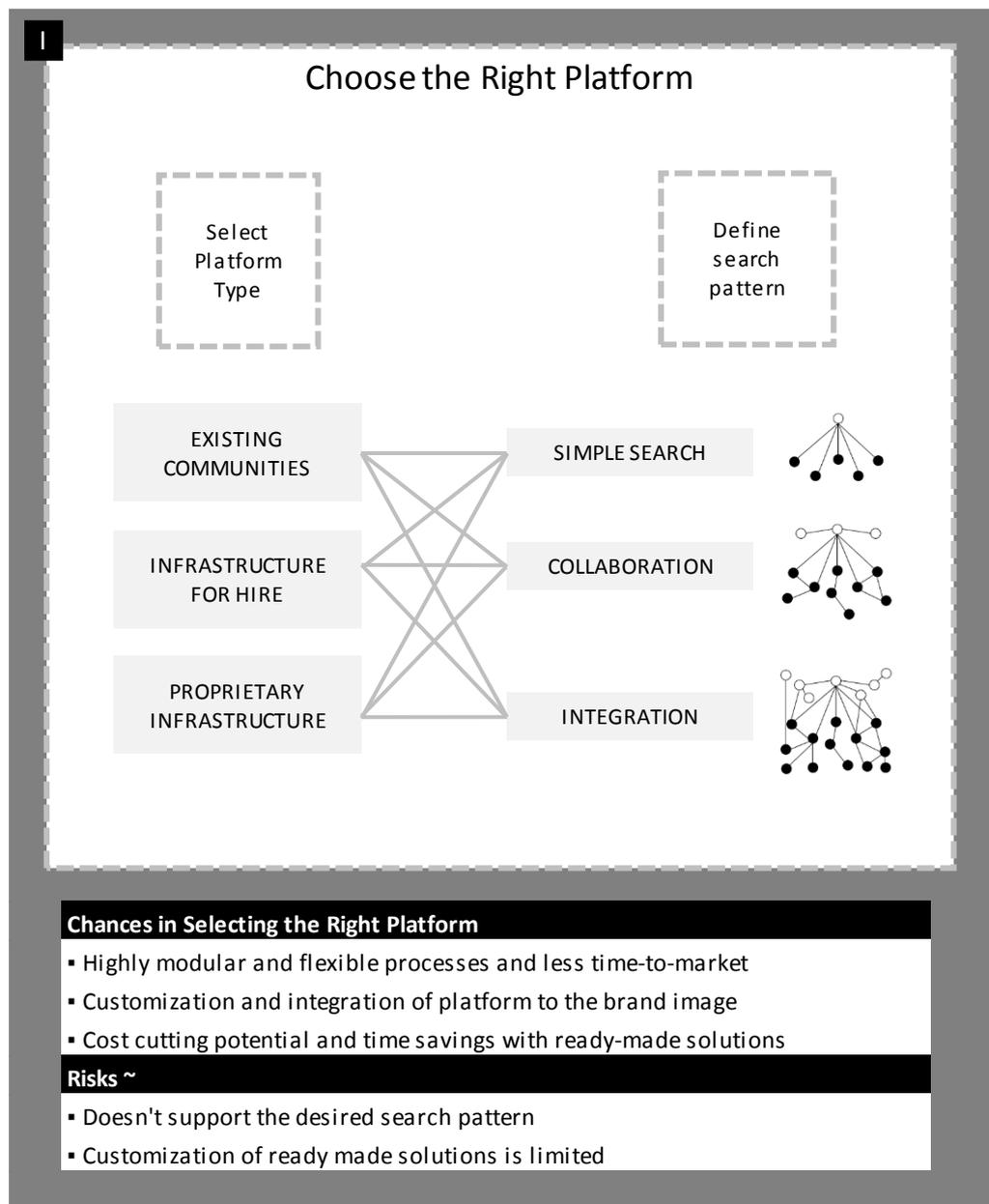


Figure 12. Choose the Right Platform in CSF

As mentioned previously, SAP has incorporated innovation management specialist Brightidea's platform tools to fuel Idea Place. This means that SAP has selected infrastructure for hire platform that has support for collaboration search pattern. Collaboration stands for more complex interaction structure where participants are allowed to engage discussion with each other. In Idea Place's case this means commenting for feedback and voting mechanism to allow ranking of submissions.

When making decision on choosing crowdsourcing tools this means setting up the desired idea collection method. Idea Place has chosen collecting submissions and giving a space for the community to give feedback on proposed solutions. This kind of co-innovation process, where both SAP's internal stakeholders (employees) and external crowd contribute fills the collaboration search pattern criteria. SAP also could've chosen to build its platform in-house (proprietary infrastructure such as DELL's Ideastorm; see table 7 and appendix 2), but this could've tied significant amount of time and resources that it didn't see as reasonable choice. The benefit of infrastructure for hire solution is primarily in the time savings and getting chance to utilize proven community management methods almost instantly. SAP also didn't see existing communities that offer collaboration services such as Jovoto (appendix 2) suitable for its submissions portal. Even though there are SAP professional communities such as Americas' SAP Users' Group (ASUG), which is currently the largest network of SAP professionals (ASUG, 2014), the implementation of SAP Idea Place simplifies the process significantly. Here it is easy to see the common rule in crowdsourcing: the easier it is to contribute the more results will emerge. Figure 13 describes the functionality of SAP Idea Place platform and demonstrates its difference to previous submission process.

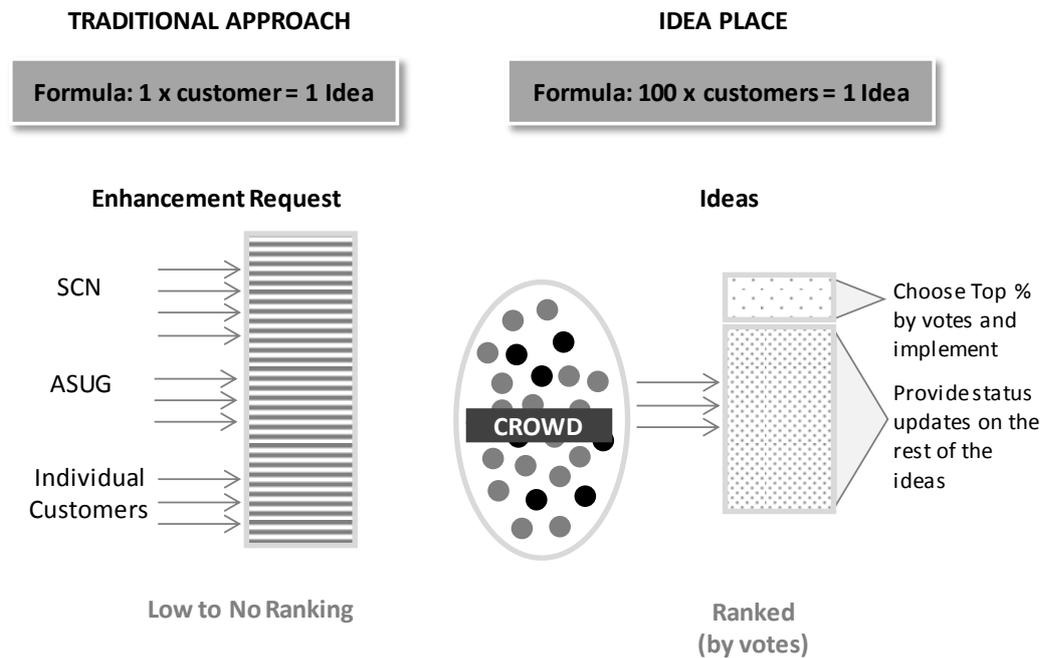


Figure 13. The Difference of Traditional Process and SAP Idea Place (adapted from Yolton, 2013)

Previously customers had to go through manual process for product suggestions that was time consuming and unclear in terms of transparency of who provided the original suggestion. The existing communities such as SCN and ASUG, and individual customers can now participate in a more controlled submission process. Commenting, adding new ideas and voting allows participants to add weight to higher quality suggestions. The suggestions that reach to the top % of submissions are then implemented. The rest of the ideas receive status updates and explanations from the production team to ensure transparency of the process. The new process ensures shorter implementation cycles so new features can be added in a matter of weeks instead of months or even years. The product development cycle in short is following: idea submission, voting on other good ideas, SAP product development review, and building suitable ideas into the upcoming product release. (SAP, 2014e)

The last primary element in CSF is community management. Managing the community is a highly important aspect of crowdsourcing. All community

management starts with the ability to monitor what's happening. Without monitoring, it would be difficult to ensure fair flow of the crowdsourcing process. However, the extent to which monitoring is necessary depends a lot on the applied search pattern. Collaboration and integration patterns demand more participation from internal stakeholders towards the crowd. In collaboration pattern it is necessary to communicate the rules and policies to all the participants, but certain amount of automation in user control can be provided in the platform as well. This is particularly useful if the community grows large. Figure 14 shows the details of community management element of CSF and selected chances and risks that are connected to community management process.

Community management element includes managing shared resources block that consist of eight institutions. These institutions are key for strategic community management. In SAP Idea Place the community manager's role is divided to various SAP personnel. Idea Place is connected directly to the research and development department of SAP. Also, it is stated on the platform that SAP doesn't even list a product on their platform unless the corresponding product management team has agreed to monitor, evaluate and respond to the ideas. SAP has made it clear for the participants that when they submit ideas on the platform, those ideas are directly seen by the people who make the decisions on enhancements. (Yolton, 2013) It could be argued that this adds extra work on the development team. However, SAP is gaining benefits by cutting unnecessary steps, and in so freeing resources to be used elsewhere by this method. Basically, the product managers at SAP have a scalable way to co-innovate with customers and SAP partners.

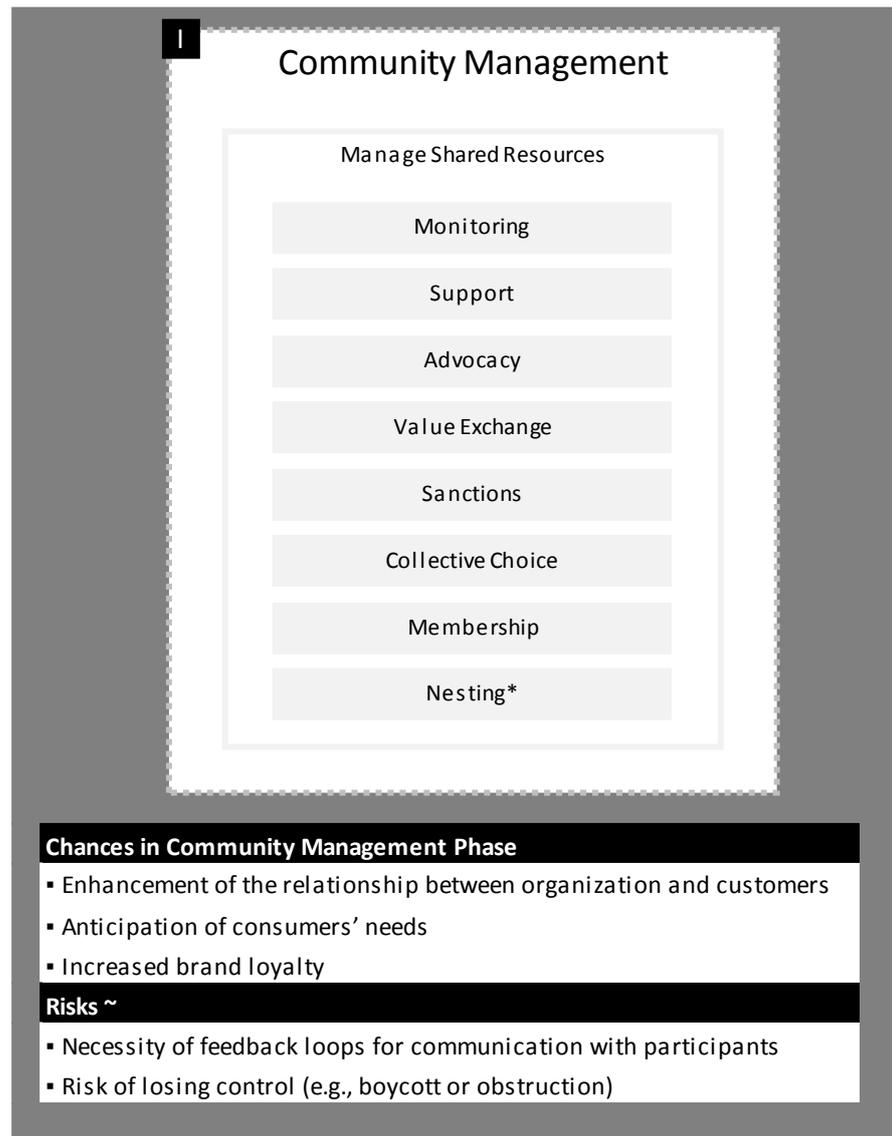


Figure 14. Community Management in CSF

SAP Business Objects team hosts Idea Place as their primary feedback channel for over 40 SAP products. Other internal teams are responsible to the community to keep submissions up to date. Transparency in the process aims to increase commitment and brand loyalty, when the idea submitters know where their ideas are in the cycle. (Yolton, 2013) It also has another purpose as a mitigator of risks that occur in a community that uses complex mechanisms for idea evaluation. For example if users try to game the system, that is trying to fix the voting, this has been made difficult by adding high transparency on the system. Everybody can see each

person who casted the vote for particular suggestion and there is a leaderboard for top contributors by every session. (Yolton, 2013)

The underlying software provided by Brightidea monitors all the activities on the Idea Place platform. When examining the support institution of the platform, the community rules and policies are quite clearly stated. For example SAP informs that only those product ideas are reviewed, which product is listed on the Idea Sessions list (product based idea submissions). In case, the product is not on the list, customers have alternative channels to get their ideas for SAP personnel's knowledge. Their contact details are then listed by idea category next to this statement. Overall the community guidelines are short and written with easy to understand text that also facilitates compliance with the rules. (SAP, 2014f) This behaviour has tendency to create advocacy among participants as the community's needs are recognized properly. By clearly informing about the ideas that have made into implementation, the platform proves that SAP has responded to its customers' will. The value exchange here comes from the community and SAP's delivery on the winning suggestions. Voting and feedback enables community to join in the decision making process which is one of the key reasons for joining these communities. Collective choice is therefore well implemented on SAP Idea Place. SAP has basically two kinds of memberships. Users can belong to SCN or other outside communities and participate on the platform, or they can just contribute solely on Idea Place. Both memberships are valued on the platform. The final institution of strategic community management is nesting. The nesting in Idea Place happens in practice on product-by-product basis. Product development ideas must be submitted on their respective Idea Session where they are handled by their designated development teams.

Figure 15 demonstrates the crowdsourcing platform's effect on different phases of the Porter's value chain. The SAP communities and customers' contributions are purely illustrative purposes only and based on the information that Idea Place platform (SAP 2014e), SAP homepage (SAP 2014a & b), and Brightidea.com (2014) provides on where crowdsourcing might have impact on its value chain.

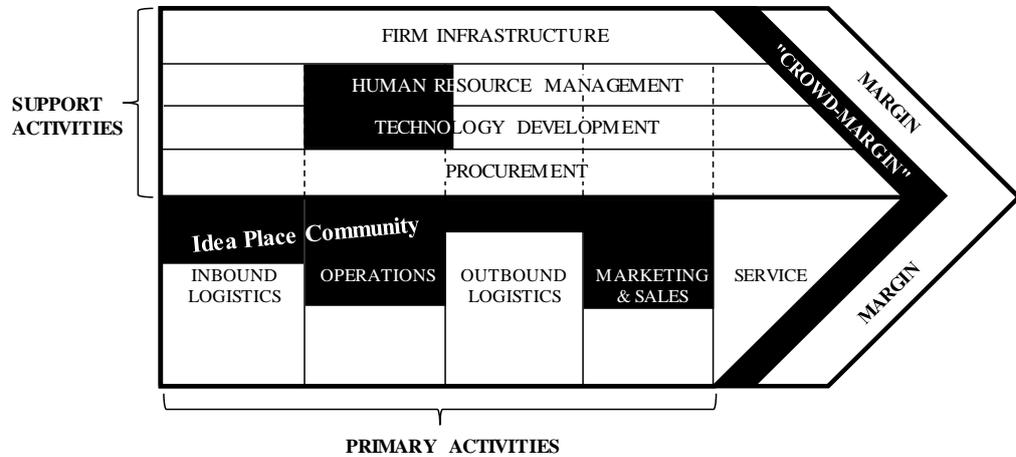


Figure 15. Influence of Crowdsourcing in SAP's Value Chain Activities.

Main benefits of crowdsourcing in SAP's value chain are cost reductions that are result of faster time-to-market and co-innovation process. Idea Place allows SAP to include enthusiastic software users and existing SAP community members in its product development process. The result is customer validated development efforts early in the product lifecycle which also in turn enables higher product margin. Figure demonstrates the pervasiveness of crowdsourcing in SAP's support and primary activities. Black bars in the model refer to the use of crowdsourcing, and margin generated by crowdsourcing initiative Idea Place.

Crowd's effect on inbound logistics such as quality control is one of the key benefits of Idea Place. SAP value chain in figure 15 assumes that the community has its stake on all of the value activities, excluding service activities such as maintenance and warranty. Marketing and sales benefits from the brand advocates that the correct maintenance of the platform produces. When customers have good experience of the crowdsourcing process they will promote it further and recruit new members to join. Assuming outbound logistics is about finishing the software processes, in the case of SAP, the product development team is responsible of this activity. Internal crowdsourcing can however be seen working here, as SAP

Community Network consists of the employees of the company including product development team participants. Support activities have also black bar to demonstrate the impact of crowdsourcing into the research & development (R&D) and human resources (HR) departments of SAP.

Mark Yolton (2013) continues to discuss about the new opportunities that Idea Place has opened up for SAP. The mindset in the company is to have a “socializing” approach in marketing and customer support and IT (information technology) and HR departments of the company. (Yolton, 2013) Of course must be remembered that it takes resources to incorporate and set up these systems. Additionally, it’s not enough to only have the system in place. If the business fails to deliver on its promises, the crowd will find if something is wrong and vote by its feet. Consistent track record is important for businesses that decide to implement crowdsourcing in their value chain. The process largely resembles installment of customer relationship management (CRM) platforms, but in this case the crowd can be more heterogeneous and include more than just professional users of SAP software.

4.4 SAP Decisions on Support Elements

Motivational aspects are important part of crowdsourcing. If the business is able to find the right mix of incentives, otherwise unsuccessful crowdsourcing initiative will turn to successful. The incentives mix framework presented earlier (figure 7) is used here to analyze SAP Idea Place’s community in detail.

The elements in the incentives mix framework provide a starting point for building the community. Certain parts of the model are more important than others. Starting from left ‘money’ and ‘good’ are highlighted darker color and are considered more significant. However, the other elements have value too, when incentivizing the crowd to participate. The following ‘attention’ and ‘experience’ can be considered another key elements of the mix framework, where ‘fair’, ‘tone’, ‘record’, ‘transparent’ and ‘brand’ create a combination that is related to delivering on

promises, thus, influencing into the credibility of the business. Figure 16 presents the mix of incentives that SAP Idea Place has selected to motivate its crowd.

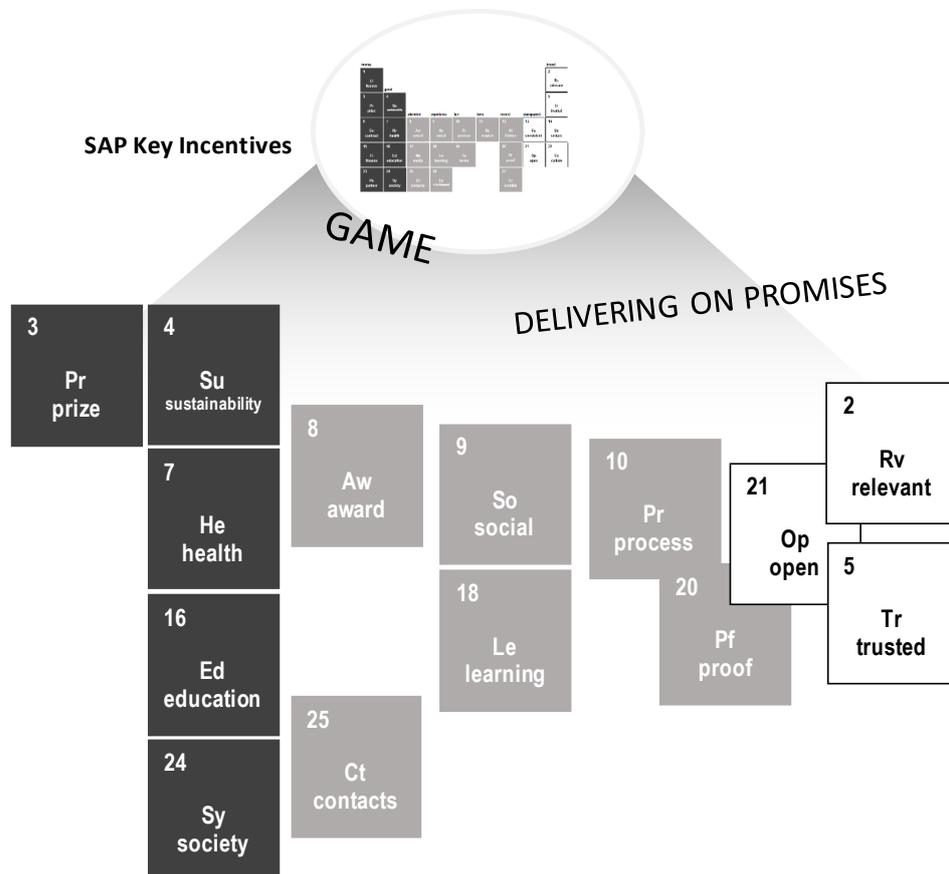


Figure 16. Selected Incentives for SAP to Motivate the Crowd (Participant Motivation in CSF)

Figure 16 contains the most visible incentives that Idea Place platform communicates. GAME incentives (good, attention, money and experience) are well represented. Monetary prizes from challenges are mainly directed to students and university collaboration contests. Therefore, the prizes are not significantly high in financial value. However, the good incentives have spread through the whole scope of the hosted contests. By focusing on universities SAP builds awareness on the group of people who will be future users of its products and services. Experiences

from the contests have been good and viable results have in fact been achieved. The challenges range from sustainability issues, to health and education and making a difference in society with the help of SAP products. An example solution is a traffic collision avoidance system that won the first prize in SAP Connected Car Challenge. (SAP, 2013b) In addition to awards, that the contest winners receive, they get a chance to create valuable contacts from industry experts. Therefore, the attention incentives are well represented. Also, in terms of experience incentives, the social aspects and learning are well represented in the contest.

The benefits of these contests for traditional users of SAP software, however, is relatively small. The platform can be criticized for not paying enough attention to the vast majority of SAP product users in this sense. In spite of this, the experience from the platform is highly social, when idea submitters have chance to receive direct feedback from company key personnel, who make the decisions on improvements. Yolton (2013) discloses that SAP has made a big bet on social, and their aim is to enforce the social aspect in their business operations. Because customers have greater expectations and more channels to communicate their opinions, SAP has made a right bet to satisfy these customer needs. The prize for vast majority of the Idea Place crowd is therefore having development suggestions approved and implemented in the particular product. Certain amount of game mechanics can be seen in the fact that Idea Place has leaderboards on each Idea Sessions to show the top contributors. Other delivering on promises incentives such as transparency is presented by openness in the platform. This is realized for example by requiring product managers to share their internal ideation management process and insights from the review and implementation cycles of product development. (Yolton, 2013) Brand related incentives mean in this case, that Idea Place platform answers to a very much relevant need for utilizing the power of crowds in idea generation. By incorporating customer co-innovation in its product development, SAP creates trusted atmosphere. Also, it gains brand advocates by accepting ideas in this way and giving them a good experience by answering directly to customers. Finally, the university focused challenges hosted on the

platform motivate future SAP product users to become advocates as well, when they gain familiarity of SAP software and services.

Planning phase of support elements in CSF have still one more element left. This is the IP issues element. SAP has full IP ownership of their products. When a new idea is submitted on the platform, there is no real intellectual property issue for SAP. The ideas are meant for the development of software and products that are already owned by SAP. This is inherent for the platform and there is no particular need to communicate IP issues to the Idea Place participants. The question would be entirely different if the business has only access to IP that's related to the particular product. In these cases it must be negotiated with the owner whether crowdsourcing methods are possible in the first place. Idea Place platform is for product based development ideas only, and as mentioned before, if the product is not on the Idea Sessions list, SAP is not even accepting development suggestions through Idea Place. However, there are other channels to communicate these needs to SAP development team. Figure 17 shows the contents of IP Issues element of CSF.

Generally the business should consider taking calculated risks that are relative to the potential benefits that could occur by letting outsiders use these assets. The chances in the figure are primarily benefits from access IP, as there is no capital bound to the development and protection of the solution. However there is a risk of losing control, if the IP protected asset belongs to the core competences of the business. Also, must consider the chance of rising transaction costs in the case the crowdsourcing effort that utilizes accessed IP proves to be successful.

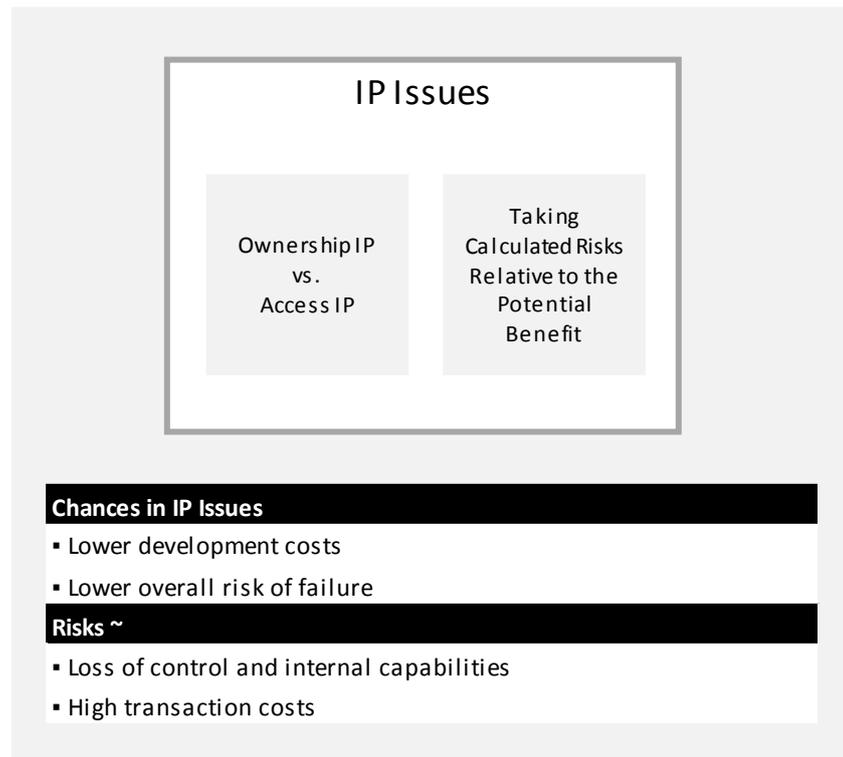


Figure 17. IP Issues in CSF

Recruiting participants support element in CSF has a valuable purpose. The business must communicate and build awareness of its platform and the purpose of it. An empty community wouldn't be a valuable resource for obvious reasons. Luckily, SAP already has large and active communities both internally (SCN) and externally (ASUG). Idea Place also can attract participants from crowds outside these communities. In these cases building awareness of the platform can be a bit more challenging. However, when users log in SAP homepage, the only community that is easily visible is SAP community network. To find Idea Place it is required to go to SCN and search it through their Website. In terms of building awareness SAP is not doing consistent effort. This may be due to the specific nature of the platform, as SAP is almost fully used only by industry professionals. Therefore, the most valuable participants from SAP perspective also can be found from these existing communities. Figure 18 demonstrates the participant recruitment process in SAP.

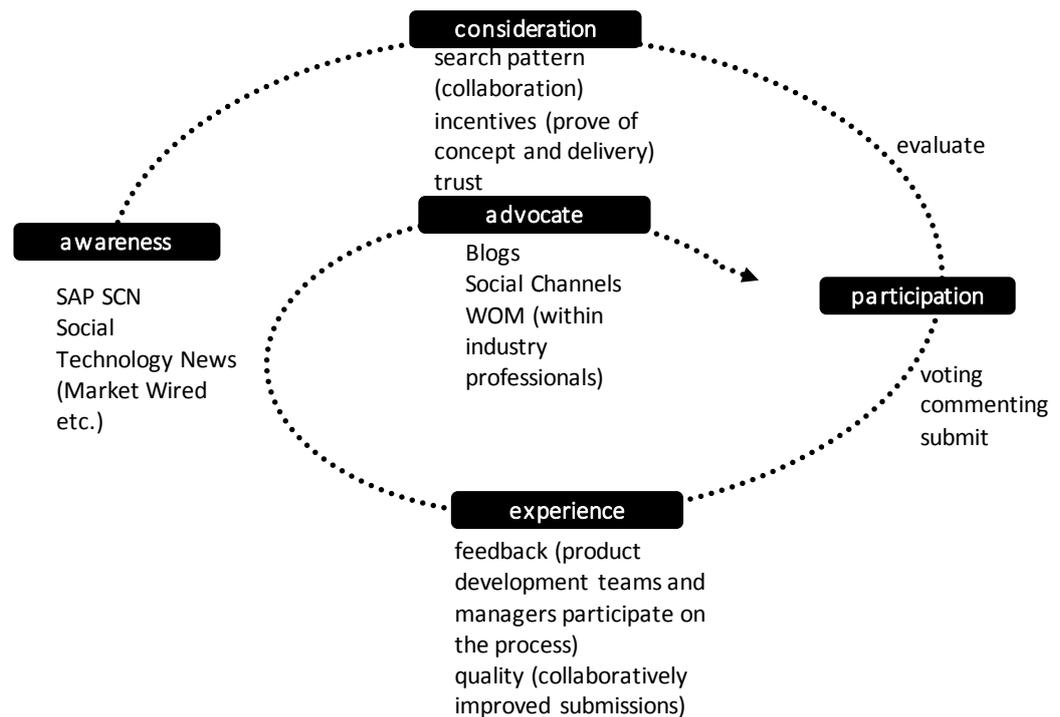


Figure 18. The Participant Decision Journey for SAP (Participant Recruitment in CSF)

Other channels for awareness building have been using social media channels and technology news that have caught on the Idea Place platform. This may be largely result of Brightidea's efforts as it has widely channeled awareness of the companies that use its solutions. (Brightidea, 2014) Technology news services such as Market Wired and crowdsourcing knowledge Websites also have informed the Idea Place platform in their newsfeed and inform regularly on challenges and contests on the platform. (Market Wired, 2013; Marshall, 2011; Braccini, 2014; Brightidea, 2014)

Consideration phase of participant journey is a matter of the mix of incentives that the business has selected. Maybe the most important of them in SAP's case are the proof of concept and delivering on their promises. Idea Place has demonstrated that it will take the development suggestions seriously that in turn is a great trust builder for the platform. Collaborative and social elements of the platform also back up this point of view. When thinking about the 1 % rule, the community must have

sufficient number of total participants in order to have enough submissions. Without submissions the supporting roles of commenting and voting don't do much good. Yolton (2013) mentioned that already by the new release of Idea Place, the platform had collected thousands of submitted ideas and tens of thousands of votes. This is a great indicator of an active community and that Idea Place can generate strong and worthwhile improvement ideas. The resulted experience for the crowd has a great deal to do with the commitment of the management on the platform. This is also necessary for the quality of the ideas, when SAP can communicate their internal processes to the crowd that in turn helps in receiving more viable ideas. Good experience is typically a very good creator of advocacy among community members. The new approved submissions are communicated by the participants also outside the Idea Place in form of blogs and word-of-mouth (WOM) within industry professionals, which is a particularly good channel for recruiting purposes.

The last support element in CSF is understanding the contributions and rewarding the participants for their efforts. As mentioned before, the monetary rewards that Idea Place provide on their challenges and contests are not particularly high. However, significant portion of the rewards in the platform come in form of having the submitted idea approved and then implemented in the specific SAP product. For this reason the rewarding element is not dealt further in SAP's case, but it is still worth to discuss in more detail to get the understanding of how rewards should be determined. Figure 19 shows the contents of contributions and rewards element of CSF.

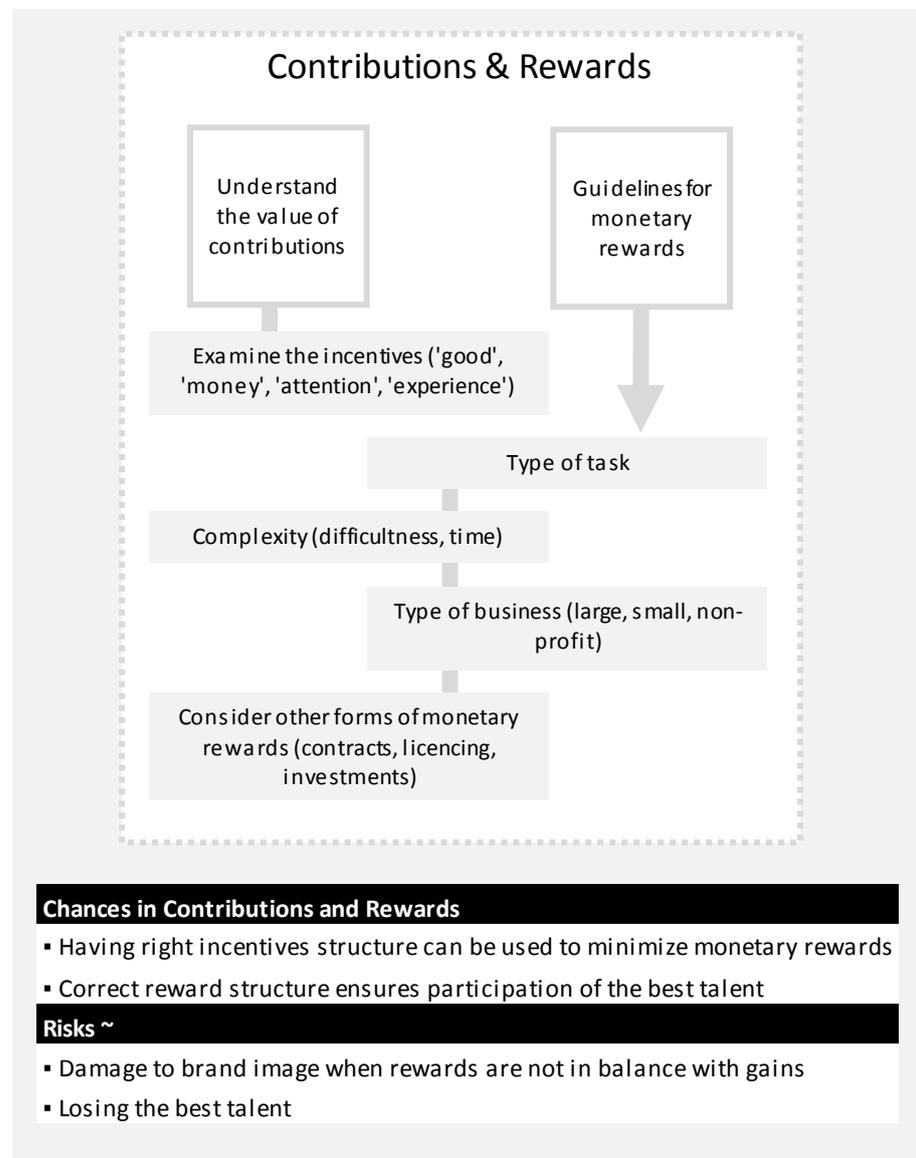


Figure 19. Contributions and Rewards in CSF

Rewards are primarily determined by the incentives structure of the crowdsourcing initiative. When the mix of incentives is correct there can be found reasons for professionals to contribute with little or even no reward. Small cash prizes in turn of great benefits for the organization will turn against the initiative. The compensation should always be in relation to the benefit that the business is gaining by utilizing crowdsourcing. For certain groups like students the awareness and ability to learn and have opportunity to create contacts is a significant reward. For industry professionals having their development idea implemented can also be a

great motivator to participate. When there is no real need for donating monetary prizes it shouldn't be even offered. An insignificant monetary reward might compromise the value of the other incentives to participate and affect negatively on the platform performance and eventually brand image.

In case there will be offered prizes, they should be in relation to following aspects. The type of task and complexity of the challenge effect on the reward. Complexity is both a factor of the time allocated to the task and difficultness of the challenge at hand. Lastly, the type of the business must also be considered when thinking about the reward structure for crowdsourcing initiative. Large companies can afford to give bigger compensation than smaller and participants acknowledge this. Smaller and non-profit campaigns can get away by offering little or no reward for receiving ideas and other modes of contribution from the crowd even they would benefit greatly on that. In case of the non-profits this is naturally also the desired outcome. Crowdsourcing gives an opportunity to increase effectiveness and provide valuable solutions in a way and a cost that has not previously been possible. The efforts of the crowd must therefore be rewarded fairly or the business will pay the price for exploitation in damage to their brand image. Recruiting the best talent demands fair motivational structure and when there is a need for monetary rewards they should reflect the value of contributions and benefit the business is receiving.

4.5 What Now? – After Implementation

After the crowdsourcing initiative has been implemented, raises the question, what now? Some initiatives could be one time only, when others have a goal to get continuous benefit from crowdsourcing. Businesses that have failed in their crowdsourcing efforts, it might just be left there. However, it is worth looking into the process and determine what went wrong if this happens. When the competitors also experiment with crowds, there may well be situation where it would've been a smart move to reconsider the decision to quit. Gaining competitive advantage with crowdsourcing is not an easy task. As the CSF demonstrates there are many things that need to be paid attention to. That's why the framework is divided into series of

steps from planning to organizing and execution. For extra clarity, the horizontal dimension highlights the most important primary elements in the model and their support elements. All of the phases in the model have their challenges, also chances and risks are described in that particular element. The chances aim to demonstrate the value of implementing crowdsourcing in business operations.

Even with well functional crowdsourcing initiative, such as SAP Idea Place platform, there is the possibility to refine the process that's been used. Idea Place was originally launched some years ago, but even then SAP noticed there was need for improvement. The refined platform facilitated Brightidea's expertise to be able to manage the submitted ideas more effectively. It's not necessary to try to find the solutions to problems within the business either. A whole industry has emerged around crowdsourcing that provides tools to aid in co-innovation process. The platforms offered by these providers are increasingly useful and solid to enable crowdsourcing to happen. Check appendix 2 further for a list of selected crowdsourcing platform providers and other examples.

Experimentation is necessary when the technology is still relatively new. However, some best practices are already emerging in the field of crowdsourcing for example in the solutions that crowdsourcing platform providers offer. Success in implementing crowdsourcing depends on many factors. The following chapter discusses the success factors of crowdsourcing initiative in more detail.

4.6 Success Factors of Crowdsourcing Initiative

Successful implementation of crowdsourcing is a sum of many details. This chapter provides list of success factors of crowdsourcing initiative that are directly reflected to the CSF. When looking for a reason to a failed crowdsourcing attempt, it's useful to understand the fundamental issues of crowdsourcing. In short, not all products or services are suitable targets for crowdsourcing, but when certain criteria is met, crowdsourcing can be noteworthy option to create value and thus gain competitive

advantage. Table 10 provides a list of factors that are required for the successfully led initiatives.

Table 10. List of Success Factors of Crowdsourcing Initiative

Crowdsourcing Success Factors	
▪ Contributor characteristics	- Quality (expertise) - Size (sufficiently large crowd of interested people)
▪ Decisions of core issues	- What should be kept inside, what can be revealed to outsiders (incl. IP)
▪ Platforms	- Right platform to suit the search pattern - Customization of infrastructure for hire solutions
▪ Community management	- Controlling the crowd - Encouraging right behavior
▪ Rewarding	- Aligned with the mix of incentives - Delivering promises

Characteristics of the contributors are important factor behind successful crowdsourcing initiative. There needs to be a sufficient pool of contributors that have diverse skills and interests to participate in the crowdsourcing effort. Another contributor characteristic is the quality of this pool. Quality refers to the level of expertise that the crowd holds. In some cases the innovation is not possible without sufficient understanding that is, the domain knowledge. Also, if this pool is too small, crowdsourcing likely is not a good option. Therefore, being able to recognize these valuable contributors is a key success factor, and secondly, being able to recognize, whether there exists a sufficiently large crowd that possess this useful knowledge or interest towards the initiative.

Another key factor that derives from the choosing crowdsourcing tools element of CSF, is the ability of the business to keep the core competence in internal control to prevent loss of critical know-how. It's highly important to determine what those key issues are that shouldn't be revealed to outsiders. Example of these are the IP protection issues in the business. However, when situations change these key issues should be frequently reviewed.

When using external providers such as infrastructure for hire platforms there is the question of being able to customize the platform to fit for the business, its brand image and the crowd. The experience that crowdsourcing initiative gives for the participants determines whether the campaign has been one-off experiment or whether it can provide continuous benefits for the business. However, most of these platform providers have support and service features that allow even deep customizations, although the cost of the service may be high. It's up to each situation whether these solutions are beneficial for the business, or could there be an alternative method to tap the knowledge of the crowds. Many of the platforms provide ready-made solutions for complex community management processes. Even there is sufficient understanding in-house, it might be reasonable to use hired structure to save development time.

The level of interaction that the business execute determines greatly what kind of success can be expected. Ability to pick the correct search pattern to accommodate the crowdsourcing initiative is an important facilitator of success.

Community management is linked to the previous success factor. When collaboration pattern is utilized, the interaction with the crowds gets more important. Without functional community management process, there is high probability to lose control of the crowdsourcing initiative. The crowd can be wise, but it can also be cruel. Methods to encourage right behavior should be used and community guidelines frequently communicated to the members.

Lastly, the reward structure must be in align with the other incentives and the type of crowdsourcing initiative and other factors. Without rewards being properly in relation to the benefits that the business is gaining, the business risks losing the best talent and suffers damage to its brand image. Finally, the business must deliver on its promises if it wishes to maintain the best talent and get access to valuable ideas.

5 REVIEW OF THE RESULTS

The results of this thesis are culminated in the crowdsourcing success framework (CSF) in chapter 4. CSF is constructed via review of the literature on recent research on the field of crowdsourcing and refined by analyzing a case company. The purpose of the case examination was also to highlight various aspects of CSF and to give an example of the real life implementation of crowdsourcing initiative. Various Web based resources have been used to find additional information as discussion on crowdsourcing is still occurring both in scientific papers and Web magazines and online newspapers. The CSF has contextually increased the knowledge in the field of crowdsourcing and the understanding of successful implementation of crowdsourcing in businesses.

Particular focus of this thesis has been in the traditional business perspective. Consequently, the CSF has been constructed this limitation in mind. The framework might not be suitable for smaller sized businesses, however, various elements of it can be applied in spite of the resources of the businesses.

Crowdsourcing has the ability to provide competitive advantage, when it is implemented in the business model of the firm. However, the resource configurations don't require, that it would have to be at the core of the business model of the firm to have effect. The CSF takes this into account, as it simply provides a planning, organizing and execution phased model for implementing crowdsourcing that should limit the organizational changes that the business will confront.

The value creation perspective of this thesis lies in the ability of the business to control the crowdsourcing implementation process. The argument here is that without the ability to control crowdsourcing initiative, it will be hard to create true economic value. The value creation is important in order to gain sustainable competitive advantage and, thus, be successful in the long term.

The crowdsourcing success framework show that implementing new technologies into the everyday business processes and even into traditional businesses doesn't have to be a complex process. The multi-method qualitative research conducted in this thesis aims to create additional confidence in the framework that was created.

In order to better understand the reasons behind successful crowdsourcing, this thesis also listed specific success factors based on findings. An essential purpose of the list is to facilitate understanding of the CSF and to highlight especially important factors that successful initiatives have in common.

When summarizing the findings of the study, CSF provides a purposeful model for traditional businesses to control the process of implementing crowdsourcing into their business operations. Value creation with the help of crowdsourcing can be complicated process when major organizational changes are required. Consequently, the framework starts by determining if the business and its product are suitable for crowdsourcing. The resulted framework supports the implementation process of crowdsourcing, thus, allowing a sustainable crowd-powered value creation.

6 CONCLUSIONS

The various crowdsourcing related initiatives have been rapidly penetrating the business landscape over the recent years. Businesses are beginning to realize that there can be gained significant value by implementing crowdsourcing in their everyday business operations. The owning of the intellectual property is no longer as important as the access to IP. However, this change in mindset is not enough to gain sustainable competitive advantage when businesses are utilizing a strategy based on crowdsourcing. The technology is still relatively new, and perhaps experimentation continues to describe the current business landscape. The following research question and objective was defined:

RQ: How can traditional businesses create value by utilizing strategy based on crowdsourcing?

O: To find the underlying principles that make crowdsourcing work by creating a framework for successful implementation of crowdsourcing initiatives

This thesis creates a framework for successful implementation of crowdsourcing initiatives to assist in new form of value creation. Special limitation of the framework is that it is designed for traditional businesses in mind. Traditional business is defined here as a business that as established market positioning and does not use crowdsourcing at the core of its business model. Also, this thesis is primarily focused on the whole process of successful implementation of crowdsourcing rather than different types of crowdsourcing and their implementation.

The results are based on literature analysis and selected case company examination. Literature analysis defined the associated theory of crowdsourcing and specifically determined the scope of crowdsourcing by demonstrating the crowdsourcing landscape. The appendices section of the thesis provides a list of various businesses in all the currently identified crowd-based business models. This aims to increase

the understanding of the field of crowdsourcing, when the different choices in form of business models available are defined.

The next section opens up the theoretical and managerial contributions of this thesis. Theoretical contributions aim to answer the research question particularly, and managerial implications to demonstrate the effect that this thesis has over academic circles.

6.1 Theoretical Contribution of the Research

For starters, it is useful to have reminder of the definition of crowdsourcing. It can be defined as an act of outsourcing tasks that are originally performed inside the organization to an undefinably large, heterogeneous mass of potential actors. The value creation that is based on utilizing strategy based on crowdsourcing is an attractive choice for many businesses. Crowdsourcing offers various benefits for companies such as enhancement of the relationships it currently has and increased brand loyalty not to forget the cost cutting potentials. However, certain risks are involved in this implementation. These risks are difficulties in calculating the project costs, risk of losing control and internal know-how among others.

To answer these opportunities and alleviate the risks involved in crowdsourcing a three phased framework was constructed. The phases are planning, organizing and execution. Before these, however, the business must ask whether its product or service is suitable for crowdsourcing. The framework is two-dimensional to facilitate the understanding of the process. Vertical dimension can be opened up phase-by-phase basis. Planning phase consist of choosing the crowdsourcing tools, finding reasons behind participant motivation by creating a mix of incentives, and determining the IP issues related to the initiative. Organizing phase includes choosing the right platform that can range from proprietary in-house solutions to ready-made infrastructure for hire platforms and existing communities. The platform selection primarily is a factor of the search pattern, which is determined by the fact what the business wishes to accomplish with crowdsourcing. Simple

search pattern is useful when the business simply wishes to acquire submissions but chooses to keep maximum control of the interaction. Collaboration and integration patterns are utilized when more communication is needed between the business and customers. This allows access to various benefits of crowdsourcing including increased brand loyalty and improved customer relationships but requires a whole lot more maintenance than other search patterns. Organizing pattern has one last element that is participant recruitment. Recruitment element is also linked to execution phase which contains the important community management element and understanding the value of contributions and rewarding participants. When using a more complex search pattern the value of community management increases significantly. Risks of poor community management are loss of control of the platform that would lead to a failure of crowdsourcing efforts. Consequently, here is also the best chance to enhance the relationship between the outside crowd and the business. When conducted successfully, businesses can gain not only a plethora of new innovative ideas and deeper customer relationships, but also brand advocates that can help in recruiting new participants in the crowdsourcing initiative.

Suitability of the business for crowdsourcing depends on largely in the quality of the crowd and contributor characteristics. Innovative ideas require a sufficient understanding of the domain knowledge – the knowledge that is needed to solve the problem. Another factor of the crowd is its sheer size. If the pool of potential contributors is very small, the crowd doesn't have much wisdom to share. Therefore, recognizing the crowd structure is important part of successful crowdsourcing. Other success factors include encouraging the right behavior and having rewards aligned with the mix of incentives. Delivering promises is highly important in this strategy. Without giving the crowd back for its time and efforts, the business will cut itself out of the best talent.

When all the phases have been implemented and crowdsourcing initiative is either completed or still on-going, when the purpose is getting sustainable benefits, there should be made a review of the process and see what refinements can be done to

the initiative. When businesses utilize strategy that is based on crowdsourcing to create value and gain competitive advantage, the refine methods phase will help them to keep this advantage. This thesis has utilized Porter's value chain to demonstrate the impact of crowdsourcing to the value chain of the firm. The value chain is meant to illustrate in which value activities the crowds can be used effectively.

The academic results of this thesis have been following:

- Bringing new knowledge to better facilitate the implementation of crowdsourcing into the business operations of the firm.
- Increase understanding of the effect of crowdsourcing into the value chain of the firm.

By conducting the literature analysis and examining case company has increased the understanding of how value creation happens when utilizing strategy based on crowdsourcing. The CSF summarizes the findings of the current literature in order to form a framework for successful implementation of these initiatives.

6.2 Managerial Contribution of the Research

This thesis has a practical purpose as well the academic. The crowdsourcing success framework, that is the main contribution of this research, is aimed for businesses to critically review their current crowdsourcing practices. Additionally, it is aimed for those businesses that wish to get some of the benefits of crowdsourcing, but have not yet started or perhaps don't know where begin. By examining the elements of the model, specifically the primary elements, businesses will increase their chances to have successfully implemented crowdsourcing initiatives.

The managerial contribution of the research is following:

- Realization of the business potential of utilizing strategy based on crowdsourcing.
- Better understanding of the success factors of crowdsourcing initiative.
- Phase-by-phase model for carrying through crowdsourcing initiatives.

6.3 Assessing the Reliability and Validity of the Results

This thesis pursues to have a real life value by adopting a multi-method qualitative analysis method for the research. By examining a number of literature that has focused on different manifestations of crowdsourcing, and devising the framework in this thesis based on this extensive literature and conducted case study, the errors in results have been attempted to minimize. I didn't see it meaningful to make a thesis that wouldn't have had a practical objective as well, this being the ability to utilize the crowdsourcing success framework in actual businesses. The case examination seeks to triangulate the findings from literature to ensure that the literature cited in this thesis supports the construction of the framework. This triangulation of research data is also conducted to increase the practical applicability of the CSF, and is supported by the pragmatist position that was decided in the beginning of this thesis. Basically, the reliability and validity of the research are a sum of the research choices made. Literature analysis has its main benefits in evaluating the existing theory and identifying the problems of the research questions. Case study has its assets in challenging these theories and working as a building block for new theory. This new theory is then represented in the form of the main contribution of this thesis – the crowdsourcing success framework. By following this research structure, this thesis has attempted to minimize the factual errors and provide reliable information that has both academic and managerial value.

6.4 Proposals for Further Research

Through conducting a literature analysis of crowdsourcing couple of notions come up. Firstly, the discussion of the topics is happening both inside and outside of traditional academic debate. Because of this various Web related resources have been used alongside academic publications. Secondly, crowdsourcing is still relatively new in the current form that it is practiced. The word experimentation therefore describes current situation of crowdsourcing landscape. It seems that the highly dynamic environment continues to take on new additional forms. Finally, during the making of this thesis, I noticed that there seems to be lack of literature that focuses on the processes of implementing crowdsourcing initiatives. The crowdsourcing success framework presented in this thesis is not the only way to successfully change traditional business into a crowd-business.

By having made the literature analysis and examined the current identified crowdsourcing business models, I noticed that some of the companies that I came across didn't seem to fit in the business model landscape (appendix 1). This would indicate that the new ventures are both adopting completely new business models but also adopting a combination of features from several business models. Some of the new businesses are working on several frontiers where others are specializing and differentiating themselves even further. In conclusion, there seems to be room for further academic research when it comes to examining these new crowd based business models.

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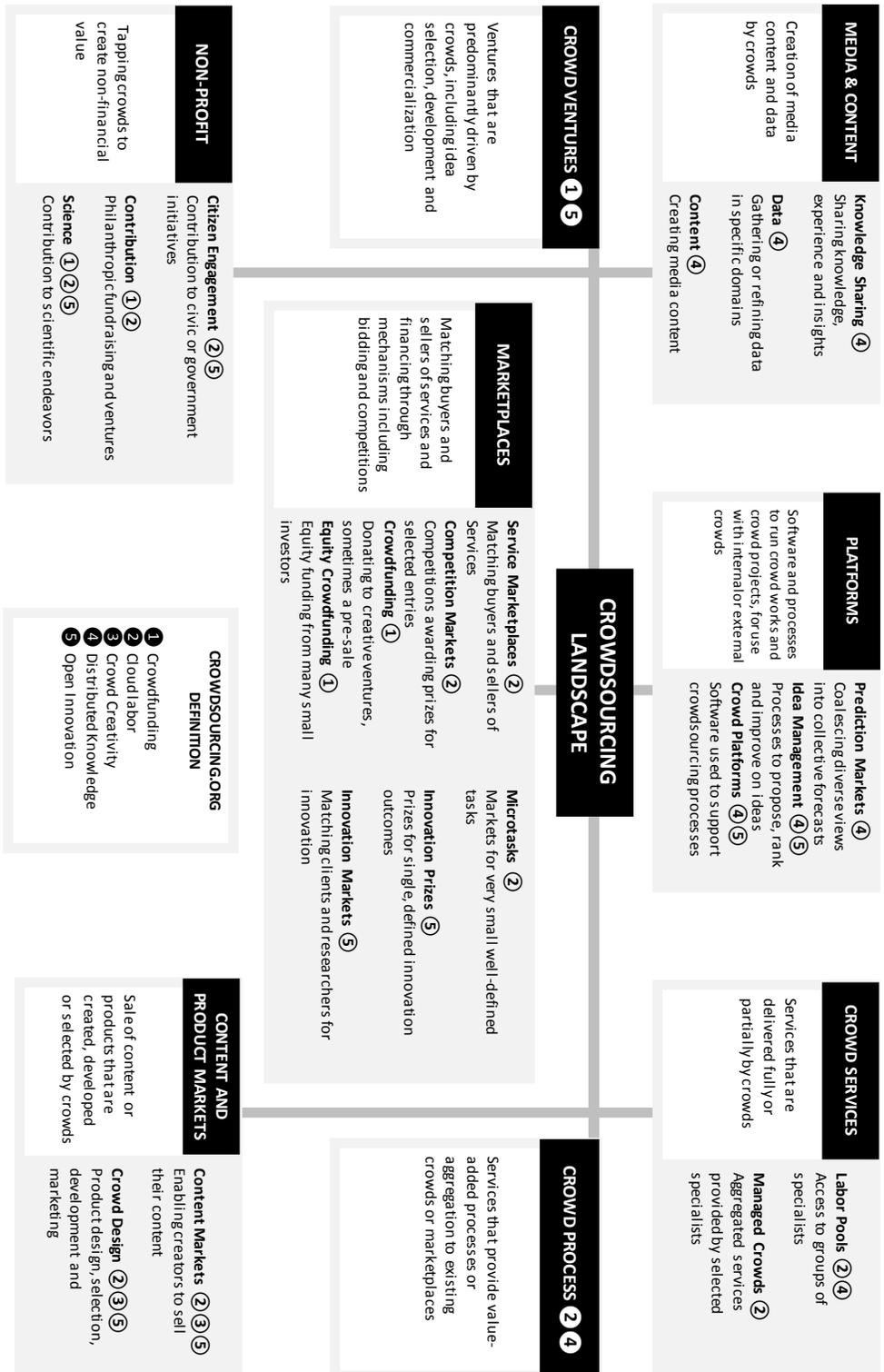
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APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)



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MEDIA & CONTENT		
Creation of media content and data by crowds		
Knowledge Sharing	Data	Content
<p>Sharing knowledge, experience and insights</p> <p>Quora¹</p>  <p><i>Community Website where questions are answered, created, edited and organized by the community. Includes a blogging service for users and a customizable newsfeed.</i></p>	<p>Gathering or refining data in specific domains</p> <p>Data.com⁴</p>  <p><i>Part of Salesforce platform. CRM (customer relationship management) service. Assisting in sales and marketing planning by providing business data via cloud based service.</i></p>	<p>Creating media content</p> <p>Wikipedia⁷</p>  <p><i>Collaboratively built encyclopedia that utilizes wiki platform. Anyone can edit and add new information. Provided information is collectively monitored and so far the results have been surprisingly good in terms of reliability of the content.</i></p>
<p>Craigslist²</p>  <p><i>Website for classifieds advertisements with abundant sections from jobs to services and advices to local activities. Moderated by the community.</i></p>	<p>Google Traffic Data⁵</p>  <p><i>Probably the most famous and widely distributed maps service in the world. Provides real-time traffic data that's collected anonymously on users cell phones.</i></p>	<p>TrendHunter⁸</p>  <p><i>Community of trendspotters (globally 155.000 members). Content is widely used by industry professionals and entrepreneurs to search innovative ideas, viral news and pop culture.</i></p>
<p>Skillshare³</p>  <p><i>Skillshare aims to provide universal access to high-quality learning by providing courses taught by industry leaders. Classes are primarily project based.</i></p>	<p>Waze⁶</p>  <p><i>Community for sharing real time traffic and road information via its navigation app. Includes gas price comparisons and other features.</i></p>	<p>Buzzfeed⁹</p>  <p><i>Creator of news and entertainment. Emphasizes on the shareable content to increase discussion and spread on various topics. Uses community feedback to develop the platform.</i></p>

¹ <https://www.quora.com/> [Accessed 3th October 2014]

⁶ <https://www.waze.com/> [Accessed 3th October 2014]

² <http://www.craigslist.org/> [Accessed 3th October 2014]

⁷ <http://www.wikipedia.org/> [Accessed 3th October 2014]

³ <http://www.skillshare.com/> [Accessed 3th October 2014]

⁸ <http://www.trendhunter.com/> [Accessed 3th October 2014]

⁴ <http://www.data.com/> [Accessed 3th October 2014]

⁹ <http://www.buzzfeed.com/> [Accessed 3th October 2014]

⁵ <https://www.google.fi/maps/> [Accessed 3th October 2014]

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APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)

PLATFORMS		
Software and processes to run crowd works and crowd projects, for use with internal or external crowds		
Prediction Markets	Idea Management	Crowd platforms
Coalescing diverse views into collective forecasts	Processes to propose, rank and improve on ideas	Software used to support crowdsourcing processes
<p>Kaggle¹⁰</p>  <p><i>Platform for predictions and data modeling. Also hosts competitions, so it could be categorized in competition markets as well. Uses big data analytics and community of data scientists to solve problems.</i></p>	<p>IdeaScale¹³</p>  <p><i>Combines the ideas of stakeholders and customers allowing them to vote, discuss and give feedback. The most valuable ideas are ranked to inform what community really wants.</i></p>	*Check Appendix 2 for list of various crowd platforms
<p>Inkling Markets¹¹</p>  <p><i>Software to improve decision making and forecasting by identifying the value of ideas using collective intelligence solutions (aka combines diverse views of the community to produce forecasts)</i></p>	<p>Imaginatik¹⁴</p>  <p><i>Full service innovation company which allows its customers to host innovation challenges and rank ideas. Both internal and external use.</i></p>	
<p>CrowdWorx¹²</p>  <p><i>Enterprise Innovation platform that aggregates the knowledge and gut feeling of coworkers in the firm and produces forecasts based on them.</i></p>	<p>Qmarkets¹⁵</p>  <p><i>Collective intelligence software provider to help organizations find out opinions of stakeholders in order to make better business decisions.</i></p>	

¹⁰ <https://www.kaggle.com/> [Accessed 4th October 2014]

¹¹ <http://www.inklingmarkets.com/> [Accessed 4th October 2014]

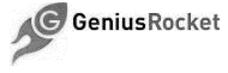
¹² <https://www.crowdworx.com/> [Accessed 4th October 2014]

¹³ <http://ideascale.com/> [Accessed 4th October 2014]

¹⁴ <http://imaginatik.com/> [Accessed 4th October 2014]

¹⁵ <http://www.qmarkets.net/> [Accessed 4th October 2014]

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CROWD SERVICES	
Services that are delivered fully or partially by crowds	
Labor Pools	Managed Crowds
<p>Access to groups of specialists</p>	<p>Aggregated services provided by selected specialists</p>
<p>99tests¹⁶</p>  <p><i>Testing platform, where developers can get their software tested by professionals via their cloud based service.</i></p>	<p>eYeka¹⁹</p>  <p><i>Business that turns its customers' problems into creative competitions to find new innovative ideas and explore solutions. Examples include product ideas or concepts and brand identity fixes where answers are provided by community of creatives.</i></p>
<p>BzzAgent¹⁷</p>  <p><i>WOM (word-of-mouth) marketing company, that helps businesses manage real-world customer conversations by handing out products to real consumers and sharing their opinions about them via reviews, blog posts and social media services.</i></p>	<p>GeniusRocket²⁰</p>  <p><i>Provides a community of ~600 creative professionals that create advertising videos for their customers. It introduces a term curated crowd (selected professionals) that complete the given tasks.</i></p>
<p>ZocDoc¹⁸</p>  <p><i>Service to facilitate finding and scheduling appointments to medical care professionals. It allows patients to find nearby doctor or dentist and see their availability for booking. Currently only available in US.</i></p>	<p>Innovation Management²¹</p>  <p><i>An online learning and resource platform that aims "to train and inspire companies and individuals to become successful innovators."</i></p>

¹⁶ <https://99tests.com/> [Accessed 4th October 2014]

¹⁷ <https://www.bzzagent.com/> [Accessed 4th October 2014]

¹⁸ <http://www.zocdoc.com/> [Accessed 4th October 2014]

¹⁹ <https://en.eyeka.com/> [Accessed 4th October 2014]

²⁰ <http://geniusrocket.com/> [Accessed 4th October 2014]

²¹ <http://www.innovationmanagement.se/> [Accessed 4th October 2014]

APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)

CROWD VENTURES	
Ventures that are predominantly driven by crowds, including idea selection, development and commercialization	
<p>Zanox²²</p> 	<p><i>A provider of affiliate marketing, email marketing and customer loyalty programs. Allows its customers to engage in additional revenues and gaining customers primarily with the help of affiliate marketing programs. Offers performance based advertising platform.</i></p>
<p>Sensorica²³</p> 	<p><i>Value network for finding solutions to problems and exchanging these solutions on the market for profits. Describes itself being primarily for the benefit (for passion driven projects), and not a profit maximizing organization. Facilitator of large scale co-creation and value exchange.</i></p>
<p>MyCrowd²⁴</p> 	<p><i>Allows testing of Websites and mobile apps to ensure they are working on all kinds of platforms. A community of testers pursuits to find the bugs before customers do. Involves a process where only the approved bugs are required for compensation, thus, preventing opportunistic behavior.</i></p>

²² <http://www.zanox.com/gb/> [Accessed 4th October 2014]

²³ <http://www.sensorica.co/> [Accessed 4th October 2014]

²⁴ <https://mycrowd.com/> [Accessed 4th October 2014]

APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)

CROWD PROCESS	
Services that provide value-added processes or aggregation to existing crowds or marketplaces	
Crowdfower²⁵ 	<i>A platform for data scientist to help them collect and analyze data at scale. It is specialized in micro tasking, where number of small tasks are executed by a vast crowd of people. A community of 5 million people and a core team of experts.</i>
Klout²⁶ 	<i>Platform for measuring social influence in online environment. Utilizes social media analytics to measure the impact of different actions and ranks users based on an individually measured score.</i>
Modria²⁷ 	<i>A dispute resolution platform for companies. Offers scalable technology to resolve disputes fast, reduce costs and increase customer loyalty.</i>

²⁵ <http://www.crowdfower.com/> [Accessed 5th October 2014]

²⁶ <https://klout.com/home> [Accessed 5th October 2014]

²⁷ <http://www.modria.com/> [Accessed 5th October 2014]

APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)

MARKETPLACES - (1/2)			
Matching buyers and sellers of services and financing through mechanisms including bidding and competitions			
Service Marketplaces	Competition Markets	Crowdfunding	Equity Crowdfunding
Matching buyers and sellers of services	Competitions awarding prizes for selected entries	Donating to creative ventures, sometimes a pre-sale	Equity funding from many small investors
<p>oDesk²⁸</p>  <p>Online work-environment for businesses and freelancers. One-stop shop to find talented developers, designers, writers and many more.</p>	<p>99designs³¹</p>  <p>Marketplace for online graphic designers. Allows setting up competitions for professional logo and Website designs and other graphic design tasks.</p>	<p>Kickstarter³⁴</p>  <p>A Platform to find funding for creative projects. In order to receive funding there is a threshold amount that must be reached. Often projects offer presale, or discount to backers.</p>	<p>40Billion³⁷</p> <p>40Billion.com[®]</p> <p>Fundraising platform for small-businesses and startups, that facilitates building a network of people and promoting business. Recently opened worldwide.</p>
<p>Joomlancers²⁹</p>  <p>Specified freelancer marketplace for Joomla developers (WordPress experts and programmers)</p>	<p>CrowdSpring³²</p>  <p>Creative services marketplace with similar tasks than 99designs. Includes industrial design and writing services.</p>	<p>Sellaband³⁵</p>  <p>Music Website that offers artists a chance to get direct support from their fans, for example album recording. Artists can also reward their backers.</p>	<p>GrowVC³⁸</p>  <p>Securities crowdfunding platform. Allows crowd investing and institutional investor models work together.</p>
<p>TaskRabbit³⁰</p>  <p>Place to find help in everyday tasks and errands by outsourcing them to trusted people in your neighborhood. Currently only in US.</p>	<p>Naming Force³³</p>  <p>Platform for naming contests. Name submission, market research and ranked name list provided by the community behind service. Communication between participants is supported.</p>	<p>Publishizer³⁶</p>  <p>A preorder platform for books. Offers writers a chance to collect money from their work in advance and lets them focus on creative work.</p>	<p>AngelList³⁹</p>  <p>US based Website for startups and angel investors. Includes also job search platform for people looking to work at startups.</p>

²⁸ <https://www.odesk.com/> [Accessed 5th October 2014]

²⁹ <http://www.joomlancers.com/> [Accessed 5th October 2014]

³⁰ <https://www.taskrabbit.com/> [Accessed 5th October 2014]

³¹ <http://99designs.com/> [Accessed 5th October 2014]

³² <http://www.crowdspring.com/> [Accessed 5th October 2014]

³³ <http://www.namingforce.com/> [Accessed 5th October 2014]

³⁴ <https://www.kickstarter.com/> [Accessed 5th October 2014]

³⁵ <https://www.sellaband.com/> [Accessed 5th October 2014]

³⁶ <https://publishizer.com/> [Accessed 5th October 2014]

³⁷ <http://www.40billion.com/> [Accessed 5th October 2014]

³⁸ <http://group.growvc.com/> [Accessed 5th October 2014]

³⁹ <https://angel.co/> [Accessed 5th October 2014]

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APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)

MARKETPLACES - (2/2)		
Matching buyers and sellers of services and financing through mechanisms including bidding and competitions		
Microtasks	Innovation Prizes	Innovation Markets
<p>Markets for very small well-defined tasks</p> <p>Cloudfactory⁴⁰</p>  <p><i>Provides a space for completing repetitive but human intensive tasks with the help of a vast community of workers. Tasks should be primarily not possible to complete just with automated process, but require human intervention.</i></p>	<p>Prizes for single, defined innovation outcomes</p> <p>Cisco IoT Innovation Challenge⁴³</p>  <p><i>Seeks solutions from early stage businesses and teams to provide technology based prototypes in development. Aim is to accelerate adoption of IoT technologies and reward the teams and businesses that provide best solutions to answer the defined problems.</i></p>	<p>Matching clients and researchers for innovation</p> <p>IdeaConnection⁴⁶</p>  <p><i>Platform that allows access to a network of experts. Aim is to assist in solving technical problems and solve business bottlenecks through collaboration with the expert community and businesses.</i></p>
<p>MicroTask⁴¹</p> <p>microtask</p> <p><i>Service for human OCR (optical character recognition) when automated processes don't work. Combines machine assisted workflow to a community of workers.</i></p>	<p>Google Online Marketing Challenge⁴⁴</p>  <p><i>Students only challenge where Google provides its AdWords resources to run and manage their clients' campaign in Google+ platform.</i></p>	<p>GE Ventures⁴⁷</p>  <p><i>Provides access to a global network of General Electric's resources. Offers partnerships for companies that have solutions for defined problems.</i></p>
<p>ShortTask⁴²</p>  <p><i>For completing tasks that can't still be replaced by technology, such as transcribing, identifying objects in photography etc. Vast community of workers.</i></p>	<p>NYC BigApps⁴⁵</p>  <p><i>Hosts variety of challenges to help city of New York by building innovative solutions to problems and solving civic challenges that the participating teams find important.</i></p>	<p>Ideaken⁴⁸</p>  <p><i>Collaboration and innovation service to connect problem solvers with businesses. Offers SaaS platform to foster collaboration and open innovation.</i></p>

⁴⁰ <http://www.cloudfactory.com/home> [Accessed 5th October 2014] ⁴⁵ <http://nycbigapps.com/> [Accessed 5th October 2014]

⁴¹ <http://www.microtask.com/> [Accessed 5th October 2014]

⁴⁶ <http://www.ideaconnection.com/> [Accessed 5th October 2014]

⁴² <http://www.shorttask.com/> [Accessed 5th October 2014]

⁴⁷ <http://www.geventures.com/> [Accessed 5th October 2014]

⁴³ <https://iotchallenge.cisco.spigit.com/Page/Home> [Accessed 5th October 2014]

⁴⁴ <https://www.google.com/onlinechallenge/> [Accessed 5th October 2014] ⁴⁸ <http://www.ideaken.com/> [Accessed 5th October 2014]

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NON-PROFIT		
Tapping crowds to create non-financial value		
Citizen Engagement	Contribution	Science
Contribution to civic or government initiatives	Philanthropic fundraising and ventures	Contribution to scientific endeavors
<p>Ushahidi⁴⁹</p>  <p><i>A software company that develops open source software to aid in information collection in various situations. They provide the data management system and crowd provides the data.</i></p>	<p>Causes⁵²</p>  <p><i>Web platform to aid in discovering, supporting and organizing campaigns to tackle social, political and cultural issues that impact people and their community.</i></p>	<p>FoldIt⁵⁵</p>  <p><i>A platform that hosts a puzzle type computer game to contribute to scientific research. Protein folding game aims to find solutions to HIV/AIDS, cancer, Alzheimer's and other diseases.</i></p>
<p>FixMyStreet⁵⁰</p>  <p><i>UK based community Website where anybody can report problems with streets (potholes, lightning etc.). Provides free to use platform for people to localize the service all over the world.</i></p>	<p>Kiva⁵³</p>  <p><i>Organization on a mission to alleviate poverty by connecting people who are willing to lend money for the causes they find important. Works in collaboration with microfinance institutions that provide loans to people without access to traditional banking service.</i></p>	<p>Zooniverse⁵⁶</p>  <p><i>Website to host popular citizen science projects. Started from GalaxyZoo project (classifying millions of galaxies based on their shape) in 2007, when the current platform allows everybody to contribute to projects developed by Citizen Science Alliance.</i></p>
<p>Spacehive⁵¹</p>  <p><i>A funding platform for civic projects (i.e. playground building or park development). Localized service allows to gather support for projects from the residents and local community.</i></p>	<p>Razoo⁵⁴</p>  <p><i>Crowdfunding platform for non-profits, individuals and communities. The platform has also peer-to-peer feature that allows to donate directly to people for good causes.</i></p>	<p>Experiment⁵⁷</p> <p>experiment</p> <p><i>Aims to “close the gap between potential and promising, but unfunded projects.” A funding platform for scientific projects similar to crowdfunding platforms, where no money is delivered unless the funding goal is reached.</i></p>

⁴⁹ <http://www.ushahidi.com/> [Accessed 5th October 2014]

⁵⁴ <http://www.razoo.com/> [Accessed 5th October 2014]

⁵⁰ <http://www.fixmystreet.com/> [Accessed 5th October 2014]

⁵⁵ <http://fold.it/portal/> [Accessed 5th October 2014]

⁵¹ <http://spacehive.com/> [Accessed 5th October 2014]

⁵⁶ <https://www.zooniverse.org/> [Accessed 5th October 2014]

⁵² <https://www.causes.com/> [Accessed 5th October 2014]

⁵⁷ <https://experiment.com/> [Accessed 5th October 2014]

⁵³ <http://www.kiva.org/> [Accessed 5th October 2014]

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APPENDIX 1. Crowdsourcing Landscape (adapted from Crowdsourcing.org, 2014; Dawson & Bynghall, 2011)

CONTENT AND PRODUCT MARKETS	
Sale of content or products that are created, developed or selected by crowds	
Content Markets	Crowd Design
<p>Enabling creators to sell their content</p>	<p>Product design, selection, development and marketing</p>
<p>DesignbyHumans⁵⁸</p>  <p><i>Platform that gathers artist around the globe together to produce unique T-shirt designs. Designs can be bought via the Website. Also hosts design competitions with cash prizes.</i></p>	<p>Ponoko⁶¹</p>  <p><i>Laser cutting and 3D printing service. Uses distributed and on-demand manufacturing business model. Ponoko facilitates the manufacturing process by handling the printing in the closest location in regards to the where the order was made.</i></p>
<p>iStockPhoto⁵⁹</p>  <p><i>Offers selection of royalty free stock photos, film and audio and other media for customers. Material is generated by a vast community of providers and stock material (licensable for use in advertising or promotions) database is growing daily.</i></p>	<p>Made.com⁶²</p>  <p><i>Designer furniture retailer based online. Doesn't own its factories but however uses commission factories to deliver the orders. Fast design process from plan to manufacturing compared to traditional furniture retailers.</i></p>
<p>Minted⁶⁰</p>  <p><i>Marketplace for showcasing and selling independent design and art from artists around the world. Offers high quality printing services and rapid customization of the designs (i.e. invitations, business cards, photo and modern and vintage customization).</i></p>	<p>EatMade⁶³</p>  <p><i>Homemade food delivery network. Chefs (both amateur and professional) can create a profile and based on location (proximity) the orders are delivered at the desired timeframe.</i></p>

⁵⁸ <http://www.designbyhumans.com/> [Accessed 5th October 2014]

⁵⁹ <http://www.istockphoto.com/> [Accessed 5th October 2014]

⁶⁰ <http://www.minted.com/> [Accessed 5th October 2014]

⁶¹ <https://www.ponoko.com/> [Accessed 5th October 2014]

⁶² <http://www.made.com/> [Accessed 5th October 2014]

⁶³ <https://www.eatmade.com/> [Accessed 5th October 2014]

APPENDIX 2. Selected Crowdsourcing Platforms with Descriptions

Platform type	Simple search pattern	Description
Existing communities	InnoCentive ¹ (P&G)	Innovation challenge platform: utilizes open innovation and provides a cloud based platform to run the challenges. Challenges in various fields from math, chemistry and physical sciences to engineering, computer science and business.
		
	Victors & Spoils ² (Adidas, Coca-Cola)	Collects advertising copywriters, strategists and designers all over the world and brings together the expertise of these creative directors.
	XPrize ³ (Nokia, Google, Qualcomm)	Non-profit organization that hosts innovation challenges to foster technological development
Proprietary infrastructure	P&G Connect and Develop ⁴	P&G's open innovation program. All the ideas must be protected before submission, and if the product or idea is chosen P&G will license and figure out how to scale it for production.
		
	DARPA ⁵	(Defense Advanced Research Projects Agency – US Department of Defense research organization) DARPA hosts number of large scale innovation challenges to solve various problems. Prizes are huge (up to \$2 million for the first prize) and participation involvement traditionally high.
	Springwise Access ⁶ (Coca-Cola)	Idea database for entrepreneurs and brand managers.

¹ <http://www.innocentive.com/> [Accessed on 29th September 2014]² <http://www.victorsandspoils.com/> [Accessed on 29th September 2014]³ <http://www.xprize.org/about/what-is-an-xprize> [Accessed on 29th September 2014]⁴ <http://www.pgconnectdevelop.com/> [Accessed on 29th September 2014]⁵ <http://www.darpa.mil/Initiatives.aspx> [Accessed on 29th September 2014]⁶ <http://www.springwise.com/access-about/> [Accessed on 29th September 2014]

APPENDIX 2. Selected Crowdsourcing Platforms with Descriptions

Platform type	Collaboration	Description
Existing Communities  	Jovoto ⁷ (Victorinox, Coca-Cola Deutschland, Audi, Total) OpenIDEO ⁸ (Coca-cola – recycling habits)	Accelerator of innovation by enabling creators to work collaboratively. Includes its own community of creative professionals. A non-profit open innovation platform dedicated to solve challenges to benefiting social good
Infrastructure for hire          crowdicity [®]	Cuusoo Social Creation Platform ⁹ (TEPCO, former LEGO CUUSOO Beta) Brightidea ¹⁰ (SAP, Cisco, GE, Motorola, Sony, International Paper, DHL, Bayer, Hewlett Packard, Logitech) IBM Connections 5 ¹¹ (CEMEX) Microsoft Yammer ¹² (Deloitte, DHL, Shell) GetSatisfaction ¹³ (myCoke rewards - Coca-Cola, P&G) Salesforce Radian 6 ¹⁴ (Vodafone, Cisco, Volvo) Spigit & Mindjet ¹⁵ (Siemens, BMW, DOW) Chaordix ¹⁶ (American Airlines, AT&T) Crowdicity ¹⁷ (Deloitte)	“Provide crowd-sourced solution to empower consumer-driven product development through interactions between user communities and corporations.” Collaborative innovation platform to help companies in managing both internal and external ideas from collection through execution. Social network platform to engage people and accelerate innovation and time-to-market by sharing knowledge beyond traditional company boundaries. Mainly an enterprise social platform (internal innovation) but allows external collaboration also. Enterprise social network for sharing information between teams and organize projects Online customer engagement community platform for managing relationships between company and customer. Social media monitoring platform. Allows studying of customer opinions in real-time, post scheduling and analytics to build targeted advertising campaigns. Innovation management platform to gather ideas from employers, partners and customers to accelerate time-to-market. Platform for internal and external innovation. Increase collaboration within the company as well as co-creating ideas with outside community. Internal co-innovation, open innovation (external crowd), market research and change management tools in one platform.
Proprietary Infrastructure 	DELL ¹⁸ (Ideastorm: DELL’s community Website)	Online suggestion box for innovative ideas and idea generation. Both internal and external communities.

⁷ <http://www.jovoto.com/clients>

⁸ <https://openideo.com/content/how-it-works>

⁹ <http://www.cuusoo.co.jp/>

¹⁰ <http://www.brightidea.com/customers.bix>

¹¹ <http://www-03.ibm.com/software/products/en/conn>

¹² <https://about.yammer.com/>

¹³ <https://getsatisfaction.com/corp/about/>

¹⁴ <http://www.salesforcemarketingcloud.com/>

¹⁵ <http://www.mindjet.com/spigitengage/>

¹⁶ <http://www.chaordix.com/>

¹⁷ <http://crowdicity.com/en/uses/>

¹⁸ <http://www.ideastorm.com/>

[All Accessed on 29th September 2014]

APPENDIX 2. Selected Crowdsourcing Platforms with Descriptions

Platform type	Integration	Description
Existing Communities   	Quirky ¹⁹ Local Motors ²⁰ Threadless ²¹ (GAP)	<p>Consumer products company. Uses its own platform to gather submission of new ideas, letting the community to evaluate and refine them until chosen for production.</p> <p>Unique business model that re-innovates the process of creating, developing, building and modifying of cars. The community participates in all the phases of development process, and interaction between the community and the business is on-going.</p> <p>Initially a forum for community of artist making T-shirt designs, but includes many more items nowadays. Community participates via voting and providing on-going feedback to the artists. Winning designs are then chosen based on this interaction.</p>
Infrastructure for hire 	Lithium ²² (Lenovo, Sky, Giffgaff)	<p>SaaS (software as a Service) based platform to build customer communities to foster trust building, accelerate innovation, reduce costs and grow brand advocacy by facilitating connection process with customers and other stakeholders. Includes tools for loyalty rewarding process based on measuring individual customers' influence.</p>
Proprietary infrastructure 	LEGO Ideas ²³	<p>Part of LEGO Websites, a place for external community to submit LEGO ideas and place them under community evaluation to gather support and be qualified for LEGO's in-house review process before production. Long history of delivering promises.²⁴</p>

¹⁹ <https://www.quirky.com/how-it-works> [Accessed on 29th September 2014]

²⁰ <https://localmotors.com/about/> [Accessed on 29th September 2014]

²¹ <https://www.threadless.com/infoblog/> [Accessed on 29th September 2014]

²² <http://www.lithium.com/company/> [Accessed on 29th September 2014]

²³ <https://ideas.lego.com/howitworks> [Accessed on 29th September 2014]

²⁴ http://lego.wikia.com/wiki/LEGO_Ideas [Accessed on 29th September 2014]

APPENDIX 3. Crowdsourcing Success Framework and Contents of Elements

