

Critical Success Factors for Leveraging Online Platforms for Open Innovation

A Case Study of the Innovation Intermediary Hosted by Skåne
Food Innovation Network

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- A Case Study of the Innovation Intermediary Hosted by Skåne Food Innovation
Network

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Preface

This master's thesis has been performed together with Skåne Food Innovation Network, and we would like to start by thanking them for giving us the opportunity to conduct a study on open innovation, an area that is of great interest to us. We would also like to extend our gratitude to all the employees at SFIN and Packbridge, who through multiple interviews have provided us with extensive insight into the OpenUp initiative. You have made us feel very welcome and appreciated and it has also been very interesting to listen to your ideas and thoughts during the coffee breaks. Moreover, we would like to direct a special thank you to Amanda Magnusson, our tutor at SFIN, for your continuous support as well as your insightful thoughts and suggestions on how we could improve our work.

As the result of this thesis is primarily based on the insights gathered through in-depth interviews with a number of individuals, we would like to express our sincerest gratitude to all of you who have offered to share your thoughts and knowledge with us. More specifically we would like to thank all the OpenUp initiators, participants and challenge sponsors who took the time to meet with us in person or over the phone. Furthermore, we would like to thank BrightIdea, Crowdicity, Exago, IdeaScale, Innovation Framework Technologies, LGI and mySideWalk; the seven companies who shared with us their knowledge, acquired over many years of experience from working with open innovation platforms. Your expertise about best practices for online platforms for open innovation provided us with an invaluable foundation, on which a big part of our result was built.

Aside from making this thesis possible, the conversations that took place during all the interviews have also been the highlight of our research, as it has been very rewarding to experience the diversity of your opinions and suggestions. We hope that you all found the conversations as pleasant as we did.

Finally, we would also like to express our sincerest gratitude to Susanna Bill, our tutor at the faculty of engineering in Lund. Throughout the course of this semester you have been a continuous support to us whenever we felt lost or unsure about how to proceed. You have also challenged us in our assumptions and the way we think, which encouraged us to constantly improve the work of this thesis. We have very much enjoyed working with you.

Lund, June 2015

Caroline Brandt and Caroline Dimberg

Abstract

Title: Critical Success Factors for Leveraging Online Platforms for Open Innovation – A Case Study of the Initiative Undertaken by Skåne Food Innovation Network

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Issue of study: After having hosted an intermediary platform for open innovation for the past few years, Skåne Food Innovation Network (SFIN) is now interested in evaluating the initiative and consolidate the knowledge acquired throughout the project. Furthermore, they wish to gain insight into how these types of platforms typically should be designed in order to be successful. Few studies have been conducted on how to structure intermediary platforms for open innovation, to ensure the desired result. The idea of this master's thesis is therefore to cover the gap in existing literature, by first developing a series of critical success factors important for successfully leveraging an online platform for open innovation. These critical success factors will then be used to analyze the OpenUp initiative, in order to identify potential implications that arise when intermediaries are taking on initiatives like this.

Purpose: The purpose of this master's thesis is to generate an understanding of how an open innovation platform (OIP) should be structured in order to achieve the desired outcome of the initiative. Furthermore the thesis also aims at exploring whether any specific implications arise when the entity hosting the platform is an intermediary rather than a company.

Methodology: In order to answer the research questions stated in this thesis, a two-phased approach was undertaken. The first phase comprised of a benchmarking study where in-depth interviews were held with platform providers with many years of experience in the field. During the second phase a qualitative case study over OpenUp was conducted, primarily based on in-depth interviews with different stakeholders involved in the initiative. The research has been undertaken using an abductive reasoning approach and it has proceeded in an iterative manner in order to ensure a result that is well grounded in data.

Conclusions: During this study, eight critical success factors for leveraging online platforms for open innovation were identified: *Platform Design, Target Audience, Problem Definition, Communication Strategy, Motivations and Incentives, Sponsor Engagement, Importance of Consequence* and *User-Centric Design*.

These factors were subsequently used to evaluate the initiative of the intermediary platform OpenUp. During the analysis, several challenges that arise for intermediaries leveraging OIPs were identified. Leveraging OIPs can be more complex for intermediaries, because the companies hosting challenges on the platform may have different objectives for doing so. As different objectives require different platform structure, it can be hard for the intermediaries to fulfill all expectations. Another complication arise from the fact that having both platform administrators and the companies hosting challenges involved on the OIP, can lead to confusion as to whom is in charge for tasks such as providing feedback to the audience. As a result, important tasks like this may be neglected. Furthermore, it can be challenging to raise awareness and build traction when not having a recognized brand to rely on. Finally, ensuring that the challenges trigger some consequence is also harder for intermediaries, as it is the companies hosting the challenges, and not the intermediaries, that make these decisions.

To sum up, the result of this thesis is a compilation of eight critical success factors for how to best leverage an OIP, as well as some additional challenges that arise for intermediaries hosting these types of platforms. The idea is that these factors and additional considerations should work as a guide for companies, in general, and intermediaries, more specifically, interested in leveraging an OIP.

Key words: Open Innovation Platform, Critical Success Factors, OpenUp, SFIN, Innovation Intermediary, Innovation Challenge, Innovation Contest

Acronyms

Challenge Sponsor	Individual or company hosting an innovation contest
Crowdsourcing	Outsourcing a function once performed by employees to an undefined (and generally large) network of people in the form of an open call
CSF	Critical Success Factor
Innovation Challenge, Innovation Contest	A web-based competition where an invited audience provide their solutions
Innovation Intermediary	A third-party entity who is hosting an online platform and acts as a knowledge broker, by linking together parties seeking external knowledge with parties interested in providing this knowledge
OIP	Open Innovation Platform
Participant, User	An individual who is participating in an innovation contest/challenge
SAERG	Swedish Agency for Economic and Regional Growth
SFIN	Skåne Food Innovation Network
The Crowd	An undefined (and generally large) group of people
User Types	A way of categorizing users based on their behavior on the open innovation platform

Table of Contents

1	INTRODUCTION	1
1.1	BACKGROUND TO RESEARCH FIELD	1
1.1.1	<i>Background to Skåne Food and Innovation Network (SFIN)</i>	1
1.1.2	<i>Background to Master's Thesis</i>	2
1.2	ISSUE OF STUDY	2
1.3	PURPOSE	2
1.3.1	<i>Research Questions</i>	3
1.4	DELIMITATIONS	3
1.5	OUTLINE OF REPORT	3
2	METHODOLOGY	5
2.1	RESEARCH STRATEGY	5
2.2	RESEARCH DESIGN	6
2.3	DATA COLLECTION	6
2.3.1	<i>In-depth Interviews</i>	6
2.3.2	<i>Observations</i>	9
2.3.3	<i>Statistics</i>	9
2.4	DATA ANALYSIS	9
2.5	WORK PROCESS	10
2.5.1	<i>The Qualitative Research Cycle</i>	10
2.5.2	<i>Literature Review</i>	12
2.5.3	<i>Benchmarking Against Other Platform Providers</i>	12
2.5.4	<i>Case Study: OpenUp – an Intermediary</i>	12
2.5.5	<i>Analyzing the Data and Identifying Critical Success Factors</i>	12
2.6	CREDIBILITY OF THIS STUDY	13
2.6.1	<i>Validity</i>	13
2.6.2	<i>Reliability</i>	14
2.6.3	<i>Transferability</i>	14
3	THEORETICAL FRAMEWORK	15
3.1	INNOVATION	15
3.1.1	<i>Process of Innovation</i>	16
3.2	OPEN INNOVATION	17
3.2.1	<i>Open Innovation in the Food Industry</i>	18
3.2.2	<i>Different Types of Open Innovation</i>	19
3.3	INBOUND OPEN INNOVATION	19
3.3.1	<i>Sourcing of Ideas</i>	20
3.4	OPEN INNOVATION PLATFORMS (OIPs)	21
3.4.1	<i>Innovation Intermediaries</i>	22
3.5	INNOVATION CONTESTS	23
3.5.1	<i>Building and Managing the Community</i>	24
3.6	SUMMARY OF THEORETICAL FRAMEWORK	29
4	BENCHMARKING STUDY: IDENTIFYING CRITICAL SUCCESS FACTORS	31
4.1	INTRODUCING THE COMPANIES INTERVIEWED	31
4.2	CRITICAL SUCCESS FACTORS IDENTIFIED	32
4.2.1	<i>Platform Design</i>	32
4.2.2	<i>Target Audience</i>	34
4.2.3	<i>Problem Definition</i>	37
4.2.4	<i>Communication Strategy</i>	39
4.2.5	<i>Motivations and Incentives</i>	42
4.2.6	<i>Sponsor Engagement</i>	44
4.2.7	<i>Importance of Consequence</i>	45

4.2.8	<i>User-Centric Design</i>	46
4.3	SUMMARY OF THE BENCHMARKING STUDY	49
5	CASE STUDY: OPENUP - AN INTERMEDIARY	51
5.1	INTRODUCING THE CASE ORGANIZATION	51
5.2	BACKGROUND TO OPENUP.....	51
5.3	DESCRIBING OPENUP.....	52
5.3.1	<i>The Landing Page</i>	53
5.3.2	<i>Navigating on OpenUp</i>	55
5.4	THE STAKEHOLDERS' OBJECTIVES FOR PARTICIPATING ON OPENUP	56
5.5	DESCRIBING OPENUP RELATED TO THE CRITICAL SUCCESS FACTORS	57
5.5.1	<i>Platform Design</i>	58
5.5.2	<i>Target Audience</i>	59
5.5.3	<i>Problem Definition</i>	60
5.5.4	<i>Communication Strategy</i>	61
5.5.5	<i>Motivations and Incentives</i>	62
5.5.6	<i>Sponsor Engagement</i>	63
5.5.7	<i>Importance of Consequence</i>	64
5.5.8	<i>User-Centric Design</i>	65
5.6	SUMMARY OF CASE-STUDY RESULTS.....	67
6	ANALYSIS	68
6.1	CRITICAL SUCCESS FACTORS.....	68
6.1.1	<i>Platform Design: A Collaborative or Competitive Approach</i>	68
6.1.2	<i>Target Audience: Involving the Crowd or Targeting Experts</i>	69
6.1.3	<i>Problem Definition: Phrasing That Captivates the Target Audience</i>	70
6.1.4	<i>Communication Strategy: Dividing the Responsibilities</i>	71
6.1.5	<i>Motivations and Incentives: Aligning Incentives to Target Audience</i>	72
6.1.6	<i>Motivations and Incentives: Encouraging the Right Behavior</i>	73
6.1.7	<i>Sponsor Engagement: Working Dedicatedly with Providing Feedback</i>	73
6.1.8	<i>Importance of Consequence: Ensuring That Something Happens</i>	74
6.1.9	<i>User-Centric Design: Lowering the Barriers for Participation</i>	74
6.2	CHALLENGES THAT ARISE FOR INTERMEDIARIES HOSTING OIPS	75
6.2.1	<i>The Sponsors May Have Varying Objectives for Leveraging the Intermediary</i>	75
6.2.2	<i>More Challenging to Build Traction as an Unknown Intermediary</i>	76
6.2.3	<i>Ensuring That the Challenge Trigger Some Consequence</i>	76
6.2.4	<i>Dividing the Responsibilities Between the Sponsors and the Intermediary</i>	76
6.3	SUMMARY OF THE ANALYSIS	77
7	CONCLUSIONS AND FINAL REMARKS	80
7.1	ANSWERING THE RESEARCH QUESTIONS.....	80
7.2	RECOMMENDATIONS TO THE CASE ORGANIZATION.....	82
7.3	DISCUSSION OF RESULTS	83
7.4	SUGGESTIONS FOR FUTURE RESEARCH	85
7.5	CONCLUDING REFLECTION.....	85
8	REFERENCES	87
8.1	WRITTEN SOURCES	87
8.2	ORAL SOURCES	92
	APPENDIX	I

List of Figures

Figure 2.1 Illustration of the work process and its different phases.....	11
Figure 3.1 Outline of the Theoretical Framework.....	15
Figure 3.2 First-generation innovation process (Dodgson et al., 2008).....	17
Figure 3.3 Fifth-generation innovation process (Dodgson et al., 2008).....	17
Figure 3.4 Potential roles for an innovation intermediary. (Sawhney et al., 2003, p.79)	23
Figure 3.5 Visual representation over common user behaviors on OIPs.....	26
Figure 4.1 Two dimensions on which the platform design can differ.....	32
Figure 4.2 Three dimensions on which the target audience can be differentiated.....	35
Figure 4.3 Important considerations for formulating the problem, depending on which the target audience is.....	37
Figure 4.4 Two objectives for having a communication strategy and tools for meeting these objectives.....	40
Figure 4.5 Motivational factors for different target audiences.....	42
Figure 4.6 Two important tasks for the challenge sponsors or the administrators.....	44
Figure 4.7 Three components of a user-centric design.....	46
Figure 5.1 Print screen of the landing page of OpenUp, part 1.....	53
Figure 5.2 Print screen of the landing page of OpenUp, part 2.....	54
Figure 5.3 Frequency of logins amongst users.....	60
Figure 6.1 Illustration over the critical success factors and their interrelations.....	68
Figure 6.2 Deciding on how to organize the OIP and the process around it.....	78
Figure 7.1 Illustration over the critical success factors and their interrelations.....	81
Figure 7.2 Deciding on how to organize the OIP and the process around it.....	83

List of Tables

Table 2.1 The identified user types and the behavior that formed the basis for the differentiation.....	9
Table 3.1 Compilation of motivational factors identified in previous research.....	29
Table 4.1 Overview of the companies interviewed.....	31
Table 4.2 Different implications for incremental and radical approaches.....	49
Table 5.1 Code names and role descriptions for the interviewees.....	52
Table 5.2 Number of ideas and number of comments on ideas for the sponsors' different challenges.....	56
Table 5.3 Code names for the interviewees.....	58
Table 6.1 Compilation of the result of the analysis.....	79

1 Introduction

In this first chapter an introduction to the research field is provided to the reader. The chapter also gives a description of the case organization as well as the background to this specific master's thesis. Moreover, the issue of study, the purpose and the research questions of the thesis are presented. Finally, some delimitations of the study are presented and the outline of the report is explained.

1.1 Background to Research Field

In 2003, Henry Chesbrough (Chesbrough, 2003) coined the term Open Innovation as an innovation model for accessing the widely distributed knowledge defining the information era. The motive behind this paradigm shift was accredited to the fact that the concepts of closed innovation, or exclusively internal R&D processes, were no longer sufficient for maintaining a competitive advantage in a world characterized by fierce competition and rapidly changing customer needs. To successfully and more efficiently continue to deliver offerings attractive to the market, companies needed to tap into the knowledge of external sources such as academia, customers, suppliers and even competitors, rather than maintaining a belief that everything could, and should, be developed internally (Chesbrough, 2003).

Vaisnore & Petraite (2011) recognized that although open innovation can be leveraged in several different ways, the most common approach is through networking and collaboration with either customers or different types of organizations, including both business and non-business entities. One way for companies to establish and uphold interaction with their customers, and other external stakeholders, is by creating or participating in virtual communities, allowing them to leverage the power of connectedness provided by the Internet (Sawhney et al., 2005). Leveraging the Internet allows companies to interact with customers and stakeholders all over the world (Sawhney et al., 2005). There are many different types of online innovation communities as well as different approaches that companies can have when implementing them (Bessant & Möslin, 2011; Ståhlbröst & Bergvall-Kåreborn, 2011).

Over the last decade, initiatives like this have been undertaken more frequently among companies (Laursen & Salter, 2006). As a result, extensive research on how to build and manage these virtual communities (e.g. Hallerstedde, 2013; Malhotra & Majchrzak, 2014), as well as how to stimulate participation (e.g. Antikainen et al., 2010; Antikainen & Vääätäjä, 2008; Ståhlbröst & Bergvall-Kåreborn, 2011), has been performed over the years, but few involve a focus on how to manage a platform when being a third-party entity. Platforms hosted by third-party entities are usually called intermediaries and they act as knowledge brokers linking together parties seeking external knowledge with parties interested in providing this expertise. In order for these intermediaries to tap into the full potential of online platforms for open innovation, there is a need for an increased insight into the specific considerations that apply for these entities.

1.1.1 Background to Skåne Food and Innovation Network (SFIN)

Skåne Food Innovation Network (SFIN) is a food industry cluster located in the south of Sweden. It was established in 1994 when Sweden entered the European Union and

as this entry inferred an increased competition on the food industry, the purpose of SFIN was to unite the Swedish food manufacturers to encounter the new challenges together. After getting funded by VINNOVA¹ in 2003, SFIN's agenda expanded to also include the objective of developing and expanding the food industry through innovation. Organizationally SFIN is arranged in a triple helix structure which means that they have strong relationships with the universities, the industry and the government (Jan Brattström 2015, pers.comm., January 28th).

1.1.2 Background to Master's Thesis

In October 2013 SFIN together with Packbridge, a packaging and logistics cluster, launched OpenUp, their online platform for consumer driven open innovation. The joint project between the two clusters was set to be in progress until the end of August 2015 and was therefore funded accordingly by the clusters as well as by Skåne Region and the Swedish Agency for Economic and Regional Growth (SAERG). From its launch until the start of this thesis, the platform has attracted more than 700 users, and the challenges posted on the site has generated around 200 ideas. As the project is coming to an end on the 31st of August 2015, SFIN is currently in the process of evaluating the initiative while also considering the possibilities for the future.

This thesis therefore aims at examining how an online open innovation platform (OIP) preferably should be designed, and what is needed from the organization leveraging the platform, to attain the best possible result. As OpenUp is managed as an intermediary platform, this thesis also aims at investigating which specific considerations that apply for intermediaries leveraging this type of platforms.

1.2 Issue of Study

After two and half years of hosting the intermediary platform OpenUp, SFIN is interested in evaluating its performance and gain insight into how these types of platforms typically should be designed in order to be successful. SFIN is considering how their future online platform activities should be undertaken, and are hence interested in learning which features are important, in order to attain a successful online platform for open innovation.

Few studies have been made on how to structure online platforms for open innovation, when being hosted by intermediaries. The idea of this master's thesis is therefore to cover the gap in existing literature on open innovation platforms. The goal is to identify a series of critical success factors for leveraging an online platform for open innovation. These critical success factors will then be used to analyze the OpenUp initiative and more specifically to identify implications that arise when intermediaries are taking on initiatives like this.

1.3 Purpose

The purpose of this master's thesis is to increase the understanding of how a platform for open innovation should be leveraged in order to achieve the desired outcome of the initiative. Furthermore the thesis also aims at exploring whether any specific implications arise when the entity hosting the platform is an intermediary rather than a company. The result will then be used to give a recommendation to the case organization.

¹ The Swedish Innovation Authority

² The company providing the OpenUp software

³ BrightIdea, Crowdicity, Exago, IdeaScale, Innovation Framework Technologies, LGI and

1.3.1 Research Questions

This master's thesis is based on two research questions. By answering these questions, the overall purpose of this thesis will be attained.

- RQ 1. Which are the critical success factors for leveraging an online platform for open innovation?
- RQ 2. What are some specific implications for intermediaries hosting an online platform for open innovation?

In order to answer the first research question a benchmarking approach is undertaken, where platform-providing companies will be interviewed regarding their experience in the field. Subsequently, a case study will be performed based on interviews with the administrators of OpenUp as well as with the different users who have engaged on the platform, either by hosting challenges or by participating in them. The result from the case study will then be analyzed and compared with the result from the benchmarking, in order to answer the second research question.

1.4 Delimitations

Within the concept of open innovation, difficulties may arise regarding to whom a certain idea belongs. New requirements are also put on the organizational structure in order for it to facilitate successful implementation of an open innovation strategy. This master's thesis will however not cover the legal aspects, including intellectual properties, which are affiliated with open innovation. Neither will it explore how the organizational structure and culture must evolve for the open innovation initiative to become an integrated part of the company activities.

Because this study is performed as a master's thesis, the project has been limited to 20 week. Due to this time limitation, the compilation of critical success factors are not an exclusive list, but rather a first attempt towards shedding light on some aspects important to consider, when attempting to leverage an OIP. A concept critical for any effort that includes launching an online platform is that of driving traffic to reach a critical mass of users or visitors. Although this aspect is important also for open innovations platforms, it will not be given any further attention in this thesis. If the readers are interested in finding out more about different strategies for driving traffic to a platform or website, they are instead invited to review the extensive body of research that has already been performed in this area.

As the OIP studied throughout this thesis is managed by a Swedish organization, the data derived from the case study is dependent on this specific geographical context. However, as the data collected during the benchmarking study stems from platform providing companies located both in Europe and in the US, parts of the result also offer a broader geographical context.

1.5 Outline of Report

Chapter 1 Introduction

In this first chapter an introduction to the research field is provided to the reader. The chapter also gives a description of the case organization as well as the background to this specific master's thesis. Moreover, the issue of study, the purpose and the

research questions of the thesis are presented. Finally, some delimitations of the study are presented and the outline of the report is explained.

Chapter 2 Theoretical Framework

This chapter aims at presenting a background of earlier research conducted in the field. It outlines the theoretical framework for innovation and open innovation in general, as well as for *Open Innovation Platforms* and *Innovation Contests* more specifically. The framework is based on a literature study and will, during the analysis, be compared with the result of this thesis.

Chapter 3 Methodology

In this chapter the methodological approach of the master's thesis is explained. It describes the design of the research as well as how the data collection has been performed. Furthermore, it presents the work process and how the data has been analyzed. Finally, the credibility of the study is discussed in terms of validity, reliability and transferability.

Chapter 4 Benchmarking Study: Identifying Critical Success Factors

This chapter outlines and explains the eight critical success factors that were derived as a result of the benchmarking study. These success factors were identified during in-depth interviews with multiple platform providers, who all have extensive experience in the field.

Chapter 5 Case Study: OpenUp – an Intermediary

In this chapter the result of the case study is presented. It comprises an introduction to the case organization as well as a description of the platform OpenUp. Furthermore, OpenUp, and the opinions of its different stakeholders, are discussed related to the critical success factors identified in the benchmarking study.

Chapter 6 Analysis

In this chapter the results of the benchmarking study and the case study are analyzed with regards to the critical success factors identified in chapter 4. Comparisons with previous research conducted in the field, are also presented. Finally, some specific challenges that arise for intermediaries hosting OIPs are outlined.

Chapter 7 Conclusions and Final Remarks

This final chapter provides answers to the research questions stated in chapter 1. A recommendation to the case organization, based on the findings in this thesis, is also presented. The last two sections contain a part discussing the result as well as some suggestions of areas for future research.

2 Methodology

In this chapter the methodological approach of the master's thesis is explained. It describes the design of the research as well as how the data collection has been performed. Furthermore, it presents the work process and how the data has been analyzed. Finally, the credibility of the study is discussed in terms of validity, reliability and transferability.

2.1 Research Strategy

When conducting this master's thesis, the authors adopted a qualitative research strategy with an abductive reasoning approach. Choosing a qualitative research strategy is considered an appropriate approach when the research area is relatively young and unexplored (Starrin & Svensson, 1994), which is the case for open innovation, and open innovation platforms even more so. For this type of nascent theory research, a qualitative research strategy is therefore appropriate, as it through its more open-ended nature provides richer data useful for increasing the understanding of the phenomena explored in the study (Edmonson & McManus, 2007). Formulating open and generic research questions also mitigates the risk of limiting the study too early on (Bryman, 2011). Another rationale behind using a qualitative research strategy, is that this method is advisable for exploring *how* something works and *why* it works this way (Hennink et al., 2011), considerations that are closely aligned with the research questions in this thesis. Leveraging qualitative methods are particularly suitable for answering these types of questions, as it offers a comprehensive and nuanced picture, composed by many separate and unique perspectives collected throughout the research study (Holme & Solvang, 1997).

Throughout this study, an abductive reasoning approach has been undertaken. This principle for analysis indicates that the theory building is performed through the interplay between empirics and theory (Wallén, 1993). The principle of abductive reasoning is a common approach used for qualitative research, as it allows the researchers to turn to existing literature to identify possible explanations and relationships that can explain phenomena or patterns revealed in the data (Starrin & Svensson, 1994). Other approaches commonly used in research are the inductive or deductive reasoning. The deductive reasoning is based on the testing of hypotheses derived from existing theories (Bryman, 2011), and is therefore more appropriate for mature research fields or quantitative research, where the aim is to test or measure certain constructs previously described in theory (Edmonson & McManus, 2007). The inductive reasoning on the other hand postulates that theory should be derived from data alone, and hence the aim is to have as few preconceptions as possible before the research begins, to minimize the risk for biased results (Eisenhardt, 1989; Wallén, 1993). Compared to the inductive and deductive reasoning, abduction is a more flexible approach that combines deduction and induction in an iterative manner. The iteration between inductive theory development and deductive theory evaluation contributes to a more comprehensive understanding of the studied phenomenon and is hence an appropriate way to develop useful theory (Edmonson & McManus, 2007). Abduction is also said to provide a greater depth to the analysis, as it through the

search for overarching patterns and explanations, strives to establish a greater understanding of the studied phenomenon. This makes the method particularly suitable for case study research (Alvesson & Sköldbberg, 2007).

2.2 Research Design

For this master's thesis a case study design has been undertaken. According to Yin (2003) "the case study is the method of choice when the phenomenon under study is not readily distinguishable from its context" (p.4). He further describes that this is the case when complex interactions are taking place between the phenomenon and its context (Yin, 2003), which is the case for OIPs and the interactions occurring between the hosting organization and the community built around the platform. A case study design is also perceived as a suitable model when the research questions are of descriptive or explanatory nature (Yin, 2003; Höst et al., 2006), making the approach relevant for this thesis. The research has therefore been focused around OpenUp, an open innovation platform focused on food packaging launched by SFIN and Packbridge in 2013.

A characteristic typical for research aimed at building theory from one or more case studies is the interplay between collecting and analyzing data (Eisenhardt, 1989). This overlap allows the researchers a greater flexibility as they can further explore interesting findings identified in the data analysis (Eisenhardt, 1989), an aspect that is well-aligned with the guidelines on how to perform qualitative research (Bryman, 2011; Hennink et al., 2011). Furthermore, the data as well as the concepts that become evident when analyzing the data, is commonly compared with the existing literature in order to find similar, explanatory or contradicting theories that support or questions the findings. Grounding the data in existing research is always important, but particularly so for case study designs as the data is often collected through one or a few cases (Eisenhardt, 1989).

2.3 Data Collection

There is primarily two ways to collect data during research: through quantitative or qualitative methods (Höst et al., 2006). Quantitative data collection is more aimed at capturing numerical data, while qualitative data collection is focused on words and interpretations as well as establishing an understanding of the social context within which the studied phenomenon takes place (Bryman, 2011). As this thesis is undertaken using a qualitative research strategy with research questions of descriptive and explanatory character, qualitative research methods for collecting data are more appropriate since they provide more detailed and nuanced data (Holme & Solvang, 1997). The data has primarily been collected using in-depth interviews, which have been complemented with observations of OpenUp and user statistics derived from the platform. The use of statistics also infer that some quantitative data has been used throughout the study.

2.3.1 In-depth Interviews

In-depth interviews is a one-to-one method for collecting data, focused on identifying individuals' personal stories and experiences regarding a certain topic or issue (Hennink et al., 2011), which was also the interviews' intended purpose in this study. The interviews were performed using a semi-structured interview guide, which provided the authors with a framework of questions, while it also allowed for additional questions for following up on interesting themes that emerged during the conversation. Topical probes were also used, so that the questions could be open,

allowing the interviewees to tell their own story, yet still reminding the interviewers to clarify areas that might not have been brought up during the respondents' answer (Hennink et al., 2011).

Choosing to hold in-depth interviews as a method for collecting data was a suitable choice, since this type of data gathering focuses on collecting the interviewees' individual views on the topic. This method was therefore well aligned with the qualitative research approach, which strives to explore and describe the natural qualitative variance that exists between subjects (Holme & Solvang, 1997) and provide depth, detail, context and nuance when answering the research questions (Hennink et al., 2011). The more flexible character of qualitative in-depth interviews also allowed the researchers to complement the interview guides with additional questions based on interesting themes identified in previous interviews, which is beneficial when exploring novel research areas (Edmonson & McManus, 2007).

In-depth Interviews with Platform Providers

As a step towards establishing a greater understanding about how to successfully leverage OIPs, seven in-depth interviews were held with platform-providing companies. The organizations interviewed are all in the business of providing software, used by their clients for their open innovation initiatives.

The initial intention was to select interviewees using the method for criterion sampling, with the criteria being that the interviewees were intermediaries (Patton, 1990). The rationale behind this approach was that this format is more similar to SFIN's role, which is to provide an intermediary platform for the cluster's member companies. After exploring the market for online innovation platforms, the authors had to reconsider this focus as it proved to be hard to find more than a few intermediary platforms. Furthermore, the ones identified in previous research studies (Antikainen & Väättäjä, 2010; Antikainen et al., 2010) also turned out to be a dead end, as many of them had been shut down.

The selection base was therefore widened and any organization found through Google search that had a connection to open innovation platforms were contacted. As this step was undertaken early in the master's thesis, when the authors lacked extensive insight into the different ways OIPs can be structured, the sampling could be seen as a somewhat random way to explore different alternatives available. Out of the 21 organizations contacted, seven were willing to participate and thus interviews were held with these. The interviews lasted for 60 minutes and contained questions regarding platform features, managing the community and the impact of collaboration. For a complete list of the questions, see the interview guide in Appendix A.

In-depth Interviews with the OpenUp Initiators and the Project Team

To establish an initial understanding of the OpenUp project as well as the rationale behind it, interviews were held with the two platform administrators as well as with five persons involved either in the initiation of the project or the development of the platform. The selection of interviewees was performed through chain sampling in the sense that current interviewees proposed additional persons, with appropriate insight into the OpenUp project, who were then contacted and interviewed (Patton, 1990; Bryman, 2011). Two of the interviewees were from SFIN, two from Packbridge, two

from Induct² and one sitting on the board of both SFIN and Packbridge while also conducting research in user oriented packaging innovation as a professor at Lund University. The interviews were conducted face to face and lasted for approximately one hour. The interview guide contained twelve questions concerning why and how the initiative was undertaken, including the purpose and vision of the project as well as how it unfolded over time. For a complete list of the questions, see the interview guide in Appendix B.

In-depth Interviews with Challenge Sponsors

To gain insight into why individuals or companies choose to leverage OpenUp to interact with their community, as well as to understand how OpenUp has been perceived, five challenge sponsors were interviewed. The interviewees were selected inspired by maximum variance sampling as the authors strived to select candidates with different connection to OpenUp (Patton, 1990). Two of the interviewees were from SFIN, one was from Packbridge and two were external parties, from neither SFIN nor Packbridge. The interviews were conducted either face-to-face or over phone or Skype and lasted between 20 and 60 minutes, depending on how exhaustive the respondents' answers were. The interview guide contained 17 questions concerning the interviewees' expectations on OpenUp as well as their perceptions of the platform and whether they would be willing to use it again. For a complete list of the questions, see the interview guide in Appendix C.

In-depth Interviews with OpenUp Participants

In order to understand how the audience has perceived OpenUp, and why they chose to use the platform, multiple in-depth interviews were held with OpenUp participants. Since the goal was to achieve a comprehensive picture and since individuals are not necessarily motivated by the same attributes, a maximum variation sampling was undertaken (Patton, 1990). The identification of potential interview candidates was therefore performed in a manner that allowed targeting users with different characteristics, an approach that can be seen as beneficial for qualitative research, as it facilitates generating a broader understanding of the phenomenon (Bryman, 2011).

Six user categories were identified analyzing the OpenUp statistics and dividing the participants into different groups based on their behavior on the platform. In defining the user categories, inspiration was taken from studies that have identified commonly occurring user types in innovation challenges (Hutter et al., 2011; Füller et al., 2014; Malhotra & Majchrzak, 2014), as will be elaborated upon in chapter 3.5.1. More specifically the differentiation was based on the users' login frequency as well as their tendencies towards posting ideas and/or comments. When selecting interview candidates, representatives from each user group, namely *Lurkers*, *Butterflies*, *Commenters*, *Ideators*, *Well-balanced* and *Passives*, were invited to participate in the interviews. For further explanation of the different user types, see Table 2.1.

² The company providing the OpenUp software

Table 2.1 The identified user types and the behavior that formed the basis for the differentiation.

User Type	Behavior
Lurkers	Logged in more than ten times but no ideas and no comments.
Butterflies	Logged in five times or less. At least one submitted idea or comment.
Commenter	Logged in more than five times. Tends to comment rather than posting ideas.
Ideator	Logged in more than five times. Tends to post ideas rather than comment.
Well-Balanced	Logged in more than five times. Somewhat equal distribution between posting comments and ideas.
Passive	At least one idea or comment posted but shows low activity compared with the number of logins.

Although the ambition was to have all user categories equally represented in the study, it proved hard to uphold this diversity. Out of the nine interviews held, two interviewees were Commenters, three were Well-Balanced, two were Ideators, one belonged to Passives and one belonged to Butterflies. No interviews were held with users from the category of Lurkers. The interviews were conducted over phone and lasted between 20 and 50 minutes, depending on how exhaustive the respondents' answers were. The interview guide contained 14 questions concerning the users' rationale behind using the platform, their expectations and perceptions of the platform as well as their suggestions for how it could become more attractive. For a complete list of the questions, see the interview guide in Appendix D.

2.3.2 Observations

In order to create a comprehensive picture of the platform and its features and components, the authors conducted observations of the platform and the user interaction happening on it. During the observations, the authors took the role of the *Complete Participant*, meaning that they also participated in the interactions on the platform in order to gain further understanding of the user experience (Gold, 1958). The perspective taken during the observation was that of a general OpenUp participant so no activities related to those limited to being a challenge sponsor was performed. More specifically, the interactions made consisted of posting ideas on existing challenges as well as commenting and voting on other participants' ideas.

2.3.3 Statistics

The gathering of user statistics contributed to establish a further understanding of the users' behavior on the platform. Firstly, it aided in shedding light on the performance of the platform in terms of how many times the average user is logged on to the platform and the percentage of users that are frequently signed in. Secondly, it formed the basis for how to categorize the users based on their behavior as explained under the previous section *In-depth Interviews with OpenUp Participants*. Thirdly, it provided the information needed to identify suitable interview candidates, which also added an extra level of context when analyzing the data derived from the interviews.

2.4 Data Analysis

The approach used for analyzing the collected data in this thesis is somewhat inspired by how analysis is performed in *Grounded Theory*, a qualitative research method

developed by Glaser and Strauss (1967). The basic principle for this method is to construct theory that is grounded in data, which can be achieved through careful exploration of the data with the aim of identifying general concepts or patterns or develop new theoretical explanations for questions previously unanswered (Strauss & Corbin, 1998). In contrast to grounded theory, which is a strictly inductive method, the abductive reasoning approach used in this study however allowed for studying existing research in order to find possible explanations for the concepts emerging from the data (Wallén, 1993).

Each interview held with the platform providers was recorded and transcribed, after which the transcript was read through and its content coded in a descriptive manner. Using codes, the data collected through the different interviews were then categorized and compared to other data in order to identify concepts critical for designing and leveraging open innovation platforms (Höst et al., 2006; Hennink et al., 2011). The most important categories based on how often and in what context they were mentioned, were then chosen as critical success factors for the process. For further information about the identified codes and belonging critical success factors, see Appendix E. As each interview held with the OpenUp participants was transcribed as well, these were scanned and analyzed bearing the identified success factors in mind. Using this approach the authors have been able to capture the perception of OpenUp regarding what has been identified as most critical to achieve success. To ensure that the data analysis was appropriately performed and that the result correctly reflected the opinions communicated by the interviewees, the compiled result was then sent to the concerned interviewees for review (Höst et al., 2006). The identified and reviewed critical success factors then lay the foundation for the final analysis concerning both the OpenUp initiative specifically, and hosting an OIP as an intermediary more generally.

2.5 Work Process

2.5.1 The Qualitative Research Cycle

The iterative work process that characterizes qualitative research can be broken down into three interrelated parts, namely the design cycle, the ethnographic cycle and the analytic cycle (Hennink et al., 2011). The design cycle comprise the formulation of research questions as well as reviewing current literature on the subject, creating a conceptual framework for the work process and establishing the fieldwork that needs to be performed. The ethnographic cycle then address the design and execution of the identified methods for data collection, which also includes recruiting subjects for interviews. Finally, the analytic cycle involves everything that is related to analyzing the data, such as developing codes for categorizing the data, describing and comparing it as well as conceptualizing it and developing appropriate theories (Hennink et al., 2011). Although the design cycle represent the first step, followed by the ethnographic cycle and finally the analytic cycle, this is not a linear process but rather an iterative one where the researchers need to alternate between the different phases or perform them simultaneously depending on where the data takes them (Hennink et al., 2011).

Much like Hennink et al. (2011) propose, the authors began this master's thesis in the design cycle by specifying the research questions, reviewing current literature on the subject and deciding on which fieldwork that needed to be done. After the initial literature review was completed the work process continued to the data collection,

which was divided into two phases. During the first phase, in-depth interviews were held with platform providers, with the purpose of identifying critical success factors for leveraging OIPs. The second phase then comprised a case study over how SFIN has leveraged OpenUp, in order to see how well their implementation of the platform complied with the identified success factors. The data collected was then used for analyzing the identified critical success factors and explore whether these had any specific implications for intermediaries. Figure 2.1 illustrates the work process followed during the course of this thesis.

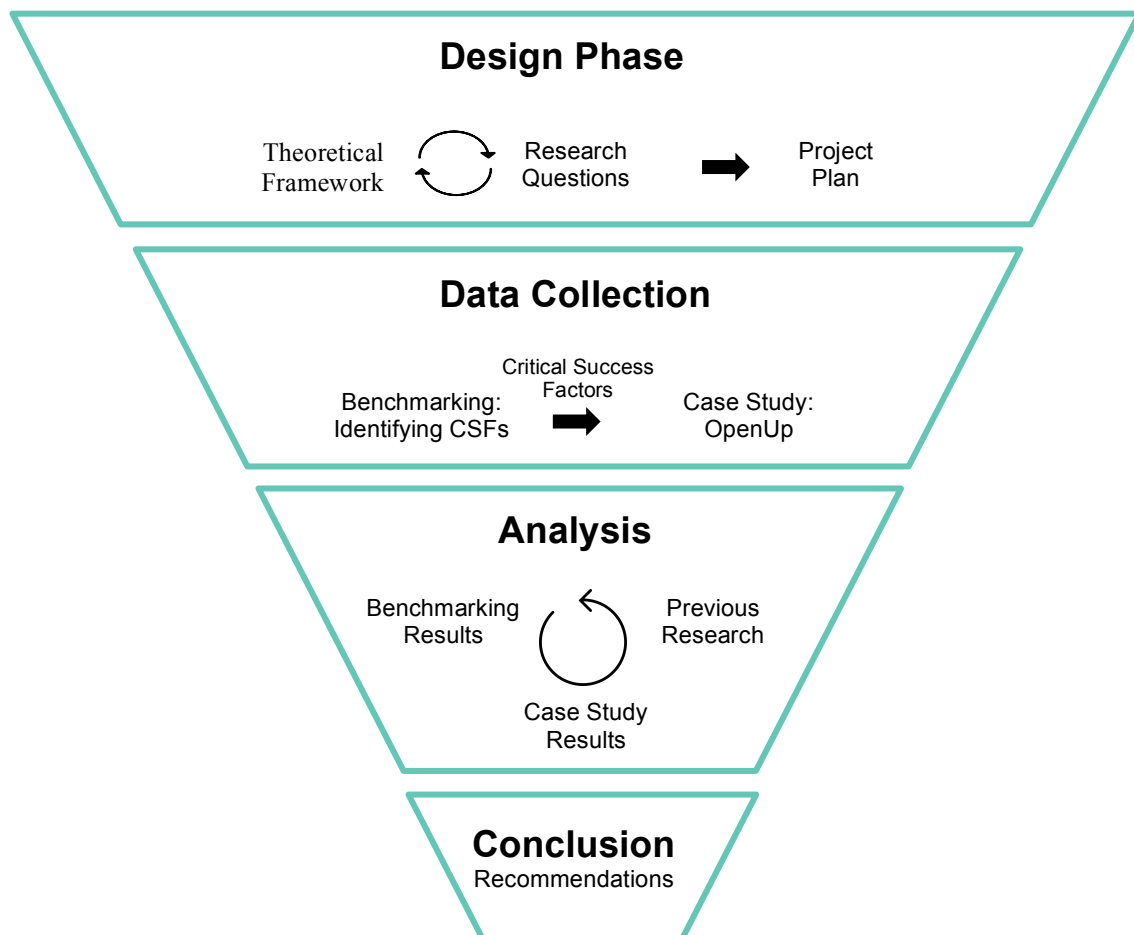


Figure 2.1 Illustration of the work process and its different phases.

During the data collection the work process proceeded in an iterative manner between the design cycle and the ethnographic cycle as the authors refined the research questions as well as the subsequent work process. While the data was still being collected the analytic cycle was initiated, which in turn meant circling back to both the design circle and the ethnographic circle. Circling back was necessary in order to ground the emerging concepts and patterns in existing data and to incorporate them into the continued data collection. Throughout the thesis the work process was hence performed in an iterative manner, where all three cycles were revisited many times before the work was completed. In the following part the rationale behind, and the approach for, the different activities will be explained more explicitly.

2.5.2 Literature Review

As a first step an exploratory literature review was performed in order to gain a thorough understanding of the topic as well as to map the research previously performed in the area. There were primarily two reasons to why the authors wanted to incorporate existing literature early on in the study (Hennink et al., 2011). Firstly, it provided the authors with some background as to what research had already been done in the field and which concepts or models previously identified in other studies that might be relevant to incorporate. Secondly, it also allowed guidance regarding what types of data that could be collected and which methods that might be appropriate to use (Hennink et al., 2011). Using previously published research as a way to stimulate thinking and for identifying properties that may be useful for analyzing the data, has also been identified as an important part of the literature review (Strauss & Corbin, 1998).

The process used during the literature study began with initial keywords of interest being identified. These keywords then formed the basis for the literature search, which was performed mainly using LUBSearch, the database hosted by Lund University containing a great variety of articles and other publications. Google Scholar was also used as a complementary source when searches came up empty in LUBSearch. Throughout the literature search, new articles were then identified either using the reference list in articles previously explored or by performing new searches using discovered concepts and subsequent keywords.

2.5.3 Benchmarking Against Other Platform Providers

Interviews were held with representatives from seven different platform providers to consolidate the practical and theoretical knowledge that the interviewees had acquired over their many years in the business. The aim was to identify critical success factors for how to best leverage platforms for open innovation. As the seven platform providers interviewed had developed their solutions somewhat differently to cater towards different needs, this activity also aided in shedding light on alternative ways of working with OIPs.

2.5.4 Case Study: OpenUp – an Intermediary

The objectives of the case study were to gain a clear understanding of the platform and its design as well as the different stakeholders' attitudes towards it. To fulfill these two goals, a three-pronged approach was undertaken. Firstly, the authors explored OpenUp. In order to do so, they created accounts and participated in different challenges to get a clear understanding of the platform's design and its available features. Secondly, interviews were held with the OpenUp initiators and the project team in order to get an internal perspective on the initiative. Subsequently interviews were also held with challenge sponsors and OpenUp participants as to complement the internal perspective with external opinions regarding the platform. Thirdly, user statistics for the platform were collected and evaluated, which contributed to a clearer understanding of the users' behaviors, mainly in terms of login frequency as well as what type of activity they engaged in when being logged on.

2.5.5 Analyzing the Data and Identifying Critical Success Factors

Finally, the data collected through the in-depth interviews with platform providers was compiled into eight critical success factors for leveraging OIPs. While the interviews with platform providers contributed with a more general, less context-

bound view over the whole process, the interviews held with OpenUp administrators, participants and challenge sponsors provided a picture more specific for the particular context of the case study. Furthermore, the data collected during the case study was also used for analyzing the OpenUp initiative and more generally to explore particular challenges that arise for intermediaries hosting initiatives like this.

2.6 Credibility of this Study

Two common constructs for measuring the quality in any research study are validity and reliability (Bryman, 2011). While some authors suggest that these measurements are equally appropriate for quantitative and qualitative studies (Kirk & Miller, 1985), others suggest that the measurements need to be adapted when evaluating qualitative research (Bryman, 2011). Generalizability is for example a component of validity often used by quantitative researchers that can be seen as inappropriate for qualitative researchers, as their data is heavily dependent on the context in which the research is performed (Bell, 2005). An alternative measure suggested as more appropriate for qualitative research is the construct of transferability (Guba, 1981; Guba & Lincoln, 1994), which will therefore be used when discussing the credibility of this study.

2.6.1 Validity

Validity is a measurement for how correct the result is (Kirk & Miller, 1985) and whether the study and the methods used in it measures or describes what it is supposed to measure or describe (Bell, 2005). In addition to the data measuring what the authors claim it does, validity also incorporates whether or not the interpretations drawn from it are well grounded in the data (Sapsford & Jupp, 1996).

As the time limitation on the thesis prevented actual testing of the developed OIP framework, ensuring its validity has been a bit of a challenge for the authors. Even if it would have been possible to test the framework it would however still be hard to measure the success of it, since innovation in general is hard to measure (Kline & Rosenberg, 1986). Although the framework has never been tested, the fact that it was derived from multiple independent sources who then received the result in order to verify the authors' interpretations and come with clarifying input, should strengthen the readers' credibility in the validity of the result (Höst et al., 2006). The validity was also improved by the abductive approach, meaning that the data collected during the research was verified using existing literature and explanations as well as empirics from the case study (Jacobsen, 2002).

To do observations on OpenUp the authors registered on the platform and took the role of a *Complete Participant*. When using such a method there is a risk of becoming biased, which could affect the validity of the result. However, the only result depending on the observation is the presentation of the platform features, which was written in an objective manner. The result concerning how OpenUp was perceived is not based on the observations but on the different interviews held with OpenUp initiators, challenge sponsors and participants. The observations should therefore not have a significant effect on the validity of the result.

In order to strengthen the validity of the research the authors designed the data collection carefully by developing interview guides that were well aligned with the research questions. Before the interviews, both tutors also reviewed the interview guides in order to certify that the questions were in fact suitable for measuring what they were intended to measure. On a weekly basis the authors also reviewed the

progress and made updates to the subsequent work process while also refining the research questions if necessary. Meetings were also held regularly with the tutors, where the authors explained their progress as well as their tentative findings, which allowed for critical reviews of assumptions and interpretations made, serving to identify information gaps that needed to be filled. The work process as well as the data collection and analysis have also been thoroughly scrutinized by the tutors and the opponents.

2.6.2 Reliability

Reliability handles whether the result would be the same if the research were performed again under the same conditions (Bell, 2005). As the majority of the data was collected during interviews, a weakness for this study is that the sampling may have influenced the result. If other interviewees had been chosen, other types of data might have emerged which could have impacted the result. To mitigate this risk, the authors tried to choose interviewees with diverse characteristics in order to capture an as comprehensive picture as possible. The methods used for identifying potential interview candidates have also been thoroughly explained so that the readers can form their own opinions regarding the reliability of the research (Höst et al., 2006).

Another similar weakness can be assigned to the choice of keywords used in the initial literature review. As the process for finding relevant articles unfolded through the reference lists of previously found literature or through new keyword searches incorporating interesting themes or concepts found during the review, the initial keywords could have heavily impacted the subsequent creation of the theoretical framework. To mitigate this risk the authors also obtained relevant literature from the academic tutor, which gave rise to decoupled literature searches. Furthermore, the initial literature review was also complemented by a second literature review during and after the data collection was performed, in order to build upon additional themes and concept that emerged during this phase.

Finally, as a big part of the data analysis concluded to making subjective assessments in order to identify recurring patterns and create categories, there is a risk of a low inter-rater reliability (Bryman, 2011). To evade this aspect, all the interviews were transcribed and then analyzed by both the authors. After each author had analyzed the transcribed data a common codebook was developed, which then lay the foundation for the analysis. The transcriptions were randomly distributed between the authors and after the coding was done the transcripts were swapped so that both authors analyzed every interview.

2.6.3 Transferability

Unlike quantitative research studies, where it is often desired to achieve results that can be generalized to fit other audiences than the group studied, qualitative researchers are instead more interested in making the results transferable. Making a result transferable involves providing a thick description of the context in which the research is performed, so that the readers themselves can determine whether or not the result is applicable in their specific context as well (Bryman, 2011). The authors of this study have therefore strived to explain the context of the research by providing explanatory background information about the case organization and the OpenUp initiative as well as about the different platform providers interviewed.

3 Theoretical Framework

This chapter aims at presenting a background of earlier research conducted in the field. It outlines the theoretical framework for innovation and open innovation in general, as well as for Open Innovation Platforms and Innovation Contests more specifically. The framework is based on a literature study and will, during the analysis, be compared with the result of this thesis.

This chapter will review existing literature in the field of open innovation, in order to give the reader some background to the subject and present relevant research that has already been conducted in the area. First, a brief presentation of innovation in general will be provided, in order to establish a clear understanding of how innovation can be categorized as well as how the process for innovation can be undertaken. Subsequently, the topic of open innovation will be discussed and two different types of open innovation, particularly inbound open innovation and outbound open innovation, will be outlined. The following section will elaborate on the topic of inbound open innovation, as this is the concept that will be further explored throughout this thesis. Finally, the last two chapters will introduce and explain the concepts of *Open Innovation Platforms* and *Innovation Contests* since these two areas are closely related to the case study on which this thesis is built. Figure 3.1 presents an overview over the different sections that will be discussed in this chapter.

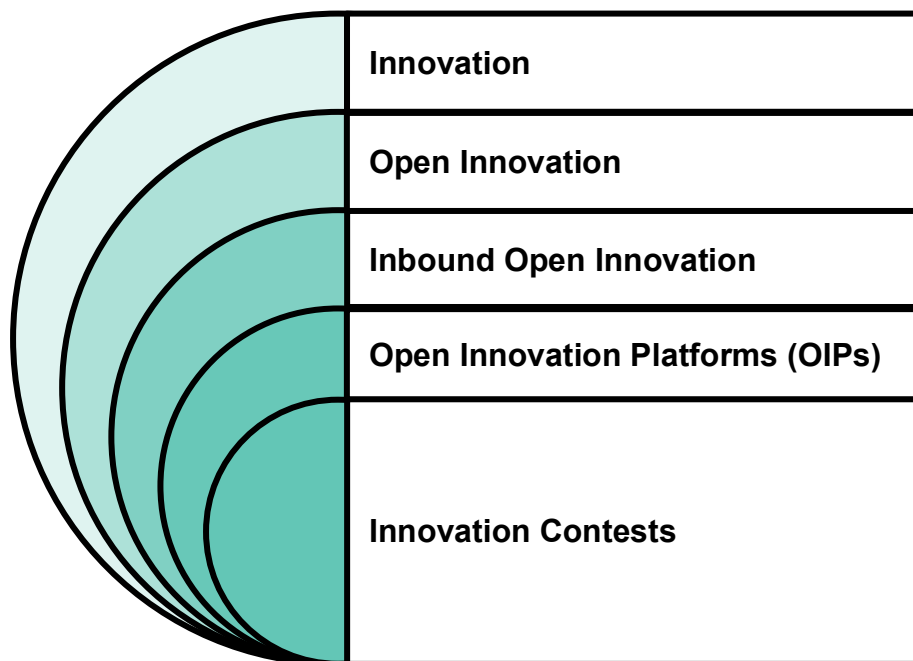


Figure 3.1 Outline of the Theoretical Framework.

3.1 Innovation

As explained by Dodgson et al. (2008), innovation is “the successful commercial exploitation of new ideas. It includes the scientific, technological, organizational, financial, and business activities leading to the commercial introduction of a new (or improved) product or service” (p.2). Compared to the concept of invention, which is merely described as an idea or a model of an improved product, process or service,

the concept of innovation also involves bringing that improved product, process or service to the market (Freeman & Soete, 1997). Delivering innovation therefore also require the presence of entrepreneurs, persistent enough to overcome the initial resistance, that commonly arise when introducing an unfamiliar product to the market. This is a crucial part of exploiting the possibilities that emerge with the inventions (Schumpeter, 2003).

An innovation can differ in terms of how novel it is. Incremental innovations are smaller improvements and can for example be a new design or increased functionality, whereas radical innovations are bigger transformations that change how the consumers think about and use the product or service (Tidd & Bessant, 2013). Incremental innovations often occur in markets where product characteristics are well defined and the customers can explain their needs and what they want to see in a new product. Radical innovations are on the other hand so different from the current alternatives, that the customers do not even know that this new offering is something they might need or want. These types of innovation often arise as a result of an internal or external R&D group, and the commercial market application is usually resolved as a second step (Mohr et al., 2013).

According to Burns & Stalker (1994) it is imperative that companies engage in innovation activities, as it is preferable that the new products and services that are rendering the current products obsolete, are developed within the firm rather than by competitors or newcomers. In mature markets it can however be argued that process innovation is the most relevant type of innovation as the aim is to achieve a more efficient production of the products and services that has become commoditized in the market (Johnson et al., 2011). Although the food industry is a good example of a very mature market it has over the last decades undergone a drastic change from being production-driven towards becoming customer-driven (Meulenberg & Viaene, 2005). This shift in focus has been inevitable as the rapid technology development, the increased global competition and the frequently changing customer needs makes it hard for companies to sustain their competitive advantage over time without renewing their product offerings (Omta & Folstar, 2005).

3.1.1 Process of Innovation

Back in the 1950's and 1960's the innovation process was a rather linear undertaking (shown in Figure 3.2) that began with a scientific discovery that triggered an invention, which was subsequently developed, manufactured and marketed before being sold.

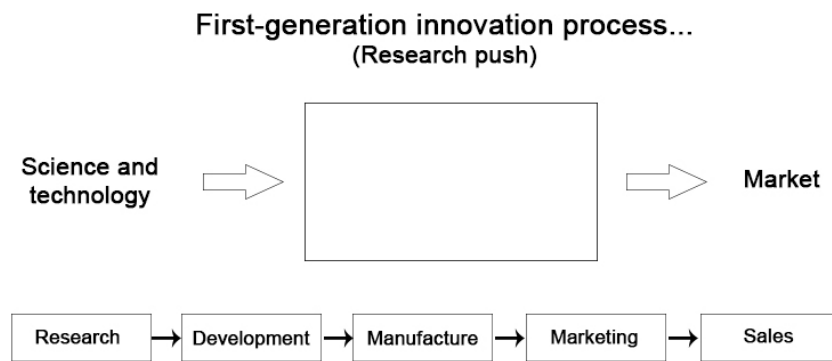


Figure 3.2 First-generation innovation process (Dodgson et al., 2008)

Today, what is considered the best practice of innovation follows a more iterative approach where the activities of research, development, design and engineering are conducted in parallel, allowing for a greater flexibility, crucial for handling the turbulent markets. This idealized innovation process, as shown in Figure 3.3, is also characterized by a high level of integration with external parties such as customers, suppliers, innovation communities and networks, which is important for increasing the company's competitiveness through a more timely delivery of products and services (Dodgson et al., 2008).

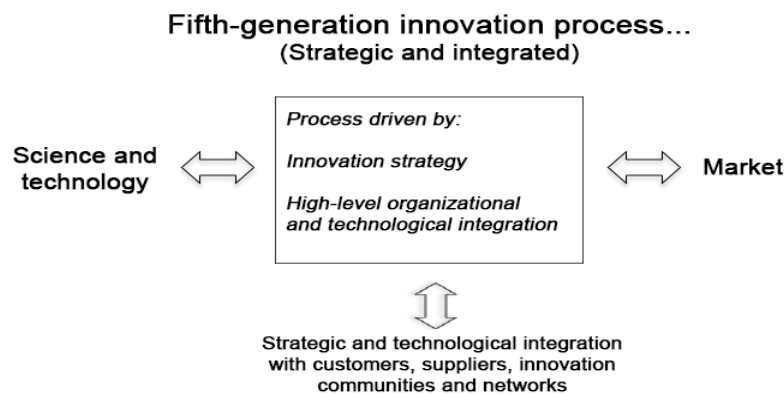


Figure 3.3 Fifth-generation innovation process (Dodgson et al., 2008)

This integration is beneficial as combining different expertise and resources often lead to a more rapid technological development. Furthermore, the widespread diffusion of knowledge that defines today's society, has inferred that innovation can surface from almost anyone anywhere, making the integration of external parties increasingly interesting (Burns & Stalker, 1994).

3.2 Open Innovation

The belief that valuable ideas not only emerge from within the company but also from external sources is the core of 'open innovation', the concept defined by Henry Chesbrough back in 2003. He further suggested that individuals have become more informed due to the low-cost access to Internet and hence to scientific databases and

journals, leading to an abundance of knowledge that companies should learn how to harness. Because of this, he stresses that a centralized R&D department that focuses on vertical integration, is no longer enough to access the extensive knowledge that exists outside the companies. It does not mean that internal R&D has become obsolete but it entails that companies must find new ways to structure themselves to leverage this new distribution of knowledge (Chesbrough, 2003).

A strong benefit of leveraging open innovation is that the concept can have a positive effect on both the cost side and the revenue side of the business model. On the cost side the method allows for a faster time to market at a fraction of the cost compared with conducting innovation internally. On the revenue side, new monetary streams can be established through licensing and partnerships, increasing the overall return on the innovation investment (Chesbrough, 2006). Similarly, Sarkar & Costa (2008) has also shown that leveraging open innovation strategies can increase the marginal return on incremental R&D investment. Open innovation is hence particularly important as the product life cycles are becoming shorter (Chesbrough, 2006). Other positive effects of adopting open innovation are higher level of product differentiation and the improvement of competitiveness and technological capabilities (Sarkar & Costa, 2008).

However, companies also perceive risks with open innovation, something that Enkel et al. (2009) could show in their study on 107 European companies. Some examples of frequently mentioned risks are loss of knowledge, higher coordination costs and loss of control. Although some companies find open innovation risky, the tendency today is that companies invest simultaneously in closed and open innovation (Enkel et al., 2009). Despite the fact that there are risks with open innovation, Enkel et al. (2009) further discusses that firms that do not use external knowledge or cooperate with others reduce their knowledge base on a long-term scale.

3.2.1 Open Innovation in the Food Industry

Although the concept of open innovation was first embraced by high-tech industries characterized by fast growth and a rapidly changing environment, the last couple of years have shown a trend where companies in low-tech markets, such as the food sector, are opening up their innovation processes (Gassmann et al., 2010). The food industry is a rather mature and slow-growing area and the innovations that are introduced to market are often quite conservative. Innovation in the food industry is complex due to the many actors involved and all the legislative and end-user requirements. Since decisions in the food industry to a rather large extent rely on other entities, the innovation processes should be managed both internally and externally. This suggests that open innovation is a suitable approach for companies in this market (Sarkar & Costa, 2008).

Sarkar and Costa (2008) further declare that there has been a steady growth in the number of open innovation projects in the food industry, where 90 % of the industry is represented by SME's. These organizations are typically regarded as flexible and innovative, but as they often lack resources for in-house R&D, they instead focus on accessing knowledge through broad network of partners. Omta et al. (2014) also underline that building and sustaining a wide network of external parties has become essential for the survival of innovative food companies. One of their studies show that the percentage of innovative food firms that collaborate with various partners in open

innovation projects, increased a lot between 2000 and 2006. The highest increase comprised collaborations with suppliers, which increased from 15-20% of the firms in 2000, to 45% of the firms in 2006. Similarly, the percentage of companies that collaborated with customers and knowledge institutions increased from 15-20% in 2000 to 30-35% in 2006 (Omta et al., 2014).

3.2.2 Different Types of Open Innovation

One way to categorize open innovation is by looking at it from a process perspective. Enkel et al. (2009) has defined three core processes that can be leveraged when implementing open innovation practices: the outside-in process, the inside-out process and the coupled process. The outside-in process has also been identified as inbound innovation (Dahlander & Gann, 2010), and refers to the integration of external sources such as customers and suppliers to enrich the base of the firm's own knowledge. The inside-out process, or similarly outbound innovation (Dahlander & Gann, 2010), regards bringing ideas to market, using the technology more extensively by transferring ideas to the outside environment and selling IP. The coupled process focuses on co-creation together with partners by forming alliances and joint ventures. It is a combination of inbound and outbound innovation (Enkel et al., 2009).

Dahlander & Gann (2010) also found that open innovation can differ in how the companies choose to open up their innovation activities. They identified two types of outbound innovation processes, where one way is to reveal internal resources to the external environment and the other consists of selling or out-licensing products in the market place. They also described two types of inbound innovation processes, one focusing on sourcing ideas from external stakeholders and the other centered on acquiring inventions or innovative capabilities through relationships (Dahlander & Gann, 2010).

The inbound innovation process can increase a company's innovativeness as it widens the basis from which ideas are harvested. This characteristic has led to an increased awareness of the importance of innovation networks and also the use of online innovation intermediaries. The outbound innovation process allows the firm to reach new markets or segments that they are currently not serving directly (Enkel et al., 2009). As inbound innovation is the type of open innovation leveraged through OpenUp, this concept will be explored further in the following sections.

3.3 Inbound Open Innovation

According to Laursen & Salter (2006), sourcing ideas from external stakeholders is a strategy pursued more frequently amongst companies. They also argue that companies that are more open towards searching for and incorporating ideas from outside their organization tend to have a higher level of innovative performance. Although the result of their study promotes opening up the innovation process by sourcing ideas from outside the organization, they also recognize that this can be a quite costly endeavor, why the search efforts should be managed carefully. Furthermore, they suggest that the information search early in the product lifecycle should be contained to a small number of key sources such as subject matter experts or lead users, as they are the only ones with sufficient insight in the field. When the technology and market become more mature a wider search is suitable in order to access a variety of knowledge (Laursen & Salter, 2006).

In order to successfully leverage inbound open innovation for sourcing external ideas, a shift in both the organizational structure and the company culture is required of the company. Many R&D departments oppose incorporating external technology and ideas into their business, a phenomenon that has been called the Not Invented Here virus (Enkel et al., 2009). According to Chesbrough (2003) it is crucial for a company to overcome this attitude in order to successfully implement a strategy based on open innovation. Another factor crucial for success, is the ability to create balance between opening up the organization in order to get access to external knowledge, while still retaining enough potential value itself. In order to attain this balance, companies must find partners with complementary knowledge and skills and preferably a similar organizational culture (Omta et al., 2014). Establishing inter-organizational networks is also brought up as important by Chiaroni et al (2010), who argues that an extensive network with other companies as well as with other entities such as universities, is a necessity for success (Chiaroni et al., 2010).

3.3.1 Sourcing of Ideas

Although open innovation can be leveraged in many different ways, Vaisnore & Petraite (2011) recognize that the most common approach is through networking and collaboration with either customers or different types of organizations, including both business and non-business entities. Similarly, Chesbrough (2006) mentions the importance of leveraging relationships with customers, suppliers and universities as well as the company's network in order to source ideas and potential solutions from entities with other perspectives and expertise than the company itself. One method that, according to Brabham (2008), has become more frequently used by companies for finding solutions to their problems is that of crowdsourcing.

Coined in 2006 by Jeff Howe and Mark Robinson the term 'crowdsourcing' has been defined as (Howe, 2006):

the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers (p.1).

Sourcing ideas from the crowd is in some ways similar to outsourcing a problem to designated contractors, apart from the fact that the individuals in the crowd are not evaluated in terms of their qualification for solving the problem, in the same way as designated contractors are. Instead the company sourcing ideas expects that some individuals from the crowd self-select, and subsequently submit their proposed solutions (Afuah & Tucci, 2012).

The rationale behind leveraging crowdsourcing as a way to source ideas, is according to Howe (2008) that:

given the right set of conditions, the crowd will almost always outperform any number of employees – a fact that companies are becoming aware of and are increasingly attempting to exploit. That, in a nutshell, is what crowdsourcing is about (p.11).

This viewpoint is also shared with Hargadon & Bechky (2006), who suggest that although a number of individuals might not have sufficient expertise or motivation for generating a creative solution, they may still be able to do so when coming together as

a creative collective. Furthermore, in a study performed by Woolley et al. (2010), this factor of collective intelligence was proven not to correlate with the average or maximum individual intelligence in the group, but rather with the average social sensitivity of the group members as well as with how equal the distribution of the conversation was in the group.

Similarly, Poetz & Schreier (2012) could show that solutions provided by users were rated significantly higher than solutions proposed by the firm's professionals, in terms of novelty and customer benefits. However, Knudsen (2007) showed, in a general study on different industries, that involving the customers had a negative impact on innovative performance. Knudsen further acknowledges that one reason behind this result may be that different customers have different preferences. Listening to a few customers might therefore derive a new product that only satisfies a narrowly defined group of customers and not all customers. The study did however show that external relationships are important for the performance of product development (Knudsen, 2007).

Regardless of which parties a company wishes to involve in their innovation process, there is a requirement for some type of facilitating process for the interaction and knowledge distribution that needs to take place. Sawhney et al. (2005) suggest that the Internet serve as a powerful platform for interacting with the customers and that a company, by creating a virtual community, can access social knowledge shared between groups of customers. Leveraging the Internet also enables the firm to widen its scope of customer interactions and to increase the speed and the persistence of engagement from customers. Interacting with a large number of customers through surveys or focus groups can be constraining since there is a limit in the frequency with which firms can engage with customers. An Internet-based environment, on the other hand, allows for the firm to engage a much larger number of customers and the interaction can take place more frequently and in real-time. Hosting these types of communities online becomes increasingly interesting as recent research indicates that the collective intelligence factor occurs in this environment and not only in groups meeting face-to-face (Engel et al., 2014). In the following section different types of OIPs and Internet communities will therefore be introduced and explained briefly.

3.4 Open Innovation Platforms (OIPs)

According to Ståhlbröst & Bergwall-Kåreborn (2011) there are many different types of online innovation communities and they suggest five categories for sorting these communities into sub-groups based on their focus. The five types are described as follows; *Brand Communities*, *Beta-test Communities*, *User Content Communities*, *Development Communities* and *Innovation Intermediary Communities*. Both the Brand Communities and the Innovation Intermediary Communities are focused on inviting users to contribute in the different steps of the innovation cycle. What sets them apart is that the users contributing in Brand Communities often have a strong relationship with the brand, whereas users participating in Innovation Intermediary Communities often do not have this connection with the entities sourcing ideas. These users can instead be motivated through different types of rewards (Ståhlbröst & Bergvall-Kåreborn, 2011). Offering rewards to the best solution providers, is also mentioned as important for intermediaries by Roijackers et al. (2014).

On a similar note, Bessant & Möslin (2011) have identified five different approaches companies can take when looking to implement an online platform for open innovation, particularly *Innovation Contests*, *Innovation Markets*, *Innovation Communities*, *Innovation Toolkits* and *Innovation Technologies*. Innovation Contests are described as clearly defined challenges that are being promoted widely by the company in order to drive traffic and generate submissions. Innovation Markets bring together the supply and demand for innovation and they typically use third-party intermediaries to connect these entities together. Innovation Communities provide more of a bottom-up approach where innovators can get together and discuss and develop their ideas using the input from the community. Innovation Toolkits enable users to gradually build their own solutions in an online environment and Innovation Technologies are appliances such as 3D-scanners and 3D-printers that allow for fast manufacturing of prototypes in order to test concepts (Bessant & Möslin, 2011).

As this thesis is focused on examining OpenUp, which is an Innovation Intermediary Community for Innovation Contests, these two concepts will be described further in the following sections.

3.4.1 Innovation Intermediaries

In their research Sawhney et al. (2003) describe innovation intermediaries as knowledge brokers, whose focus lies on aggregating and disseminating customer-generated knowledge. These innovation intermediaries are useful as they allow clients to reach a customer base that is wider than the one currently served, to reach these customers in an earlier stage in their decision-making process and to get more honest results from them due to the intermediaries' neutral roles. The authors also suggest that the intermediaries can be divided into three different types, namely the *Customer Network Operator*, the *Customer Community Operator* and the *Innovation Marketplace Operator* (Sawhney et al., 2003).

The Customer Network Operator creates a network of customers and allows the client to access certain relevant segments, while the Customer Community Network instead builds and manages communities of users with specific characteristics. The Innovation Marketplace Operator creates a marketplace where buyers and sellers of innovation get connected. What makes the Innovation Marketplace Operator different from the other types of innovation intermediaries is that it delivers more professional expertise from innovative customers or researchers. According to Sawhney et al. (2003) the Customer Network Operator is most suitable for concept testing while the Customer Community Operator works well with ideation and product design. The Innovation Marketplace Operator is also appropriate for ideation as well as for generating new discoveries and intellectual property. Figure 3.4 presents an overview over the three identified types of innovation intermediaries (Sawhney et al., 2003).

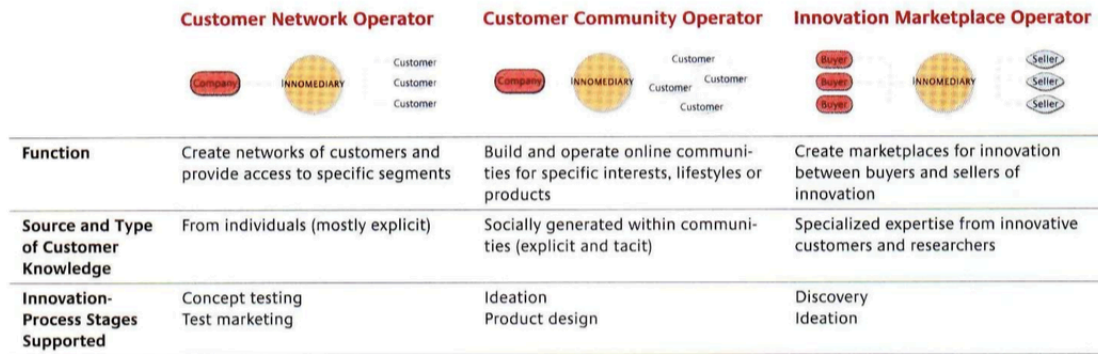


Figure 3.4 Potential roles for an innovation intermediary. (Sawhney et al., 2003, p.79)

Roijakkers et al. (2014) similarly mentions that one strong benefit from leveraging intermediaries is that the sponsoring company can solicit ideas from entities they might not have thought to ask if hosting their own brand community. What the intermediary offers is hence a widespread network comprising entities like technology companies, universities and research institutes. One of their main tasks is furthermore to invite people with appropriate expertise for their clients’ requests and facilitate that interaction. Helping the client to properly formulate the questions and expedite the evaluation and selection activities, are two other important tasks brought up (Roijakkers et al., 2014).

Although turning to an intermediary means outsourcing a part of the work, Roijakkers et al. (2014) also recognize that there are some ways in which the client company can and should impact the success of the undertaking. First of all, they need to increase their expertise in how to formulate the questions in order to receive high-quality answers. Secondly, the client company also needs to designate an experienced, high-status individual from within the organization that supports the initiative and is responsible for the interactions with the intermediary. Having a designated open innovation champion is crucial for the success of the project, and the top management should support this person and the initiative. Making the initiative a ‘strategic project’ also helps by making it high-priority within the organization (Roijakkers et al., 2014)

3.5 Innovation Contests

When leveraging crowdsourcing for innovation purposes such as idea sourcing, the concept of *Innovation Contests* is commonly used (Malhotra & Majchrzak, 2014). According to Bullinger & Moeslein (2010), an innovation contest can be defined as:

a web-based competition of innovators who use their skills, experiences and creativity to provide a solution for a particular contest challenge formulated by an organizer (p.2).

The organizers can be both individuals as well as business or non-business organizations, and the competitions can consist of both online and offline elements. The organizer sets the topic or asks for a solution to a specific task, and the requirements on the submissions can vary. Sometimes the organizers want sketches, drafts or unrefined ideas, and sometimes they rather want more complete and well-defined solutions or prototypes. The contests run for a limited time period and the audience invited to participate can be either specified, meaning that a certain group of individuals are targeted, or unspecified, meaning that it is open for all. When the deadline has passed, the submissions are evaluated by a jury of experts, by the

participants themselves or by their peers. The winner usually gets some type of reward that can be either monetary, non-monetary or a mixture of both (Bullinger & Moeslein, 2010). Depending on how closely related the challenge is to the organization's core activities, the innovation contest can either be integrated in the organization's website or promoted as a separate initiative on its own website and under its own name (Ebner et al., 2009).

Although these innovation contests are in fact competitions, it is quite common that they offer community functionalities that allow for a more collaborative environment in the form of cooperation among the participants (Bullinger et al., 2010). Some studies have shown that offering these collaborative elements, in addition to the competitive elements that characterize an innovation contest, is important as these discussions and collaborations facilitates knowledge transfer and allows the ideas to develop and become better through the wisdom of the crowd (Hutter et al., 2011; Blohm et al., 2010). Other research has also shown that the solutions were rated higher in terms of quality in contests where the participants were prompted and encouraged to share and integrate knowledge between each other (Malhotra & Majchrzak, 2014). According to Bullinger et al. (2010) both a high and a low level of collaboration infer high innovativeness while a medium level of collaboration results in low innovativeness (Bullinger et al., 2010).

3.5.1 Building and Managing the Community

The research conducted by Malhotra & Majchrzak (2014) suggests that managers for open innovation challenges need to ensure variety amongst participants, in terms of the type of contributions they make to the community. Focusing on establishing a diverse community both in terms of expertise and user behaviors is therefore an utterly important task that should be prioritized in order to create a community that delivers solutions that offer competitive advantage for the challenge sponsor, i.e. the entity hosting the challenge. Achieving this objective requires careful monitoring of the user types represented on the platform as well as procedures for recruiting specific user roles to maintain a good balance when a category is underrepresented (Malhotra & Majchrzak, 2014).

When hosting an idea contest aimed at encouraging user participation and co-creation, an essential part is hence establishing an understanding about the users that engage in this type of initiatives. As have been shown in many studies (Hutter et al., 2011; Füller et al., 2014; Malhotra & Majchrzak, 2014), the objective of joining and participating in innovation challenges differs between participants, which necessitates a platform structure where multiple incentives are incorporated, in order to trigger the motivational factors of multiple user types.

User Types

Füller et al. (2014) identified six distinct user types based on the number of posted ideas as well as on the number of incoming and outgoing communications with other participants. These user types all have different goals with joining innovation challenges, which is clearly reflected by how they behave on the platform. Some users represent distinctive hubs in the community network with many posted ideas and frequent commenting on other participants' ideas while also receiving a lot of attention from other community members. Other users are un-interested in commenting on other participants' ideas and rather tend to post their own ideas, while a third group is primarily interested in socializing and do not necessarily post their

own ideas. There are also a lot of users who are passive and do not contribute more than once or twice (Füller et al., 2014).

In another study, Hutter et al. (2011) identified four different user types following the same approach of comparing number of generated ideas as well as incoming and outgoing communications, with the addition of also analyzing whether the nature of the users' interactions with other participants were either competitive, collaborative or both. Some of the users showed a combination of competitive and collaborative behavior and were hence very active both in terms of posting many or very attractive ideas as well as posting collaborative comments on others' ideas. According to the researchers, these users play an important role in developing new, high-quality ideas. The remaining result showed a similar pattern as the one noticed in the research conducted by Füller et al. (2014), in that some users were more interested in posting ideas, others in commenting and a third group in passively observing the initiative.

A third study has taken a somewhat different approach towards categorizing participants in innovation challenges, choosing the type of content posted by the users as the differentiating factor. The analysis was therefore conducted exclusively on the 25% categorized as active participants, which all made some kind of contribution on the platform. One group of users only posted their own ideas but did not have time to stop by to comment on other participants' threads. Another group was also focused on posting their own ideas but also took the time to comment on other threads, since they were already present at the platform. A third group did not post their own ideas but instead commented on or refined other users' ideas, while the fourth group only posted supportive comments rather than sharing any knowledge of their own (Malhotra & Majchrzak, 2014).

Among the user types identified in these three studies there are some similarities worth pointing out. To start with, all three studies showed that the participants' tendencies to post ideas can be used as a differentiating factor. Coherently, the user types can also be distinguished according to their propensity to post comments. Lastly, some user types show a significantly more passive behavior than the other user groups (Hutter et al., 2011; Füller et al., 2014; Malhotra & Majchrzak, 2014). Although they might be logged on as frequently as other participants they tend to not post any comments or ideas during their visits, a behavior which has also been identified in previous studies on for example OSS Communities (Ye & Kishida, 2003), email-based discussion lists (Nonnecke & Preece, 2000) and communities for user-innovation (Füller et al., 2007). For a visual representation of the different user types, see Figure 3.5.

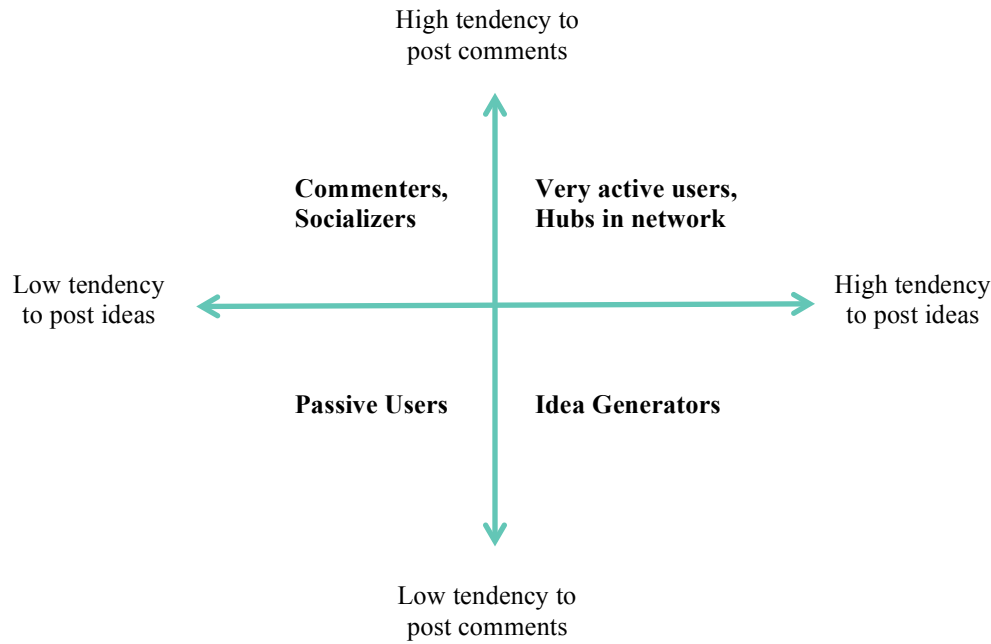


Figure 3.5 Visual representation over common user behaviors on OIPs.

Not all user types are as frequently occurring in open innovation communities. Füller et al. (2014) recognized that passive users were the most common, representing 86% of the community members. Similarly, in the study conducted by Malhotra & Majchrzak (2014), 75% of the registered users did not make any contribution to the challenge and can therefore be seen as passive users or observers. The fact that passive users, or similarly observers or *Lurkers* (Nonnecke & Preece, 2000), not only exist in, but rather comprise such a large part of the online communities, is also recognized in previous studies (Nonnecke & Preece, 2000; Ye & Kishida, 2003; Füller et al., 2007). Although these users do not contribute to the actual creation of knowledge or information, they are still important as they help the community to reach a critical mass, which is an important requirement for attracting new users (Füller et al., 2014).

Aside from being variously active in the communities different user types have also been identified as having different impact on more important factors such as idea quality. More specifically the users that were considerably more active than others, both in terms of submitting ideas and posting comments showed the highest quality of submitted ideas (Füller et al., 2014). Even though some findings suggest that different user types have more to offer in terms of participation, collaboration and idea quality, it is important to acknowledge that all user types are important as they have different roles to fulfill as well as different purposes in the community (Füller et al., 2014). While some users deliver high-quality ideas that triggers discussion and feedback from the rest of the community, others are important for socializing and creating a lively community, crucial for getting other users to return (Preece et al., 2004).

Similar results regarding the importance of attracting all of the complementary user roles is described in the study performed by Malhotra & Majchrzak (2014). In this study the focus is on how knowledge can be combined and integrated with the aim of achieving higher-quality ideas, and the four active user types identified play different

roles in this aspiration. Some users initiate discussion by posting knowledge or ideas. Other participants then continue the knowledge sharing while also striving to combine submitted knowledge and proposed solutions in order to come up with new solutions. Albeit some users do not share any knowledge on their own, they play an important part in that they highlight relevant information through voting or positive commenting, facilitating the knowledge integration activities undertaken by others (Malhotra & Majchrzak, 2014).

Motivations and Incentives

An essential requirement for successfully establishing and managing an online platform for open innovation is to first understand the motivations that drive the potential users to participate (Antikainen et al., 2010). Identifying and understanding the users' motives for participating, as well as using this knowledge to derive appropriate incentives, allows the platform provider to develop incentive supporting components that can be incorporated in the platform (Leimeister et al., 2009). The aim of these components are consequently to stimulate a desired behavior, which can be anything from user participation in general, to more specific characteristics such as encouraging idea evolution and collaboration between users (Malhotra & Majchrzak, 2014).

Depending on whether a user is motivated by the elements of competition or the elements of collaboration, the platform features and incentive structures need to be adapted accordingly. The nature of collaboration can be encouraged through platform components that facilitate commenting, interaction and knowledge integration as well as by offering rewards for the most active or supportive users. The nature of competition can on the other hand be strengthened through the offering of rewards and recognition for the most popular or high-quality ideas (Hutter et al., 2011). Malhotra & Majchrzak (2014) stress the importance of not only offering rewards based on outcome but also based on how active the participants are in terms of sharing and integrating knowledge. The reason behind their objective is that the activity of combining different types of knowledge has proven important for creating better solutions (Malhotra & Majchrzak, 2014).

Motivations can be categorized in different ways but a common approach used in many research studies (e.g. Leimeister et al., 2009, Antikainen & Väättäjä, 2010) is to distinguish between intrinsic and extrinsic motivations (Ryan & Deci, 2000). According to Ryan & Deci (2000, p.56), intrinsic motivation is defined as “the doing of an activity for its inherent satisfactions rather than for some separable consequence”. Intrinsic motivations can for instance be manifested as the feeling of competence, autonomy and relatedness that a person experiences when performing a certain task. The enjoyment factor or the challenging element involved in an activity has also been identified as drivers for intrinsic motivation (Ryan & Deci, 2000).

While intrinsic motivations are completely separated from external consequences, these are instead the focus of extrinsic motivations. Extrinsic motivation can therefore be explained as “a construct that pertains whenever an activity is done in order to attain some separable outcome” (Ryan & Deci, 2000, p 60). This type of motivation is often embodied in the external rewards or pressures, actually or perceptually associated with the action (Ryan & Deci, 2000). A reward can hence be both an actual

prize granted for some accomplishment as well as the perceived appreciation from another party, and the same goes for pressures.

Many studies have been performed with the purpose of understanding the motivational factors that drive users to participate in virtual open innovation communities (e.g. Toubia, 2006; Antikainen & Vääätäjä, 2008; Leimeister et al., 2009; Antikainen & Vääätäjä, 2010; Antikainen et al., 2010). Some research indicates that a combination of extrinsic and intrinsic motivations is most successful (Ebner et al., 2009; Antikainen & Vääätäjä, 2010), while other studies identify intrinsic incentive structures as the best alternative (Antikainen & Vääätäjä, 2008; Ståhlbröst & Bergvall-Kåreborn, 2011). There is also research that suggests that extrinsic incentives might in fact inhibit creativity (Amabile et al., 1986) or lead to the community only attracting participants with short-term goals, undermining its sustainability in the long run (Wang & Clay, 2010). On the contrary there are also studies in which the authors argue that the focus should be on providing extrinsic incentive structures, since there is little or no way of affecting the users' intrinsic motivations (Leimeister et al., 2009).

When exploring intrinsic and extrinsic motivation, it becomes evident that these two categories encompass a wide range of variances, suggesting that further classification might be relevant for the purpose of clarity. One way of achieving this is by dividing intrinsic motivation into individual and social motivations, while extrinsic motivation can be divided into professional, social and economic motivations (Battistella & Nonino, 2011). Using this categorization, the individual intrinsic motivations include factors such as the opportunity to express creativity, sense of membership as well as fun and entertainment, while social intrinsic motivations involve sense of cooperation and social responsibility. Professional extrinsic motivations cover learning, reputation and work benefits, whereas social extrinsic motivations consist of individual accountability and social capital in the form of interpersonal relationships on which the community is built. Economic extrinsic motivations are explained as anything that offers an economical advantage, such as monetary rewards or free products and services (Battistella & Nonino, 2011).

Extrinsic motivations can hence be divided into monetary (economic) and non-monetary (social and professional) motivations. When studying twelve open innovation intermediaries, Antikainen & Vääätäjä (2010) found that all of the intermediaries had incorporated monetary rewards in the form of money or products whereas only six of the twelve had in fact incorporated non-monetary extrinsic rewards such as top rating lists for ideas or public announcements of the winners. As a possible explanation, the authors acknowledged that at least four of the intermediaries only offering monetary rewards were catered towards top experts, which often infer a requirement for higher confidentiality, limiting them from leveraging methods for public recognition (Antikainen & Vääätäjä, 2010). In Table 3.1 some motivational factors that have been identified in previous research, are presented.

Table 3.1 Compilation of motivational factors identified in previous research.

User motivations	Authors
Intrinsic Motivation	
<i>Individual</i>	
Having fun	Antikainen & Vääätäjä (2008), Antikainen et al. (2010), Battistella & Nonino (2013), Leimeister et al. (2009), Ståhlbröst & Bergwall-Kåreborn (2011)
Sense of membership and social belonging	Antikainen et al. (2010), Battistella & Nonino (2013), Ebner et al. (2009), Ståhlbröst & Bergwall-Kåreborn (2011)
Opportunity to express creativity	Antikainen & Vääätäjä (2008), Battistella & Nonino (2013), Ebner et al. (2009), Ståhlbröst & Bergwall-Kåreborn (2011)
Being part of something new and getting access to new information	Antikainen & Vääätäjä (2008), Malhotra & Majchrzak (2014), Ståhlbröst & Bergwall-Kåreborn (2011)
Attractive challenge topic and structure of initiative	Adameczyk et al. (2012), Antikainen et al. (2010), Ebner et al. (2009)
<i>Social</i>	
Sense of cooperation	Antikainen & Vääätäjä (2008), Antikainen et al. (2010), Battistella & Nonino (2013), Ståhlbröst & Bergwall-Kåreborn (2011)
Constructive atmosphere for idea building	Antikainen et al. (2010), Antikainen & Vääätäjä (2008), Ståhlbröst & Bergwall-Kåreborn (2011)
Altruism and social responsibility	Antikainen & Vääätäjä (2008), Antikainen et al. (2010), Battistella & Nonino (2013), Leimeister et al. (2009), Malhotra & Majchrzak (2014), Ståhlbröst & Bergwall-Kåreborn (2011)
Extrinsic Motivation	
<i>Professional</i>	
Learning and knowledge from community, mentors and experts	Antikainen & Vääätäjä (2008), Battistella & Nonino (2013), Leimeister et al. (2009), Ståhlbröst & Bergwall-Kåreborn (2011)
Career benefits	Antikainen & Vääätäjä (2008), Battistella & Nonino (2013), Ebner et al. (2009), Leimeister et al. (2009)
Reputation and prestige	Battistella & Nonino (2013), Ebner et al. (2009), Hutter et al. (2011)
Appreciation and recognition	Adameczyk et al. (2012), Antikainen & Vääätäjä (2010), Leimeister et al. (2009), Ståhlbröst & Bergwall-Kåreborn (2011)
<i>Social</i>	
Individual accountability	Battistella & Nonino (2013)
Feeling of influence and that ones opinion is important	Antikainen & Vääätäjä (2008), Antikainen et al. (2010), Ståhlbröst & Bergwall-Kåreborn (2011)
<i>Economic</i>	
Monetary rewards	Antikainen & Vääätäjä (2008), Antikainen & Vääätäjä (2010), Antikainen et al. (2010), Battistella & Nonino (2013), Hutter et al. (2011), Leimeister et al. (2009), Malhotra & Majchrzak (2014), Ståhlbröst & Bergwall-Kåreborn (2011)
Free products and services	Antikainen et al. (2010), Battistella & Nonino (2013), Leimeister et al. (2009), Malhotra & Majchrzak (2014)

3.6 Summary of Theoretical Framework

This theoretical framework has explained the concept of innovation as the successful commercial exploitation of new ideas (Dodgson et al., 2008). The process of

innovation has gone from generally being a linear one, as in the 1950's and 1960's, to as of today being a more iterative approach where several activities are performed in parallel (Dodgson et al., 2008).

The wide access to the Internet and scientific databases has contributed to people becoming more informed, which has led to an abundance of widespread knowledge. Because of this, Chesbrough suggested that valuable ideas not only emerge from within the company, but also from external sources. In 2003 he coined the term *Open Innovation*, which has since then been categorized in many different ways. One approach, as proposed by Dahlander & Gann (2010) is to differentiate between inbound and outbound innovation. The inbound innovation process can increase a company's innovativeness as it widens the basis from which ideas are harvested. Furthermore, Chesbrough (2006) discussed the importance of leveraging relationships with customers, suppliers and universities in order to source ideas from outside the company. In 2006, Howe and Robinson coined the concept of *Crowdsourcing*, for describing the outsourcing of activities to a large group of external stakeholders through an open call (Howe, 2006).

Sawheny et al. (2005) has suggested that the Internet is a powerful platform for interacting with different external stakeholders and to source ideas from them. In the literature, several different types of open innovation platforms and Internet communities have been identified. As this thesis is examining OpenUp, which is an intermediary platform for innovation contests, these two concepts were more thoroughly presented in this theoretical framework.

An innovation intermediary was described as a knowledge broker, focusing on aggregating and disseminating generated knowledge (Sawheny et al., 2003). It was furthermore explained that innovation intermediaries can be divided into three different types: the Customer Network Operator, the Customer Community Operator and the Innovation Marketplace Operator. Roijackers et al. (2014) mentioned that one strong benefit of leveraging intermediaries is that the challenge sponsoring company can solicit ideas from stakeholders that they otherwise would not access. An innovation contest was defined as a competition where the participants use their skills and creativity to provide their suggested solutions or ideas for the challenge announced by the organizer (Bullinger & Moeslein, 2010).

When building and managing an online community, Malhotra & Majchrzak (2014) suggested that a focus should be on establishing a diverse community both in terms of expertise and user behavior. In order to do so, it is necessary to identify the different user types in the community. Several studies have presented different ways of categorizing user behavior (Hutter et al., 2011; Füller et al., 2014; Malhotra & Majchrzak, 2014). Furthermore, Antikainen et al. (2010) has stated that in order for an online platform for open innovation to be successful, an understanding of the motivations that drive the potential users to participate is required. Motivations can be categorized in different ways (Leimeister et al., 2009; Antikainen & Väättäjä, 2010), but many research studies distinguish between intrinsic and extrinsic motivations. The intrinsic motivations can be divided into individual and social motivations, whereas the extrinsic motivations can be grouped into professional, social and economic motivations (Battistella & Nonino, 2011). These categories then comprise several different types of motivating factors.

4 Benchmarking Study: Identifying Critical Success Factors

This chapter outlines and explains the eight critical success factors for leveraging a platform for open innovation, that were derived as a result of the benchmarking study. These success factors were identified during in-depth interviews with multiple platform providers, who all have extensive experience in the field.

4.1 Introducing the Companies Interviewed

Interviews have been held with seven companies³, which are all structured somewhat differently. Aside from facilitating different types of innovation processes, they are also located in different parts of the world. The number of employees also varies amongst the companies, as do their experience in terms of how long they have been active in the market. A more elaborate presentation of each company can be found in Appendix F.

The companies have been named randomly by using letters ranging from A to G, and there is no connection between the letter given and the order in which they are presented in the footer. In Table 4.1 the companies are presented shortly.

Table 4.1 Overview of the companies interviewed.

	Role	Number of users	Environment	Submission
Company A	Platform provider	500 000	Collaborative	Open
Company B	Platform provider	1 million	Collaborative	Mainly open
Company C	Platform provider	Not given	Collaborative and competitive	Mainly open
Company D	Platform provider	4 million	Collaborative and competitive	Mainly open
Company E	Platform provider	200 000	Collaborative	Open
Company F	Consultants in best practices of innovation. Distribution agreement with platform provider	200 000	Competitive	Closed
Company G	Hosts a platform for a European research network	1000	Collaborative and competitive	Open

Most of the companies provide online platforms for their clients, whereas a few have other roles. The *number of users* concerns the total number of users engaged on all

³ BrightIdea, Crowdicity, Exago, IdeaScale, Innovation Framework Technologies, LGI and mySideWalk

their clients' platforms. *Environment* describes if their platforms mainly have a collaborative approach, where the participants can build on each other's ideas, or a competitive one, where the participants compete against each other with their ideas. *Submissions* describes if the ideas submitted are open on the platform, meaning that others can see it, or if they are closed, meaning that only the challenge hosting company can see it.

4.2 Critical Success Factors Identified

The eight critical success factors identified during the benchmarking study are as follows: *Platform Design*, *Target Audience*, *Problem Definition*, *Communication Strategy*, *Motivations and Incentives*, *Sponsor Engagement*, *Importance of Consequence* and *User-Centric Design*. The following sections will further present and discuss these critical factors that were identified during the interviews with the platform providers.

4.2.1 Platform Design

Platforms for open innovation can be designed in various ways depending on what the purpose of the platform is. Regardless of the objective behind the initiative, it is crucial for any company considering implementing an OIP to contemplate what they wish to achieve by leveraging the OIP, as these goals have an impact on which platform structures are the most appropriate for generating the desired result. When setting up the platform, Company G explained that the most important consideration is to make sure that it is aligned with the company strategy and with the innovation processes already set up within the company. As an implication, they further acknowledged that an OIP is not a one size fits all but should be tailored to the specific needs of the company using it. Another important consideration, as noted by Company E, is to have the target audience in mind when defining how the process is set up on and around the OIP. The structure of the initiative needs to be attractive for these people, meaning that it is important to truly understand what is perceived as motivating, relevant and exciting to them.

One way for differentiating between platform designs, mentioned by many of the companies, is whether it facilitates a collaborative or competitive environment. Another differentiating factor brought up by Company F is whether the proposals are submitted in an open manner available for anyone to see, or if the submissions are closed so that they are only visible to the challenge sponsor. In the sections below, these four alternatives (shown in Figure 4.1) will be described more thoroughly and explanations for when they are considered more appropriate will be given. Subsequently two different options for hosting an OIP will be discussed.

Platform Design			
Environment		Submission Type	
Collaborative	Competitive	Open	Closed

Figure 4.1 Two dimensions on which the platform design can differ.

Collaborative Environment

If the solutions sought are of incremental character, Company E suggested a collaborative approach, as it is more appropriate for engaging the general public. Company F agreed with this statement by explaining that a collaborative environment is appropriate for marketing innovations and in the early stages of the innovation process for understanding the customer needs. According to Company E the collaborative environment is however not recommended for complex challenges where the goal is to find a specific solution to a clearly defined problem, in those cases it is better to use a competitive approach. According to Company B the best practice is usually collaborative.

One advantage for facilitating a collaborative environment mentioned by most of the companies is that it allows for idea building, meaning that the ideas get refined and evolve through collaboration with others. Company D argued that ideas rarely arrive fully formed and ready for someone to act on, and Company C further explained that the participants challenge each other by asking questions and as a result the ideas sometimes improve quite a lot. This phenomenon was also brought up by Company A. As stated by Companies D and A:

Rarely does an idea arrive completely fully-formed and ready for somebody to act on it, so you need to have those review mechanisms and you need to have the capability to build on ideas too (Company D).

What ends up happening is that idea gets refined through that conversation. And if they had just taken it at the first level they might not have gotten to the best result (Company A).

Collaborative elements, such as functions for commenting and voting, also allow the challenge sponsor to find popular or heavily discussed ideas. As stated by Companies A and C this is an important part as it aids the challenge sponsors in filtering and evaluating the ideas. Company B, on the other hand, argued that looking at commenting and voting from general users are not the best way to interpret the quality of the ideas, as these people do not necessarily have the topical experience for determining this. This concern was also raised by Company E, who explained that this approach usually leads to the participants only voting on the ideas that are already popular, as these are the ones that show up first.

Competitive Environment

If the goal is to find a solution to a very specific, technological or complex problem, characteristics of more radical innovations, Company E explained that a more competitive environment is appropriate as the relevant target audience for this type of endeavor is subject matter experts. Although most of the other companies promoted collaboration rather than competition, they also admitted that collaborative processes often also contain competitive elements. As an example, Company G mentioned that although their platform is mainly collaborative, the different proposals are still competing about funding, as there is not enough money to fund all the proposed projects.

Open Submissions

Allowing for open submissions on the platform is in some sense a prerequisite for hosting a collaborative environment. If the participants are not allowed to see each other's ideas they cannot collaborate unless the platform provider is actively linking

parties together meaning that the platform works as a matchmaking site rather than actually facilitating a collaborative environment on the platform. How open the submissions are can differ depending on whether or not the posts are being reviewed before being published. Company E argued that reviewing the posts beforehand is an important way of getting rid of noise such as duplicated ideas or ideas not meeting some pre-defined criteria. This early filtering process also alleviates the later step for idea evaluation, as only the good-enough ideas get let through. On the contrary, Company A advocated uncensored publishing of ideas, pointing out the importance of having a very transparent conversation with the community and not being able to sway the result in one way or another.

Closed Submissions

According to Company F, closed submissions are more appropriate for challenges where the goal is to drive product innovation and finding specific solutions to a technical issue identified by the challenge sponsor. Although they recognized that encouraging collaboration with the aim of improving the ideas is probably the best practice on paper, they also explained that it does not work like this in reality, mainly due to confidentiality reasons in that the challenge sponsors do not want other entities to see the submissions. Company G highlighted the issue with IP and admitted that it is crucial to be able to take the conversation private when moving from the more conceptual phases, into the specifics of a solution.

Hosting the Platform

Independent of how the platform is designed there is also a decision to be made regarding the hosting of the platform. One option is to host a company-specific platform, which is what six of the seven companies interviewed offer to their clients. These six companies however also mentioned that this is a time consuming and resource-demanding endeavor, which the company has to be prepared for. Although hosting their own OIP requires a lot from the company in question, Company F argued that this is still the preferred way, as it increases the company's internal capabilities for how to conduct open innovation. This is also an important factor for making the process repeatable. Creating consistency and making the innovation process repeatable was also mentioned by Company B as an important reason for hosting an OIP.

Another alternative is to leverage third party intermediaries in order to capture insights from external stakeholders. As explained by Company F, intermediaries already have their experts and their network of solvers meaning that the company itself does not have to spend time and resources on recruiting the audience. They further elaborated that using an intermediary can be a good way for companies to try open innovation, but that it is not efficient in the long run as it is often quite expensive to conduct open innovation through third parties. And since leveraging these parties merely provides an answer, rather than a repeatable process, it is not a sustainable approach.

4.2.2 Target Audience

When setting up an OIP it is important to carefully consider which audience to target, in order to successfully meet the objective behind the initiative. Throughout the interviews with platform providers, different ways of segmenting the user base emerged, as shown in Figure 4.2. In the sections below these approaches will be

explained, followed by a part discussing the importance of understanding the audience.

Target Audience					
Level of Expertise		User Behavior		Level of Openness	
General Crowd	Subject Matter Experts	Active Users	Passive Users	Internal	External

Figure 4.2 Three dimensions on which the target audience can be differentiated.

Differentiating Based on Level of Expertise

According to Companies B and F the objective behind the initiative as well as the initiative itself determines which level of expertise the target audience should preferably have. Company F explained this by making a distinction between initiatives with the purpose of understanding customer needs and preferences, and initiatives undertaken to solve a specific issue identified by the company. According to them the first rationale suggests current, and possible future, customers as an appropriate audience to engage whereas the second rationale rather demands subject matter experts to participate:

If you are in a co-creation approach, what you want to get is not necessarily the solution but to understand better the needs of the consumers. So in a co-creation type of portal you will recruit participants according to a variety of criteria, being the type of consumers that you have today and what you may want to have tomorrow (...). The second type of portal is when you are looking for solutions, which means that you are looking for a solution to a given challenge that you have already identified and formalized (...) and here you will be looking for people to answer to those particular needs (Company F).

Company B on the other hand found it appropriate to leverage the general crowd in the early stages of the innovation process to gather ideas and solicit comments and votes, before engaging the subject matter experts in selecting and refining the ideas given. They further elaborated on this:

Our experience has shown that while the broader crowd is important for submitting, voting and commenting on ideas at the front end of the process, they're generally not the right audience to evaluate and select the best ideas because they don't have the topical knowledge. That's where the Subject Matter Experts come in (Company B).

According to Company D, it is important to broaden the base involved in innovation activities, as it is unrealistic to expect that a small group of people can regularly deliver disruptive ideas allowing the company to grow. Hence, they suggest that it is advisable to involve the crowd in the innovation process.

Differentiating Based on User Behavior

When asked whether or not it is possible to distinguish different user behaviors on the platform Companies B, C, D and E said that this was definitely something that they had noticed. Company C described two types typical for any system, namely the

ambassador and the silent. The ambassadors were explained as early adopters eager to promote the OIP and characterized by being very active on the platform. This user behavior is very similar to the one that Company D outlined as high-value users, as they contribute to most of the activity on the platform.

The other commonly occurring user type, identified as the silent by Company C and as the passive or the lurker by Company D, was estimated by Company D to comprise approximately 90% of the total user base. Although this user group is not as active as some other users, Companies C and D still considers many of these users as interested in the topic and Company C even suggest that many of these users may actually be logged on every day.

Although acknowledging that a minority of the users commonly stands for the majority of the activity, Company D recognized that the more quiet users are also important and that they have another role to play. This attitude was aligned with that of Companies B and E, which argued that it is important to enable and encourage the users to participate in the way that best suits them. Company E assured that it is crucial to create an inclusive community in which not only the creative individuals feel appreciated, but also the more analytical people or individuals with great experience in the topic, who might be able to complement others' ideas with valuable input. This way the percentage of active users in the initiative can increase from 10-20% to 40-70%. Depending on which behaviors one wish to encourage, Company B suggested that one should design the platform and its incentive system to promote these aspects.

Differentiating Based on Level of Openness

As explained by Company G, open innovation is a very broad term and there are many ways for implementing the concept in an organization. They further clarified this by noting that implementing open innovation can be done through for example partnerships regulated by consortium agreements, by hosting challenges or competitions to crowdsource solutions or by incubating startups that are of interest for the company. The level of openness can hence differ a lot between the different ways of leveraging the concept of open innovation.

Company F expanded on this concept by stating that even if one has chosen to open up the innovation process by inviting external parties to participate, there are still different levels of openness in that one can choose to invite a specific target audience or making the OIP open for anybody. This target audience can in turn be chosen based on demographic criteria, behavioral criteria or just based on a particular association with the company, like them being suppliers, partners or customers. Another version, as noted by Company E is that the platform is open for everyone but the challenge sponsor chooses to only promote it to a certain target audience that they find most relevant for the initiative.

Most of the companies interviewed spoke very positively about opening up the innovation process to involve external stakeholders. There were however also some concerns regarding opening up the innovation process. For example, Company G acknowledged that opening up the innovation process might not be suitable for cases where IP needs to be disclosed, but rather for earlier stages in the innovation process where mainly concepts are being discussed. Both Companies F and G also pointed out

that open innovation should be leveraged for non-core parts of the business while the core capabilities are better off kept in-house.

Understanding the Target Audience

In order to achieve a successful OIP it is important to get to know the target audience so that the incentive structure and the communication strategy can be tailor made with regards to these individuals. A few of the companies interviewed therefore brought up the value of collecting user data through the OIPs. Particularly Companies A and E mentioned this feature as very useful for the challenge sponsors as it provides them with demographic information such as age, gender and geographic origin as well as information regarding the users’ behavior such as during which day of the week or what time of day that they participate the most. This data can then preferably be used as input when designing new challenges or when striving to increase the presence from a certain user group. Companies A and B also discussed the possibilities for collecting data regarding user interests and stated that this feature could be very beneficial as it would allow the challenge sponsors to target users with a special interest or insight in the topic, simplifying the future recruitment process.

4.2.3 Problem Definition

How the problem is defined on an OIP is directly connected to the outcome of the initiative, in terms of idea quality and idea quantity. When formulating the questions there are some general considerations that apply regardless of the objective behind the initiative or the target audience, while other aspects are heavily dependent on these factors. The following section is therefore divided into three different parts, where the first part introduces the general considerations followed by two sections with more specific aspects depending on whether the objective is to get more varied submissions from the general crowd or specific and elaborated answers from subject matter experts (as shown in Figure 4.3).

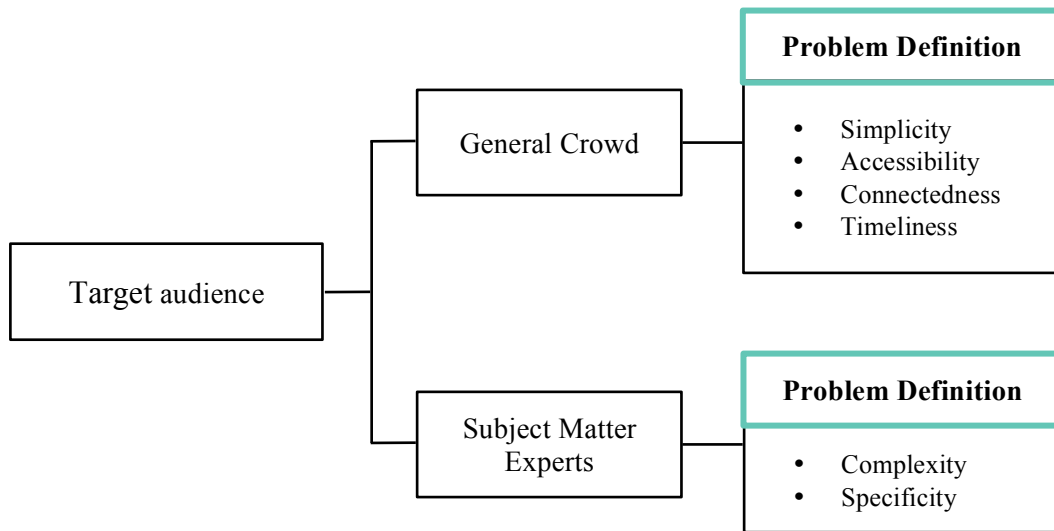


Figure 4.3 Important considerations for formulating the problem, depending on which the target audience is.

General Considerations

When deciding on how to frame the question, Company F explained that it is important to make sure it is aligned with the company strategy. They have often seen companies who do not spend enough time on framing the question and hence end up

with getting the wrong submissions or too many submissions. They further pointed out that driving quantity is not always the highest priority and that it for some initiatives rather is preferable with fewer submissions as long as the quality is good enough. Company B agreed on this statement and also suggested that if the aim is to get many responses the problem needs to be less narrow, while an objective of gathering more granular, high-quality responses requires the question to be more specific, which often implies fewer answers.

An important factor to consider when framing the problem, regardless of the objective of the initiative, is to provide the audience with a clear picture of the whole process for the challenge. As explained by Company C, people will want to know what is expected from them as well as what the consequences will be and what they will get from participating. Similarly, Company F declared that it is important to set up the criteria on which the submissions will be evaluated at the same time as the problem is defined. Company C further explained that this notion of clarity is important so that the audience can quickly grasp the content of the problem and understand what it is they are supposed to do. On the same note, Company A lifted the importance of using terminology and wordings that are appropriate and easy to understand for the audience.

Varied Submissions from the General Crowd

When enlisting suggestions from the general public, an important concern is to make the problem accessible. Rather than making the problem too specific or too complex, Company C explained that formulating it in a way so that everybody can relate to the topic and contribute based on their own experience, is an important step towards empowering the crowd to participate in the challenge. Company D agreed with this statement by saying that open-ended questions that captures the imagination is more appropriate when engaging with the general public. They also stated that the less specialized the knowledge-set needed is, the smaller and simpler the task should be to make it easier to engage.

However, Company C also revealed that while it is important to make the subject open and accessible, it is also equally important to not make it too open. They furthered explained that there are mainly two reasons for why it is important to avoid making the question too broad. First of all they acknowledged that asking everybody for all their ideas, without providing any specifics to the request, often leads to an overwhelming result, making it impossible for the sponsors to go through every submission. Secondly, they also admitted that the audience most often will not enjoy these types of questions, as making them too broad makes it hard to come up with ideas.

Another factor important for stimulating participation from the general crowd is to frame the question in a way that makes people feel connected to it, as stated by Company D. A similar aspect was also mentioned by Company A, who noted that questions driven from an emotional standpoint tends to do better, regardless of whether it is driving positive or negative emotions. They also described that the wording for establishing this connectedness matters and that it is beneficial for the challenge sponsors to partner themselves with the audience in order to drive participation.

[It is beneficial] if they use ‘we’ type of words; so how do WE continue to grow our local businesses (...) That use of partnering themselves as the city with the community members ends up being a really powerful way for the partnership between the two to make it a really great participating question (Company A).

Finally, Company A also acknowledged timeliness as an important factor for driving engagement and participation from the audience. This aspect really ties back to the importance of understanding the target audience, as it involves knowing which topics are already being discussed and are hence perceived as important and relevant by the audience. Understanding what the audience find interesting, has also been noted by Company C, who explained that it sometimes does not take much work to get people excited in a topic:

It’s a huge topic as I am sure you can imagine. (...) In fact the statistics [for this platform] is very interesting to look at because it’s so busy. They’re asking questions like “Do we need a Queen?”. So you can imagine, it’s quite controversial (Company C).

Specific Submissions from Subject Matter Experts

According to Company F, the balancing act of framing the questions in a way that is specific enough to stimulate people without limiting their creativity is also important when targeting subject matter experts. They further suggested that this could be achieved by asking broader questions while also informing the audience of what is out of scope. Additional stimulus, such as attached documents or links that give more contexts to the questions and explains the state of the art in the specific area, can also be useful when approaching this particular audience.

For companies searching for very granular submissions, Company B stressed the importance of providing very specific instructions, which can be achieved by setting up more questions in the problem definition. This attitude is in line with that of Company F, who suggested that these type of more complex problems demand well structured submissions forms that guide the participants. They further explained that these forms cannot be too short as the challenge sponsor needs to know enough about the proposal in order to decide which ones to move forward with. Company F also added that a participant serious about wanting to collaborate with the sponsoring company, would not be discouraged by having to enter this data, even though it might take some time to complete, which in turn certifies that only serious submissions come through. Similarly, Company D implied that turning to individuals with a more specialized knowledge-set allow for bigger tasks that require greater engagement from the participants.

4.2.4 Communication Strategy

Building and maintaining the community is a critical aspect of hosting a successful OIP. Raising awareness around the platform is important for recruiting new users, and interacting with the existing community is essential for maintaining a lively platform with returning participants. The objectives of raising awareness and maintaining the community are presented in Figure 4.4, which also suggest some techniques identified as useful for achieving each of the two outcomes.

Communication Strategy	
Creating Awareness	Maintaining Community
<ul style="list-style-type: none"> • Current Communication Channels • Traditional Marketing Techniques • Direct Targeting 	<ul style="list-style-type: none"> • Notifications • Email Reminders

Figure 4.4 Two objectives for having a communication strategy and tools for meeting these objectives.

The following section will outline the importance of communication and subsequently discuss methods for creating awareness and sustaining engagement. Finally, some prescribed communication channels will be introduced.

The Importance of Communication

Most of the companies interviewed agreed that it is of utmost importance to have a communication strategy that is well thought through. Companies C and G underlined this by ensuring that the platform will neither run itself nor communicate by itself. Company F complied by pointing out that this is especially important for companies launching their own OIP, as people will not know that it exist unless there is good promotion. As stated by Company C, having a communication strategy is not only important during the launch of the OIP, but rather a continuous endeavor crucial for keeping the platform alive. The same was suggested by Company D, which argued that an OIP is not as passive as other social media.

Creating Awareness

One part of the communication strategy deals with creating awareness around the OIP, and particularly ensuring that the target audience knows about the initiative. In order to reach out to these people, the first step is to figure out who they are and how to reach them, as stated by Company E. If the initiative is focused on incremental innovation in a collaborative environment, Company F suggested that identifying relevant people from the crowd could be achieved using traditional marketing techniques. This approach was also suggested by Companies C and D, who noted that it can be beneficial to have the marketing and communications team involved in the initiative, and to use the communication channels already set up by them. According to Company D, finding people to reach out to is rarely the hard part as most companies already have the appropriate connections and are therefore not starting from ground zero:

They usually have a network of people that they're ready to talk to, they just haven't figured out how to best talk to them (Company D).

If the objective is instead to recruit experts for more complex challenges, Company F instead proposed that these people could be identified using software tools for identifying experts in a given field. Once identified, these people should be targeted directly with an explanation as to why this challenge is of particular fit for them. This strategy is well aligned with a statement made by Company C:

If you can appeal to people's ego and say you know, 'we've come to you because we know you know a lot about it and really we want your opinion. Most people would find that hard to turn down (Company C).

Aside from identifying the people relevant for the initiative, Company E also acknowledged that it is important to understand them in terms of how they can be stimulated to participate, and thus incorporate appropriate motivators and incentives in the message communicated. The importance of finding and communicating appropriate incentives, was also mentioned by Company G:

The key point is to not forget that people have a day job and they are not just waiting to be invited to just another platform. With a good incentive and communication it can go quite smoothly but of course that's the challenge: to define an appealing value proposition and an efficient communication plan (Company G).

Maintaining the Community

Once the participants are signed up to the OIP, Company C stressed the importance of reminding people what they are doing on the platform and why:

Once you have all the members the best thing you can then do is start to reach out to them (...). That kind of thing when you get people involved and certainly once a week we encourage people to do that, if not more (Company C).

They further explained that this could be achieved manually by sending emails highlighting new activities on the OIP, or automatically through platform features such as notification systems and the ability to follow topics or ideas. The importance of sending notifications and alerts was also indicated by Companies A, B and G.

Communication Channels

When communicating with the participants the interaction can occur through the platform or through other online or offline activities. Most of the companies interviewed promoted using the existing communication channels. For well-known brands this can involve promoting the OIP on the company website or in other social media, as stated by Company F. Company G mentioned promoting the OIP and its activities at conferences and relevant stakeholder events and also brought up Webinars, newsletters and printed advertising as promotional tools. Company A agreed with this and further stressed the importance of using every communication channel available, to avoid missing potential participants that are only using a particular channel.

Another important factor brought up by Companies A and D is to meet the audience where they hang out, both digitally and physically, which again ties back to understanding the target audience. Company D noted that a good way to have a wide impact at a low cost is to approach tastemakers, such as bloggers, within the given field and ask them to promote the OIP to their followers. Company A instead underlined the importance of meeting the audience where they are and where they want to be met:

If they're standing in line at the DMV you should have a poster about your site [there]. If they read the newspaper you should have a newspaper article (Company A).

When thinking about how the OIP can promote itself, an important aspect brought up by Company C is the branding of the platform and that it is designed to be attractive and interesting to the target audience. They further elaborated by noting that for OIPs focused on a single challenge, the branding can be all about that particular challenge, whereas an OIP that hosts many different challenges can preferably have a more timid design that doesn't detract from the different challenges.

According to Company C, the users themselves will also promote the OIP as well as the individual challenges and the content that gets created on the platform. They further explained that the users often begin rallying around each others ideas, promoting the ones perceived as particularly good on Twitter, Facebook and other social media.

4.2.5 Motivations and Incentives

When designing the process for an online innovation platform one needs to have a strong incentive structure that motivates the different participants to contribute. The structure can be of varying kind and it strongly depends on the target audience. As stated by Companies A and C, people are in general eager to get involved in matters that they are passionate about. Company F, on the other hand, suggested that people tend to be interested in improving products that they use themselves, while Company C brought up the opportunity for the participants to continue developing their idea together with the challenge sponsor. Similarly, Company G mentioned that one reason for participating in online communities is the chance of finding potential partners, with whom one can continue to develop the idea. Many of the companies emphasized that seeing the winning ideas being implemented is a very strong motivator for most people. This aspect, the *Importance of Consequence*, has been pinpointed as a critical success factor and will hence be described further in chapter 4.2.7.

As there are many alternative ways to incentivize people, it is important to find out what motivates the target audience and use this knowledge to define an incentive structure. As suggested by Company E, subject matter experts find other aspects appealing than the general crowd. The motivations and incentives for these different target audiences are presented in Figure 4.5, and they will be further explained in the following sections.

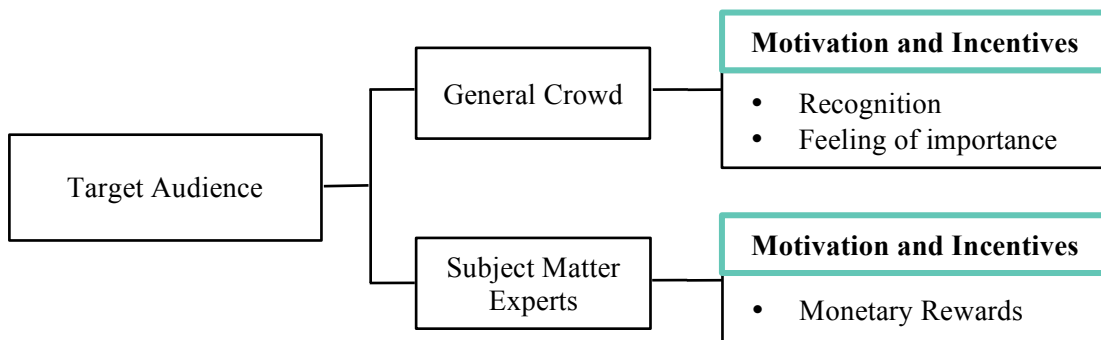


Figure 4.5 Motivational factors for different target audiences.

Motivating Experts

Several companies stated that money is important to motivate subject matter experts. As explained by Company F:

For challenge-based portals with external submitters and solution providers, money is important, because obviously they are doing this for money (Company F).

When turning to an expert, the problem is often rather technical and complex and therefore requires more complete solutions than those submitted to a more general question. Company E said that for challenges requiring the input of experts, the experts often compete against each other and the winner gets a rather large amount of money. Company D mentioned that offering a prize is a good way to stimulate people's competitive gene. Company C stated that appealing to individuals' egos is advantageous when motivating people with specific knowledge on a particular topic to participate.

Motivating the Crowd

When turning to the general crowd, Companies E and F said that money is not a good incentive as it attracts people for the wrong reasons:

For external in co-creation portals, I don't think it's a good idea, because people would be doing it for the wrong reason. Participants should get some kind of return but not straight money, but should be first motivated by recognition, social interactions or brand love (Company F).

Company G said that money could work as an incentive but that it might not be as powerful as other incentives, something that Companies C and D also confirmed. Company E further elaborated on this matter and said that users usually participate because they want to contribute and be listened to, not for gaining a prize. Both Companies B and E emphasized that what the crowd typically wants is to get public recognition and to be part of something purposeful. Company D also suggested that some people get motivated by being part of new things and by getting access to information they otherwise would not get.

Most of the companies interviewed use some kind of gamification element as incentive on their platforms. One way of leveraging gamification is to have a scoring system integrated in the platform, providing participants with points for their actions. If the goal is to host a collaborative environment, Company D suggested that one should reward users that stimulate a lot of activity and engagement from others. To do so, a lot of the companies have a scoring system that gives extra points to those commenting and elaborating on other people's ideas. Company F mentioned that another way to incentivize participants to collaborate is to reward whole teams that have contributed in developing an idea, and not only the one submitting the first draft of the idea.

Although some companies have noticed that a few of the users are responsible for the largest part of the activity on the platforms, they still underlined that it is important to motivate the less active individuals as well. Company E could see that some of their members tended to be more creative whereas others were more analytical. They therefore acknowledged the importance of having mechanisms that incentivize both behaviors.

Emphasized by most of the companies, one truly important thing when pursuing an online open innovation platform is that the challenge sponsoring company is responsive and provides feedback to the incoming ideas. Company D underlined this:

Providing some sort of incentive can be helpful but (...) if you and your leadership are involved in the community and comment on the ideas of others, and respond to those ideas, then people are naturally motivated to join that conversation (Company D).

As *Sponsor Engagement* has been identified as a critical success factor for implementing an online innovation process, it will be further discussed in the next section of the report.

4.2.6 Sponsor Engagement

When it comes to *Sponsor Engagement*, there are primarily two tasks that are important for the OIP's survival over time. First of all, it is crucial that the challenge sponsors provide feedback to the participants, so that the users feel that it is worth their time to be a part of the community. Secondly, the sponsors must also ensure that the content on the platform continuously gets updated, so that the users feel inclined to return to it. These two tasks are presented in Figure 4.6, and will be further explained in the sections below. Finally, some important considerations that follow from this required engagement will be discussed.

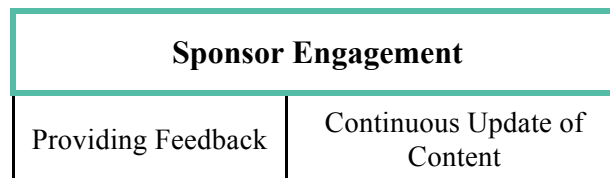


Figure 4.6 Two important tasks for the challenge sponsors or the administrators.

Providing Feedback

In order to establish an active community that generates result to the company in terms of well-established ideas appropriate for possible implementation, almost all of the companies mentioned that it is important for the challenge sponsoring company to engage on and around the platform. Company F underlined that it is crucial to provide feedback to the incoming ideas in order to make an OIP attractive. According to them, the minimum level of feedback is sending out automatic messages thanking the participants for their contribution. This goes in line with what Companies C and D stated:

And I think the trick, if you're looking for the sort of tips and tricks of how to make this thing work, it's engagement from the moderator (...). It's really all about that and how much you reach out to people. It's not something you can just set up and let run (Company C).

Because if people go in there and they share their ideas but nothing ever happens to them and nobody ever responds to them, then those communities very quickly die (Company D).

While Company D suggested that it is crucial that the challenge sponsors make the participants feel that it is worthwhile for them to be on the platform, Company E further expressed that the feedback needs to be provided immediately, before people forget about their participation. Company D also explained that the communities that do the best are often the ones where the sponsors have decided to respond to every single idea. Even if they do not plan on using every idea, thanking the participants for their submissions or explaining to them why the idea is good for them, leads to a more satisfied user base more likely to return to the platform. Companies C and D also

underlined the importance of having people with extensive knowledge on the specific topic for which the OIP is used, that can respond intelligently to the submissions.

Continuous Update of the Content

Many companies also mentioned that there is a need for the challenge sponsors or the administrators to update the platform regularly to create a continuous community with ongoing activities. As explained by Companies C and D, an OIP is not something that will survive on its own. It needs someone to turn over the content and make sure that there is still interesting things going on when the participants return:

You've got to have somebody who's turning over that content really often, so when people go back they go 'have you seen this new stuff on there' (Company C).

It's not just this like blank suggestion box that lives on the Internet. You have to have somebody else coming in and stimulating that conversation (...). Because it's not as passive as other social media is. In a way you need to have some sort of external reactions so the moderators and the administrators usually have access to that (Company D).

Important Considerations

Because sponsor engagement is so important for the survival and success of the community, challenge sponsors have to be prepared to allocate the resources necessary for providing feedback on the participants' ideas. Company D underlined that one of the struggles that they often see is that the organizations are not prepared to provide the required feedback. On this matter, Companies B and D discussed that it is important to have a dedicated innovation team, focusing on everything happening on and around the platform. Company D stressed that one part of the challenge owners job should be focused on being responsive.

Some companies also stressed that hosting an OIP will never replace the need for internal R&D teams. As suggested by Companies B and F, every organization need to have employees who decide when it is suitable to leverage open innovation and then sets it up, manages it and evaluates the submissions:

There cannot be open innovation if there is no internal R&D, because someone needs to define the problem, and somebody needs to bring the solution onboard (Company F).

4.2.7 Importance of Consequence

One aspect identified as critical by most of the companies interviewed, is the importance of something happening as a result of all the submitted ideas and work put in by the participants. According to Company F it is imperative that the sponsors are very clear about what will happen once the users get involved and begin publishing ideas:

And the fact that your idea is going to go somewhere is important (...), because it stimulates people to know what is going to happen with their ideas (Company F).

Company C said that to achieve an active and lively community where people are motivated to participate, the challenge sponsors must be clear about what will happen with the submitted ideas:

People will want to know what exactly is expected of them and they want to know what's happening in the end (Company C).

Company E therefore stressed the importance of the challenge having to be an actual problem in the company:

One of the most interesting things that we have understood throughout the years is that if you do not really have a problem owner, and if you do not really have a problem that you clearly communicate to people, then there will be no consequence, meaning that there will be no wide implementation, there will be no feedback and therefore there will be no sustainability on the process (Company E).

They continued discussing this matter saying that unless there is some consequence, the credibility will fade away, meaning that people will no longer believe in the process and therefore no longer participate. In order to ensure that the initiative will have some type of consequence, Companies E and F underlined that it is not only enough to ask the right question, the question also has to be asked by the right person. This person must have sufficient reason for, and mandate to, implement suggested solutions inside the organization:

If you do not have a need, and someone with a clear mandate and interest to implement the ideas that are coming out of people’s participation, then you are killing the process because of the loss of credibility and consequence (Company E).

It needs to be asked by the right person as well (...) if the challenge is not [organized] by somebody who has the [mandate to implement ideas], the submission may not be actually taken on board by the company. Unless you are organized to integrate the answers in the company process, you are just wasting your time and money, because you are asking people to contribute to your innovation by submitting ideas or solutions, without having implemented anything to actually make them happen (Company F).

4.2.8 User-Centric Design

Most of the companies interviewed agreed that the software itself is not the complete solution but rather a tool built for facilitating the open innovation process. Company F explained that the purpose of the software is to help the company reach their goals and Companies B and E pointed out that it is important to see beyond the software, focusing on the whole innovation process instead of only the platform. As explained by Company C, the people should be in focus rather than the software:

Because it’s not about computers, it’s not about technology really, it’s about your crowd and your people, and you need to be able to get to them (Company C).

When leveraging an online platform for open innovation it has been noted that it is of great importance that the process is transparent and clearly communicated to the users. It is also vital that the platform is intuitive and easy to use. Furthermore, the platform also needs to be easily accessible and inclusive to different types of users. These three concepts (shown in Figure 4.7) will be explained respectively in the following sections.

User-Centric Design		
Transparency and Clarity	Inclusiveness and Accessibility	Intuitiveness

Figure 4.7 Three components of a user-centric design.

Transparency and Clarity

Almost all companies mentioned that providing a transparent platform as well as a transparent process for handling the submissions and managing the community is very important. Company E underlined that the model created on the platform has to be transparent, clear and credible and Company F mentioned that the participants must understand how they should participate and how the process will unfold once they have submitted an idea. Company G also underlined the fact that there has to be fair rules on the platform and that the expectations on the participants and their submissions have to be made very clear. As explained by Company E:

Typically one of the reasons these processes fail is that they are not transparent, meaning that you submit an idea and then the idea is only screened and analyzed by a small group of people, like an executive committee, that uses some criteria that are not clear to the participants and that doesn't even provide feedback. That process is not clear, it's not transparent (Company E).

Company C elaborated on this saying that since people are busy, and since there are a lot of other things that demand their attention, a transparent platform is also important in order to explain to the participants what they get out of being on the platform. On a similar topic, Company A mentioned that it is beneficial to provide the users with the possibility to filter and search the content in order for them to quickly find things of interest. Providing tools that facilitates a fast connection between the users and the topics they care about was said to be a crucial aspect for stimulating user participation and interaction, as most individuals' attention spans are very short.

Company A has focused a lot on making their platform transparent in order to enable an open conversation with the participants. They explained that people expect things to be open, transparent and very social, so it only makes sense that these types of platforms evolve with it.

If I'm going to go through the effort of signing up for something, I want to see what I have to do to sign up. So ask me the question, let me see the question, let me see that I can respond quickly (Company A).

On their platform it is possible to take part of the conversations without creating an account, but a login is needed for joining the conversation by for example posting ideas or communicating with others.

Inclusiveness and Accessibility

In order to achieve high participation numbers, several companies noted that it is important to host a platform that is easy to access and welcoming to all types of participants. One way of making the platform inclusive for larger groups of people is to lower the language barrier by offering translation functionalities, something that Companies D and F have done. Another way of including different types of people is to encourage different behaviors. Company E has implemented gamification elements that encourage creative people as well as analytical people to participate, by rewarding both behaviors in their model:

Well, because we are not only making sure those people with ideas get a chance to get a prize at the end, but we are also welcoming the other people, the non-creative people, so that they can also bring value to the process with their comments and evaluations on other people's ideas, and consequently be recognized for that (Company E).

Company A similarly encourages different types of users to participate by offering different ways of getting involved. Aside from providing discussions threads they also offer polls. These inquiries are easy to answer and does not require as much effort from the users, which can make it less intimidating for the users to participate. They emphasized that a platform should offer different ways for people to participate since people's preferences on how to contribute can differ. Company D also discussed the importance of having different ways of engaging, such as being able to like posts or vote on them, as well as reading or commenting on them.

To make it easy for users to participate it has been noted by a lot of the companies that the platform needs to be accessible from different types of devices such as computers and mobile phones.

Intuitiveness

When it comes to balancing between providing a platform rich with features and one that is more simple and intuitive, all companies agreed that intuitiveness is most important. The platform has to be easy to understand and Company E underlined that they have made their platform as simple and intuitive as possible, something also prioritized by Company G:

Users have to really go around your platform without any second thought on where should I go (...) it has to be really user oriented (Company G).

Companies A and C also emphasized the importance of hosting a simple and intuitive platform, and Company D stated that although this can be a bit of a challenge, it is absolutely crucial in order to lower the barrier for participation. Company F elaborated by underlining that implementing too many components usually leads to increased complexity, rather than adding much value. Company C noted that this simplicity is important for both the users and the company managing the platform, something that Company B also agreed upon:

And that intuitiveness is important, both from the end-user, the person submitting, voting and commenting on ideas, but also to the administrator who's managing the whole end-to-end evaluation process (Company B).

To facilitate a good user experience, many companies discussed that the design of a platform should resemble the one of other social media. Companies A and D expressed it like this:

Well it needs to have a lot of the social mechanisms that we've come to expect from social media. That you need to be able to talk to each other and to be able to like the work of somebody else, so that you can have that social experience (Company D).

So if you treat it like the social media and the websites that they use today, you'll get a lot more feedback and interaction (Company A).

Companies B, C, F and G mentioned that providing voting and liking functions stimulates user engagement, since people are used to these elements from communities like Facebook.

4.3 Summary of the Benchmarking Study

From the benchmarking, eight critical success factors for leveraging online platforms for open innovation emerged from the data collected through the in-depth interviews with the seven platform providers. The critical success factors identified were the following: *Platform Design, Target Audience, Problem Definition, Communication Strategy, Motivations and Incentives, Sponsor Engagement, Importance of Consequence* and *User-Centric Design*.

During the benchmarking it was noted that, in order to successfully implement these types of platforms, it is crucial to state the purpose of the initiative in order to be able to choose the most appropriate platform. This decision will impact what audience to target, and continuously the target audience will have a pronounced influence on several of the other factors identified. How to define the problem depends on what audience one is targeting, and the same goes for what motivation and incentive structure that is most appropriate to use.

It is important to strategically think about how to create awareness of the platform and how to communicate it to relevant people. Continuously, it is important for the challenge sponsor to be engaged on the platform and to give feedback to incoming submissions. It is also essential that the challenge published on the platform is a real problem and that the challenge description clearly communicates what will happen with incoming ideas further on in the process. It has also been noted that the platform needs to be designed bearing the user in mind, meaning that it needs to be easily accessible, inclusive and intuitive to use.

As the purpose of leveraging an online platform either can be focused on achieving incremental innovation or radical innovation, Table 4.2 aims at describing how several of the critical success factors should vary depending on what the rationale behind the initiative is.

Table 4.2 Different implications for incremental and radical approaches.

Purpose of Initiative	Incremental innovation	Radical innovation
Platform Design	Collaborative environment with open submissions	Competitive environment with closed submissions
Target Audience	General crowd	Subject matter experts
Problem Definition	Open and accessible	Specific and/or complex
Communication Strategy	Traditional marketing	Direct communications
Motivations and Incentives	Recognition and feeling of importance	Monetary rewards
Submission type	Knowledge sharing, idea posting, commenting and voting	Complete proposals
Effort required from participants	Low	Big

The critical success factors *Platform Design* and *Target Audience* strongly depend on what the purpose of the initiative is, and *Problem Definition*, *Communication Strategy* and *Motivations and Incentives* are subsequently dependent on the *Target Audience*. The *Submission Type* and the *Effort Required from Participants* also differ, as radical innovation entails that the target audience are experts who submit more detailed and refined proposals, whereas incremental innovation rather implies that unrefined ideas and rough sketches are being submitted by the general crowd. Table 4.2 presents how these factors should be set up for the two different approaches, in order for the initiative to be as successful as possible.

5 Case study: OpenUp - an Intermediary

In this chapter the result of the case study is presented. It comprises an introduction to the case organization as well as a description of the platform OpenUp. Furthermore, OpenUp, and the opinions of its different stakeholders, are discussed related to the critical success factors identified in the benchmarking study.

5.1 Introducing the Case Organization

Skåne Food Innovation Network (SFIN) is a food industry cluster located in the south of Sweden. Established in 1994 as a result of the Swedish entry into the European Union and the increased competition that this membership inferred on the food industry, the purpose was to unite the Swedish food manufacturers to encounter the new challenges together. Until 2003, SFIN was above all a small board that discussed challenges in the industry. But the objective of SFIN was refined when the cluster won a competition organized by VINNOVA, the Swedish Innovation Authority. The competition comprised a challenge on how to expand an industry in Sweden and landing one of the winning positions granted the cluster funding over the following ten years. SFIN's agenda consequently expanded from being a united entity tackling industry challenges, to also include the objective of developing and expanding the food industry through innovation (Jan Brattström 2015, pers.comm., January 28th).

The vision of SFIN describes that they build the innovative landscape for future food and meals. Their business mission emphasizes their role as a network focusing on bringing together different competencies to develop the food industry. Today, SFIN has developed a vast network consisting of several companies and organizations, more precisely 40 partnerships and 140 memberships. SFIN is financed partly by fees of these partners and members and partly through Region Skåne, VINNOVA, the Swedish Agency for Economic and Regional Growth (SAERG) and European Agricultural Fund by the Board of Agriculture (Skåne Food Innovation Network, 2015). The cluster is also a hub for more specific networks such as for food industry executives and R&D managers as well as for students and politicians interested in the food industry. Organizationally, SFIN is, and always has been, arranged in a triple helix structure with strong relationships with the universities, the industry and the society (Jan Brattström 2015, pers.comm., January 28th). These relationships are also secured and demonstrated by the constellation of the 12 board members, where parties from all three entities are included (Skåne Food Innovation Network, 2015).

5.2 Background to OpenUp

To get an extensive understanding of the OpenUp initiative six different interviews have been conducted. In order to get a broad view of the background drivers for OpenUp the following people have been interviewed: the CEO of Packbridge, the manager for the job and career segment at SFIN and a person that is a board member both at SFIN and at Packbridge. The two clusters have one administrator each for this project and they have both been interviewed to understand how the project has been executed. Two individuals from the platform provider Induct have also been interviewed to get their thoughts on OpenUp. The result of these interviews will be presented below as well as in chapter 5.5. In order for these sections to be easier to grasp, each interviewee has been given a code name. The code name for each interviewee is presented in Table 5.1.

Table 5.1 Code names and role descriptions for the interviewees.

Code name	Role
Administrator 1	Project leader of OpenUp from Packbridge
Administrator 2	Project leader of OpenUp from SFIN
Project initiator 1	Manager for Job & Career at SFIN
Project initiator 2	CEO of Packbridge
Project initiator 3	Board member in both Packbridge and SFIN
Induct	Platform provider

The administrators of OpenUp explained that the idea behind the initiative was hatched during an innovation session initiated by SFIN where, amongst others, representatives from Packbridge participated. One issue discussed during this session was the need for small food producers to find packaging solutions, a task more difficult when only producing small quantities. Shortly after the innovation session, SAERG announced a possibility to be awarded money if implementing a project related to consumer driven open innovation. As SFIN and Packbridge had already cooperated before and since Project Initiator 3, who was heavily involved in the initiation of the project, had close connections to both clusters, all interviewees described that it was natural for the clusters to apply for the money together. Administrator 2 further explained that making this project a joint undertaking about packaging for small-scale food producers made it even more interesting, since the two clusters are partly financed by Region Skåne who encourages cooperation between clusters.

As Packbridge previously had been in contact with a platform-providing company named Induct, and because this company offered an advantageous price, the two clusters decided to go with their software solution. Induct had no previous experience in providing software solutions for open innovation, but had instead focused on providing software for the internal innovation processes in companies.

As neither the two clusters nor Induct had any previous experience in providing and hosting platforms for open innovation this project has been a bit of a pilot testing for all parties involved. The rationale behind the initiative has been to establish a solution that can facilitate cross-industry innovation while also allowing the clusters to increase their knowledge on how to build and manage a platform for open innovation. As the aim for SFIN is to foster the innovative landscape in the food industry, this project has also aimed to add value to their member companies.

5.3 Describing OpenUp

OpenUp is a web-based open innovation platform used for solving challenges and discussing ideas related to food and packaging. The platform is open to all, meaning that anyone interested in these fields are welcome to participate. OpenUp is the result of cooperation between the two clusters SFIN and Packbridge. In order to explore the features and design of OpenUp, the authors of this thesis have created accounts on OpenUp and done an objective observation of the platform. Initially, all challenges on OpenUp were connected to both packaging and food but later they started allowing broader topics. Administrator 1 said that the challenges published by Packbridge have

not necessarily been focused on food packaging but rather touched upon topics important for the development of the packaging industry in whole. The same goes for SFIN, who have occasionally published challenges only related to food.

The OpenUp platform is built using software developed by the Norwegian company Induct. However, it is not possible to configure the homepage of OpenUp, so the project team from SFIN and Packbridge has created their own website to get an opportunity to describe what OpenUp is about. At the landing page of this website, www.letsopenup.se, there is an informative video about the OpenUp platform and some written information on how it works. To be able to access the OpenUp platform and view its functions and the graphical layout one has to be registered and logged in. If clicking on create an account on www.letsopenup.se one is transferred from the website hosted by the OpenUp team to the platform of OpenUp, hosted by Induct. To sign up for OpenUp, an email address and a password is all that is needed. To complete the registration, a verification email with a confirmation link is sent to the registered address.

5.3.1 The Landing Page

When logged in to OpenUp, the landing page has two large banners announcing the possibilities of building your idea or sharing your challenge. The main structure of the platform is then based on these two different flows. Clicking on any of these banners takes you to a section allowing you to create an idea or a challenge, activities that will be described below. On this page, one challenge is also highlighted and described by a short presentation. There is also a clock symbol showing the remaining time of the challenge, as shown in Figure 5.1.

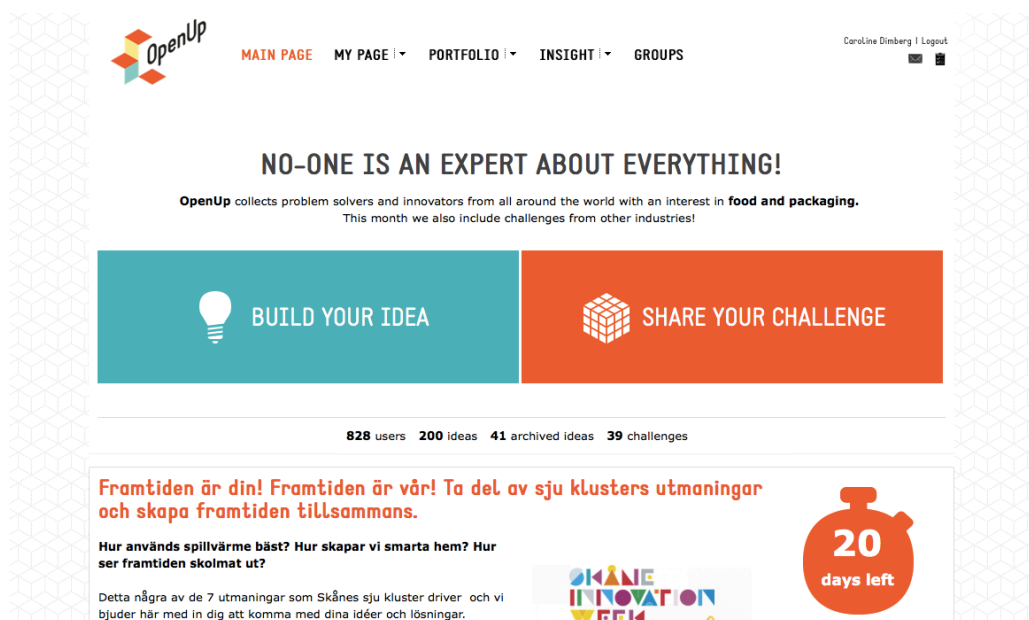


Figure 5.1 Print screen of the landing page of OpenUp, part 1.

Further down on the landing page, there is a section showing the latest updates on ideas and challenges separated in two columns, see Figure 5.2, as well as one section showing the latest user activities on the platform.

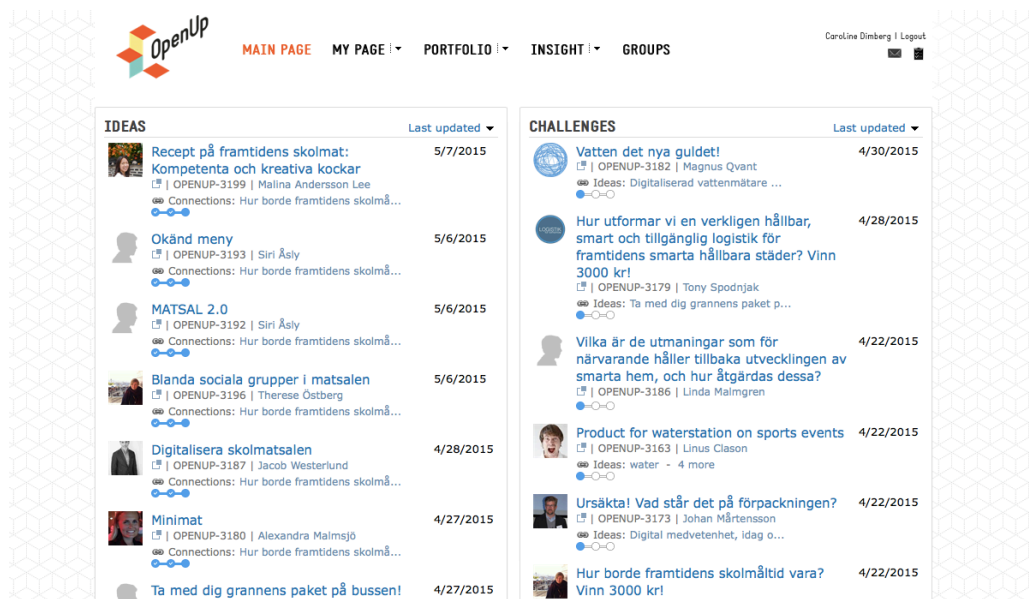


Figure 5.2 Print screen of the landing page of OpenUp, part 2.

Posting a Challenge

As there is no way to create a company account on OpenUp, a challenge can only be connected to an individual's account even though a company may be behind it. When posting a challenge one describes the background of the problem and then specifies the question to the participants of the site. It is also possible to add images that enable a closer understanding of the issue. An example of a challenge hosted by Sponsor 3 is shown in Table 5.2 below. There is a PDF document with challenge guidelines that might help when designing a challenge, which for example suggest that the challenge sponsor clarifies what the users will gain from participating. The challenge is then posted and there is a possibility to choose if it should be open to everyone on the site or if it should be private and only seen by the ones it is distributed to. There is also the possibility to choose whether or not the submissions should be visible to other participants. After posting the challenge on OpenUp one can review the incoming ideas.

Table 5.2 An example of a challenge posted on OpenUp.

<p><i>A frequent claim among consumers is that it is often hard to get into different packages. Many even get hurt when they handle them. Packbridge believe that we need to put more focus on this problem. The main purpose of packaging is to protect, attract and present the content, but also to deliver convenience to the consumer.</i></p> <p><i>We are interested in getting your view, your experience and thoughts around this issue.</i></p> <ul style="list-style-type: none"> • <i>What is your point of view?</i> • <i>Do you have any personal experience?</i> • <i>Any solutions you would like to see?</i>
--

Posting an Idea

It is possible to either post an idea connected to an existing challenge on the platform or an independent idea regarding any topic or issue. There are certain example

questions that one can use as a guideline to be able to present the idea clearly. The questions are guiding the poster to describe the need that the idea fulfills, the approach to addressing this need, the benefits of the chosen approach and how these benefits compare with those of already existing or competing solutions. It is also possible to upload files to clarify the idea.

Other Functions of OpenUp

There is a comment function on both challenges and ideas allowing users to give feedback and ask questions on each other's ideas and it is also possible to show appreciation by voting on challenges and ideas. One can also choose to follow a certain challenge of interest. It is also possible to communicate with each other through the private messaging function. OpenUp also has a newsletter being sent out two times a month.

5.3.2 Navigating on OpenUp

The top of the landing page consists of a main menu containing four available navigation alternatives: My page, Portfolio, Insights and Groups.

My Page

On *My page* it is possible to view specific activities for the account such as initiatives, challenges, tasks, messages, forums and latest events. From there it is also possible to reach the settings of the account and the user profile. When signing up for OpenUp there are certain default settings regarding email notifications. By default one receives email notifications if someone has commented on your idea or if there are replies in a thread that one has been active in. The different notifications can be managed under *My settings*. Under *My settings* it is also possible to change the language of OpenUp, as there are 19 different languages to choose between. If moving to *My profile* it is possible to access the overview of the user specific information such as education, work experience and posted ideas and challenges. It is also possible to upload a profile picture.

Portfolio

Portfolio is a joint flow where all the ideas and challenges are viewable. It is also possible to search for a specific idea or challenge and to filter the flow to show only challenges or ideas. From here it is also possible to create an idea or register a challenge.

Insights

The *Insight* tab contains a full list of all the users on OpenUp. There is a search function with the possibility of searching for a specific user through name or email address.

Groups

Groups is a forum where it is possible to participate in, and discuss, different topics with other members. Any user can create a new group and specify the terms for that specific group, for example by deciding on how visible it shall be or who is allowed to post new threads.

5.4 The Stakeholders' Objectives for Participating on OpenUp

Rationale for Sponsors

Neither of the challenge sponsors had any previous experience in the field of consumer driven open innovation, nor had they participated on platforms similar to OpenUp before. They were all looking for inspiration and input to different problems and some of them had high expectations regarding the number of ideas that they would receive on their challenges whereas others just thought that OpenUp might generate some new inspiration. Sponsor 4 thought that OpenUp was a relevant forum for gaining insights from experts in the area, whereas Sponsor 2 viewed OpenUp as a possibility to receive input from people not involved in the subject, and thus bringing a different mindset. Sponsor 3 saw OpenUp as an opportunity to bring up hot topics, as the public might have a lot of opinions about them. Sponsor 5 mentioned that his company considered OpenUp as a more harmless way to conduct open innovation than for example LinkedIn, which was perceived as a more public forum.

All the sponsors thought that it is relevant to involve consumers in an innovation process. Sponsor 5 said that the less you use customers and consumers the less successful you will be. Sponsor 3 mentioned that it is good to get the opinions of the consumers, and it is important to capture potential users in offline environments, for example on events.

However, looking at the open innovation initiative of OpenUp, only Sponsor 4 felt that OpenUp lived up to the expectations. She got a few answers to the challenge, which generated some new inspiration and input for further research. Sponsors 1 and 3 had very high expectations of OpenUp and thought that this tool might generate many interesting ideas and opinions and that the activity on the platform would be very intense. However, they did not get the level of response that they had hoped for. Sponsor 2 received a few good answers, but not to a satisfactory level. The number of submitted ideas and comments for each of the sponsors' challenges are presented in Table 5.2 below.

Table 5.2 Number of ideas and number of comments on ideas for the sponsors' different challenges.

	Challenge	Ideas	Comments on ideas
Sponsor 1	First	2	2
	Second	4	1
	Third	6	6
Sponsor 2	First	6	3
Sponsor 3	First	17	11
	Second	17	9
	Third	18	23
Sponsor 4	First	3	4
Sponsor 5	First	1	0

All of the sponsors perceive that they got qualitative responses rather than quantitative. They all say that they sometimes got some good ideas that were thoroughly thought through.

Rationale for Participants

The participants also had different reasons for signing up to OpenUp, as well as varying expectations on the platform. Participants 3 and 4, who are inventors, were looking for new contacts and networks. They hoped that OpenUp would assist with matching them with relevant people who could help them realize their ideas. Participant 3 also explained that she would have liked to be able to upload video recorded pitches of her ideas in order to present and promote them through OpenUp.

Participant 7 mentioned that his company were interested in finding out what OpenUp was because they had been interested in open innovation. They saw this as a new channel and wanted to be up to date with current trends. He further discussed that his company used other social media, such as Facebook, to communicate with customers, and he had therefore hoped that OpenUp could contribute with more expertise. He elaborated on this, emphasizing the broad range of people on OpenUp, allowing for varying types of contributions. He thought that this aspect was exciting.

5.5 Describing OpenUp Related to the Critical Success Factors

From the interviews with the platform providers several critical success factors for leveraging a successful online innovation platform have been identified. While these factors are critical for companies hosting innovation platforms, the transcriptions of the interviews with the OpenUp participants, as well as the summaries of the interviews with the challenge sponsors, have been scanned bearing these success factors in mind. The voices of the administrators and initiators of OpenUp have also been considered regarding these factors. This approach was undertaken in order to evaluate to what extent the OpenUp initiative has complied with the identified CSFs, in order to identify specific implications that arise for intermediaries.

In order for this section to be easier to grasp, each participant and sponsor has been given a code name. The code name and a role description for each interviewee are presented in Table 5.3. For the participants the user types, to which they belong, are also given.

Table 5.3 Code names for the interviewees.

Code name	Role	User Type
Sponsor 1	Innovation trainee at SFIN	-
Sponsor 2	Innovation trainee at SFIN	-
Sponsor 3	Manager for events & administration at Packbridge	-
Sponsor 4	Student hosting a challenge during a class at Lund University	-
Sponsor 5	Head of packaging development at Marks & Spencer	-
Participant 1	Former researcher at Lund University with extensive expertise in innovation.	Commenter
Participant 2	Former employee at an agricultural university	Butterfly
Participant 3	Inventor	Well-balanced
Participant 4	Inventor	Well-balanced
Participant 5	Student participating during a class at Lund University	Ideator
Participant 6	Student participating during a class at Lund University	Commenter
Participant 7	A company connected user who also hosted a challenge	Well-balanced
Participant 8	A company connected user	Passive
Participant 9	Head of a logistics cluster	Ideator

5.5.1 Platform Design

OpenUp can be viewed as an intermediary, since SFIN and Packbridge are hosting a platform where the companies in their network, and anyone else, can publish their own challenges. Originally, every challenge was supposed to be connected to food packaging but this concept has since then been expanded to include topics that involve either of the industries and not necessarily the intersection. In an interview, Participant 4 explained that he would have liked to see more focus on certain problem areas within the scope of food and packaging, while Participant 5 mentioned that the scope of OpenUp is too narrow.

Collaborative vs. Competitive Environment

Although OpenUp contains competitive elements in that the participants compete against each other to win the pre-announced prizes, it is primarily designed as a collaborative environment where cooperation and idea building is the foundation for solving the challenges. Despite this focus, several voices have been raised on the subject, saying that this unfortunately has not been the case in general. Participant 1 mentioned that there are not a lot of comments on OpenUp and, if there are, they are often submitted by the same people. He rarely saw users elaborating on somebody else's idea:

Few people elaborate on each other's ideas and I consider this to be an important part. That you see that someone shares an idea and that others don't just 'like' it, but rather comment on it and then perhaps it will we some iteration (Participant 1).

Participant 5 similarly noticed that a few people commented on most of the challenges, implying that not many people were very active on the platform. Sponsor

3 also mentioned this aspect and said she had hoped for more vivid discussions, more interaction and that company related users would have been more active.

Open vs. Closed Submissions

OpenUp is focused on open submissions meaning that ideas submitted on challenges are generally visible to anyone on the platform, allowing other participants to comment and build on the idea. Sponsor 5, however emphasized the importance of being able to take things private if desired. He explained that this could make the different parties feel more comfortable using the platform, knowing that they can continue a conversation in private after a relationship has been established. Participant 6 also discussed the importance of this mechanism, suggesting that some experts might not want to share their expertise in an open environment.

5.5.2 Target Audience

The audience targeted on the OpenUp has been diverse. Through observations it has been noted that the participants have different background, where some are students that have signed up due to the fact that OpenUp was a part of their class, some are employees at the companies in the networks of SFIN and Packbridge, some have been targeted for specific challenges and some have found OpenUp through other channels.

Level of Expertise

The participants have different perceptions of what audience OpenUp mainly targets. Participant 6 perceived that there were lots of industry professionals on OpenUp, making a lot of the challenges rather technical. He further said that it was difficult to contribute due to the technical level of the challenges. This is something also mentioned by Participant 1. He did not feel that he had the right knowledge for answering the challenges, as he was not an expert in any of the fields:

With my background it would feel a bit naive to just come and suggest solutions for advanced topics in material science or such, that I do not have a clue about (Participant 1)

He further elaborated on this by sharing a concern that non-industry people might not see how they can contribute on OpenUp. Participant 7 underlined that he would have liked to see more experts and industry people on the platform, without excluding anyone from it.

Level of Diversity

Participant 8 mentioned that he thought that there would be a specific type of users active on OpenUp; instead he realized that the platform attracted a great variety of people. Participant 5 advocated hosting a diverse community and elaborated that a platform like OpenUp preferably should comprise users from the complete supply chain: from producers and companies to consumers and students. This attitude was however not aligned with the reasoning of Participant 6, who argued that the aim of OIPs probably is to reach a particular user segment. His perception was that OpenUp is more focused on experts and people from the industry, and thus believed that other people, like students or consumers, probably do not have enough motives for participating. Participant 1 really appreciated that OpenUp is focused on two different industries and said that a lot of interesting things can happen in in the intersection between industries.

User Behavior

Participant 1 discussed the fact that people can have different roles on OIPs, and that some might offer expert knowledge whereas others submit inspiring comments or read everything that is written. This was something that Participant 8 believed to be the case with OpenUp. He also added that an OIP should target anyone with an interest in the subject.

Participant 8 noticed that a low percentage of the users were very active on the platform whereas a much higher percentage were rather inactive. This statement is further strengthened by the user statistics collected on the platform. Between December 2012 and January 2015, 682 unique users logged in to OpenUp. Out of these users, 600 participants logged in ten times or less and 410 of them were only logged in once or twice, as illustrated in Figure 5.3.

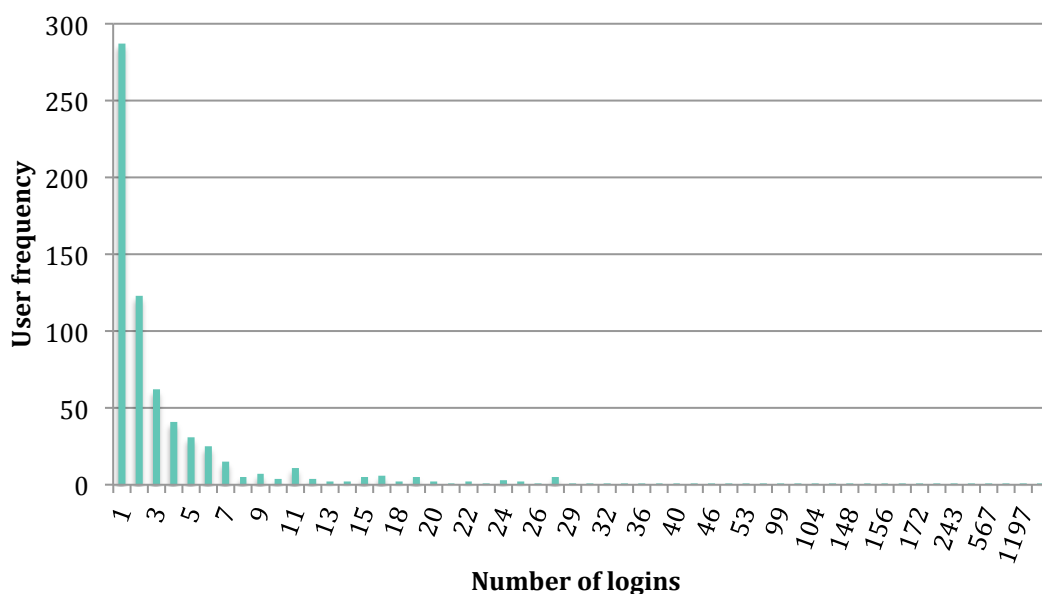


Figure 5.3 Frequency of logins amongst users.

A similar pattern can be identified regarding the comments made by users. Comments can be provided both on challenges and ideas and the first comment was registered in March 2013. From then to January 2015, a total of 414 comments were submitted on either ideas or challenges. However, analyzing this data closer shows that only 48 users have contributed these comments, and that 259 of the comments were posted by the ten most active users. Furthermore, eight of these ten most active users come from either SFIN or Packbridge, and 285 of the comments can be contributed to participants with an origin in either SFIN or Packbridge.

5.5.3 Problem Definition

Most of the sponsors believed that it was difficult to know how to formulate the challenge to achieve the greatest success. Sponsor 4 further explained that it was difficult to benchmark against other challenges since they were all very different. How much time the sponsors have spent on creating their challenges also differs. Three of the sponsors approximated their time spent on creating the challenge to be less than an hour. Sponsor 1 believed that she has put more time on the latter challenges than the first ones. Sponsor 3 has formulated her challenges during a

couple of hours but has spent a lot of time in finding interesting people to invite to participate in the challenge.

For designing a challenge, several things have been mentioned as important by the sponsors. An interesting title and pitch and to carefully choose the words are relevant things to consider. It is also important to explain the background of the problem and describe what the users will gain from joining the conversation. Sponsor 3, who had posted three challenges at the time of the interview, said that she got more responses the more personal and simple her challenge text was. She said that it is important to try to connect to the participants, and for example not write in a too academic manner, but instead make them feel that they can contribute. She further mentioned that she would try to formulate her future challenges in an even more personal way in order to make an impact on the participants and make them feel engaged in the problem.

5.5.4 Communication Strategy

Before the launch of OpenUp, SFIN and Packbridge held several workshops with companies in their networks in order to highlight what their members wanted to see in this type of platform. They got many good reactions from the companies, but Administrator 2 also explained that most of them have not taken the step to actually use it. Administrator 1 suggested that this type of initiative might be too early for the food and packaging industries.

After launching the platform to the public, the administrators were focused on promoting OpenUp in their networks. They also offered to visit the companies in order to explain the platform and the concept of open innovation. Participant 8, who works for one of Packbridge's member companies, confirmed this by explaining that the administrators had visited their company to introduce them to OpenUp. He underlined that this was of great use for them in order to fully understand how to use the platform. However, as stated by Administrator 2, informing each company is very time consuming and they were therefore not able to do this to a very large extent.

Creating Awareness

The administrators have not focused too much on recruiting participants for OpenUp. They have instead focused on inviting their member companies and the intention was to invite potential users together with the challenge sponsoring companies. Administrator 1 explained that they have tried to spread information about OpenUp through their newsletters and through articles about open innovation. He also explained that Packbridge has promoted OpenUp at their events, which has resulted in several new users. The administrators have noted that there has been an increased user base on OpenUp when they have promoted it on events.

The sponsors had different approaches trying to gain a high number of responses and how much time they spent on working with the challenge differed a lot. Four of the five sponsors did not recruit any specific individuals for their challenges, either because it was difficult to share the challenge through social media or simply because they did not think of inviting others than those who were already members of the platform. Sponsor 4 explained that she thought that it was OpenUp's responsibility to recruit members to the platform, something that Sponsor 2 also agreed on. Sponsor 3 was however very active during the challenges and contacted several different persons that might have interesting inputs on the specific subjects. She encouraged them to register at OpenUp, and also explained to them how to post an idea or a comment.

Sustaining Engagement

When discussing shortcomings of OpenUp in terms of communication, Sponsor 4 mentioned that more email reminders would be a good function. This was something that Participant 4 also said. He discussed that since OpenUp is not the first priority for people when they go online, it is important to try to reach people where they are:

One should not have to visit OpenUp in order to find [the information], but rather get an email saying that you need to check something out, because otherwise nothing will happen. You have to get reminders to where you're at, and the only place you visit regularly is your email. Or getting it as a text message, which is perhaps even better (Participant 4).

5.5.5 Motivations and Incentives

When rewards have been provided to challenge winners, they have generally been distributed to the person or persons providing the best ideas. The reward type has however differed some between the sponsors. Sponsor 3 offered monetary rewards in all of her challenges and also announced the winners on specific events. The challenge hosted by Sponsor 5 was aimed at finding people to join their team and hence provide the participants with the possibility to talk to a commercial exploiter. Sponsor 1 offered some smaller prizes such as food and beverages. Sponsor 2 did not offer any rewards and Sponsor 4 advertised a small reward but forget to give it to the winner once the challenge was closed.

The sponsors' opinions of whether or not rewards are good ways of getting people to participate is more or less similar. Most of the sponsors believe that some kind of reward is positive, but on the other hand rewards can attract participant that are only interested in getting a prize. Sponsor 3 explained that she thinks that it is necessary with some kind of monetary reward, but that it should be a low amount, just enough to trigger the participants. Sponsor 4 suggested that a small prize is probably positive, but brought up the difficulties with delivering physical prizes since participants can be spread around the world.

The participants' attitude towards monetary rewards differed, but most of the interviewees did not promote big monetary rewards. Participant 6 further explained that a large amount could be discouraging for the participants, as this would imply that the idea had to be extremely advanced or elaborated, potentially scaring away the participants from publishing the idea. He rather promoted micro rewards for smaller contributions. Participant 5 further discussed this matter and said that he did not perceive money to be the best reward, he rather thought that participants may be motivated by the possibility of seeing their ideas turn into reality. He also said that the possibility to contribute with ideas and comments early on in a production process is very motivating to him. Participant 7 said that some kind of reward probably incentivize people to participate, but he also underlined that the people signing up for these types of platforms are probably driven by the will to help and to solve problems:

I do however think that people who seek out these types of [platforms], are probably driven by helping out and by solving problems (Participant 7).

Participants 6, 7 and 8 suggested that a strong company brand could motivate people to participate in challenges. According to Participant 7, this is however something that can be hard to achieve for SFIN and Packbridge:

I think that this is a challenge in itself, that the two organizations behind it are only familiar to a niche market (Participant 7).

Participant 8 proposed that people might be motivated by seeing that a certain company commented on their contribution, implying that it would be a good idea to offer the option of registering on OpenUp as a company. Participant 7 agreed and said he would have liked to be able to post a challenge using his company's name, since he felt that that would have been perceived as more professional.

Many of the participants mentioned that it was curiosity about the platform as well as an interest in the food and packaging industry that motivated them to register to OpenUp in the first place. Participant 4 mentioned that he was also motivated to sign up because he felt that he might have knowledge to contribute with, a motive he shared with Participant 5, who underlined that he was interested in finding topics that matched his area of expertise. Participant 5 further explained that he was also interested in taking part of the ideas and knowledge of others. Aside from looking to contribute with knowledge, Participant 4 also expressed that he was interested in finding partners and expanding his network, an objective he shared with Participant 3. Participant 2 really liked the idea of OpenUp but felt that more incentives would be needed in order to motivate people to participate to a larger extent. She explained that it is imperative that the participants know what they will gain from participating.

5.5.6 Sponsor Engagement

The sponsors' activity and engagement during their challenges differed a lot in terms of commenting on submitted ideas. Sponsor 3 commented on things that she felt was interesting, but mostly let the challenges proceed on their own. She did however approximate that she spent about two days per week to work with everything surrounding the challenges, including answering questions from participants who wondered how to post ideas or comments on OpenUp. She also felt that the more time she invested in the challenge, the better result she got.

Sponsor 1 was not very active in the beginning of her challenges but noticed that interaction made the challenge feel more alive and that there was more of a conversation if she answered, hence she started to comment more and more. Sponsor 2 was not very active during his challenge and Sponsor 4 logged in every day to follow the progress of the challenge, but did not comment on her own. Sponsor 4 did however say that if she ever posted a new challenge she would probably comment on the ideas more actively because she thinks that that would generate a better discussion and hence a higher probability to develop a better idea together.

According to Participants 1 and 2, there are a lot of work to be done when handling an innovation challenge and everything around it, why everything has to be thoroughly thought through. Participant 2 and Sponsor 3 also elaborated on this by explaining that these innovation challenges requires someone who facilitates and stimulates the process. Similarly, Participant 7 underlined that companies must prepare sufficiently, in order to be able to handle the varied type of user contribution that an OIP provides. Furthermore, Participant 2 explained that she thinks that most companies do not assign enough resources to provide this support.

Dividing the Responsibilities

Who should be responsible for what on OpenUp was shortly discussed during the interviews. Sponsor 3 mentioned that it would be appreciated if OpenUp could support the challenge owner in terms of answering questions from newly signed up participants. Sponsor 1 expected that OpenUp made sure that there was activity on the platform. Administrator 1, in turn, explained that he visits OpenUp everyday to overview the challenges and comment on things.

Participant 7, who ran a challenge on OpenUp for his company, said that the result they got was not very good. He suggested that the reason for this was probably the fact that they did not have a dedicated person working with open innovation at his company. He further contemplated that working dedicatedly with open innovation is probably crucial for the initiative to be successful:

If you are going to work with this type of open innovation, you should probably dedicate yourself to it and not just do it on the side (Participant 7).

This matter was also brought up by Participant 8:

If you are going to publish a professional challenge, you also have to have someone handling the responses and comments that get submitted (Participant 8).

This support was not something that they had in place as of today, why they were not ready to host challenges on OpenUp. He hence suggested that it was their own lack of dedication, rather than insufficient support from the OpenUp team, that resulted in them not using the platform.

Participant 3 had however hoped to see more engagement and involvement from the OpenUp team since her hope was to get in contact with companies and potential partners. She would have wanted OpenUp to help her establish relevant contacts in order for her to commercialize her invention. However, Administrator 2 underlined that time has been a constraint during the project. She has not had enough time to work dedicatedly with sustaining user activity and facilitating the needs of all the participants, as other tasks related to OpenUp has taken up so much of her time.

5.5.7 Importance of Consequence

As mentioned earlier, the sponsors had different intentions with their challenges. Sponsors 1, 2 and 4 wanted to get some new input and ideas to a problem that they were facing whereas Sponsor 1 tried to raise general questions that concerned the packaging industry. Her challenges touched upon topics perceived as relevant to the industry as a whole, and that therefore could generate debates. The aim of the challenge hosted by Sponsor 5 was to explore potential opportunities in their surroundings, and they were also looking for someone that could potentially join their team. It can be noted that Sponsor 5 was the only one representing a specific company while the others had other backgrounds.

Participant 7, who held a challenge on OpenUp for his company, underlined that their challenge was an actual problem that his company was facing. Participant 8 stressed the importance of having someone taking care of all the incoming ideas. This is aligned with the attitude held by Participant 1, who said that it is vital to have a

process attached to the innovation challenge and that something needs to happen with the ideas that are submitted:

The entity hosting the portal or the service, or other moderators or similar, have to give feedback on [the submissions]. Otherwise it will just be like throwing something up in the air that nobody takes care of (Participant 1).

He also stressed the importance of having someone with a mandate to implement the ideas involved in the process, as this is a strong motivator for the participants.

Some participants discussed that they would have liked to see what was happening with their submitted ideas. Participant 5 underlined this, saying that he wanted to see the result of the ideas and what type of product that came out of the challenge:

You might want to see where your ideas end up, (...) what your input resulted in (Participant 5).

5.5.8 User-Centric Design

Transparency and Clarity

During most challenges, the evaluation of ideas and subsequently deciding on the winning contribution has not been performed in a clear or transparent manner. One sponsor chose a winner that was located within a close distance so that the reward would be easy to handout. Another sponsor had a jury deciding the winner, but it was not always clear which criteria that were used for evaluating the alternative submissions.

As mentioned earlier in this report, several participants would have wanted to see what was happening with their ideas after they were submitted and evaluated, something that they were not able to see on OpenUp. Some participants mentioned that they found it difficult to get an overview of OpenUp, which made it hard to know how to engage. Similarly, Participants 1 and 2 mentioned that it was hard to quickly grasp the context of the challenges or ideas.

Inclusiveness and Accessibility

One shortcoming of OpenUp, as stated by Sponsor 1, is that you have to be logged in to OpenUp to be able to participate. Three other participants, namely Participants 2, 6 and 7, agreed with this, stating that they would have liked OpenUp to be completely open so that they did not have to login to be able to view the content. As stated by Participants 2 and 6:

I don't know if I always think that there is a need for logins and such, I'm a bit allergic to it (Participant 2).

I think it is a huge barrier that you have to create an account without even knowing what exists on the forum (Participant 6).

The fact that you are automatically logged out after a certain time of inactivity was also mentioned as negative as well as the problems with not being able to share the challenges on other social media. Sponsor 5 also mentioned that he would have liked to be able to use OpenUp through a mobile phone.

However, Participant 7 mentioned that the fact that OpenUp is a bit closed and rather small made it less scary for his company to open up their business and host a challenge. Sponsor 1 further said that it is of great importance to try to make the company experience less intimidating when it comes to being open, and working with open innovation also has to be a natural part of what the company is doing.

Intuitiveness

Several of the participants said that they had gotten information about how to use OpenUp from the administrators, and most of them found this very useful in order to fully understand how to use the platform. However, some participants had not gotten any personal information on how to use it, something that they thought would have been useful. Participant 6 explained that not all users are familiar with expressions such as “challenge” or “idea” that are often used in open innovation contexts. Because of this, some introduction may be necessary. This is in line with the statement made by Participant 3, who explained that she thought it was necessary with some communication with the challenge sponsor in order to understand the platform:

Some [personal] communication was required in order to obtain that knowledge (...). To feel that you actually connected with the website and became an integrated part of it (Participant 3).

Participant 1, who has previous experience with OIPs, expressed that he thought that the process of OpenUp is rather basic and hence should not pose as a barrier for participation. He thought it was rather simple to build an idea or share a challenge, since there were some short clarifying questions that explained how to formulate the idea. He also perceived the structure of the platform as rather natural. This opinion was also shared with some of the other participants who thought that OpenUp was rather easy to understand once they had explored it for a while.

Participant 4, who characterized himself as an older person with less computer experience, found it rather hard to understand how to navigate on OpenUp.

As an old person not very used to computers, you do not always understand the meaning of the terminology used. It is not very intuitive (Participant 4).

On the same topic, Participant 9 discussed that the usage of online platforms can vary between generations, meaning that the design might not be as intuitive to use for the older generations. He underlined the importance of trying to overcome this gap between generations, in order to facilitate the implementation of OIPs. Some other participants also said that they would have liked OpenUp to be more intuitive. As described by Participant 6:

It was not something that felt intuitive in that way. You probably need to explore the site to see how it is structured (Participant 6).

Many of the sponsors would have liked OpenUp to have a clearer design and a more intuitive way to use the platform, including better possibilities for filtering and sorting. Furthermore, Sponsor 2 would like to reduce the amount of unnecessary information on the platform, while Sponsor 4 on the other hand requested some more hints and suggestions on how to best use OpenUp. Sponsor 4, who has only posted one challenge on OpenUp, believed that the posting and commenting function of OpenUp was satisfying. Sponsor 1 expressed appreciation about it being possible to

view recent activities on OpenUp and Sponsor 3 stressed that OpenUp is easy to survey. However, some sponsors agreed with the participants that the difference between “ideas” and “challenges” was unclear and confusing.

5.6 Summary of Case-Study Results

The case study result is a compilation of the opinions of the OpenUp administrators, the challenge sponsors and the participants. In this chapter the eight critical success factors identified during the benchmarking have been discussed related to the perceptions of OpenUp.

From the case study it can be concluded that the platform has evolved somewhat randomly and that there is a wide range of participants registered on OpenUp. Out of the participants interviewed in this thesis, most of them signed up out of curiosity. Even though many of the interviewees believe that an open innovation initiative as OpenUp is highly relevant, they have in general not been very active on the platform. Despite the fact that there are more than 700 registered users on OpenUp, a great majority of these have been logged on less than ten times.

The opinions of the stakeholders regarding the focus OpenUp were diverse. Some thought that the platform targeted subject matter experts and furthermore expressed that it was difficult to contribute due to the technical complexity of the challenges, whereas others believed that the audience was too diverse and instead should focus more on attracting subject matter experts. Hence, it can be concluded that the intended approach of OpenUp has not been clearly communicated to the community.

When promoting OpenUp, the focus has been on creating awareness through the networks of SFIN and Packbridge. Some participants received personal instructions on how to use OpenUp, something that most of them believed was necessary in order to fully understand how to use the platform. The administrators have tried to engage on OpenUp by commenting and giving feedback to submitted ideas, but due to lack of time they admit that they have not been able to do this sufficiently.

Most of the challenges have concerned very broad topics related to the industries of food and/or packaging, and people from either SFIN or Packbridge have hosted most of the challenges on the platform. As a result there has been no implementation or continuing development of the winning ideas, which is unfortunate, as the CSF *Importance of Consequence* has been identified as crucial in order to successfully motivate the users to participate on OIPs.

From the case study it has been distinguished that the design of OpenUp has not been satisfying enough when it comes to intuitiveness, accessibility and clarity. Several of the interviewees found it hard to know how to use the platform and navigate on it when first being introduced to it. The process of the challenges have not been transparent enough, since it has not been communicated how the submitted ideas are being evaluated and what is going to happen with them when the challenge is finished.

6 Analysis

In this chapter the results of the benchmarking study and the case study are analyzed with regards to the critical success factors identified in chapter 4. Comparisons with previous research conducted in the field, are also presented. Finally, some specific implications that arise for intermediaries hosting OIPs are outlined.

6.1 Critical Success Factors

The eight critical success factors identified during the benchmarking study are as follows: *Platform Design, Target Audience, Problem Definition, Communication Strategy, Motivations and Incentives, Sponsor Engagement, Importance of Consequence* and *User-Centric Design*. As indicated in Figure 6.1, the purpose behind the initiative has an impact on some of the critical success factors, whereas others are more general considerations that apply regardless of the aim of the platform. More specifically, the purpose of the initiative influence which audience to target as well as how the platform should be designed in order to attract this identified target audience. The chosen target audience subsequently impacts how the problems in the challenges should be formulated, how the communication strategy should be designed and which incentive structure that is the most appropriate to incorporate on the platform. In the following sections the identified critical success factors will be analyzed separately.

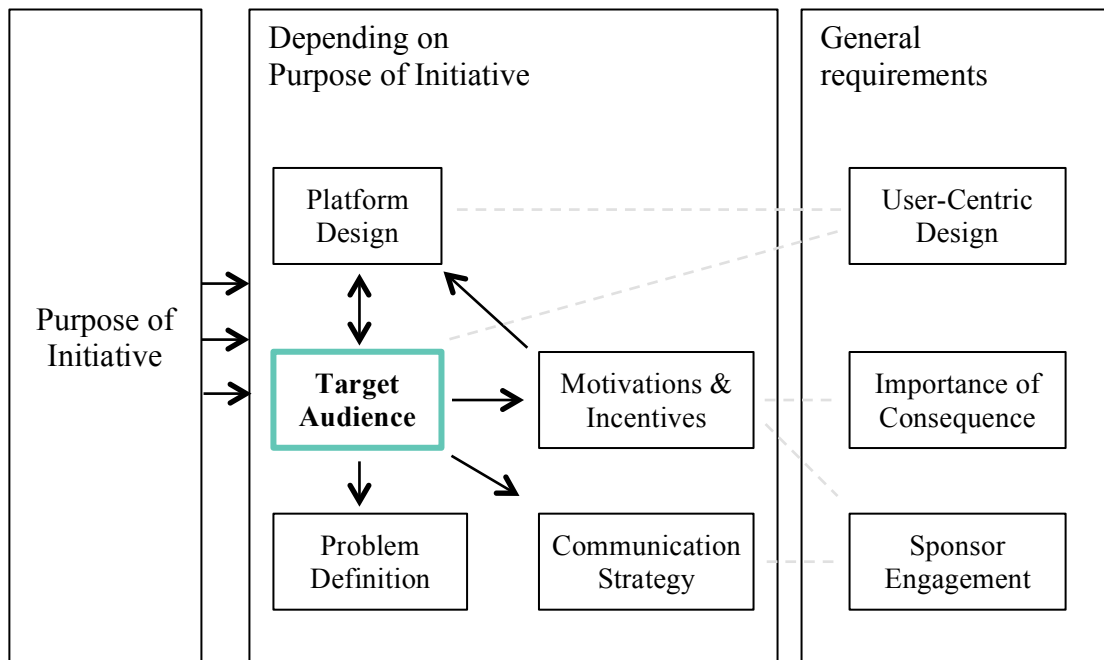


Figure 6.1 Illustration over the critical success factors and their interrelations.

6.1.1 Platform Design: A Collaborative or Competitive Approach

One important takeaway from this study is that the purpose of the initiative heavily impacts which audience to target, which in turn determines whether the platform should provide a collaborative or competitive environment. This result is in line with previous research that suggests that it is important to have the target audience in mind when designing the platform and its built-in incentive structures (Hutter et al., 2011).

However, when launching the OpenUp project, neither SFIN nor Packbridge had any clear objective for the initiative, why the design of the platform was conducted in a rather random manner. Although the platform has features that support both a collaborative and a competitive environment as well as both open and closed submissions, it has mainly been used for hosting collaborative challenges with open submissions. However, aside from providing features that facilitate cooperation, such as commenting and voting mechanisms, there is no built-in incentive system that promotes this behavior. As a result, there are not a lot of interactions going on in the community, something that both the participants and sponsors regret.

In order to establish a successful community that fulfills the needs of the different parties involved, SFIN and Packbridge hence have to clarify the purpose of OpenUp. Clarifying their own rationale for leveraging the platform as well as understanding their member companies' reasons for joining the initiative are crucial steps towards implementing a fruitful platform. This insight is needed in order to design a platform that is equipped with the right tools and mechanisms for achieving the desired outcome. For an intermediary entity like SFIN or Packbridge this is particularly hard, as the member companies might have different objectives for leveraging the OIP. Yet it is an equally imperative decision that needs to be made, as the same platform is not going to be effective for both incremental and radical innovation.

Both previous research (Blohm et al., 2010, Hutter et al., 2011, Malhotra & Majchrzak, 2014) and the interviews held with platform providers suggest that a collaborative environment is important for increasing idea quality, as the interactions between users facilitate knowledge transfer. It can therefore be argued that OpenUp should strive towards stimulating a more social community where the participants are encouraged to discuss and question each other's ideas as well as elaborate on them. Bullinger et al. (2010) showed that participants with a highly collaborative behavior tended to provide more innovative solutions as they could incorporate feedback and ideas from others into their own work. Yet they further showed that participants with a low level of collaborative behavior also showed this skill, as they were very focused on the task at hand and driven by the competitiveness of the challenge. Hence a low level of collaboration could also potentially increase the innovativeness of the solutions (Bullinger et al., 2010).

A possible explanation for this ambiguity can be derived from the interviews held with platform participants. The data show that a competitive environment is appropriate when soliciting ideas from subject matter experts, whereas a collaborative environment is more suitable for engaging the crowd. Since subject matter experts have been shown to comprise a relevant target audience for radical innovation, a competitive environment is preferable when seeking radical innovation. Similarly, a collaborative environment is advantageous for seeking incremental innovation, as the preferred audience for these types of initiatives is the crowd.

6.1.2 Target Audience: *Involving the Crowd or Targeting Experts*

Throughout this thesis it has become evident that specifying the target audience is a critical element as it impacts the incentive structure for the OIP as well as how the challenges are formulated and how the communication strategy is designed. Depending on whether the objective is to achieve incremental or radical innovation, the interviews with platform participants suggest that one should target either the

crowd or subject matter experts respectively. This result is in line with previous research conducted on the topic, which suggest that involving customers in the innovation process is beneficial for mature markets where the product characteristics are well-defined so that the users can articulate their needs and how they want new versions of the product to be designed. As consumers rarely can imagine a product category that not already exists, radical innovation instead often originates from internal or external R&D teams with more insight in the field, suggesting that subject matter experts is a more appropriate target audience (Laursen & Salter, 2006; Mohr et al., 2013). Deciding on whom to target is therefore an issue that must be considered early on in the process for setting up an OIP, in parallel with specifying the platform design.

As SFIN and Packbridge never had a well-defined plan regarding which types of objectives and challenges the platform should support, there was no clear strategy for which audience it should attract. Because the recruitment has been conducted in a rather unspecified manner, the participants on OpenUp have very varying perceptions regarding to whom the platform is directed. Some participants thought the platform was catered towards a specific user segment while others said that it provided a very diverse audience. This user diversity was promoted by some of the participants while others would have wanted to see more experts and industry people on the platform. Thus, the data suggest that people have varying reasons for visiting the OIP as well as different expectations on the community constellation, indicating that it might be difficult for one platform alone to satisfy all the diverse objectives.

Previous research on the topic suggest that a diverse audience is beneficial as it allows for combining different expertise and resources, which in turn often lead to a more rapid technological development. This diversity can be upheld both in terms of expertise (Burns & Stalker, 1994; Chesbrough, 2006), but also in terms of user behavior on the platform (Malhotra & Majchrzak, 2014). This perspective is strengthened by the result of this thesis, as the interviews with platform providers suggest that although some users might bring more value to the process, it is important to encourage different user behaviors as they all add value in different ways. OpenUp has mainly focused on encouraging these high-value users, as the challenges held have only announced rewards for the best ideas. This might be one reason as to why there is not much commenting or collaboration occurring on the platform. Since the process does not encourage this behavior, these types of users might not feel that they have something to contribute and hence they avoid doing so. Many of the users also expressed concerns about not having sufficient expertise to participate, as the challenges posted were too complex and technical for them.

6.1.3 Problem Definition: *Phrasing That Captivates the Target Audience*

Based on the interviews with platform providers, it becomes evident that the formulation of the problem is indeed directly related to the success of the initiative. Yet it seems that many companies that pursue gathering ideas through OIPs do not spend enough time on this important task. Many of the sponsors interviewed expressed that it was hard to know how to formulate the challenges and most of them only spent a short amount of time on this endeavor. However, the one sponsor that spent more time on defining the problem also achieved a significantly better response rate than the other sponsors, with more than three times as many responses. This data

hence verifies the importance of the problem definition, something that has also been suggested in previous research (Roijakkers et al., 2014).

Because neither the objective of the initiative nor the target audience for OpenUp have been carefully considered and specified (see chapter 6.1.1 and chapter 6.1.2), it is hard to know how the problems should be defined in order to meet the goals of the endeavor. The result of the interviews with the platform providers suggest that the problem should be formulated in an accessible and open way if targeting the general crowd, and that the topic and the wording should feel relevant to the audience in order to establish an emotional connection with them. In their study, Afuah & Tucci (2012) explain that sourcing ideas from the crowd relies on participants self-selecting. This phenomenon might be one reason for why it is important to establish this connection and emotional resonance with potential solvers, as it might stimulate them to participate. Thus, the challenge sponsors really need to know their target audience in order to understand which topics are of interest to them. When targeting subject matter experts, the result of this thesis instead suggests that the problem should be formulated in a specific manner and that the task can be more complex than when engaging the crowd.

Although the result of this thesis indicates that it is important to formulate the questions in an open manner when targeting the crowd, it also illustrates the fact that the formulation should not be too open as this suggests that the audience do not get enough inspiration and stimuli. As many of the challenges sponsored by either SFIN or Packbridge often cover broad topics relevant to the whole food or packaging industry, there is a risk that the questions do not get specific enough and hence fails to stimulate the creativity amongst the participants.

6.1.4 Communication Strategy: *Dividing the Responsibilities*

During the case study it became evident that there were some discrepancies between the different parties' perceptions on whom should be responsible for inviting the target audience. The strategy undertaken by the administrators in order to raise awareness and build traction around the platform, focused on recruiting their member companies. The thought was that the recruited challenge sponsors could then help invite users suitable for their challenges. When interviewing the challenge sponsors it however became clear that they had expected the audience to already be on the platform, and some of them therefore did not even consider inviting users on their own. Only one sponsor actively invited targeted individuals that had appropriate expertise or insights for the challenge posted, and this sponsor was also the one that got the most submissions on her challenges. This indicates that it might be beneficial to identify and invite persons with a special connection to the topic, rather than only leveraging the community that already exists on the platform.

When being an intermediary hosting a platform where other entities can post their challenges, it is hence of utmost importance to be very clear when dividing the responsibilities between the administrators and the challenge sponsors. One advantage for involving the sponsors in the recruitment process is that they can leverage their current customer base and communication channels to invite users that already have a connection to the company and hence may be more interested in participating. However, some companies might not want to invite their own customer base to an OIP where competing companies are also present. Furthermore, as one of the benefits

with posting challenges on an intermediary platform is to reach beyond the current customer base and get in contact with non-customers and other organizational entities (Roijakkers et al., 2014), sponsors might not be that interested in inviting their present customers.

According to Roijakkers et al. (2014), what the intermediary offers to their clients is a wide network of relevant individuals and organizations. They further suggest that the intermediary should actively identify and invite users with appropriate expertise for their clients' challenges and facilitate the interaction between the two parties (Roijakkers et al., 2014). As SFIN has connections within the food industry, with governmental entities and with universities they should leverage their wide network to recruit a wide array of participants from different disciplines and with different level of expertise. If providing the target audience is not included in the offering, their clients might as well create their own OIPs, as they will not benefit from the positive aspects that an intermediary is supposed to provide.

6.1.5 Motivations and Incentives: *Aligning Incentives to Target Audience*

It has become clear that it is of great importance to make sure that the platform has an appropriate incentive structure that motivates the target audience to participate. This finding supports previous research that suggest that it is important to identify the users' motives for participating, so that the platform can be designed to incorporate appropriate incentive supporting components (Leimeister et al., 2009). As explained in the theoretical framework, a lot of studies have been performed on how to best motivate participation in innovation communities. Some suggest that a combination of intrinsic and extrinsic motivations is more successful (Ebner et al., 2009; Antikainen & Väättäjä, 2010) whereas other research underlines that either intrinsic motivations (Antikainen & Väättäjä, 2008; Ståhlbröst & Bergvall-Kåreborn, 2011) or extrinsic motivations (Leimeister et al., 2009) is more appropriate. From the interviews held with platform providers it was established that to motivate subject matter experts, money is often required since their contributions often are rather extensive. On the other hand, when motivating the crowd several companies also promoted intrinsic motivations, something that was also suggested as the most appropriate incentive type by the participants.

Compared with previous research, the result of this thesis hence provides a more nuanced view on which incentive structure is the most appropriate, depending on which audience one wish to attract. When targeting the crowd, a combination of intrinsic and extrinsic motivations is more suitable. These users like being part of something important and also appreciate seeing what happens with their ideas. They enjoy feeling that their opinion matters and can also be encouraged by recognition, feedback and smaller rewards. When instead targeting experts, extrinsic motivations are more important to consider, and specifically big monetary rewards are suitable. This finding is further strengthened by a study made by Antikainen & Väättäjä (2010), in which a majority of the examined innovation intermediaries targeting experts only provided monetary rewards.

Hence, what type of incentives to use strongly depends on what audience one is targeting, as subject matter experts and the crowd are generally motivated by different elements. Because OpenUp has not focused on recruiting subject matter experts but rather attracted a diverse audience, an incentive structure that motivates the crowd

would be the most logical alternative. Yet, the challenges that have offered rewards have mainly focused on monetary compensations, which is more suitable when targeting subject matter experts. Thus the data suggest that there are some discrepancies between the audience present on the platform and the incentive structure incorporated on it.

6.1.6 Motivations and Incentives: *Encouraging the Right Behavior*

From the interviews with platform participants it became evident that it is important to incentivize different types of behaviors on the platform. If only incentivizing the creative idea generators, the community will not be very lively as this means that only a few of the users feel inclined to participate. It is hence advantageous to have an incentive structure that motivates different types of behavior, so that other personality types such as socializers or analytical individuals feel that their contributions are valued. By promoting different types of participation, the community can achieve a higher percentage of active participants. OpenUp has a very low percentage of active users, and the few participants who actually do contribute to the challenges, mainly comprise of individuals from either SFIN or Packbridge. The activity that can mainly be observed on OpenUp is posting of ideas. In order to create a more lively community that also comprise *Commenters* and *Socializers* (see Chapter 3.5.1), OpenUp needs to incorporate incentive structures that stimulate this type of behavior.

When exploring the structure and design of OpenUp one can see that it has a collaborative environment with open submissions, allowing the participants to view each other's ideas and collaborate to improve them. However, looking at the incentive structure it seems that the platform is promoting a competitive environment, as only the best ideas are rewarded in the challenges that offer prizes. There have been no clear incentives that motivate people to elaborate on the ideas of others. Furthermore, both the participants and the sponsors have noted that there has not been a lot of commenting happening on the platform. A reason for this lack of collaborative behavior could be that it is neither suggested nor encouraged through incentives. When it is not clearly stated that commenting is encouraged, people might even be afraid of commenting on others ideas, as they might believe that they are intruding on the one publishing it. In order to really tap into the positive effects of collaboration, incentives encouraging cooperative behavior are hence needed. This is also supported by previous research, which suggest that incentives such as recognizing and rewarding people who are elaborating on others ideas are appropriate (Malhotra & Majchrzak, 2014).

6.1.7 Sponsor Engagement: *Working Dedicatedly with Providing Feedback*

During the interviews held with platform providers it was emphasized that participants are motivated to contribute if they are getting feedback on their ideas. On OpenUp there has however been a lack of feedback from the administrators and sponsors, partly due to limited resources and partly because it has not been clearly established whether it is the administrators or the sponsors who are responsible for these activities. Many of the sponsors did however acknowledge that they noticed a difference in the activity on the platform if they themselves participated by commenting on submitted ideas, which further confirms the importance of providing feedback. During the case study it was also noted that the one sponsor who was significantly more responsive than the others, also got a much higher number of ideas and comments on her challenges. Hence, it is imperative that intermediaries, such as OpenUp, are very clear about dividing the responsibilities between the administrators

and the challenge sponsors so that important tasks such as providing feedback do not get forgotten.

When deciding who should be in charge of providing feedback, it should be noted that the sponsor may be more eager to spur the activity on the platform, as they are the entity that will benefit from finding a good solution to the challenge. A company that has presented an actual problem might be more incentivized to stimulate an active community and to make sure that sophisticated ideas are developed on the platform. Furthermore, the sponsors are generally more likely to have sufficient knowledge for providing intelligent feedback, as they have the required industry expertise as well as insight into what is feasible for the company.

Because providing feedback is such an important task, critical for the success of the platform, it is imperative that the sponsoring company is prepared to put in the effort required for actively engaging with the community. This supports the argument made by Roijakkers et al. (2014), stating that it is crucial for the sponsoring company to designate a high-status individual in charge of the initiative, when leveraging an innovation intermediary. This suggestion is also in line with the statements made by some of the platform providers as well as some of the OpenUp participants, who suggested that it is imperative to have a person or a team working dedicatedly with the initiative.

6.1.8 Importance of Consequence: *Ensuring That Something Happens*

A motivating factor crucial for the success of OIPs, which emerged during the interviews with both platform providers and participants, is that something happens with the submissions once the challenges are completed. The participants want to know what happens with their submitted ideas and it was also suggested that somehow involving them in the implementation phase was a better reward than offering monetary rewards. This finding is in line with previous research on the subject that suggest that users get motivated by feeling that their opinion matter and that they can influence the outcome of things that matter to them (Antikainen & Väättäjä, 2008; Antikainen et al., 2010; Ståhlbröst & Bergvall-Kåreborn, 2011).

Individuals from either SFIN or Packbridge have hosted most of the challenges on OpenUp. Although these challenges have concerned actual problems, them being hosted by the clusters instead of by a company means that there were no party standing by, ready to implement the potentially great ideas. Aside from the winning ideas getting promoted on the platform as well as in the newsletter and at specific events, they provided no real consequence. A risk with gathering ideas without any plans of implementing them is that the credibility of the platform fades away. It is therefore imperative that the challenge sponsors are companies or organizations presenting real problems that they face, so that they have determination as well as mandate to actually implement the good ideas that they acquire through the platform.

6.1.9 User-Centric Design: *Lowering the Barriers for Participation*

As the Internet offers an infinite amount of user communities, such as forums and social media, and because people are becoming increasingly busy, it has been noted that it is utterly important that a platform for open innovation is intuitive and accessible. If the visitors do not immediately understand the platform, they will lose interest and turn to other alternatives instead, leaving the platform unsuccessful. Many of the platform providers also pointed out that, as people are busy, it is important that

they can use the OIP whenever they feel suitable, further stressing that it is important that it can be accessed through their mobile phones. The case study showed that OpenUp has some shortcomings related to its intuitiveness and accessibility. Several participants were not sure how to use the platform in the beginning and would have liked to be introduced to it more extensively. Furthermore, there is no mobile version of OpenUp, meaning that the participants can only access the platform when sitting by their computers, rather than of posting their ideas instantly upon them being hatched.

In order for the platform to be successful it must be clear to the participants how and why they should use it. Having a transparent process implies clarifying to the audience how they can participate and what is expected from them. It also entails describing how the ideas will be evaluated and what will happen with them once the challenge is closed. This information should hence be provided together with the problem definition so that the users immediately get all the information they need in order to make a decision regarding whether or not this is something they are interested in participating in.

As of now, the individuals have to be registered on the platform in order to explore OpenUp to see how it works and what it has to offer. This requirement might infer a barrier for recruiting new members. Some of the participants explained that they are hesitant towards signing up for things that are foreign to them, and even if they were to get an explanation of how the concept works, they would probably not feel inclined to register without knowing whether the challenges are relevant to them and their expertise. Allowing the users to get an overview of the content on the platform before deciding whether or not to join, might make them more attached to it and hence more inclined to sign up. Being allowed to see the content before signing up was mentioned as desirable by some of the interviewed participants. A user name and login could still be mandatory in order to submit ideas or comments.

6.2 Challenges That Arise for Intermediaries Hosting OIPs

When analyzing the OpenUp initiative and comparing it with the results derived from the benchmarking study, some specific challenges that arise for intermediaries hosting OIPs emerged. These challenges will be outlined in the following section.

6.2.1 The Sponsors May Have Varying Objectives for Leveraging the Intermediary

One of the first things one should do when looking to implement an OIP, is to decide the objective behind the initiative. As different companies will post challenges on an intermediary platform, they may have conflicting purposes for using the OIP. Hence, it can be problematic to structure a platform so that it satisfies all the different needs of the companies using it. Instead of trying to fulfill varying objectives, it is of great importance that the intermediary sets a purpose for the platform that it clearly conveys to potential challenge sponsors, so that these entities know if the platform is appropriate for their particular objective. In order for the platform to be successful it is imperative that the challenges posted are aligned with the approach of the platform.

Another challenge that follows from the fact that challenge sponsors may have varying objectives is which audience to target. If an intermediary hosts a platform that tries to deliver both radical and incremental innovation, it will be hard to know which audience to target as the different types of challenges require completely different

expertise. A consequence of not knowing which audience to target is that it is hard to develop an appropriate communication strategy and a suitable incentive structure. It is also hard to formulate the questions, as different objectives require different levels of specificity and complexity.

Hosting a company-specific platform may hence be seen as an easier undertaking than hosting an intermediary, as the platform then can be customized to fit the company's objective as well as its internal innovation process.

6.2.2 More Challenging to Build Traction as an Unknown Intermediary

Assuming that the purpose of the platform is clearly stated, it may still be complicated for the intermediary to invite participants with relevant expertise, as they do not necessarily have connections with relevant parties or a famous brand name to leverage for attracting participants. On the contrary, most companies already have sophisticated communication channels in place, which makes it easier for them to reach out to the community. Relying on the sponsors to invite relevant participants such as customers, suppliers or partners is however not a good alternative, as they might be reluctant to do so if they know that other companies are also active on the platform. If one company is very engaged in inviting people to the platform, whereas other companies are not, they might feel that the inactive companies are freeriding on their effort.

Furthermore, both the result of this thesis, as well as previous research (Roijsackers et al., 2014), indicate that clients using intermediaries expect the intermediary to provide the audience. Although it might be harder for unknown intermediaries to build awareness and gain traction it is still imperative that they provide the audience, as reaching a wider audience is one of the main reasons why companies leverage intermediaries.

6.2.3 Ensuring That the Challenge Trigger Some Consequence

As importance of consequence has been identified as a critical factor for the success of an OIP, the intermediary needs to ensure that the posted challenges are clear about what will happen to the ideas once the challenges are completed. This is important for the intermediary as it is in their interest to establish a credible and reliable process where the participants are satisfied and interested in returning to the community. However, because the intermediary itself is not hosting the challenges and since they have no mandate to decide what the companies should do once the challenge is over, it can be problematic for them to ensure that consequences follow from a challenge.

Furthermore, if the intermediary sponsors challenges on their own in order to gather insights relevant to the whole industry, as has been done by SFIN and Packbridge, the only result of the challenge will be aggregated information without any clear entity looking to implement any of the suggestions made. Hence, when being an intermediary it is generally difficult to ensure that consequences follow from a challenge, as they are not the entities looking to implement incoming ideas.

6.2.4 Dividing the Responsibilities Between the Sponsors and the Intermediary

When it comes to sponsor engagement on the platform, it is important to clearly divide the responsibilities between the intermediary and the challenge sponsors. On the one hand it might be advisable that the challenge sponsor provides feedback to the

participants submitting ideas, as they often have deeper knowledge in the subject. On the other hand, the challenge sponsors might expect the intermediary to provide this feedback. Regardless of whether providing feedback is the responsibility of the intermediary or the challenge sponsor, it is of great importance to set up clear guidelines about the division of responsibilities so that this important task do not get left undone. If the task of providing feedback lands on the challenge sponsor it may become hard for the intermediary to guarantee the success of the endeavor as this also depends on how active the sponsors are on providing feedback and stimulate the conversation on the platform.

One of the main rationales for an intermediary is to sustain an active community with returning participants, to ensure that the platform is attractive for companies looking to leverage external expertise for their business challenges. For the companies sponsoring challenges, making sure that the participants are satisfied is however not necessarily one of the main concerns, as they only search for answers to their challenges. As noticed on OpenUp, many companies leveraged the platform for testing the concept of open innovation, without being particularly invested in the endeavor. Many of the sponsors did not engage actively on the platform, and as a result the participants might feel that they are just throwing things out there without getting anything in return. This can hurt the credibility of the intermediary, resulting in lower retention rates and a less visited community. Thus, the intermediaries are heavily affected by the behavior of the challenge sponsors, which make them vulnerable. This might be one reason behind why many of the intermediaries that were active a couple of years back have been shut down, as noticed by the authors when looking to recruit interview candidates for the benchmarking study.

6.3 Summary of the Analysis

The analysis shows that there are many important aspects that have to be carefully considered, as they have an impact on the success of the OIP. Aside from choosing whether to use a collaborative or competitive approach and whether to target the crowd or subject matter experts, it is also imperative that the challenge is phrased in a manner that captivates the targeted audience. The incentive structure has to be aligned with the target audience and the behavior that is being encouraged should correspond to the environment chosen for the platform design. Furthermore, many of the decisions that have to be made heavily impact other aspects as well, why the overall strategy has to be thoroughly thought through before embarking on the journey of leveraging an OIP. Figure 6.2 outlines two different strategies depending on whether the objective is to achieve incremental or radical innovation. It also indicates the order in which the decisions advantageously can be made, based on the causality between the aspects.

Decision to Make				
Purpose of initiative	Target Audience	Platform Design	Communication Strategy	Incentive Structure
Incremental Innovation	The Crowd	Collaborative, Open Submissions	Traditional Marketing Techniques	Recognition, Feeling of Importance and Accomplishment
Radical Innovation	Subject Matter Experts	Competitive, Closed Submissions	Targeted Recruitment	Monetary Rewards

Figure 6.2 Deciding on how to organize the OIP and the process around it.

Independent of the purpose behind the initiative, working dedicatedly with providing feedback on the users’ submissions and ensuring that the innovation challenges result in some consequences, are other important aspects for stimulating participation. Similarly, the OIP needs to be designed so that it does not create barriers for participation, as the platform is already competing for the users’ attention with a multitude of other online websites and social communities.

When analyzing the data collected through the benchmarking study and the case study, some additional challenges that arise for intermediaries were also identified. The main cause behind these additional challenges is that the involvement of both administrators and challenge sponsors may infer confusion regarding whom should be in charge for tasks such as recruiting users and providing feedback on submitted ideas. Furthermore, it can be hard for intermediaries to ensure that the challenges trigger some consequences, as the outcomes depend on the decisions made by the companies sponsoring the challenges. Another complication derived from being an intermediary, is that it can be hard to establish the objective of the initiative and what types of results it is supposed to deliver. As the challenge sponsors interested in using the OIP, may have varying rationales for leveraging the platform, it can be difficult for the intermediary to meet all expectations and ensure that the different parties’ objectives are fulfilled. Thus, it is of utmost importance that the intermediary is very clear about for what purposes their platform can and should preferably be used.

In Table 6.1, the nine important considerations described in this chapter have been compiled. These considerations, which are all related to the eight critical success factors, identified during the benchmarking study, are then followed by a section summarizing the additional challenges that arise for intermediaries.

Table 6.1 Compilation of the result of the analysis.

Critical Success Factor	Important Considerations
Platform Design	A Collaborative or Competitive Approach
Target Audience	Involving the Crowd or Targeting Experts
Problem Definition	Phrasing that Captivates the Target Audience
Communication Strategy	Dividing the Responsibilities
Motivations and Incentives	Aligning Incentive Structure to Target Audience Encouraging the Right Behaviors
Sponsor Engagement	Working Dedicatedly with Providing Feedback
Importance of Consequence	Ensuring that Something Happens
User-Centric Design	Lowering the Barriers for Participation

Challenges That Arise for Intermediaries

- The Sponsors May Have Varying Objectives for Leveraging the Intermediary
- More Challenging to Build Traction as an Unknown Intermediary
- Ensuring That the Challenge Trigger Some Consequence
- Clearly Divide the Responsibilities Between the Sponsors and the Intermediary

7 Conclusions and Final Remarks

This final chapter provides answers to the research questions stated in chapter 1. A recommendation to the case organization, based on the findings in this thesis, is also presented. The last two sections contain a part discussing the result as well as some suggestions of areas for future research.

The purpose of this thesis was to shed light on how an organization should proceed if interested in implementing an online platform for open innovation. The research was divided into two phases where the first phase was conducted using a benchmarking approach in order to identify critical success factors from companies with extensive experience in the field. In the second phase a case study approach was undertaken, where the critical success factors identified in phase one laid the foundation for analyzing OpenUp, the OIP launched by SFIN and Packbridge in 2013.

7.1 Answering the Research Questions

RQ 1. Which are the critical success factors for leveraging an online platform for open innovation?

Based on the interviews held with platform providers, eight critical success factors were identified, namely *Platform Design*, *Target Audience*, *Problem Definition*, *Communication Strategy*, *Motivations and Incentives*, *Sponsor Engagement*, *Importance of Consequence* and *User-Centric Design*. Before launching an OIP it is imperative to consider whether the objective behind the initiative is to achieve incremental innovation or radical innovation, as this decision has an impact on which platform design to choose as well as which audience to target. The chosen target audience then impacts how the challenges should be formulated, how the communication strategy should be set up as well as which incentive structure is the most appropriate. The remaining three success factors, more specifically sponsor engagement, importance of consequence and user-centric design are independent of the platform design and the target audience but are nonetheless important regardless of whether the objective behind implementing an OIP is to achieve incremental or radical innovation. The eight critical success factors as well as their interrelations are outlined in Figure 7.1.

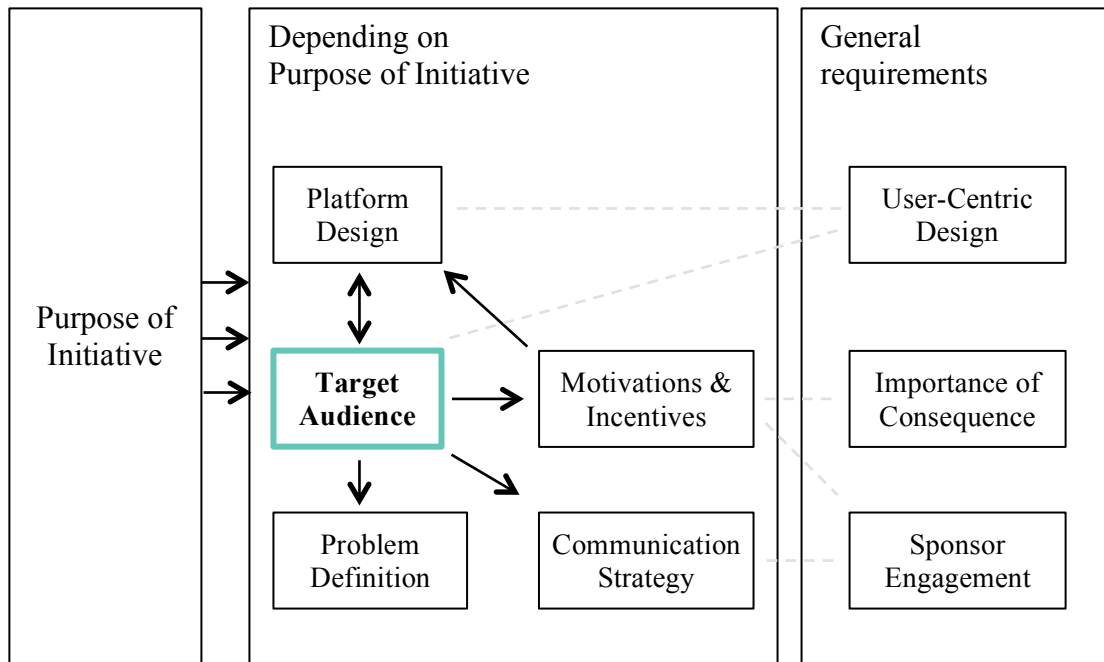


Figure 7.1 Illustration over the critical success factors and their interrelations.

RQ 2. What are some specific implications for intermediaries hosting an online platform for open innovation?

One main implication for an intermediary hosting an OIP is that the challenge sponsors using the platform might have varying objectives for leveraging open innovation, which in turn requires different platform designs as well as different target audiences for the initiatives to be successful. An intermediary must hence be very clear about which types of challenges it supports in order to be able to ensure the desired outcome.

Recruiting the target audience might not be as easy for an intermediary as for an established company, as intermediaries usually lack famous brand names to fall back on. Most companies already have access to a large customer base, why the intermediary must provide access to parties the challenge sponsors would not get in touch with otherwise. This can be a demanding task, as the intermediary might not have the appropriate communication channels in place. Nonetheless, it is a requirement, as the challenge sponsors expect the intermediary to provide the audience and because this is the reason for them leveraging the intermediary in the first place.

It is also very important for the intermediary to be clear about what is required from the challenge sponsor, as them being engaged in the initiative is crucial for the success of it. This includes providing feedback and making sure that some consequence follows from the challenge, as these are two imperative conditions for maintaining a satisfied and returning audience. Although it might not be a top priority for the challenge sponsors to keep the participants satisfied and motivated, it is indeed the most important task for the intermediary, in order to make the OIP attractive for future clients looking to leverage open innovation for their business challenges.

7.2 Recommendations to the Case Organization

As the launch and implementation of OpenUp was undertaken as a pilot project with the purpose to gain insight in how to host and manage an OIP, the platform's development has primarily been conducted on a trial and error basis. The funding of the project is now coming to an end and the two clusters have to decide on how to move forward with the initiative. The following paragraphs present some recommendations for the case organization to consider when deciding how their future strategy for open innovation platforms should be determined.

Carefully consider the purpose of the initiative

Based on the result of this thesis, the authors' suggestion to SFIN is that they first and foremost need to consider what it is that they want to achieve by hosting an OIP. If the aim is to help their member companies to achieve incremental innovation, a platform design similar to that of OpenUp, is advisable. If the goal is instead to achieve radical innovation the platform needs to be configured differently so that it caters towards the needs and preferences of subject matter experts.

Make active decisions aligned with the purpose of the initiative

Regardless of whether the goal with the platform is incremental or radical innovation, the success of the platform depends on SFIN making active decisions. The critical success factors identified in this thesis, as well as the choices and trade-offs described under each factor, should work as a checklist, making sure that every aspect is thoroughly thought-through and well aligned with the overall purpose of the initiative.

Allocate sufficient resources or put the effort elsewhere

In order to build and maintain a thriving community and an OIP that delivers the desired results, sufficient resources must be allocated to the initiative. The platform will neither run itself nor communicate itself, meaning that active work is constantly required from the hosting party. For intermediaries this becomes even harder, as the success of the initiative not only depends on the engagement of the administrators but also on the engagement of the sponsoring companies hosting challenges on the platform. It is therefore important to be very clear when dividing the responsibilities between the intermediary and the sponsoring companies so that every party knows what is expected from them in order to reach the desired goal.

Alternative solutions suitable for SFIN

Although this thesis outlines two possible platform structures, dependent on whether the OIP is catered towards incremental or radical innovation, there are also two alternative solutions that the authors view as appropriate options for SFIN.

The first alternative is inspired by the structure of Company G, who hosts a platform where the member companies of their research network can promote potential projects and look for partners interested in joining forces to exploit opportunities that they cannot employ by themselves. This solution would work particularly well in a network containing people from multiple disciplines, who can then meet and combine skills and expertise in order to build competitive solutions. This OIP type resembles the one described as an *Innovation Market* (Bessant & Möslein, 2011), and SFIN would then take on the role of *Innovation Marketplace Operator* (Sawhney et al., 2003). For further description of this terminology, see chapters 3.4 and 3.4.1.

As some of the participants on OpenUp explained that they joined the platform to find partners or connect with incumbents in order to commercialize their products, the *Innovation Market* might be an appropriate solution for SFIN. The model would furthermore be a good strategic fit for them, as their big network with connections to the industry, the government and the university is one of their core capabilities. This OIP structure would however require a more active engagement from SFIN, as their role would be to identify and connect different entities that would benefit from a partnership or a joint venture.

A second alternative model is derived from the finding that hosting a platform as an intermediary might in fact infer additional challenges compared with hosting a company-specific platform (see chapter 6.2). As a result, SFIN could instead provide the know-how related to hosting an OIP, by offering consultancy services for member companies interested in launching their own platforms. This way, SFIN offers guidance in designing and managing the platforms, but they do not provide the software or engage on the platform. The software can instead be provided through licensing agreements with a third-party software vendor. As this model infer that the challenge sponsors host their own platforms, the difficulties with dividing the responsibilities and making sure that the company is sufficiently invested in the initiative are resolved, as they will be the one initiating the project and pushing for its success.

7.3 Discussion of Results

The result of this thesis is a compilation of eight critical success factors that companies planning to host OIPs should take into consideration when designing and implementing their platforms. Furthermore, this study has acknowledged several challenges that arise for intermediaries hosting OIPs. Based on the data collected, two approaches for how to structure an OIP have been outlined, depending on whether the aim of the initiative is to achieve incremental or radical innovation, as shown in Figure 7.2.

Decision to Make				
Purpose of initiative	Target Audience	Platform Design	Communication Strategy	Incentive Structure
Incremental Innovation	The Crowd	Collaborative, Open Submissions	Traditional Marketing Techniques	Recognition, Feeling of Importance and Accomplishment
Radical Innovation	Subject Matter Experts	Competitive, Closed Submissions	Targeted Recruitment	Monetary Rewards

Figure 7.2 Deciding on how to organize the OIP and the process around it.

The result has important managerial implications as failing to consider these CSFs may lead to an inactive and unsuccessful platform. The result of this thesis has also built upon previous research regarding whether intrinsic or extrinsic motivations are more suitable for encouraging participation from the audience. The data collected during this study has provided a more nuanced picture, suggesting that the type of motivation one should use depends on which audience one wish to target, and hence also on whether one wish to achieve incremental or radical innovation.

Additionally, this study has provided a clearer view of when it is suitable to host a collaborative environment and when it is more appropriate to promote a competitive environment. When turning to the crowd, a collaborative approach with open submissions is the preferred option, whereas a more competitive approach with closed submissions is advisable when looking to get input from experts.

The result of this thesis also indicates that the challenge questions should be formulated in different ways depending on which audience one wish to target. When reaching out to the crowd, the tasks should be open and simple and the phrasing of the questions should aim at establishing an emotional connection with potential participants. When instead looking for input from subject matter experts, the tasks can be more complex and the phrasing of the questions should be more specific and contain guidelines of what it is the challenge sponsor wants to see.

The authors have tried to certify the validity of the result by conducting several in-depth interviews with multiple companies with many years of experience in designing OIPs for their clients. Furthermore, the interviews held with participants and challenge sponsors of OpenUp, have to a large extent verified the results from the benchmarking, as many of the same considerations emerged during both phases. In order to further strengthen the validity of the result, it would however be appropriate to design and implement an OIP based on the eight critical success factors identified throughout this study, and compare the success of it with similar initiatives where the CSFs were not taken into consideration.

It would also have been desirable to complement the interviewee base for the benchmarking effort with some innovation intermediaries as well as with companies with experience of hosting challenges. This could have provided further insight into the differences between hosting a platform as an individual company and an intermediary. However, many of the platform providers explained that their customers comprise of both companies hosting their own platforms and entities hosting intermediary platforms, why these different viewpoints are, to some extent, incorporated in the result.

The second research question was mainly answered through the case study and by comparing this data with the result from the benchmarking. In order to achieve a more generalizable result, additional case studies with intermediaries in other industries and intermediaries with varying life spans should preferably have been undertaken. As OpenUp is a relatively young intermediary it has not yet achieved great traction, which could distort the result.

It is important to remember that it is hard to establish generalizability for this type of qualitative research that is heavily dependent on contextual factors such as the theme

of the platform, the organization hosting the platform as well as the individuals participating on the platform. The authors do however feel that the result of this thesis could be applied to many different contexts as the data collected through the interviews with platform providers incorporate their experiences from working with clients from many different industries. Furthermore, the specific implications for intermediaries that have been derived from the case study, strive to shed light on general challenges that arise when being an intermediary, and the authors see no reason to believe that these findings are only applicable to OpenUp. It is hence up to the reader to evaluate whether or not the results have to be adapted to fit their specific situation, by comparing their context with the one of OpenUp. Although some parts of the result might need alteration, the authors believe that the result of this thesis can work as a good starting point for entities planning to implement an OIP, by providing a checklist over important considerations to bear in mind.

7.4 Suggestions for Future Research

To control for the validity and the applicability of the result presented in this thesis, it would be beneficial to conduct a case study where an OIP gets developed and implemented in line with the critical success factors identified in this study. It would also be interesting to further explore why many intermediaries have been shut down, as noticed by the authors when looking to recruit interview candidates for the benchmarking study. The result of such research could further strengthen or challenge the specific implications that apply to intermediaries, as identified in this thesis.

One of the additional challenges that arise for intermediaries hosting OIPs, as identified in this study, is that it can be difficult for the parties involved to know how to divide the responsibilities between the administrators and the challenge sponsors. It would therefore be interesting to further explore this topic and to investigate how the different tasks should best be divided, in order to achieve the most successful OIP.

In order for a company to fully succeed with hosting an OIP, the initiative must become an integrated part of the organization's innovation process. High priority must be placed on providing sufficient management support and a person in charge that has mandate to implement the new solutions identified through the endeavor. This often requires restructuring of the organization as well as a transformation of its culture, why an important research topic is how this transition can be done.

7.5 Concluding Reflection

Throughout the course of this thesis eight critical success factors, as well as a few additional challenges that arise for intermediaries, have been identified. But before even deciding on whether or not to implement an OIP, it has also become evident that there are three important considerations that need to be acknowledged.

First of all it is important to understand that implementing and hosting an OIP cannot be seen as a side project but rather an initiative that needs to be fully integrated in the organization. Sufficient resources must be allocated for the initiative to thrive, something that was brought up both during the case study and during the interviews with platform providers. As sponsor engagement and importance of consequence are identified as two critical success factors it is crucial that the company is committed to the endeavor, both in terms of being responsive on the platform but also in terms of following through with the implementation in a transparent way. This finding

corroborate the result of other research, which highlights the importance of having an experienced, high-status individual in charge of the initiative, in order to secure the management support critical for success (Roijsackers et al., 2014).

Secondly, it has become clear that an OIP is not a stand-alone solution but rather a compliment to internal innovation processes. The interviews with platform providers have shed light on the fact that the structure of the OIP should follow the internal innovation process so that the open and closed process is streamlined and work well together. This is an important aspect as the success of an OIP depends on it becoming an integrated part of the organization, as mentioned in the previous paragraph. It is important that the internal R&D realize that open innovation is a compliment to closed innovation and that hosting an OIP is neither an indication of their failure nor a threat to their jobs. This finding is in line with previous research that claims that internal R&D has not become obsolete but rather should be used in parallel with open innovation (Chesbrough, 2003; Sarkar & Costa, 2008; Enkel et al., 2009). Instead, the R&D team should be in charge of identifying which parts of the innovative work that can preferably be outsourced to the OIP community. Furthermore, as they are the one with the most appropriate insight into the evaluation of new products or ideas they should also be present in the community, answering questions and giving feedback of more technical character. Involving the internal R&D department in the open innovation initiative also makes the transition to the implementation phase significantly smoother, as it can make it easier to overcome the attitude of *Not Invented Here*, as described by Chesbrough (2003) and Enkel et al. (2009).

Lastly, it is important to know that leveraging open innovation is not always the best solution. As suggested by some of the platform providers, open innovation might not be appropriate for a company's core capabilities, but should instead be leveraged for developing non-core capabilities. This result strengthens previous research findings that suggest that it is imperative to create balance between opening up the organization to gain access to external ideas, while still retaining sufficient value in-house (Omta et al., 2014). Using open innovation for non-core parts of the innovation process might also be a good way for companies to try the concept out, as many of them are a bit afraid of opening up their organizations.

Hence, before embarking on the journey of leveraging an OIP, it is imperative that the company carefully considers whether or not they are ready to undertake an initiative like this. If they are, they should turn to the result of this thesis in order to receive guidance about how to best organize the platform for achieving the desired result.

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8.2 Oral Sources

Benchmarking Interviews with Platform Providers

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CEO at LGI Consulting. 2015. Skype Interview March 16th

Co-founder of Innovation Framework Technologies. 2015. Skype Interview March 18th

Director of Marketing and Communications at IdeaScale. 2015. Skype Interview March 19th

Director of Product Marketing at Brightidea. 2015. Skype Interview March 31st

Leader of the Innovation Strategy Business Unit at LGI Consulting. 2015. Skype Interview March 16th

VP of Client Experience at mySideWalk. 2015. Skype Interview April 1st

VP Inbound Strategy and Sales at Exago. 2015. Skype Interview March 17th

Interviews with Administrators and Initiators of OpenUp

Aamodt, Morten; Innovation Advisor at Induct Software. 2015. Skype Interview February 24th

Brattström, Jan; Manager for the section of job and career at Skåne Food Innovation Network. 2015. Interview January 28th.

Breivik, Kenneth Roland; Solution Expert at Induct Software. 2015. Skype Interview February 24th

Gersbro, Per-Stefan; CEO of Packbridge. 2015. Interview February 27th

Magnusson, Amanda; Project leader of OpenUp at Skåne Food Innovation Network. 2015. Interview January 26th

Mårtensson, Johan; Project leader of OpenUp at Packbridge. 2015. Interview February 10th

Olsson, Annika. Board member of SFIN and Packbridge. 2015. Interview February 6th

Case-Study Interviews

Challenge Sponsors

Holmgren Holm, Fredrik; Innovation Trainee at Skåne Food Innovation Network. 2015. Interview February 9th

Johansson, Jasmine. 2015. Skype Interview March 2nd

Norling Gersbro, Eva; Manager for Events and Administration at Packbridge. 2015.
Interview February 27th

Vyse, Kevin. 2015. Skype Interview March 9th

Östberg, Therese; Innovation Trainee at Skåne Food Innovation Network. 2015.
Interview February 6th

Participants

Participant 1. 2015. Telephone Interview March 12th

Participant 2. 2015. Telephone Interview March 13th

Participant 3. 2015. Telephone Interview March 11th

Participant 4. 2015. Telephone Interview March 30th

Participant 5. 2015. Telephone Interview March 30th

Participant 6. 2015. Telephone Interview April 1st

Participant 7. 2015. Telephone Interview March 18th

Participant 8. 2015. Telephone Interview March 17th

Participant 9. 2015. Telephone Interview March 26th

Appendix

Appendix A – Interview Guide for Platform Providers

Appendix B – Interview Guide for the Administrators and Initiators of OpenUp

Appendix C – Interview Guide for Challenge Sponsors

Appendix D – Interview Guide for OpenUp Participants

Appendix E – Codes Identified in the Transcribed Interviews and Their Relations to the Critical Success Factors

Appendix F – Presentation of the Companies Interviewed for the Benchmarking Study

Appendix A – Interview Guide for Platform Providers

Opening Questions

- 1. Can you shortly describe your company and what your main objective is?**
Probes: open versus internal innovation, involvement in platform management and follow-up, knowledge about innovation versus only on software design
- 2. What is your role in the company?**
Probes: title, responsibility, involvement
- 3. Why should companies leverage platforms for open innovation?**
Probes: benefits, risks, advantages compared to internal innovation

Key questions

Platform Elements and Structure

- 4. What is the most common format for an online platform for open innovation?**
Probes: collaboration, competition, number of phases, many vs one highlighted challenge
- 5. What types of questions are most appropriate for open innovation challenges and how should they be formulated?**
Probes: variations depending on topic, target participants, objective, broad versus specific/narrow question
- 6. Which incentive structure do you perceive as the most successful?**
Probes: recruiting, participation, collaboration, intrinsic vs extrinsic, good vs. bad, who should be rewarded, based on activity/quality/quantity
- 7. Are there any successful techniques for stimulating idea quantity and/or quality?**
Probes: which, why, how, when
- 8. How should a platform provide mechanisms for idea evaluation?**
Probes: which, why, when
- 9. What are some major differences between designing a company-specific platform versus an intermediary?**
Probes: design, features, incentive structures, recruiting, managing, sustaining

10. What are some major differences between designing a platform for a specific activity/challenge versus an ongoing initiative?

Probes: design, features, incentive structures, recruiting, managing, sustaining

11. How should one create balance between hosting an intuitive versus feature-rich platform?

Probes: different technical familiarity among users, compare other communities/social media

12. How does one create balance between having a platform that is inviting and easily accessible for users versus one that protects intellectual property through for example required login?

Probes: visibility for unregistered, know what it's about before registering, sharing outside platform, privacy settings

Managing the Community

13. Why are external parties participating in online innovation challenges?

Probes: motivations

14. What is required from a platform for open innovation to attract and sustain participation from external stakeholders?

Probes: features, management, design

15. How should one go about identifying and recruiting relevant users?

Probes: approach, characteristics, expertise, who should do it

16. What are your perceptions regarding how long time it usually takes to reach a critical mass of users?

Probes: variations depending on topic, platform structure and expertise level

17. Which commonly occurring user types can be observed on platforms for Open Innovation?

Probes: behavior, expertise, motivations, incentives, crucial users

18. Which responsibilities do your company have compared to the challenge sponsor in terms of building and managing the community?

Probes: recruiting, managing, sustaining, measuring, evaluating, compare with open innovation intermediaries

Collaboration

19. How does collaboration among participants affect the outcome of open innovation challenges?

Probes: idea quality, idea quantity

20. According to your experience, what are some crucial features for establishing a collaborative environment?

Probes: enablers for communication, knowledge exchange, knowledge combination, mutual idea generation

21. How does one successfully motivate participants to collaborate?

Probes: Incentives, behavior to be rewarded, reward type

Closing questions

22. How do you measure the success of the platforms and the innovation challenges?

Probes: key metrics, when, monitoring

23. How open are your clients in general regarding opening up their organization to include external stakeholders in this type of initiative?

Probes: tendencies, future, variances among industries

24. As many online communities struggle to sustain the activity over time, what can be done to avoid ending up with an inactive community?

Probes: design, features, management, incentive structure, recruiting

25. Is there anything you would like to add or anything you feel that we have forgotten to ask you about?

Appendix B – Interview Guide for the Administrators and Initiators of OpenUp

- 1. Hur kom det sig att ni startade upp projektet för konsumentdriven öppen innovation för Livsmedelsförpackningar?**
 - a. Var kom inspirationen ifrån?
 - b. Vilka var drivkrafterna/de bakomliggande orsakerna?
 - c. Vad var syftet med projektet?

- 2. Vad var det som ledde in projektet på att starta upp en online-plattform (OpenUp)?**

Var kom inspirationen ifrån?

 - a. Vad var syftet med plattformen?
 - b. Hur såg man på OpenUp kopplat till LAs övergripande strategi?
 - i. Tog man strategin i beaktning?

- 3. Hur har projektets och plattformens utveckling sett ut över tid?**
 - a. Har alla steg sedan varit medvetna och strategiska eller har det “bara blivit så”? (t ex att siden även har tillåtit andra utmaningar som inte är kopplade till förpackningar)

- 4. Hur gick OpenUp från att vara en plattform för mindre livsmedelsföretag som behövde hjälp med förpackningar till att vara en plattform för konsumentdriven öppen innovation?**
 - a. Från företag som deltagare till konsumenter.
 - b. Varför ville ni involvera just konsumenter i innovationsprocessen för livsmedelsförpackningar? Varför inte förpackningsföretag, designbyråer eller företag med fokus på att utveckla nya spännande material (nanoteknologi etc.)

- 5. Vilka var anledningarna till att detta projekt drevs tillsammans med PB och inte av endast LA?**
 - a. Varför just Packbridge?
 - b. Varför just Livsmedelsförpackningar?
 - c. Övervägde ni andra områden och/eller samarbetspartners?

- 6. Hur gick det till när ni skulle bestämma er för vilken mjukvara/plattform ni skulle använda för projektet?**
 - a. Hur visste ni vilka funktioner ni ville se i plattformen?
 - b. Jämförde ni olika plattformar och deras funktioner?
 - i. Vilka?
 - ii. Utvärderades dem utifrån några särskilda kriterium?
 - c. Vad var det som gjorde att ni valde just Induct?

- 7. Vad var tanken kring partnerföretagens deltagande på siten (efter att den ändrade inriktning till konsumentdriven öppen innovation)?**
 - a. Skulle vara delaktiga eller var det bara konsumenter?**
 - b. Förankrades projektet med dem på något sätt?**
- 8. Vilka visioner hade LA med OpenUp när projektet startades? PB?**
 - a. Hur ser framtids-visionerna ut idag?**
- 9. Hur har samarbetet varit mellan LA och PB?**
 - a. Vad tror du kommer hända i September när de 3 åren tar slut?**
 - b. Har ni någon typ av 'exit strategy' om samarbetet skulle upphöra?**
 - c. Hur sker uppdelning etc?**
- 10. Har ni några mått på om siten varit lyckosam?**
- 11. Vilken typ av feedback har du hört om siten? Från konsumenter, företag etc**
- 12. Vad tror du om samarbetet mellan LA och PB i framtiden? Finns det en annan samarbetsform än OpenUp?**

Appendix C – Interview Guide for Challenge Sponsors

Can you start by introducing yourself and your role in the company?

- 1. How did you first come in contact with OpenUp?**
- 2. Did you have any previous experience of this type of consumer driven innovation?**
 - a. Previously posted similar challenges in other forums?**
 - b. Previously participated in challenges in other forums?**
- 3. What were your expectations on OpenUp?**
 - a. What did you want to achieve by posting a challenge on the platform?**
 - b. Did the result meet your expectations?**
 - i. Why/Why not?**
 - ii. What was missing?**
- 4. How did you proceed to create the challenge?**
 - a. Formulating the challenge question?**
 - b. Formulating an informative/inspiring text?**
 - c. Was it easy or hard to know what information to present?**
 - d. Did you leverage the PDF guide to help you in formulating the challenge?**
 - e. Did you experience that something was missing in the guide or that some part was extra hard in creating the challenge?**
 - f. Did you create the challenge in your own name or in the company's name?**
- 5. Did you invite any participants to the site/ did you make any announcements regarding the challenge?**
 - a. Why/why not?**
 - b. If yes: how did you invite them?**
 - c. If yes: did you target any group in particular? Why?**
- 6. How active were you during the challenge?**
 - a. Did you log on often to read/comment on suggestions made by other participants?**
 - b. Did you log on as yourself or the company?**
- 7. Was the time that the challenge was running decided in advance and announced to the participants or was it undecided?**
 - a. If undecided: When did you decide to end the challenge? Why?**

- 8. Did you offer any reward for the winning idea?**
 - a. Why/why not?**
 - b. How do you think that one should attract participants/customers?**

- 9. How did you decide on a winning idea?**
 - a. Was it announced on OpenUp?**

- 10. How much time have you approximately spent on working with the challenge?**
 - a. If posted many: How much time on the first one? In average?**

- 11. In your role as a challenge owner on OpenUp, what did you expect from OpenUp itself?**
 - a. What would you like to see from a platform as OpenUp? (What activities should they be responsible for?)**

- 12. What did you achieve by posting a challenge on OpenUp?**
 - a. Quantity/quality of ideas?**

- 13. Which of the features of OpenUp were good?**

- 14. Which of the features of OpenUp were not satisfying?**

- 15. What features were missing according to you?**

- 16. Would you be willing to post a challenge on OpenUp again?**
 - a. Why/why not?**
 - b. What you do differently?**
 - c. If not: What would it take for you to do another try?**

- 17. Do you think that it is relevant to involve customers in the innovation process or might it be rather be harmful?**
 - a. Why/Why not?**

Appendix D – Interview Guide for OpenUp Participants

1. **Hur kom du först i kontakt med OpenUp?**
2. **Hade du någon tidigare kunskap eller erfarenhet av att delta i utmaningar eller tävlingar som anordnas av företag?**
Probes: vilka, varför, online, offline
3. **Vilken var anledningen till att du registrerade dig på OpenUp?**
Probes: förväntningar, förhoppningar, medlemskap, deltagande i aktiviteter
4. **Vad fick du ut av att delta?**
Probes: uppfylldes förväntningarna, varför/varför inte, vad saknades
5. **Hade du fått någon information eller utbildning om hur OpenUp fungerade innan du började använda sajten?**
Probes: hur, vilken form, av vem, behov
6. **Hur lätt var det att förstå sajten var när du först började använda den?**
Probes: tillgängliga funktioner, sätt att delta, varför
7. **Hur upplevde du OpenUp?**
Probes: bra, dåligt, saknade
8. **Hur har du använt sajten?**
Probes: varför (idé, kommentar, rösta, kommunicera, posta utmaning, forum, följa, belöning)
9. **Vad skulle krävas av OpenUp för att du skulle vilja logga in oftare?**
Probes: posta idéer/kommentarer i större utsträckning
10. **Hur tror du att man kan uppmuntra fler personer att vara aktiva på sajten?**
Probes: Monetära eller icke-monetära (erkännande, möjlighet att fortsätta utveckla idén) belöningar
11. **Har du rekommenderat plattformen till andra personer?**
Probes: Varför/varför inte, hur, vem
12. **På vilket sätt skulle du helst vilja vara med och påverka vad ett företag erbjuder dig som kund?**
13. **Vilken typ av internet-baserade communities är du annars medlem i?**

Probes: vilka, varför, företagsrelaterade, kompletterande/överlappande

14. Är det något mer du vill lägga till eller något vi glömt att fråga om?

Appendix E – Codes Identified in the Transcribed Interviews and Their Relations to the Critical Success Factors

Code	Critical Success Factor
Communication strategy	Communication Strategy
Problem definition	Problem Definition
User personas	Target Audience, Motivations and Incentives
Target audience	Target Audience
Level of openness	Platform Design
Elements of collaborativeness	Platform Design
Effect of collaboration	Platform Design
Elements of competitiveness	Platform Design
Motivations	Motivations and Incentives
Incentives	Motivations and Incentives
Sponsor responsiveness	Sponsor Engagement
Sustaining engagement	Sponsor Engagement
<i>Purpose of initiative</i>	-
Management support	Sponsor Engagement, Importance of Consequence
Requirements on organizations	-
Transparency	User-Centric Design
Credibility	Importance of Consequence
Clarity	User-Centric Design
Importance of consequence	Importance of Consequence
Inclusiveness	User-Centric Design
Gamification	Motivations and Incentives
Continuous activity	Sponsor Engagement
Process stages	Platform Design
Idea building	Platform Design
Idea evaluation	-
Intuitiveness	User-Centric Design
Measuring success	-
OIP types	Platform Design
Software as Facilitator	Platform Design, User-Centric Design
Less is more	User-Centric Design

Internal vs. external OIP	-
OI as complement	-
When and what to open up	-
Part of work	Sponsor Engagement
People are busy	User-Centric Design
Social media format	User-Centric Design
Accessibility	User-Centric Design
Structured OI	-
Filtering	User-Centric Design
Reporting	Target Audience
Validation	Platform Design

Appendix F – Presentation of the Companies Interviewed for the Benchmarking Study

Company A

Company A is a platform provider focused on building stronger relationships between civic places and the people living there through online communities. Most of their customers are therefore some sorts of government agency partnering with the community. This implies that they work with, for example, cities or counties, school districts and park departments. In almost all cases, their platform is designed to be open and transparent - promoting positive conversations and constructive input in local communities. They are also supporting their customers by, for example, advising how to increase the number of participants on a given platform. Right now, they are rebranding to being a social network for people that want to get more involved in their community and a way for community organizations to continue to have powerful, open conversations online in one place for free.

Founded in 2010, Company A has around 50 employees and they are headquartered in Kansas City. They have worked with over 2,000 communities. While most of their customers are located in the US and Canada, they also have some customers in countries such as Australia, Spain and New Zealand. With approximately 250 users on each platform, they have around 500 000 users in total on their platforms.

Company B

Company B is a provider of collaborative innovation software for corporate innovation programs. Their platform and methodology are designed to help organizations take advantage of the full creative capacity of their people to drive tangible innovation outcomes. While the their platform is used for both for internal and external innovation, they believe that from a maturity perspective, starting internally and getting familiar with the collaborative innovation approach lays a proper groundwork for later on being able to use the platform externally as well.

Founded in 1999, their first online innovation platform was launched in 2005. With 50-100 employees, Company B is a global company with headquarters in San Francisco, a field office in New York City and channel partners around the world. Their solutions are used by over a million people in over 250 companies worldwide.

Company C

Company C is a platform provider that can be used for several different reasons: internal co-innovation, open innovation, market research, change management and HR. They are cloud-based and sets up and hosts all the platforms, but their customers can still configure it the way they want to, for example by changing the background, images, colors etc. Their platforms can support both a collaborative and competitive process. They are headquartered in Great Britain.

Company D

Company D is mainly an open innovation platform aimed at using the crowd to help build ideas into projects and realities that people can use. The platform can be configured to support whatever initiative their client might have. Depending on the goal and the crowd one aims for, the platform can be used both for a collaborative and a competitive process.

Founded in 2009, they are headquartered in San Francisco. Other offices are located in Washington DC, Tokyo and Berlin and they have 50 employees. Worldwide they have 25 000 customers and 4 million users.

Company E

Company E is focused on using people's collective intelligence to solve key business challenges. They provide platforms that support a collaborative process, and their clients use the platforms both for internal and external stakeholder participation – thus accessing new sources of innovation, by asking different questions of different communities. With the focus of engaging participants on the platform it offers a lot of gamification elements. Their model consists of the software solution and a set of supporting services: consulting services, management services and software management services. They emphasize that the process around the software matters more than the software itself.

They were founded in 2007 and with 20 employees their offices are located in Lisbon, London and São Paulo. With their software solution they have reached customers in 19 countries across Europe, Asia, and North and South America and they have 16 companies using their platforms. In total they have 200 000 active participants.

Company F

Company F is not a software vendor itself since they are not producing the software themselves. On the other hand they are specialized in providing the best practice and the best software in the innovation and new product development field. They are helping their customers to implement the software and the process connected to it. Their customers do not have to be in contact with the software supplier since Company F has a distribution agreement and an integration agreement. Their process supports both internal and open innovation.

They were founded in 2007 in the US and started up in Europe in 2008. With 32 employees they are present in Japan, the US, Europe and Korea. Most of their customers are on an international basis and they have 260 separate installations and 200 000 users.

Company G

Company G is an innovation consultancy firm that operates at the scale of Europe. Their company is focused along four business lines: innovation strategy, management consulting, digital solutions and communication & design. They are essentially involved in open innovation but their one platform is member restricted. This platform has been implemented in a European research network with more than 120 members and almost 1000 users. It is used for people to submit project ideas and other people can react on these and provide new ideas. These ideas are building up into projects. The process on the platform is a Stage gate one and the platform has a mix of collaborative and competitive elements: there is collaboration to build the proposals but then the proposals are competing for funding.

Company G was founded in 2005, they have around 15 employees and their headquarters is located in Paris. Their other offices are placed in Brussels, Marseille and Valencia and their customers are located in most of the European countries.