Factors Affecting Employees' Participation in Employee Driven Innovation

A case study at Viaplay during the innovation initiative called Hack Days

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by

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Faktorer som påverkar medarbetares deltagande i medarbetardrivna innovation
En fallstudie på Viaplay under innovationsinitiativet Hack Days

av

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Abstract

Employee-driven innovation (EDI) is a relatively new concept, first mentioned by LO, The Danish Confederation of Trade Unions, in 2005. EDI refers to involving a majority of employees in a company’s innovation efforts and is related to concepts like continuous improvement, intrapreneurship and high-involvement innovation. EDI has been identified by LO as an important factor for international competitiveness but has been researched to a limited extent. One important condition for EDI is employees’ participation but the research area is in need of more empirical contributions about which organizational factors that affect participation.

The purpose of this paper is to expand this knowledge through a qualitative case study at a medium-sized technology company in Sweden. Empirical data for this research was gathered through a pre-study followed by the case study at Viaplay. The pre-study consisted of three interviews with people who have organized innovation initiatives at different companies. The main part of the research was to study the EDI initiative at the case company called Hack Days, a week when employees get to work on their own ideas rather than their regular duties in self-created teams, through observations and interviews with managers and employees. The interviews were transcribed and analyzed for themes. Conclusions were made by comparing data from the case company, pre-study and previous research.

The main conclusion is that the format of the EDI activity; information and how it is communicated; employees possibility to prioritize and plan their regular work; the process of how temporary teams for the EDI activity are created and inclusion or exclusion in the daily operations and EDI activity were the most important organizational factors that affect participation in EDI.

Key-words: Employee-Driven Innovation, Innovation, Participation, Organizational Factors
Sammanfattning

Medarbetardriven innovation (EDI) är ett relativt nytt koncept som nämns för första gången av den danska fackliga centralorganisationen LO 2005. EDI avser att involvera majoriteten av de anställda i ett företags innovationsarbete och är relaterad till continuous improvement, intrapreneurship and high-involvement innovation. EDI har identifierats av LO som en viktig faktor för internationell konkurrenskraft, men har hittills undersöckts i begränsad utsträckning. Ett viktigt villkor för EDI är medarbetarnas deltagande men forskningsområdet behöver mer empiriska bidrag om vilka organisatoriska faktorer som påverkar deltagandet.


Den huvudsakliga slutsatsen var att formatet på EDI-aktiviteten, information och hur den kommuniceras, medarbetares möjlighet att prioritera och planera sitt dagliga arbete, processen för hur tillfälliga grupper inom EDI-aktiviteten skapas samt inkludering och exkludering i det dagliga arbetet och under EDI-aktiviteten var de viktigaste organisatoriska faktorerna som påverkar deltagande i EDI.

Nyckelord: Medarbetardriven Innovation, Innovation, Deltagande, Organisatoriska Faktorer
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We are truly grateful for our contacts at Viaplay Melissa Söderberg and Mohan Pakkurti for allowing us to conduct this study at Viaplay, their openness and help. Without them this paper never would have happened. We would also like to thank all of the employees at Viaplay for contributing with their experiences and thoughts.

Furthermore we would like to thank the interviewees from other companies than Viaplay for taking their time and sharing their experiences with us. Their insights added a new dimension to our analysis and provided us with a good starting point for this research.
Terms and Abbreviations

Terms

• Employee - in this paper the term employee refers to staff that are not upper management.

• To participate - in this paper the term to participate means to be actively involved in EDI.

• Participation - in this paper the term participation refers to active involvement in EDI.

• Hack Days - Initiative for employee-driven innovation at Viaplay during which employees get to work on self assigned projects that are not part of their regular work.

• Hack Days project - Project that one or more employees work on during Hack Days, based on an idea that they themselves or someone else suggest. Sometimes referred to as "hack" by interviewees.

Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Explanation</th>
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<tr>
<td>EDI</td>
<td>Employee-Driven Innovation</td>
</tr>
<tr>
<td>CI</td>
<td>Continuous Improvement</td>
</tr>
<tr>
<td>CTO</td>
<td>Chief Technical Officer</td>
</tr>
<tr>
<td>CCO</td>
<td>Chief Customer Officer</td>
</tr>
<tr>
<td>DoD</td>
<td>Director of Development</td>
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<tr>
<td>HoI</td>
<td>Head of Innovation</td>
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<td>PoC</td>
<td>Proof of Concept</td>
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Table 1: Table of abbreviations used in this paper
1. Introduction

This chapter covers the research topic and presents the disposition of the paper.

1.1 Background

“Unless they invest in the difficult task of creating new things, companies will fail in the future no matter how big their profits remain today” (Thiel & Masters, 2014, p. 1)

The quote above is from the preface of Peter Thiel’s book “Zero to One”. It captures a challenge that every business will have to face eventually, one way or another. The concept of “future” implies that change will occur. Changes that will need to be met with innovation and changes that result from innovation. Being innovative is not easy, as Thiel emphasizes, but necessary.

Rapid changes in technology and society has increased competitive pressure and caused life expectancy of companies to shorten (Humble, Molesky, & O’Reilly, 2014, xiii). According to Deloitte’s Shift Index “life expectancy of a Fortune 500 company has declined from around 75 years half a century ago to less than 15 years today” (Humble et al., 2014, xiii). Therefore, being able to change one’s organization and products through short innovation cycles might be a crucial competitive advantage.

Companies with most of their operations built upon software development have very good conditions to succeed with short innovation cycles. It is possible to build, test and launch new products or features in a short amount of time with a relatively low capital investment. Many software products have continuous updates and most people come in contact with these types of updates in their smart phones. One example is when Sony launched a software update to their Xperia phones going from version 6.0 to 6.0.1. The update brought back, among other things, so called “stamina mode” which was requested by their users (Torres, 2016). This example displays the possibility to respond to customer feedback and continually deliver a product that customers want.

It is very common that companies today introduce different innovation initiatives in their companies. One famous example is Google’s 20% time. “20%” means that “employees get to devote one day a week to side projects”. Famous products that have emerged from the innovation initiative are Gmail, Google
Maps, Adsense and Google Talk (D’Onffro, 2015). These products represent a huge part of Google’s annual revenue (Lovejoy, 2013). Google’s 20% time is a great example that proves that innovation initiatives have the possibility to capture valuable ideas from employees that otherwise might not have been captured. However, the concept has been criticised in multiple articles (Boran, 2016; Solomon, 2016). Some claim that in reality 20% time actually means additional time which adds up to 120% workload (Boran, 2016; D’Onffro, 2015). It has also been claimed that only 10% of Google’s employees use it (D’Onffro, 2015) or that it even has died out due to policy changes (Lovejoy, 2013).

Other companies have similar initiatives e.g. Spotify’s Hack Week (Sundén, 2015) and SEB’s Innovationsdagar (Days to Innovate loosely translated) (Fahlander, 2016). They all have in common that they aim to capture ideas from employees where idea generation and focusing on innovation is not a part of their job description. This approach falls under the research area of employee-driven innovation (EDI). EDI has primarily been studied within the last 10 years, as explained in section 3.2.1 in this paper.

1.2 Problem Statement

Research has been done in order to define EDI and to analyze which factors that influence EDI in practice. For example, Kesting and Parm Ulhøi (2010) note that access to time and resources is an important factor for the success of EDI in general. However, researchers have expressed that EDI has been studied to a limited extent when it comes to proving theory with actual cases. Teglborg-Lefèvre (2010) did an exploratory study comparing interpretations of the term "EDI" in six different company cases. Although studying multiple cases, Teglborg-Lefèvre (2010) doesn’t attempt to validate EDI theory. Furthermore, Aaltonen and Hytti (2014) investigate barriers to EDI through a case study at a medium-sized bakery in Finland but conclude that future research is needed to study how the context of different industries affect EDI efforts.

The crucial aspect in EDI is that employees are willing to go beyond their regular work tasks and participate in innovation activities. Kesting and Parm Ulhøi (2010) suggest, in a conceptual paper on EDI, that participation in EDI is positively related to management support. By observing an EDI initiative in another context than Aaltonen and Hytti (2014) it is possible to investigate if their conclusions are correct or if there exist other organizational factors that motivate or prevent employees from participating. Additionally, EDI is a broad concept and EDI where employees are given dedicated time, as in our case study, has not been researched to a large extent.

1.3 Purpose

The purpose of this thesis is to expand knowledge on how organizations can increase participation in EDI; by describing and investigating EDI in a Swedish medium-sized tech company.
1.4 Research Question

Which organizational factors enable or prevent employees from participating in employee driven innovation initiatives?

1.5 Disposition

The remainder of this paper is structured as follows:

Case Description

In chapter 2, the company (Viaplay) where the case is conducted and the specific EDI initiative (Hack Days) studied in the case, are introduced.

Theoretical Framework

In chapter 3, previous research is explored in order to constitute the theoretical framework relevant to this study. Firstly, it covers definitions of the concept innovation, in order to provide an understanding for how innovation is defined in this paper. Secondly, it presents previous research on the concept of employee-driven innovation (EDI), to provide an understanding of the concept, its background and its development. Thirdly, concepts related to EDI are examined, in order to understand how the concepts are similar to each other and in which aspects they differ. Lastly, four previous case studies on EDI are presented.

Methodology

In the methodology chapter, our approach to the research presented in this paper will be described. The chapter will cover the methods used when conducting the research and how the issues of validity, reliability and ethics were approached.

Results

In the results chapter, the empirical results from the pre-study interviews; questionnaire and observations at Viaplay; and interviews with managers and employees at Viaplay are presented.
Analysis

In chapter 6, the theoretical findings and empirical results are analyzed. The chapter contains analysis of the concept of EDI and its implications when applied in practice.

Discussion

Chapter 7 contains the discussion of the methodology, findings and analysis in this research as well as our conclusions, limitations and suggestions for further research.
2. Case Description

2.1 Viaplay

Viaplay is a company that provide over-the-top content (OTT) which means that they provide audio, video or media content over the internet. Viaplay was first named Viasat OnDemand which was launched by Viasat Broadcasting and provided movies, TV-series, live broadcasted sports events and produced material from Viasat’s own channels (Modern Times Group MTG AB, 2007). The service was launched in Sweden, Norway and Denmark. Viasat OnDemand was replaced in 2011 by Viaplay which offered movies, series, kids content, sports and rentals. Today, Viaplay is available in Scandinavia, Finland, Russia and the Baltic states. Viaplay is used through a subscription and is complementary for Viasat customers.

Viaplay was built and developed in-house and the company operates in Stockholm. Today, Viaplay is supported on multiple connected devices and compatible on different operating systems. Dedicated teams at Viaplay are focusing with different platforms. Viaplay is a subsidiary of MTG Broadcasting AB which is itself a subsidiary to Modern Times Group MTG AB (MTG). MTG also launched a similar, but free, version of Viaplay with content from their channels and exclusive material for the web in Scandinavia in 2016 called Viafree (Modern Times Group MTG AB, 2016). Viaplay have circa 250 employees today.

MTG was founded in 1987 and provided the first commercial privately owned TV channel in the Nordics. MTG’s brand include television, radio and next generation entertainment within e-port, digital video networks and online games (Modern Times Group MTG AB, 2017).

2.1.1 Hack Days Concept

The Hack Days concept at Viaplay has been developing since 2012 when the first Hack Days was held. The foundation of the concept is that employees at Viaplay are given a certain amount of time to work on projects that they themselves have chosen and where the only requirement is that a presentation will be held at the end of the time period. The time between in which Hack Days have occurred has varied from one month to almost a year.
In the beginning the concept was administrated by two employees with the support from Viaplay’s CTO. When asked about the challenges of having the first Hack Days the CTO of Viaplay Responded that “There was none. It was easy because it was one day”. Some Hack Days were not carried out due to having a high workload at the time. One example is that Hack Days was in hibernation for 10 months in the time leading up to the Summer Olympics.

The duration of Hack Days has evolved from one day to three days and most recently one week. The intention was to dedicate one workday per month on Hack Days in the tech and product departments. The administrators behind Hack Days felt that one day was too constricting and decided to dedicate three consecutive days every quarter. The first three-day-hack was held in June, 2015. The same amount of time was spent on Hack Days but having three days enables employees to take on bigger projects and present more finished ideas.

Since the Hack Days emerged in the technology department those departments have always been included in Hack Days. Afterwards it expanded to the Product department to participate which they have the last few times. Some effort were made to try and include other departments in the concept. One time representatives from different departments were involved in the planning of Hack Days. At the same time the name was temporarily changed to Creative Days. The efforts failed in terms of getting employees from other departments to join than Tech and Product. The concept then returned to be called Hack Days. This is why some distinction between Tech and Product and other departments are made later in this paper.
3. Theoretical Framework

In this section our theoretical framework will be presented.

3.1 Innovation

3.1.1 Definition

Innovation is a term that is used by many but can have very different definitions. Therefore, it is important to establish the definition that will be used in this report. Kamaruddeen, Yusof, and Said (2010) has written an article in which they have gathered some of the different definitions of innovation. These different definitions will be presented below.

Kamaruddeen et al. (2010) claims that the first innovation research is accredited to Schumpeter who defined innovation as being novel and creating economical value (Høyrup, 2010; Schumpeter, 1934). According to Schumpeter’s definition the purpose of any innovation initiative should be to capture ideas that create economic value. Today, value can refer to not only economic value but include a better and more healthy work environment; lower costs; job satisfaction for employees or increased skills among employees (Høyrup, 2010).

Schumpeter’s definition also uses the word novelty which raises the need to compare the innovation to a baseline and the degree to which an innovation changes the current conditions. One way to differentiate innovations is to categorize them as incremental or radical. Incremental innovation refers to exploiting existing operation through small changes and often reinforces the position of established firms (Henderson & Clark, 1990). An example of an incremental innovation would be to make a gasoline-driven engine more effective. Radical innovation on the other hand focuses on exploring new areas and radical change can often change the fundamental operations of a company (Henderson & Clark, 1990). An example would be to develop a solar powered engine.

Innovation has been redefined multiple times since Scumpeter’s first definition. Kamaruddeen et al. (2010) includes some of these in their article. For example Knowles, Hansen, and Dibrell (2008) defines innovation as the “introduction of new products, processes, or business system” (Kamaruddeen et al., 2010, p. 69). Furthermore, the Organization for Economic Co-operation and Development (OECD) uses the third edition of the Oslo Manual to define innovation.
(OECD, n.d.). The Oslo Manual defines innovation as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations" (Mortensen, Bloch, et al., 2005, p. 46). Defining innovation as new or significantly improved might seem as a definition of radical innovation, rather than innovation in general. However, a product might be new to a company, thus being an innovation in the context of the company, even though it is not new to other companies or markets.

3.1.2 Innovation Classification

Furthermore it is common to classify innovations. Schumpeter identified five different types of innovation:

1. The introduction of a new product or a qualitative change in an existing product
2. Process innovation new to an industry
3. The opening of a new market
4. Development of new sources of supply for raw materials or other inputs
5. Changes in industrial organization (Schumpeter, 1934)

Since Schumpeter first presented these five types of innovation other researchers have presented other ways to classify innovations. In Schumpeter’s classification, process innovation seems to only consider process innovation that is applicable to an entire industry and not small incremental innovations. Later classifications consider process innovation as one of a number of types of innovations. Kamaruddeen et al. (2010) presents a different classification used by both Andersen and King (1993) and a paper written by Totterdell, Leach, Birdi, Clegg, and Wall (2002). They classify innovations as:

- Technical Innovation
- Nontechnical aspects of innovation
- Product Innovation
- Process innovation (Andersen & King, 1993; Totterdell et al., 2002)

This classification is very different from Schumpeter’s. Comparing them to each other, the latter is broader and considers a technical aspect of an innovation. The issue is that it is unclear how to categorize an innovation that concerns the product and is also technical. In the Oslo Manual’s definition of innovation, presented in section 3.1.1 above, these four types of innovations can be identified:

- Product Innovation
- Process Innovation
- Marketing Innovation
- Organizational Innovation (Mortensen et al., 2005)
The classification of innovation established in the Oslo Manual, and used by the OECD, will be used in this paper. The definition uses the categories: Product Innovation, Process Innovation, Marketing Innovation and Organizational Innovation. This definition was chosen since OECD is a big organization with 35 member countries. Moreover, the classification is broad which means that it does not exclude any innovation that might arise in EDI activities.

3.2 Employee-Driven Innovation

3.2.1 EDI as a Concept

The first mention of the term employee-driven innovation, that we have been able to identify when tracking the term through sources and searching online, is in a welfare report by LO in Denmark, The Danish Confederation of Trade Unions. In the report called “I arbejde for velfærd”, EDI (danish: medarbejderven innovation) is put forward as an important part of future product and process innovation and that they need to focus research on it (LO, 2005). LO (2006) further emphasizes that EDI is a competitive parameter that needs to be developed further to keep up with international competition. They state that: “This does not only involve highly qualified workers, but also skilled- and unskilled workers” (LO, 2006, p. 55), which is the first thing close to a definition of EDI, that we have found. Later they build on this and describe it as: “Employee-driven innovation is characterized by the all-inclusive involvement of both skilled and unskilled workers in different innovation processes in order to create value for the organisation” (LO, 2008, p. 10). Furthermore they state a definition of EDI: “Employee-driven innovation means that employees systematically and actively contribute to the generation of new ideas which create value when they are implemented” (LO, 2008, p. 11).

Høyrup (2010) defines EDI using the terminology and definitions from the overall area of innovation. Firstly, the EDI concept includes both incremental and radical innovations. Furthermore, the value that innovations emerged from EDI initiatives can be related to any value that was previously mentioned in section 3.1.1. The innovations itself can include any content e.g. product innovation, process innovation, technology innovation, culture innovation or organizational innovation. By defining EDI as an area that includes all interpretations of innovation makes EDI to be a very broad concept.

The difference between EDI and other innovation activities is the drivers behind the innovations. Examples of drivers for innovation are technological, price or users. In EDI the employees’ expertise, experience, ideas, creativity and skills are the main drivers. Høyrup draws parallels to Chesbrough’s term open innovation. Open innovation means that it is not enough to solely draw ideas from internal sources but it is necessary to include external sources. Employees might come in contact with external sources through customers, personal contacts, previous experiences and their own everyday life. To sum up, the author writes that the focus of EDI is on “a humanistic and social approach to innovation” (Høyrup, 2010, p. 148). Additionally, the process of EDI is often
a bottom-up process and emerge both spontaneously and informally. The conditions of EDI may be unplanned or planned with support from management and organizational tools.

Kesting and Parm Ulhøi (2010) have written a conceptual paper on EDI. They suggest five drivers of EDI in the form of research propositions. The first proposition is that management support is positively related to employee involvement, since employees need a license to step out of their usual role and start questioning the established routines. The second proposition is that intra-organizational support (time, resources and collaboration) has a positive impact on EDI, since time and resources are needed to be able to participate and collaboration supports idea generation. The third proposition is that distributed authority has a positive impact on EDI which might suggest that highly hierarchical companies are disadvantageous for EDI. The fourth proposition is that rewards that appreciate collective innovative activities has a positive impact on the performance of EDI if applied correctly, i.e. not rewarding employees for flooding managers with ideas just for the sake of it but reflecting the fact that EDI is encouraged. The fifth, and last, proposition is that low power distance and legislative regulation of employee representation in management have a positive impact on EDI, by having a culture and climate where employees’ opinions are respected, employee initiatives are encouraged and not seen by management as a threat or attack on authority, and failures are accepted as part of the road to success. Furthermore, when suggesting the fifth proposition, they discuss that the context in the country affects EDI and that Scandinavian countries are favorable contexts due to having traditions of close collaboration between employees and management.

Alasoini (2013) studies the broad-based innovation policy that the Finnish government approved as a national innovation strategy in 2008. The paper begins with comparing the characteristics of EDI with those of Lean thinking, High-involvement innovation and Practice based innovation. According to the comparison, EDI is a broad umbrella concept aimed at producing both radical and incremental innovation where enabling management is the key property for promoting innovation in the organization. Furthermore, the author states that the employees’ internal desire for creativity, learning and development is the starting point for EDI. Alasoini continues with examining the conceptual framework for promoting EDI suggested by the Liideri programme. Through the Liideri programme, Tekes (the Finnish Funding Agency for Innovation) aim to fund development of work organization (OECD, 2016).

In the analysis, Alasoini (2013) puts the impacts of EDI, Operational performance and Well-being at work, in a two-by-two matrix (figure 3.2) where the impacts are divided in direct and indirect effects. Alasoini (2013) concludes that EDI needs support from management, though not being as management or organization-driven as other concepts. Furthermore, the author concludes that promoting EDI might result in problems in well-being at work if the work load increases, if it does not lead to visible results, if resources, results or effects are unequally distributed or if it is not seen as a communal process.

To summarize, EDI was first mentioned just a little more than a decade ago. Therefore, there has not been a definite definition that could be found. Some researchers have explained EDI by comparing it to other concepts e.g. Lean
Figure 3.1: Liideri conceptual framework for promoting EDI, (Alasoini, 2013, p. 13)

<table>
<thead>
<tr>
<th></th>
<th>Direct effects</th>
<th>Indirect effects</th>
</tr>
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<tr>
<td>Operational</td>
<td>Improvements and renewals in products and in ways of producing them</td>
<td>Broad-based organisational learning</td>
</tr>
<tr>
<td>performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-being at work</td>
<td>Increased “employee-friendly” solutions in products, services and in ways of</td>
<td>Increased experience of inclusiveness in change situations</td>
</tr>
<tr>
<td></td>
<td>producing them</td>
<td>among employees</td>
</tr>
</tbody>
</table>

Figure 3.2: Impacts in Liideri conceptual framework divided as direct and indirect effects, (Alasoini, 2013, p. 15)

thinking and High involvement innovation or by defining it with terminology from classic innovation theory. Consensus is that the innovation is driven by the employees instead of e.g. user-driven innovation or price-driven innovation.

Kesting and Parm Ulhøi (2010) present in their conceptual paper suggested drivers connected to an organization that can support and enable EDI activities. Lastly, conceptual framework exist that emphasizes the support of enabling management for promoting innovation in organizations.

3.2.2 Related Concepts

In the research world it is possible that researchers study the same phenomenon but uses different terminology. Searching for the exact phrase employee-driven innovation on Google Scholar generates about 900 hits (search done in May 2017). Employee-driven innovation was first presented as a concept in November 2005 by LO in Denmark. This does not guarantee that EDI as a concept has not been studied before 2005. Thus, it is important to research for concepts similar to EDI. Furthermore, EDI can be a part of other concepts or other concepts might not describe EDI to its full extent. Steen Høyrup presents employee
driven innovation in perspective to similar concepts and why EDI can be seen as its own research area.

Like many other concepts, EDI can be considered to be related to other concepts in the area of innovation. Since EDI enables innovation that is created outside the context of an R&D department it can be classified as Non-R&D innovation (Høyrup, 2010, pp. 143–144). Research of the concept shows that Non-R&D innovation is used extensively in companies but EDI is only mentioned as Non-R&D innovation in a few of them. The term non-R&D innovation is quite explanatory but it does not aim to describe the activities that replaces classic R&D.

Another concept that EDI is related to is non-technological innovation. In this case non-technological refers to the source or the drivers behind the innovation. As mentioned earlier EDI is driven by employees. However, the ideas and contributions are not necessarily not connected to technology. Non-technical innovation is an applicable term in EDI but it does not describe the actual driver, only what it is not.

One of the most closely related concept to EDI is high-involvement innovation. Høyrup (2010) references two articles written by Tidd and Bessant. The idea is that even though every employee might not be able to supply radical innovations and ideas the sum of each small incremental innovation becomes very big. The difference between EDI and high-involvement innovation seems to be that high-involvement innovation enables continuous improvement. Continuous improvement will be investigated further down in this chapter. The authors does not define the practical implications of high-involvement innovation but draws conclusions from experiences that “high levels of participation in innovation present a competitive advantage” (Høyrup, 2010, pp. 143–144). Therefore, it seems that EDI activities can be categorized as high-involvement innovation. However, EDI includes both radical and incremental innovation meanwhile high-involvement innovation only focuses on creating a big impact through small incremental innovations.

Lastly, Høyurup discusses how EDI is related to direct participation in organizational change. Direct participation is often discussed in a management and organizational context. Høyurup quotes the European Foundation for the Improvement of Living and Working Conditions from 1997. “It is about the scope for improving employment and competitiveness through a better organization of work at the workplace, based on high skill, high trust and high quality. It is about the will and ability of management and workers to take initiatives, to improve the quality of goods and services, to make innovations and to develop the production process and consumer relations. (European Foundation for the Improvement of Living and Working Conditions, 1997: 15)” (Høyurup, 2010, p. 148). This definition is very similar to Hoyurup’s definition of EDI. However, Alasoini (2013) claim that EDI is not as management or organizational-driven as other concepts.

Furthermore, Høyurup provides a definition proposed by Geary and Sisson where direct participation is mainly a management strategy which includes subordinates in the decision-making process. Therefore, using direct participation as a management strategy should not be considered as similar to EDI since it is
not connected to innovation. Høyrup claims that direct participation is used to generate employee commitment, motivation and cooperation (Høyrup, 2010, 148).

As mentioned earlier EDI initiatives can occur under unplanned or planned condition. These concepts that Høyrup has chosen to include are all indicated to be related to EDI. The related concepts suggest that EDI is favourable in an organized, supported and recognized context similar to high-involvement innovation and direct participation. Why so many different but yet similar concepts exist can be due to the many different ways to classify innovation as presented in section 3.1.2.

Another related concept is *intrapreneurship*. Intrapreneurship is a sub-field to entrepreneurship. Antoncic and Hisrich (2003) aim to explain the intrapreneurship concept in their paper *Clarifying the intrapreneurship concept*. They have gathered different research from the intrapreneurship area conducted from the 1970’s to the time the article was written in 2003. According to Antoncic and Hisrich (2003) the broadest definition of intrapreneurship is “entrepreneurship within an existing organization” (p. 9) which was presented by researchers in 1993. Like many other concepts there have been different definitions; some more narrow than others. Antoncic and Hisrich (2003) chooses to use the broadest definition which include “new business venturing, product/service innovation, process innovation, self-renewal, risk taking, proactiveness and competitive aggressiveness” (Antoncic & Hisrich, 2003, p. 9). This will also be the definitions that we will use to compare intrapreneurship to EDI. However, the more narrow definitions gives a better understanding of what researchers have looked at within the intrapreneurship area. Antoncic and Hisrich (2003) present these definitions of intrapreneurship as well:

- A process by which individuals inside organizations pursue opportunities independent of the resources they currently control
- Doing new things and departing from the customary to pursue opportunities
- A spirit of entrepreneurship within the existing organization
- As creation of new organizations by an organization, or as an instigation of renewal and innovation within that organization (Antoncic & Hisrich, 2003, p. 9)

It is possible that some of these definitions of intrapreneurship could be used to describe some of the effects of the EDI activities observed in this study. There are also many other factors in the case that might not be included in the intrapreneurship concept. Therefore, EDI is better to describe the activities in our case.

Comparing EDI and intrapreneurship using the broadest definition they both have in common that they include product/service innovation and process innovation. Antoncic and Hisrich (2003) compares intrapreneurship to similar concepts. They conclude that the key difference between intrapreneurship and organizational innovation is that intrapreneurship focuses on creating new ventures; similar to the definition of “creation of new organizations by an organi-
zation” presented earlier. From the information received about the Hack Days concept it does not seem to be intrapreneurship.

An additional concept that can be considered similar to EDI is continuous improvement (CI). Bhuiyan and Baghel (2005) has written an article that aims to explain the evolution of CI over time in terms of the concept’s definition, methods and previous research. The authors claim that programs similar to modern CI programs used in companies today started in the 1800s. The program was based on that employees were rewarded for initiating positive changes in the organization (Bhuiyan & Baghel, 2005). Today, CI is carried out through programs that consists of organized and comprehensive methodologies. The authors uses a broad definition of CI: “a culture of sustained improvement targeting the elimination of waste in all systems and processes of an organization. It involves everyone working together to make improvements without necessarily making huge capital investments.” (Bhuiyan & Baghel, 2005, p. 761) which can give rise to both incremental and radical innovations. Comparing CI and EDI using this definition they are very similar. Therefore, it is interesting for further investigation of this concept to find out how similar they are.

According to the authors there have been developed certain methodologies for CI where the best known are lean manufacturing, six sigma, the balanced scorecard, and lean six sigma. (Bhuiyan & Baghel, 2005). These methodologies are very different from typical activities in EDI initiatives that we studied so far and some are more suited to implement depending on the organizations operations. However, as mentioned previously high-involvement innovation can be used to enable CI. Companies have started to create their own methodologies to fit their companies which can explain the origin of the hybrid methodology lean six sigma.

As mentioned earlier many CI programs have been implemented on improving companies with processes that focus on products. Bhuiyan and Baghel (2005) include a conclusion presented by A. Berger in his paper Continuous improvement and kaizen: standardization and organizational designs. Berger (1997) believes CI is highly connected Quality. Bhuiyan and Baghel (2005) found that other researchers also had made this connection. Berger presents five organization designs on how to work with CI.

- **Individual CI**: Anyone can come with suggestions but the implementation is left to specialists.
- **Organic CI**: Decisions, design and planning is done by the group and not by outside authorities or experts.
- **Expert task-force CI**: Relies on temporary expert task forces. Administering this type of CI requires time and investment.
- **Wide-focus CI**: A blend of organic CI and expert task-force CI used in temporary operations.
- **Quality control circles**: A group of the staff meet regularly and discuss issues and problems related to quality. (Berger, 1997; Bhuiyan & Baghel, 2005)

These designs show that CI can take place at the management -, group - or
individual level. Bessant and Caffyn (1997) define CI as “an organization-wide process of focused and sustained incremental innovation” (p. 10). Additionally, in order to implement CI, Caffyn (1999) talk about CI capability. Caffyn (1999) defines CI capability as: “the ability of an organisation to gain strategic advantage by extending involvement in innovation to a significant proportion of its members”. Caffyn (1999) present a framework called the CI capability model which suggest routines and behaviours for a successful implementation of CI. The 10 behaviours in the framework are applicable to all organizations and they are:

1. employee demonstrates awareness and understanding of the organization’s aims and objectives;
2. individual groups use the organization’s strategic goals and objectives to focus and prioritize their improvement activity;
3. the enabling mechanisms (e.g. training, teamwork) used to encourage involvement in CI are monitored and developed;
4. ongoing assessment ensures that the organization’s structure, systems and procedures, and the approach and mechanism used to develop CI, constantly reinforce and support each other;
5. managers at all levels display active commitment to, and leadership of, CI;
6. throughout the organization people engage proactively in incremental improvement;
7. there is effective working across internal and external boundaries at all levels;
8. people learn from their own and from others experience, both positive and negative;
9. the learning of individuals and groups is captured and deployed;
10. people are guided by a shared set of cultural value underpinning CI as they go about their everyday work. (Caffyn, 1999, p. 1143)

Some of these have been hard to implement in reality because employees need to change their mindset in order to incorporate CI in their everyday work.

It seems that CI can be considered very similar when just looking at the definition of the concept. They do seem to differ a lot in the methodologies used. Since the concepts can be considered to be very similar it could be interesting to investigate if the CI capability behaviours are similar to the factors that affect participation in EDI found in this study.

As mentioned in the previous subsection, researchers have defined EDI by comparing EDI to similar concepts. It is evident that EDI is related to and similar to many other concepts that exist today and surely there are concepts that were not found and presented in this study. It is possible that our case study show characteristics of other concepts than EDI which will be analyzed in the Analysis (chapter 6).
3.2.3 Previous Case Studies

As explained earlier, EDI is a fairly new concept that was first mentioned by LO in 2005 and the first research about it, that we have found, was published in 2010. Since 2010 some case studies have been conducted researching different aspects of EDI. In the following section we will describe four of these case studies. These four are interesting to our research for different reasons. The first is a multiple-case study, from 2010, that explore what EDI means to six different companies. The second is a single-case study, from 2014, that investigates barriers to EDI in a medium sized company. The third is a multiple-case study, from 2016, trying to identify good practices in using EDI by studying three major IT-companies. The fourth is a single-case study, from 2016, trying to construct an idea screening framework for EDI.

In an exploratory multiple-case study Teglborg-Lefèvre (2010) analyzes six cases, on French companies, to show the difference in what EDI means in different companies. EDI in each case is defined by what the companies “regarded as a structured approach to employee-driven innovation” (Teglborg-Lefèvre, 2010, p. 215). EDI in the first case is expressed through having regular challenges, running for a month each time, where employees can suggest ideas on how to solve a specific issue presented in the beginning of the challenge. The ideas are presented to a committee that chooses which ideas to implement and the employees that submitted those ideas get a reward. In the second case, a tire manufacturer, EDI is incorporated in the ordinary work. The manufacturer’s autonomous teams have regular meetings to discuss errors and possible improvements in production processes. The third case is rather an example of intrapreneurship, explained in section 3.2.2, since it is about a system to foster certain innovative ideas through providing the possibility to get funds and advice to commence an innovation project of up to a year. In the fourth case, ideas are suggested through the intranet and each idea is then developed by a “facilitator” together with the author. Like in the first case, the idea is then presented to a committee that chooses which ideas to sponsor. The company also organizes challenges, like in the first case. However, in the fourth case it is mentioned that participation in challenges might be motivated by the improved image they give teams and individuals, through increased visibility, and that it is a good way to develop ones personal network. The fifth case is yet another example of presenting ideas to a jury. The jury chooses the best idea every month and then the best idea of the year. The company in the sixth case organize internal workshops every Friday to discuss certain topics. Both employees and management can suggest topics for these workshops. The ideas emerging during the workshops can then be integrated into client projects by project leaders. However, one problem is that since the employees, in the sixth case, do not get a direct reward for good suggestions they might not suggest ideas that they think might be the next big thing. Teglborg-Lefèvre (2010) conclude that French companies seem to prefer a structured approach to EDI, with certain predefined rules that employees have to follow. Furthermore, the author conclude that a structured approach does not guarantee the outcome desired by management.

Aaltonen and Hytti (2014) investigate barriers to EDI, using a single-case study
on a medium-sized bakery in Finland. The study contributes with understanding of how the company as a context either enables or suppresses EDI. The authors suggest that barriers to EDI are industry specific and further conclude that “future research should concentrate on creating this kind of understanding of the variety of contexts and their implications for EDI” (Aaltonen & Hytti, 2014, p. 167). The study reveals five different barriers to EDI, in the context of the bakery: shift work, mismatch between expectations and management practices, division of labour, organizational structures and physical factory premises. Shift work was identified as a barrier since it limits employees’ interaction with each other and with supervisors, which in turn limits the opportunity to discuss ideas for improvement. The mismatch between expectations and management practices refers to the expressed wish, of the CEO, that employees should be involved in innovation but that the employees felt that it was neither their responsibility to innovate and make decisions nor that they were actually allowed to. This mismatch is related to division of labour that, in the case, also result in an implicit division of responsibility for decision making and innovation. The two last barriers, organizational structures and physical factory premises, result in both organizational and physical divides between the different departments, thus further limiting interaction and communication. The company in the case have also tried to organize an R&D day outside ordinary working time, where everyone in the staff were welcome on a voluntary basis but with overtime compensation.

Tirabeni, Soderquist, and Pisano (2016) conduct a multiple-case study to identify good practices in how successful companies use EDI. The study is based on secondary case data from Microsoft, Google and Apple. The authors find that all three companies practice what is called dogfooding. Dogfooding means that a company uses the products and services that they sell to their customers. The conclusion about dogfooding, in the paper, is that it can provide early correction of bugs if applied in early stages of product development, improvement of stability and functionality if applied in a real-world context and a stronger brand image by showing confidence in the product. Furthermore, all three companies use activities that activate many employees to provide ideas for improvement of the products. The conclusion is that this enhances the ability to discover improvements that would otherwise be harder to discover. However, one of Google’s innovation activities called Innovation Time Off (Tirabeni et al., 2016) or 20 % Time (D’Onfro, 2015), where employees are supposedly allowed to use 20 % of their time to work on something that they think will benefit Google, has rather come to imply that you work 120 %, thus only utilized by 10 % of the staff (D’Onfro, 2015).

Promoting EDI in an organization might result in a large amount of ideas. According to Ciriello et al. (2016) the number of ideas is a potential challenge since the company does not necessarily have the resources to fund all of them or the time to objectively screen and select the right ideas to fund. Using theoretical and empirical evidence collected through a case study of a European banking software provider, they construct a framework for idea screening. Furthermore, they build and evaluate a web application to demonstrate how the framework can support evaluation, selection and tracking of ideas. The proposed framework is shown in figure 3.3.
The dimensions in the framework can in short be explained as follows:

- **Purpose** - Why do we want to innovate?
- **Value Proposition** - What value does the innovation deliver to the customer?
- **Risks of Adopting** - What risks do we face when doing the innovation?
- **Risks of Rejecting** - What risks do we face when not doing the innovation?
- **Scope** - Whom do we innovate for?
- **Type** - What type of innovation do we do?
- **Stage** - What is the maturity level of the idea?
- **Communication Strategy** - How is the innovation introduced?
- **Resources** - What resources do we need to carry out the innovation?
- **Participant Roles** - Who is involved in the innovation? (Ciriello et al., 2016, pp. 4267–4269)

Together, these four studies capture aspects of EDI from different perspectives that may be relevant in our case study. Combined, they cover different interpretations of the concept, EDI in an organization with similar size and structure as Viaplay, companies in the IT-industry, suggestions of how to manage ideas from EDI, barriers and good practices. However, none of these studies cover all of the aspects relevant to this study and we have not found a case study investigating an EDI initiative exactly like Viaplay’s Hack Days, where ordinary work is put aside for several consecutive days.

To summarize, both theory and cases present different factors that are motivators or barriers to EDI. Some more easy to reinforce or eliminate than others. The conclusion is that employees’ participation depends on whether they want to participate and if they can participate. Using these two aspects employees can be divided into four categories that are visualized in the four field matrix 3.4. Having as much employees as possible in the category that both want to and can participate, represented by the green tick mark, is a good basis for capturing the maximum beneficial effects of EDI because they will probably
participate. Interesting categories to investigate are those that want to participate but can not and employees that can but does not want to participate. The arrows in the figure visualize employees shifting from these categories to both want and can. Employees that does not want to participate nor can will probably never participate in EDI activities and is represented by a red cross in the matrix.

Figure 3.4: Four field matrix illustrating possible categories that employees, that are given the opportunity to participate in EDI activities, can belong to.
4. Methodology

In this section the methodology and the method of the research is presented

4.1 Research Approach

Data was gathered through a qualitative case study and the main data collection method was conducting interviews with employees and managers at Viaplay. Before conducting the case study interviews, a literature study was initiated and a pre-study was conducted where interviews at other companies were conducted. The main study consisted of observations, a questionnaire and interviews; carried out in that order. The findings from the case study are presented in chapter 5.

4.1.1 Literature Review

A literature review was conducted to find previous case studies, related concept and existing definitions of EDI. The initial purpose of the review was to explore and define the terms Innovation and Employee-Driven Innovation within the scope of this research. The literature review was kept ongoing through the course of the research to explore theoretical fields discovered along the way. The theoretical findings from the literature are presented in chapter 3.

4.1.2 Pre-Study

Before collecting data from the case company, a smaller pre-study was conducted. The purpose of the pre-study was to widen the scope to other companies and industries in order to get some illustrative cases on how companies can work with innovation. The reasons for doing so were twofold. Firstly, it was to avoid narrowing down the research scope too quickly and focus too much on the case, thus missing important aspects. Secondly, it contributed with a more practical understanding of the topic before doing the interviews with employees at Viaplay. This led to more relevant interview questions and added data to our analysis.

The pre-study consisted of three interviews. The interviewees had all been involved in starting innovation initiatives at their respective companies. One of
The interviewees was a contact from a previous project and the other interviewees were presented to us after we asked our contacts at Viaplay if they had any contacts at companies that had done something similar to the Hack Days at Viaplay or that worked with innovation. The interviews were 45-60 minutes long.

The interviews were conducted with one interviewee except for in one case where we interviewed two administrators behind an initiative. Two of the interviews were conducted at the companies that were discussed while one interviewee was interviewed about a previous workplace. The companies that were represented operate in the industries: broadcasting; transport and postal logistics and credit rating services. To collect comparable results from these interviews an interview schedule (Appendix A) was used to ensure that some specific topics were covered. However, the interviews were not restricted to cover only the pre-written questions, but were rather conversations about EDI in general since the intention was to widen the scope and cover “unknown” areas of the topic.

Information from the pre-study was used to compare result from the case company in the main study. Even though the pre-study did not include employees the results found could be used to present suggestions on how to deal with organizational factors that prevent employees from participating or present other issues to avoid. The result were also used to strengthen or weaken the findings between the case study and previous research.

4.1.3 Main Study

*The activities explained in this section were all performed at the case company Viaplay*

**Observations of Workshop and Hack Days**

Before observing the innovation initiative called Hack Days we participated in a preparatory workshop at Viaplay. This was the first time that Viaplay tried having this kind of workshop before Hack Days. Instead of only observing from an outsiders perspective also participated in the workshop whilst doing our observations. The reason for participating in the workshop was that we did not want the other participants to feel studied. Since it was the first time they tried this, we thought it would be more intimidating if we sat on the side observing them rather than being an integrated part. We deemed the risk of us affecting the execution and outcome of the workshop, to be lower this way.

The main observation part of the case study was conducted during the week when Viaplay executed their Hack Days. During the week we were able to observe the employees working with their projects, referred to as *Hack Days projects* in this paper. Observation enhanced contextual understanding of the case. Furthermore, it served as both data gathering and preparation for the interviews with employees. We also did unscheduled, short, unstructured interviews with participants that we talked to. The observations were written down during or right after they were made.
Questionnaire

Since it would have been very difficult to conduct interviews with all of the employees at Viaplay in our limited research time we created a short questionnaire to collect information from as many employees as possible. The questionnaire was anonymous to encourage employees to respond and because it was not in our interest to be able to track answers to a specific individual. Firstly, the questionnaire asked for some general information followed by a few questions about their perception of the Hack Days concept. The questions are presented in section 5.2.

The questionnaire was distributed digitally as an online form reached via a link. The link was sent out to all employees that were invited to participate in the last Hack Days. Before distributing the questionnaire we tested the questions on a few employees and the Director of Development at Viaplay.

The responses from the questionnaire also helped us design the questions for the employee interviews.

Out of about the 250 employees that could answer the questionnaire we received 52 answers. The respondents represented different teams at Viaplay and 8 represented teams that were invited from departments outside Tech or Product. Only three of the respondent had never participated in Hack Days and 8 had not participated in the latest Hack Days iteration. This does not mirror the real situation at the company. The highest number of participants was reached in the last Hack Days and is estimated to be about 80-100 participants. Therefore, more than half of the answers should be from employees that had not participated in Hack Days.

Since the result from the questionnaire was used as inspiration for the interviews and not used as part of the analysis it was not deemed necessary to investigate and analyze the response rate further. If the responses would be used as qualitative data in our analysis there would be a need for it. Furthermore, it would not be possible to track if employees from the interviews had taken part of the questionnaire which could lead to giving their opinions higher impact than they should be given.

Interviews

Throughout the study, weekly meetings took place at Viaplay with contact persons and were opportunities for open interviews. The meetings and interviews with employees were held at Viaplay’s offices in Stockholm. Interviews were conducted either in English or Swedish depending on the preference of the interviewee. We thought that interviewees would be able to answer more freely if they were given the opportunity to choose their preferred language.

According to Blomkvist and Hallin (2015) the number of interviews depends on when empirical saturation is reached. The common case is 10-15 interviews. In this particular case, more than 15 interviews were needed since there are many sub-groups within Viaplay’s employees, seen to the innovation concept. After
conducting interviews with contacts at Viaplay these subgroups were identified:

- Employees that have participated in the last Hack Days from departments outside Tech or Product
- Employees that have not participated in the last Hack Days from departments outside Tech or Product
- Employees that have participated in the last Hack Days from departments Tech or Product
- Employees that have not participated in the last Hack Days from departments Tech or Product.

The distinction between employees that are working in Tech and Product and outside those departments were done because these departments have been included in the concept the last iterations of Hack Days as discussed in chapter 2. The selection of the interviewees was done by approaching employees during Hack Days. It was desirable to try and get representatives from each of the subgroups identified. In cases where we were unable to find enough interviewees from a specific group we talked to our contacts at Viaplay to get suggestions and asked interviewees if they could refer us to another employee to interview.

When 18 employees had been interviewed, the last interviews that had been conducted had generated little information that had not already been mentioned in previous interviews. Therefore, it was deemed that empirical saturation was achieved. Furthermore, all sub-groups had been covered.

<table>
<thead>
<tr>
<th>Sub-group</th>
<th>Number of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees that have participated in the last Hack Days</td>
<td>5</td>
</tr>
<tr>
<td>from departments outside Tech or Product</td>
<td></td>
</tr>
<tr>
<td>Employees that have not participated in the last Hack Days</td>
<td>6</td>
</tr>
<tr>
<td>from departments outside Tech or Product</td>
<td></td>
</tr>
<tr>
<td>Employees that have participated in the last Hack Days</td>
<td>6</td>
</tr>
<tr>
<td>from departments Tech or Product</td>
<td></td>
</tr>
<tr>
<td>Employees that have not participated in the last Hack Days</td>
<td>1</td>
</tr>
<tr>
<td>from departments Tech or Product</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.1: Table of distribution between interviewees from different sub-groups

As presented in the table the distribution between three of the sub-groups were almost even. The last sub-group was only represented by one employee. The distribution and the methodology for the interviews is further discussed in chapter 7.

The interviews were recorded and then transcribed. To get comparable results from the interviews with employees at Viaplay an interview schedule (Appendix B) was used to ensure that some specific topics were covered. However, depending on the answers from interviewees, the probing questions differed between interviews. If there were follow-up questions, that we afterwards realized that an interview did not cover, the interviewee was contacted via email.
Semi-structured interviews with upper management were also conducted as an additional information source to compare to the information gathered during interviews with employees. However, the questions asked in these interviews differed depending on the role of the manager.

**Result and Analysis**

The analysis focused on data gathered from the interviews conducted with employees at Viaplay. We used Robert Yin’s book of case study research to guide the analysis of the interviews. Yin (2014) presents four strategies and five techniques which can be used in any combination. The main strategy that was used in this analysis was “working your data from the ‘ground up’” which means to look for patterns or concepts that can lead to a deeper analysis and find additional relationships (Yin, 2014, p. 137).

To find patterns and concepts we individually read through all the transcribed interviews to find interesting responses. Each statement that we found interesting was marked as a suggested theme, pattern or as an interesting insight. We then compared our separate analyzes and identified common themes. In cases where one of us has found a theme and the other had not, we discussed if the theme would be included or not. The final analysis considered data gathered from all of our interviews, the questionnaire and observations made at Viaplay.

Additionally, the analysis, in this paper, compares EDI cases observed in this study to the pre-study companies and cases found in previous research. Furthermore, the EDI research area was also analyzed.

**4.2 Validity and Reliability**

*In this section we will describe how we intend to achieve high validity and reliability*

According to Collis and Hussey (2009), qualitative studies are often associated with a high validity. However, to be able to discuss the validity and reliability of this research we will use the four categories *construct validity, internal validity, external validity* and *reliability* discussed by Yin (2014) and Gibbert, Ruigrok, and Wicki (2008).

**4.2.1 Construct Validity**

Construct validity “refers to the quality of the conceptualization or operationalization of the relevant concept” (Gibbert et al., 2008, p. 1466), i.e. if the research actually investigates the things it claims it is investigating. It is important to avoid subjective judgments (Yin, 2014). In this research, construct validity was striven for through triangulation, by using multiple sources of evidence, and by trying to establish a chain of evidence (Gibbert et al., 2008; Yin, 2014).
4.2.2 Internal Validity

Internal validity only concerns explanatory or casual studies, according to Yin (2014). This type of validity refers to whether causal links and logical inferences are correct or if the observations are results of other factors. This study does neither aim to establish causal links nor to be explanatory. However, since the purpose was to investigate factors affecting participation, it was important to be aware that there may be other factors, than those identified, affecting the phenomenon. Therefore, the themes found in the results were analyzed and discussed compared to other case studies through theory triangulation (Gibbert et al., 2008).

4.2.3 External Validity

External validity, or generalizability, is the extent to which the findings of a study can be applied beyond the setting of the study in question (Gibbert et al., 2008; Yin, 2014). Furthermore, Gibbert et al. (2008) argue that cross-case analysis and using multiple cases is a basis for external validity. Since this is a single-case study, the external validity is limited. However, we have compared the findings in this research with findings in other case studies on employee-driven innovation and have provided information about the case study context, as suggested by Gibbert et al. (2008), to achieve some external validity.

4.2.4 Reliability

A case study with high reliability should yield the same findings and conclusions if the same study is repeated by another researcher following the same procedures (Yin, 2014). Gibbert et al. (2008) suggest producing a case study protocol, detailing how the study has been done, and creating a case study database. In this study we will not create a database but we will provide the questions asked in the questionnaire and the predefined questions asked in the semi-structured interviews with employees and in the pre-study. However, the probing questions in interviews will likely vary depending on the answers that interviewees provide.

However, since the results from the interviewees consists of the perception and opinions of different individuals asking the same questions does not guarantee that it would yield the same results. It is also likely that the perceptions and opinions change over time.

4.3 Ethics of Methods

In this subsection we will discuss the ethical issues we need to consider in our methodology and how we approach them. Note: Anonymity, Confidentiality and Voluntary Participation.
4.3.1 Voluntary Participation

It is important that the basis for participation, in academic research, is voluntary. Furthermore, voluntary participation implies that people are informed that they are being studied. Financial or material rewards should be avoided and participants should be informed what their participation requires of them (Collis & Hussey, 2009).

Interviews with employees was a large part of the data collection in this study. These interviewees had to be recruited on a voluntary basis. Therefore, it was important that they had the option to deny a request to be interviewed and not feeling forced, by company representatives or us as researchers, to participate in interviews. Furthermore, employees had to be informed that we were observing during the EDI-initiative and we had to respect those that did not want to be observed.

The employees were notified through an email before Hack Days that two master thesis students would observe during the week. Additionally, we were presented during the startup meeting when Hack Days began.

4.3.2 Anonymity and Confidentiality

Anonymity and confidentiality should in most cases be offered to participants (Collis & Hussey, 2009). Anonymity may encourage interviewees to be more open and expressive in their answers. In this study the identity of participants were irrelevant, to a large extent. However, it was important to know some characteristics about the interviewee, such as participation in previous EDI initiatives, participation in the current initiative and the person’s usual tasks. Therefore, we needed to have enough interviewees to be able to disclose such information without compromising the confidentiality of the answers given.

An exception was made when presenting the results from interviews with managers since their roles are presented in the text. This choice was made since their opinions might be strongly correlated to their roles and their answers are given higher credibility knowing their roles.

We offered to sign a non-disclosure agreement with the organization under study in order to get access to data and information. Whether such an agreement would be written or not, we would still give company representatives the opportunity to check this report for sensitive data that should not be disclosed. If some data would have been sensitive but not secret, but too important to not include in the paper, the company itself would have been anonymized.
5. Results

5.1 Pre-Study Interviews

The following section describes what was said during the three pre-study interviews. Each paragraph focuses on a topic that was brought up and compares the interviewees responses to each other.

As previously presented the companies in the pre-study operate in the industries: broadcasting; transport and postal logistics and credit rating services. All of the companies are established within their industry and have 200 employees or more.

Two of the companies had organized at least one occasion similar to Viaplay’s where they had invited a large part of their employees to participate in innovation activities that was not part of their job descriptions. The other company had different processes to work with innovation but the innovation effort that was discussed specifically was that they had created a small group with cross-functional employees working voluntarily with innovation outside their regular work.

5.1.1 When and Why Innovation Activities are Introduced

One interesting aspect was why and when the companies in the pre-study cases had started to work with innovation in the way that were described in the interviews. Two of the cases initiated new innovation efforts because their companies were facing new challenges and experienced that they needed to react due to major changes in their industries. These changes could be that smaller companies started to challenge part of their value chain, the company focused on new products or the company was looking to change expand outside their industry.

Due to these changes one company restructured their organization and created an innovation department. The last case held an event that they called a business hackathon. It was supported and requested by the CIO who had wanted to do an initiative like that for 7 years. It is possible that the innovation effort was made now since they had recently recruited someone that had experience from administrating innovation activities at other companies and also because it was considered trendy which the interviewee expressed in this quote: “...and it is a little, sort of trendy right now”.

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5.1.2 Allocating Time for Innovating

All of the interviewees mention that it is important, and in many times difficult, to allocate time and put aside the ordinary work tasks. Since all or a large amount of the employees are invited to participate in some cases one needs to consider when it is possible for them to participate. The interviewees all believe that you need to reach a certain mindset to innovate and that it is difficult to do spontaneously. Especially in the interview where they focused on finding radical innovation, “We have to allocate time and think these big thoughts, and it’s not very easy”. Another example of how to facilitate for a mindset of creativity and innovation was by having an inspirational lecture. In another case that were explained to us, they chose to invite an external speaker that held a lecture at the beginning of their one day business hackathon. One interviewee from that case also believes that if employees are not given time, the innovation processes will be steered by those that have time and good ideas from other employees that have a lot to do are lost.

5.1.3 Motivators for Participation

Even though it was not voluntary to participate, in all of the cases all interviewees talked about how to motivate employees to participate and that it was important to include them in innovation activities. One interviewee expresses this through “You have to use the resources (employees) available and give them tools to, well, renew and build new features.”. Although, in one case it was speculative on how to motivate employees since they had not had an event where employees were invited to participate yet. The interviewee drew inspiration from other companies they had heard about and their own previous experience. In that case they felt that since their group was not an official part of the organization most employees have not heard about them and that they wanted to have some successful projects before they tried to motivate others to join in innovation activities. One motivation that was suggested was to reward the best hack with an amount of cash. They also believed that ideas needed to come from the lower levels of the organization to not be met with resistance from the employees and that passion was crucial when working with innovation.

Similarly, the interviewee from another case said that “If you get consultants or others who do (the work), then it will be just some kind of management /.../ But it will not be the same involvement or the same sense of ownership”. In that case and one of the other cases the employees got to present their ideas for the upper management. One interviewee from the other case said: “…I can also present it in a large forum for parts of our upper management” and that in itself I think was an incentive for many”. In that case the presentations were part of a competition where one group won and their idea would be put into production. According to the interviewees a lot of focus was put on the competition and the winning project was decided by having the employees and a jury to vote on the different projects. The interviewees in that case thought that their employees liked competitive events and that it aligned with the company culture. One interesting thought that the interviewee had was that employees might wait to present their idea until the next hackathon because they want to
win the competition. Not all ideas were presented in the competition so before the competition the company dedicated a day to collect ideas from anyone that wanted to participate. Each suggestion that was submitted followed a template that the administrators had created. The interviewees said that it was beneficial for employees that had a lot of ideas to be limited to the boundaries of the template since they could not submit too much text and employees that had trouble to communicate their ideas found it helpful. Five of all of the submitted ideas got the opportunity to present and ideas that were not presented were taken to the right departments. Lastly, they also thought that the IT department would experience the biggest change and start to work more innovative in their day-to-day operations.

5.1.4 Cross-functional Collaboration

Furthermore, all cases had incorporated or made it possible for collaboration in cross-functional teams of employees. In the case where they only were a small group of employees that worked with innovation the team members were deliberately chosen from different departments to contribute with different expertise. In one case multiple departments were invited to an event and they could create their teams how they wanted to themselves. Before the hack event the administration had arranged three occasions where the teams could meet and discuss their projects. The interviewee from that case thought that the results from the initiative gained a lot from having cross-functional teams. Similarly, in the last case the employees got to create their own teams and it was also possible to be a part of multiple teams. In that case the interviewees noted that teams that presented the most successful ideas were those that had different competences from different departments in their teams. Normally, in the day-to-day operations most employees just worked within their specific silos at that company. The interviewees thought that they would facilitate cross-functional teams even more in the next hackathon. An idea to help teams find team members from other departments was to have speed dating at the beginning of an innovation activity.

5.1.5 Utilizing Internal and External Experts

All of the cases also used support from internal or external experts. Two cases had invited external experts came in and hold lectures and that could also help the teams to move forward in their processes. One case combined these external experts with internal experts that represented different departments. The purpose of using internal experts was not only incorporated to help teams but also to highlight features at the company that employees outside of those teams did not come in contact with very often. As mentioned earlier, the small group that worked with innovation consisted of internal experts. The third case hired an expert that focused on leading workshops. “...it’s hard to just be like “Now I’m conducting this innovation workshop”, because you need to understand how people in a group work, you have to understand the different elements, you have to know and be able to do different exercises that help them and so on.”.
The expert organized workshop for special events but also for departments that asked for help in different situations.

5.1.6 Employees that are Invited

Even though two of the cases had included most of the employees at their companies the concepts were still exclusive in some aspects. One case believed that it was most crucial to include the teams affected by the area that they were innovating for. It was less important that other employees would be invited too. This case normally worked with specific cases when working with innovation. One case only invited some departments to different events. The other case did invite everyone to participate but were aware of that some employees could not participate due to their regular tasks. Their example was sellers that could not leave their tasks because most of their salary is based on commissions and they had to take meetings on the hackathon day. That company were also planning to have a hack event exclusively for the IT department.

5.1.7 Location of Innovation Activities

The two cases that had organized innovation activities as limited events proved to be similar in many aspects. One major difference was where the innovation events took place. One was held at a dedicated area in the ordinary office whereas the other rented a space outside the office. The administrators believed that the advantage of having it in the office was that people could come and go as they liked and spend as much time as they felt was possible on the event. In the other case the interviewee thought that it is good to have it at another location since it was easier to focus. “...not sitting and peaking at your email during the day. Put down your phones, pause in two hours, then you can check your email again”. The case that worked in a small group often had to meet through digital meeting tools since they worked in different offices and different countries.

5.1.8 Guided or Free Innovation Activities

Another example of different ways to organize innovation events with employees was to have it fully planned with activities and someone that guides the process during the innovation activity as opposed to just dedicating an amount of time, let the teams spend it as they please, and have a presentation when the time is up. One of the interviewees had experience from both types of organizing innovation activities. They believed that it was good to alternate between the two different ways since it gave very different results. However, they also believed it would be more challenging to try and guide the innovation process if the teams are working on very different ideas and each team consists of very different competences. Although, when teams would work on very different projects the interviewee believed that it was very important to have an overall pronounced goal to get ideas that were applicable for the company. The other case held a one day business hackathon where people could come and go as they pleased but
in the following activity they had a very planned and strict presentation day for
the ideas that went on to the final. Both of these cases’ events stretched over
one or two days. The company that had one day tried it for the first time and
because it was untested the upper management thought that one day would be
enough to test the concept.

5.1.9 Innovation in Day-to-Day Operations

Two of the cases said that they had a formal process on how innovation from
employees was managed in the regular operations. One interviewee hoped that
more informal innovations would be happening as an effect of their hackathon.
All of the interviewees agreed that a typical suggestions box where employees
can send in their ideas that get evaluated and given a go/no go decision has
more or less died out. Employees do not use it and it is not a good way to
include employees. On that topic one interviewee also believed that a lot of
resources get tied up in ideas before they know if it is an idea worth spending
time on.

5.1.10 Linguistic Barriers

Lastly, one interesting learning that the company that had organized an inno-
vation event for all of the employees for the first time had experienced that
both upper management and many of their employees did not fully understand
what a business hackathon meant. Employees expressed these opinions in a
survey that was distributed after the event. The administrators thought that
they would reach a critical mass of all the employees that would participate in
these types of events in the next innovation activity when everyone had a better
understanding of what it was.

To summarize, the pre-study companies had introduced different innovation
efforts due to changes within their industries that presented new challenges. All
interviewees mentioned that it was difficult to allocate time from the ordinary
work to be innovative. At the same time it was crucial to take a break to
attain a different mindset and that everyone should be given time. Motivators
for participation that were presented was e.g. the opportunity to present for
upper management, rewards or having a competitive format. Furthermore,
all of the companies had incorporated cross-functional collaboration which was
believed to generate the most successful results. During the innovation activities
the companies used internal or external experts to help or guide employees in
innovation activities. The companies included all, specific departments or a
chosen few in their innovation efforts and the activity was held both in-house
and off-site. The activities that they organized could be scheduled and guided
or free with a presentation at the end and took place over the course of one
or two days. Lastly, innovation taking place outside the discussed innovation
efforts took place in formal processes but were not the classic suggestion box
it was expressed that formal processes tie up a lot of resources on ideas that
often are not implemented. The results from the pre-study could be linked
to different topics e.g. motivating factors; inclusion and exclusion; time and

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utilizing experts. These topics then worked as an inspiration in the following data collection activities.

5.2 Questionnaire Results

The questionnaire was sent out to collect information as a basis for our interview questions and try to get opinions from more people than we would be able to interview. The feedback that we received when we tested the questionnaire resulted in some minor changes to some of the questions before it was sent out on the last day of Hack Days.

As previously mentioned there was quite a low response rate when comparing the number of answers to the number of possible respondents. One possible reason why it was difficult to get respondents from employees that had not participated is that they might ignore emails with the subject Hack Days and thought it was aimed at employees that had participated. The questionnaire was sent out again after a week to remind employees to answer which resulted in some additional answers than the first time it was sent out.

The questions that were asked in the form were these:

- What team do you normally work in?
- Have you participated in the latest Hack Days? (20-24 March)
- Have you participated in a previous Hack Days?
- Why do you choose to participate in Hack Days or not?
- What inspires you to come up with ideas for hacks?
- Explain how you think Hack Days could be improved.

5.2.1 Participation in Hack Days

Two respondents that had never participated wrote that they could not take time from their regular work to participate. This reason was also expressed by some employees that also did not participate in the latest Hack Days but they had participated in at least one of the previous Hack Days iterations. We wanted to investigate if this was the case for most of the employees that had not participated in Hack Days during our interviews.

On the questions why someone chose to participate in Hack Days the most common answer was because it is fun. Not far after that were to work with people from teams that they would not normally work with or to learn new things. The responses did not vary that much with only 10 different answers. One particularly interesting answer was “Felt like an obligation”.

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5.2.2 Inspiration for Hack Days

Similarly to the questions why people participated the responses on the inspiration for ideas during Hack Days were very similar. Only four of the responses could not be categorized to at least one of 4 alternatives. More than 50% of the respondent answered that their ideas had originated in projects or processes in their ordinary day-to-day work. Many said that it were projects that they did not have time for and that were down prioritized. The majority of the other responses said that their idea focused on benefiting their customers; sometime specifically their consumers. Some answers said that their ideas came from being consumers of the product themselves. The last two inspirations were new technology or from everything.

5.2.3 Suggestions on Improving Hack Days

On the last question the answers were really varied. Many of the suggestions only appeared once and was very specific. One example is “Less ‘goal oriented’ Hack Days, i.e. lose the ‘we need a hack to fix this real problem’ type.”. However, the two most common suggestion on how to improve the concept was to have more meeting rooms available during Hack Days and to change the presentation format. The general idea was to split up the presentation into different parts or over more than one day. Another response that was reoccurring was that this iteration had been the best so far and that it was great to have a whole week. The most common answer, 17%, was that they had no ideas on how to improve it. This does not indicate that the concept is the best that it can be but it strongly indicates that there is not a fundamental part of the concept that employees want to change.

5.3 Workshop Observation

The week fefore the last Hack Days the head of innovation and one of the creative designers held a workshop to help employees to come up with ideas to work on during Hack Days. The workshop was 2 hours long and all departments at Viaplay were invited. Two identical workshops were held after one another to try to make it possible for as many employees as possible to participate. The focus of the workshop was idea generation and the material was inspired by Google. There was some drinks and food being served and small groups of tables and chairs were in the room. The participants worked in many different departments and employees from the same department were often sitting clustered together at the same table. Each table had 3-5 people in them which made a group. After a short presentation each group got to choose a topic or theme to come up with ideas for during the workshop. The themes and topics had either been chosen by upper management, were missions from an organization working with improving life for children or ideas presented by participants. Every table had paper and pens in different colours to help visualize their ideas. The work was done iteratively where each person in a group had one minute to think of 4 ideas. Then each person presented their ideas to the other members of their
group. Each participant then chose one idea, of their own or someone else’s, to
develop further during one minute. After presenting for each other again, the
group had to choose one idea to work on together which was then presented to
everyone at the workshop. The groups had 30 minutes to develop the last idea
together.

5.4 Hack Days Observation

The following text describes the latest iteration of Hack Days which was held
during one workweek in March.

This time was the first time that teams could wish for their project to be de-
ployed in the product directly at the end of Hack Days. The CTO or the director
of software development had to approve it before it could be deployed. Before
Hack Days information was sent out via different digital information channels
from the administrators. They also put up posters and created a physical idea
wall where people could post their ideas and request for different resources for
their Hack Days projects. Additionally, the head of innovation and the director
of software development, which has supported and developed the concept for
many years, went to meetings of other departments and presented the conditions
for the coming Hack Days.

Before Hack Days each team had added their group and project to a spreadsheet.
The information that they needed to supply were the title of the project, a
short description, team leader and team members. There was some general
information in text format about the process and schedule of Hack Days in
a folder that everyone could access. The information also included general
guidelines and a link to a template that broke down the project more detailed
than in the spreadsheet. If teams wanted to deploy their project they had
additional requirements e.g. finding suitable key performance indices to measure
the project after deployment. The text below describes our observations from
Hack Days.

Monday: The week started off by having a morning meeting where the CTO
held a short presentation and sandwiches and coffee was served. Each group
then had a representative that held a short presentation of their the Hack Days
project they were going to do. During the presentations some were requesting
team members with specific competences to help them and some were asking to
get specific data that their project needed. After all of the projects had been
presented the administrators had scheduled 10-15 minutes to mingle with the
main purpose to let people find teammates. Many of the employees stayed and
discussed what they were going to do during the coming week.

The groups then started to work on their projects. It was very common that
groups tried to find an area where they could discuss and visualize their project.
Some printed out inspirational pictures meanwhile other used whiteboards or
sticky notes. The Viaplay office contains some smaller meeting rooms and some
of these were booked by one group during the whole week. There was also one
group that built a temporary smaller room with the help of whiteboards. Some
groups continued to work on projects that had been started during a previous Hack Days.

Tuesday: One team has left a note announcing that they will be working on their Hack Days project off-site. There are less visible groups that are sitting together and working on their projects.

Wednesday: On Wednesday there was a Hack Boost where everyone was invited to a meeting space after lunch. Smoothies were served and inspirational short videos were played on a big screen. During this time some short informal interviews were conducted which are described in a chapter below. During the day the administrators had also organized for some user testing. Groups that wanted to test their project on a user group had to pre-book a time slot.

Thursday: Thursday was very similar to Tuesday. It seemed that even more people were working individually and not in their project groups.

Friday: On the last day of Hack Days there seemed to be a lot more people in the office than previously. A lot of the smaller meeting rooms were occupied with groups that discussed their presentations. Those that were not discussing with their groups looked very focused and tried to finish their work before the presentation. After lunch there was another Hack Boost where the administrators had rented an ice-cream machine. A lot of people gathered and discussed how their week had been and what they were going to present.

The presentations started at 15 o’clock. There was food, candy and beverages being served and it took place in the open meeting area of the office. A lot of people were present and quite many had to stand. The presentations started with a small speech from the CTO at Viaplay. Since many presentations demonstrated prototypes that needed different installed programs each group had to connect their own computers. 28 groups presented over 3 hours with a break after each hour. Many people went home during the breaks and circa one third was left and saw the last presentations. Afterwards everyone could vote for their favorite Hack Days project. There was no criteria considered when voting.

Our contact at Viaplay said that one person did not want to present their project since he considered it to be too technical and that everyone that would use his Hack Days project had already heard about it. According to our contact it has been very few that has not presented their projects at the end of each Hack Days. A list of the order of the presentations were sent out earlier that day.

One week after Hack Days the Director of Development asked everyone to do a retrospective and write down lessons learned and their next step in a document that had been created. Furthermore, the teams should update the spreadsheet with all the projects with the next steps and number of days it would take to implement. During one of the meetings with multiple departments it was presented that two of the Hack Days projects were scheduled to be implemented.
5.4.1 Informal Unstructured Interviews with Employees During Hack Days

These interviews were conducted in an informal way. The interviewees were selected randomly from employees that were present during the Hack Boost that was described above and were carried out alone and took 5-10 minutes. These interviews were part of the basis for the questions during the semi-structured interviews following Hack Days.

The first interview was with one employee that is a consultant working at Viaplay. This was the first time they participated in Hack Days at Viaplay. They had experience from other companies with one-day-hack but had not participated because it was difficult to combine with their regular work tasks. They also added that one day is too restricting for creativity and that if you have a bad day you can not produce anything. At their most recent workplace there was a competition where the projects that gave the most entertainment value for the rest of the employees were chosen and voted for which led to the fact that if you had technical projects it did not feel worth it to participate. The project that they were working on focused on doing things was not associated with their regular work. They thought that it was a very good opportunity to learn new things. The project was linked to a problem that the team had thought about how to solve for some time before Hack Days.

The second interview was with two employees where one was participating in Hack Days and one was not but had participated in earlier iterations. The person that was not participating in Hack Days was asked if their work was affected by other people being occupied with Hack Days the response was: “No, really not, I am not noticing anything. So for me, every week could be Hack Week”. The person that is participating described their project as not actually developing anything but they saw it as an opportunity to review how they work and their processes. “You have time during the Hack Week because you do not have much else”. Both of the interviewees thought it was good that it was 5 days this time. There are some things that have been close to being ready to deploy in earlier Hack Days but that they just needed a little more time. They liked Hack Days because when they are working on bigger projects it is difficult to grasp the entirety on the project. It is nice to be working on a specific area or a single platform instead. They both thought that the atmosphere was better in the office during Hack Days and one interviewee said “You see people really blossom, you almost get surprised. Oh, this is how you look when you’re happy”. They were looking forward to see if any of the projects would be applicable to multiple areas. Previous projects had been done specifically with a client in mind.

The third interview was with two employees who work in the data analysis team in the customer relationship management department. They did not see themselves as really participating in Hack Days although one of them had pitched an idea that a developer chose to work with and they had had some interaction about the idea and what it could look like. The interviewees also noted that they often get asked for data and analysis from teams working on Hack Days projects that need their support but they did not seem to count that as participation, more like being a resource. When asked about why they did not
participate in this Hack Days they answered that it was partly because they feel that their usual work is kind of varying and hack like and that they do not feel that Hack Days was “for them”. They seemed to think that Hack Days should be about the technical parts of Viaplay. However, they said that it was interesting to come down to the fifth floor and talk to the people working there since their team are stationed on the sixth floor. They saw this as an opportunity to talk to people they often do not meet or work with. The interviewee who pitched the idea later participated in the presentation of the project, that the idea resulted in, and was also recruited as one of our interviewees for the semi-structured interviews with employees.

5.5 Interviews with Managers at Viaplay

Four managers at Viaplay were interviewed as part of the case study. The interviewed managers hold the positions of Chief Technology Officer (CTO), Chief Customer Officer (CCO), Director of Development (DoD) and Head of Innovation (HoI). In the following section the findings from those interviews will be presented. Some of the interviews were conducted during Hack Days while some were conducted in the week following Hack Days.

First of all the CTO said that employees have a lot of good ideas about what the company could do better. Some of those ideas are not easily generated by managers, who do not work closely to the product, but for employees, who work closer to the product or the customers, such ideas might be more obvious. Therefore, the CTO thinks that Hack Days is a good way to capture those ideas. The DoD also said that he thinks that employees have many ideas, that management have not thought of, but that you need time and practice to realize that you have them. Therefore, he thinks that you need to do Hack Days more than once, to give them the time and practice. The HoI agrees with the CTO’s opinion that Hack Days is an opportunity to use the idea generation capability of the employees. The CCO, who works closer to the customer oriented departments and focuses more on business issues, mentioned that Hack Days could be an opportunity for business related departments to get ideas tested that they need help with but that are not prioritized in the ordinary sprints. However, she thinks that it is important that people work on Hack Days projects that they want to work on.

The CTO does not think that Hack Days is easily replaced by, e.g., a suggestion box or another tool where employees can just submit ideas. It is still a function you need to have but the problem is that someone have to take time to decide which ideas are good or bad, which is never optimal, according to the CTO, and can not replace Hack Days. The HoI said that they are looking at creating a framework for capturing ideas so that employees know who to turn to if they have an idea or where to submit it. However, the HoI said that this would work as an alternate way to encourage innovation, not as a substitute to Hack Days. Furthermore, the CTO emphasized that he does not want anyone to evaluate or judge the projects, by saying something is good or bad, and that he does not like the idea of having a jury that employees have to present their ideas to. According to him, presenting to a jury would be too hierarchical and a
disconnect from what they are trying to create. He does not see Hack Days as a way to learn how to pitch an idea to investors.

The CTO, HoI and CCO acknowledged that finding a team to work with for Hack Days may be a barrier, especially for those employees that are not from the Tech or Product departments. They think that this is partly due to the fact that many employees think a Hack Days project needs to be technical oriented. The CTO and HoI both suggest that highlighting examples of projects that employees from non-technical departments have been part of could encourage others from those departments to participate. Furthermore, the CTO and HoI said that a technical project does not have to involve programming but could result in a proof of concept (POC) or prototype. The HoI thinks that they should organize workshops where employees learn how to prototype. The DoD said that they need to get an understanding of what Hack Days could mean for non-technical departments, since it is originally a concept that originated in the technical world. He said that this is something they need to work more on and that they will focus more on how to enable inclusion of the non-technical departments to the next Hack Days.

The CCO and HoI also mentioned that the DoD and the HoI visited the departments that usually have not been involved in Hack Days to inform them that they were welcome and tried to encourage them to participate. The CCO said that she also told her departments that she would like for them to participate but that she felt that they did not have the time to. She also thought it was good that the DoD and HoI offered to help the non-tech employees to get in contact with the right people, in the technical departments, if they did not know who to ask. Furthermore, the CCO thinks that the best way to actually get a person interested in an idea is to go to the recommended person, perhaps together with for example the DoD, and try to convince the person about the value and possibilities the idea has, as opposed to just posting the idea on the ideation wall and wait for someone to start it up.

The CCO estimated that five out of 17 of the employees working under the CCO participated in Hack Days. She further said that it is hard to take them out of daily operations completely during Hack Days but can maybe be involved to some degree. Since the customers do not take a break, some operative employees always need to remain operative. This opinion is supported by the CTO, who said that there are always 20-30 people needed in daily operations, and by the HoI, who said that in her previous more operative roles it could be stressful to take too much time off.

This iteration of Hack Days they tried to give the employees some direction by suggesting goals to aim for, in order to make it a little less complicated, according to the CTO and DoD. They think that it might result in Hack Days projects that have more business value than what projects have had in earlier Hack Days. The HoI thinks that this time Hack Days will result in more ideas that are actually put into production and that being able to show the employees that their projects can make a difference would be motivating. The DoD said that the thing they have not really solved is what to do with the good ideas after Hack Days. Therefore, he said that this iteration they just decided that if there are ideas that they like they will let the employees implement them into product or daily operations, which also was a reason for giving employees
more direction. The HoI estimated that, so far, 5% of the ideas from previous Hack Days have been incorporated into the daily operations. Furthermore, she thinks that the range of ideas would grow to involve, e.g., business models or marketing activities. The CCO said that she thinks that the employees in her teams can contribute to this, e.g., by knowing which aspects in an idea that could generate value or if they are even allowed by their suppliers to implement it. The HoI also suggested that there could be an award for the idea with the best business value, in addition to the award for the most interesting project like they have today, to motivate the teams to think about the business value of their ideas.

Introducing Hack Days, the first time, was easy since back then it was just one day, according to the CTO. Furthermore, the DoD said that one of the best things with Viaplay is that their upper management is very open minded. This Hack Days he thought that they were really good at showing their support for the concept and that they were active in providing and explaining appropriate goals in order to give the employees direction.

Organizing Hack Days and distributing all the information, etc., takes a lot of time, according to the HoI. The CTO said that now they have administrative resources that can organize Hack Days which makes it easier than before. The HoI emphasized that they can try to plan it even more in advance and have more onboarding activities, like the idea generation workshops they tried this time or the suggested prototyping workshops, to get more people involved. Furthermore, she said that one challenge is to get the different departments more integrated over all. She said that they should try to collaborate even more outside Hack Days and potentially could organize collaborative activities that are more playful where you can force people to mix groups in a way that would not be good during Hack Days. However, such activities were more frequent when the company was smaller since the size today makes it more expensive, according to the HoI.

The CCO and the HoI both mentioned that non-tech employees thought it was hard to understand the presentations of many of the technical Hack Days projects. The HoI had received feedback that potentially you could have separate presentations for technical and non-technical projects. The CCO suggest that a simple way to improve the presentation of ideas, both before and in the end of Hack Days, would be to start each presentation with stating the names of the team members and explaining the purpose of the project. This would make it easier to understand the idea behind the project, according to her.

Getting feedback on the concept is something that the DoD mentioned as important to get better and learn from what they do. He said that he thinks Viaplay has created a culture where employees feel that if they bring something up, they will be taken seriously. He had gotten a lot of feedback but said that they have no formal process for collecting it. The HoI also said that she had gotten feedback via mail or in person and thinks that it shows that people are really interested in having and improving Hack Days. Furthermore, the DoD mentioned that he would encourage the teams from Hack Days to discuss what was good, what they could do better and what lessons they could bring into their ordinary work. He hopes that the employees will have the possibility to feel that “every day is a Hack Day”, on a philosophical level, meaning that they
should feel that they have fun at work and get to do things that matter. The
CTO mentioned this as well. He wants to bring more self-organization into the
daily operations, step by step, so that it becomes a little more like Hack Days.
This would not mean that they stop doing Hack Days, according to the CTO
and DoD, but that the daily operations can benefit from the lessons they learn
from Hack Days.

5.6 Interviews with Employees at Viaplay

When conducting the interviews with employees at Viaplay, we strove to cover
the sub-groups stated in section 4.1.3 in the method chapter. After 18 interviews
it was deemed that a empirical saturation was reached and all subgroups were
represented. The distribution between the sub-groups can be found in table 4.1.
Therefore, we decided that we had done enough interviews to transition to the
next phase. The interviews were transcribed and then analyzed to find common
themes linked to EDI. The themes were then structured in three different ways
to create categories or clusters of themes. Table 5.1 lists and explains all of the
themes found in the interviews.

The first approach was to divide the themes as regarding factors within and
outside Hack Days. Themes within Hack Days were then divided into the sub-
categories before Hack Days, during Hack Days, after Hack Days and format.
The outside themes were divided in one subcategory containing themes linked to
organization and culture and a miscellaneous subcategory containing the themes
inspiration from other companies, planning and information.

The second approach was to structure the themes according to the components
of the Liideri conceptual framework for promoting EDI, see figure 3.1. However,
this was not an entirely successful way to structure our themes. The reason is
not that either the framework nor the themes are incorrect but rather that they
describe EDI on different levels. The framework describes conditions, process
and outcomes of EDI on a conceptual and more general level, while the themes
in this research regard factors affecting participation in EDI in specific activities.
When trying to map the themes to the concepts in the framework, some themes
did not fit into only one concept and some did not clearly fit into any concept.
This outcome does not falsify the conceptual framework or the themes that
were found. It is a result of the different scopes of the framework and this
research.

The third approach was to initially look at relationships between the themes
instead of trying to fit the themes into specific categories. This relational mapping
made sense since themes affect other themes across the boundaries of clusters.
Mapping themes this way resulted in the theme chart shown in figure 5.1. Clustering was then applied when all themes were mapped to each other.
The leftmost, green, cluster contains themes that are more linked to organization
and culture. These themes are the same as those in the organization and culture
subcategory defined in the first approach. This might seem like an obvious result but the positive aspect to notice is that it was achieved both by
just categorizing themes and by looking at relationships. This cluster repre-
<table>
<thead>
<tr>
<th>Theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Factors linked to the structure of the organization</td>
</tr>
<tr>
<td>Culture</td>
<td>Factors linked to the culture of the organization</td>
</tr>
<tr>
<td>Innovation Outside HD (Hack Days)</td>
<td>Processes and the possibility to be innovative outside Hack Days</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Refers to how and when employees cooperate with employees outside their regular team</td>
</tr>
<tr>
<td>Inclusion &amp; Exclusion</td>
<td>Refers to inclusion and exclusion of different competencies and professional backgrounds, e.g. in teams and communication</td>
</tr>
<tr>
<td>Inspiration from Others</td>
<td>Refers to experiences and inspiration from other companies</td>
</tr>
<tr>
<td>Idea Generation</td>
<td>Factors that triggers employees to be innovative</td>
</tr>
<tr>
<td>Communicating Ideas</td>
<td>Factors that concern the possibilities and ability to communicate ones ideas in connection to Hack Days</td>
</tr>
<tr>
<td>Team Building</td>
<td>How the teams that work together during Hack Days are formed</td>
</tr>
<tr>
<td>Participation</td>
<td>How people perceive what participation, in Hack Days, is. E.g. whether you need to participate full time</td>
</tr>
<tr>
<td>Hack Culture</td>
<td>Regarding the perception of what defines a Hack Days project and who can contribute to a Hack Days project</td>
</tr>
<tr>
<td>Format</td>
<td>How the Hack Days concept itself is designed, e.g. duration and restrictions</td>
</tr>
<tr>
<td>Administration</td>
<td>The function of managing and administrating Hack Days</td>
</tr>
<tr>
<td>Information</td>
<td>How information about Hack Days is distributed and received in the organization</td>
</tr>
<tr>
<td>Planning</td>
<td>To which extent employees can govern their time and plan when to do their regular work tasks</td>
</tr>
<tr>
<td>Atmosphere</td>
<td>The atmosphere that emerges during Hack Days</td>
</tr>
<tr>
<td>Break from the Usual</td>
<td>Regarding that the activities and projects during Hack Days are different from the ordinary work</td>
</tr>
<tr>
<td>Follow-up</td>
<td>Regarding following up the work done during Hack Days</td>
</tr>
<tr>
<td>Lessons Learned</td>
<td>What individual employees, but also the organization, learn from Hack Days</td>
</tr>
</tbody>
</table>

Table 5.1: Table explaining the themes found when analyzing the interviews
sents the company internal factors that are external to the Hack Days concept. The rightmost, blue, cluster represent the design and execution of the concept itself. The cluster in the center, with red border, are the themes that directly relate to participation. The themes team building, inclusion & exclusion and hack culture directly affect each other and together they define what it is to participate in Hack Days. All themes, clusters and relationships found will be further described below.

5.6.1 Organization and Culture

This part will contain a presentation of the themes Organization, Culture, Innovation Outside Hack Days, Cooperation and Inclusion & Exclusion.

Organization

The organizational structure was mentioned during interviews as a barrier. Specifically the size of the company and the fact that they are working on two different floors restrict the employees’ possibilities to spontaneously get to know people working in other parts of the organization and network with each other. Furthermore, interviewees mention that there are a lot of new people, which make networking more difficult, and that when you are new you end up mainly talking to your own team, as described by a non-tech employee working on the same floor as Tech:

“Since MTG and Viaplay are extremely big, I think it is very difficult to get in and get an overview and communicate with other departments.”

Cooperation

On the other hand, most of the interviewees state that they have cross-functional projects in which they work with other teams. Those who have been at the company longer seem to have more employees from departments, that do not work closely to their own, in their network than employees that were more recently hired. This is not unexpected since they have had more time to interact with others and participate in various cross-functional projects. Another non-tech employee said that when the organization was smaller they had more interaction with people in other departments, that are not working on another floor, but as it has grown, the roles and responsibilities have become more specific and they spend less time going to the other floor. However, most of the cooperation between departments today seem to be limited to departments working in related departments and the same floor. Non-tech interviewees have almost no collaboration with the technology departments, but more with others, and interviewees from Tech mostly mentions examples from cooperating with other technology teams and the Product team. One interviewee from a Tech team also commented that a lot of the requirement synchronization with other teams are done by the team leader but that this task could be distributed among the team members to increase collaboration among all employees.
Figure 5.1: A chart visualizing the themes that were identified, their connections to each other and how they have been clustered in the result.
Culture and Innovation Outside Hack Days

When asked about their possibilities to suggest ideas and be innovative in their regular work, outside Hack Days, the interviewees seem to think that the organization has a very allowing and open culture. Some of them are not sure about if there are some specific channels through which they can suggest ideas but say that they will probably be able to find that out if the need for it occurs. In general the interviewees seem to think that ideas are always welcome and that they could at least go to their own manager. An interviewee said:

“I think it is amazing to work at a company that is so transparent and also encourages innovative thinking.”

This openness in the culture seems to be important. In one interview the importance of feeling that you are allowed to fail is mentioned as an important factor to being innovative. However, the interviewee says that their younger colleagues are probably more afraid to fail in general, not specifically on Viaplay, due to high expectations on what a programmer should be able to do. Another mentions that everyone can come up with ideas if allowed to do so in their own way.

Two of the interviewees, both from non-tech teams, mention that they try to get the opportunity to make small hacks in their ordinary work. The first say that the role, that the interviewee has, and the work associated with it often lead to trying to find ways to improve things. The second tries to do hacks when they have a spare day. A third interviewee think that working more like Hack Days during the ordinary work would be possible, when teams are getting more and more autonomous, but question whether it is desirable or if it would just create instability and uncertainty:

“Being too innovative always entail a risk when you disturb the common practice in a team, then everyone need to understand what is happening. And maybe that time does not exist, to synchronize. Then it might be better to lean back on arid, boring but watertight processes.”

Inclusion & Exclusion

Even though there is an open culture and people feel that they are allowed to influence, the organizational structure and size are limiting inclusion and diversity. Inclusion in the sense of knowing what happen in other departments and being able make contact with people from other competence ares. Diversity in the sense of working with people with different professional backgrounds.

However, Hack Days might be a way to shrink the distance. Some interviewees, especially from non-tech, found that just being at the presentations gave them an opportunity to notice the range of competencies in the company and the potential they constitute. An employee from the CRM department say in an interview:

“It was impressive and you get so proud of your company.”
Furthermore, interviewees say that after the presentations and mingle, they recognize more faces at the office and those that were part of diverse teams have expanded their network within the company. Some have also noticed that it is easier to go directly to people and ask for help regarding regular work during Hack Days:

“That is great actually because everyone is very open to help.”

5.6.2 Hack Days

This part will contain a presentation of the themes Format, Administration, Information, Planning, Atmosphere, Break from the Usual and Follow-up. The impact of the theme Inspiration from Others on the Format will also be presented. These themes are all directly connected to the Hack Days activity.

Format

The design on the Hack Days have developed over the last years to become what it is today. As mentioned earlier the last iteration had was five days long and all of Viaplay’s employees were invited to participate. During the interviews the interviewees mentioned some factors that had to do with the format of Hack Days. One employee thought that a successful Hack Days was when it was equally focused on the fun and the practical. Other interviewees said that it should focus more on ideas, creating business cases and that process innovation should take place outside Hack Days. Another example from another interviewee was to prohibit ideas related to current product and processes to avoid incremental innovations.

A factor that was brought up frequently was the amount of time dedicated to Hack Days. Overall employees in the technology departments were very positive to having an entire week. It encouraged to be more ambitious and enabled them to create something functional. However, more than one of them believed that the concept would not gain anything by extending the time period to e.g. two weeks. The reason was that it would not be possible to sustain the fast pace that exist during Hack Days for two weeks. The other interviewee thought that limitations enables innovation and two weeks would not be limitations enough. Trade-offs between limitations and result were brought up by other interviewees as well. One non-tech employee suggested to spend time on Hack Days only before lunch and then have the rest of the day for regular work.

Interviewees that had participated in previous Hack Days said that when Hack Days was one day was it was not enough time to do anything and that it was easy to skip. Additionally, when Hack Days only was one day an interviewee said that they felt that the company already had a clear vision of where they were going and what needed to be done. The interviewee continued by saying that in the last Hack Days, it felt like the company did not know exactly where they were heading.
Administration and Information

Three of the interviewees had experience from administrating Hack Days. One of these employees had administrating Hack Days as part of their current job description. The conclusions from the interviews is that it took a lot of time and effort to organize Hack Days in the format that they have chosen. The interviewee that were administrating the event when it was still one day said that it ate up too much time from their regular work and needed to drop their involvement before the next time. The third employee had been involved when administrators tried to include representatives from different departments to engage more employees. It was not made clear during the interview why they did not repeat this in the following Hack Days since it seemed that they had only tried this once.

The administrators were not only responsible for planning Hack Days but were also making sure all information was communicated to the employees. Information was sent out through different channels used at the company and additional posters and an ideation wall was created where employees could put up ideas on papers. It was interesting that non-tech interviewees working on the sixth floor had very different perceptions of the information that they had received before Hack Days. Some interviewees said that it was well articulated from the administrators and the managers what the concept meant and that everyone could participate. Meanwhile, other interviewees felt that it was not communicated that everyone could participate. They would also like to have more information of the process during Hack Days, how to combine Hack Days with regular work, how different competences could contribute to Hack Days projects and that team leaders should push their employees more to participate.

Interviewees from the technology departments all mentioned that they had seen information about Hack Days in the official communication channels in the weeks leading up to Hack Days. Additionally, they had received information through informal channels. These interviewees had heard through small talk in the office that Hack Days was coming up or they had talked to the supervisors of Hack Days. One interviewee that had never participated before asked colleagues that had worked longer at the company to gain more information about Hack Days.

The administrator that was interviewed thought that people had clearly not read the emails that were sent out since they received a lot of questions concerning information that was included in the emails. Information had also been sent out at least three times and with different senders. Therefore, in some cases they needed to rely on word-of-mouth to make sure everyone received the information. One suggestion to make sure that everyone would receive the information was to communicate more through all managers and not only upper management before the next Hack Days. The administrating interviewee expressed that the issue with relying on managers to share information is that it does not guarantee that the information in passed on and it might not actually increases the employees understanding of Hack Days.
Planning

During the interviews one theme that everyone talked about was their ability to prioritize and plan their regular work. This factor seems to have highly impacted employees’ possibility to participate. Participation will also be discussed in a section below. One aspect that was brought forward was that employees in the non-tech departments always have scheduled activities during the calendar year which can not be changed or moved but they are easy to anticipate. Interviewees suggested that Hack Days could be planned a little better to fit into everyone’s calendars. In contrast, there were also unexpected tasks that prevented employees from participating. In some cases there were issues in the product that needed to be solved during Hack Days. Most interviewees said that their ability to participate relied on when Hack Days would take place. Meanwhile, another interviewee said that:

“I totally disconnected from the usual, even if I had stuff that was lying around. I am fortunate enough to, well, I could really control so that I did not have to do any releases or anything”

Others expressed that they had things that needed to be done each week and that it would be impossible for them to dedicate an entire week on other things than their regular work. One of the interviewees that expressed this said that they simply had to work more efficiently.

Break from the Usual and Atmosphere

Employees ability to plan and prioritize enables them to participate but interviewees also talked about why they wanted to participate. 10 of the interviewees mentioned that they enjoy getting a break from their regular work. However, the aspects were different for almost each of the interviewees. Some of the aspects were:

- Working on areas different from their regular work
- Working with colleagues that they do not normally work with
- Being able to deprioritize boring tasks that they normally do
- They experienced another driving force when they could choose projects themselves
- Usually it is hard to see that big projects in the regular work are moving forward, during Hack Days the projects progress in a much higher pace
- Lower expectations on performance
- _Flipping the pyramid_ and becoming their own project commissioner
- Afterwards they felt revitalized and motivated to go back to their regular work

Two of the interviewees said that they need a break from the regular work to be able to come up with innovative ideas.

“You need to pull away this everyday mindset and put it into a creative mood”
Everyone except for three people mentioned aspects that could be connected to the atmosphere in the weeks around Hack Days. Many of the interviewees that worked on the sixth floor in the non-tech departments said that the atmosphere on the floors were very different and that on floor six it was mostly just business as usual. Employees that had never participated said that the atmosphere is very positive and exciting during Hack Days; people seem to be happier; it felt more “open” and a team spirit. This inspired them to want to participate in the next iteration of Hack Days. The employee that was working on the fifth floor but did not participate in Hack Days felt that it was more peaceful in the office because everyone else were sitting in small meeting rooms. The interviewee that had worked off-site said that they wanted to achieve a start-up atmosphere.

“your way of thinking is associated with the workplace, therefore it is good to just go off-site”

Another interviewee said that they experienced another culture during Hack Days which can connect:

“Now I have experienced the culture when everyone is creative, everyone does what they want and do something and think that all ideas are good ideas”

**Inspiration and Experience from Others**

Most of the interviewees had experience from innovation activities, or lack thereof, in other companies. A common opinion was that interviewees that had previously worked at smaller companies and start-ups thought that it would not be possible to have Hack Days, in the same format, in those organizations. Furthermore, they expressed that innovation activities were naturally incorporated in their regular work. Interviewees believed that many of those companies businesses depended on their employees contributing to the innovation capacity of the company. It was equally natural that employees with different competences collaborated in the day-to-day operations in those smaller organizations.

Other interviewees had experience from what they labeled *classic R&D* where the company invests money in different projects and hope that 10% of the projects generates ideas that helps to launch the next big thing. Another interviewee had participated in a one day Hack Days like event that was more focused on creating cross-connections. Another interviewee had also experience from a company with a concept very similar to Hack Days but where they were encourage to focus on making presentations where they were encouraging the audience. An additional way to work with innovation that was explained was to create a cross-functional group that worked with innovation activities parallel to their regular work over a longer time period. In the case we heard about the projects lasted for eight weeks. One interviewee had participated in Hack Days organized by different independent organizations in their spare time which had different themes often focused on fun.

Lastly there were some interviewees that had not participated in other hack activities but that were inspired by what others had achieved in similar concepts. One interviewee that had created a movie about Hack Days drew inspiration
from other companies that also had published movies from their innovation initiatives.

**Follow-up**

Two of the interviewees said that they wished that there was better processes for follow-up of the projects and the concepts itself. One of them felt that it was important that people were recognized for the work they had put into Hack Days by their colleagues and upper management. Having follow-up activities could increase the feeling of being recognized for your work. Four of the interviewees said that they were planning to move forward with their projects and incorporate them as a future activity in their regular work or present it to their manager in order to take it further. Follow-up on the results of Hack Days projects were left to the Hack Days teams.

**5.6.3 Ideas and Team Building**

*This part will contain a presentation of the themes Idea Generation, Communicating Ideas and Team Building. The impact of the theme Inspiration from Others on Idea Generation will also be presented.*

**Idea Generation**

During Hack Days, the participants themselves choose which ideas they want to work with as Hack Days projects. In our interviews with employees at Viaplay, the interviewees mentioned different ways that they get ideas for Hack Days or innovation and improvements in general. One of the ways, brought up in the interviews, is by using the product, i.e. using Viaplay’s streaming service, or by using similar products. As a non-tech employee expressed it:

“If *I have the opportunity to work at a company where I use the product myself, it becomes easier.*”

This employee was not the only one of the interviewees with this opinion. Others mentioned that they use Viaplay’s service, or similar products, and that they realize, while watching, that they want some features that do not exist or that other services have features that Viaplay could have.

Another source of ideas is the tasks and projects they work with on a daily basis. This work related idea generation is explained by interviewees from different perspectives. One perspective is that since they work with the product everyday, they become experts in it. Thus they get ideas on how to improve it. A second perspective is that “problems” they have in their daily work give rise to ideas of how to improve what they do, i.e. process innovation. The latter is exemplified by a developer:

“I, for example, did a hack for Slack (clarification: Slack is a project communication tool) /.../ it was meeting room booking and such things that are just good to have.”
The Hack Days concept itself is a source of inspiration for generating ideas. Some ideas are based on areas that top management have identified issues for the company that might be solved with Hack Days projects. These areas may for example originate from business KPIs that the company has decided to focus on. Furthermore, knowing that Hack Days is coming up is mentioned as a factor that makes some of the interviewees think more about potential ideas to suggest or work on. One interviewee states that they (the interviewee) could create a folder to store ideas in when getting ideas in the time between two iterations of Hack Days.

Other sources of inspiration, mentioned by our interviewees, are personal interest in certain technologies, reading blogs, being at fairs and from being a creative person.

Team Building

The Hack Days teams are temporary units existing during a Hack Days iteration. The team building, putting together a team to work on one or more Hack Days projects, is done before or during Hack Days. The interviews reveal different approaches to find a team to work with. Being interested in working on the same idea, or similar ideas, is by far the most common approach in our interviews. However, the people with a common interest found each other through different kinds of channels. One interviewee mentions that their team was invited into another team because they had an idea similar to theirs. The two teams then worked together until they realized that their ideas were not as similar as they had thought and that one team had already done a lot of work on their idea. Another interviewee, from a non-tech department, tried to communicate ideas and find developers to work with through the workshop. When they did not find a team they tried to get help through the administrators of Hack Days and other connections organizationally closer to the developers. Another interviewee from the same department says:

“Some ideas that people had were not picked up because they were not as interesting to those who would implement them.”

One interviewee found team members through a colleagues network of connections. Another worked together with people that have the same product owner. Some of the interviewees worked with a charity project that was suggested by management and they seemed to find each other through the interest of working with that specific project.

During the observations we also found that the administrators of the initiative in advance put up a physical ideation wall at the office, on a wall at one of the entrances, where people could put up notes about their ideas, team members and what competencies they needed in their team. However, this dashboard was located on the fifth floor where none of the more business and customer oriented teams work. Other formal channels were a shared document where all Hack Days projects were posted and a chat where people could ask questions and look for help.
Communicating Ideas

Being able to communicate ones idea is mentioned, by some of the interviewees, as important. One of the interviewees, a developer, asked for help during the presentations in the beginning of Hack Days. Since the interviewee did not get the any help they later went to a person that they knew could help them, explained to the person what was expected, how much time it would take and why their help was important. The interviewee then got what the help they needed to move forward with their Hack Days project. Another interviewee emphasizes that it is up to you to sell your idea to others. Other thoughts on communicating ideas was that when you have something initial to show, you attract more people and that participants in general need to get better at communicating the purpose and value of their Hack Days project to others.

5.6.4 Participation

This part will contain a presentation of the themes Team Building, Inclusion & Exclusion and Hack Culture.

Each of the themes in this cluster is very connected to each other which can be seen in the model and they enclose the theme participation in our theme chart 5.1. Team building was mentioned in the idea cluster since many of the teams was created when a number of employees had similar ideas or interests. This section will discuss how these employees found each other and how teams for Hack Days are created.

During our informal unstructured interviews we got the impression that employees had different definitions of what counts as participating in Hack Days. One aspect was that some employees worked with things similar to a Hack Days project but did not consider themselves to be a part of Hack Days since they did not present their work at the end of the week. One regular team did a project that was worked on during the Hack Days and brought in another employee from another team to help. At the end of the week they had done a prototype that could have been presented. Aspects of collaborating with employees from other teams, in the limited time of the Hack Days and creating a prototype is very similar to how many of the Hack Days projects are during Hack Days. The interviewee referred to it as a project week. Similarly, another interviewee that thought of themselves of not participating in Hack Days said that during the week they worked in a Hack Days manner:

“So what I did was kind of Hack Dayish since I had no real direction”

The interviewee that the quote comes from worked in one of the tech departments that makes it possible for their employees to participate in Hack Days by not having any planned tasks that needs to be done during Hack Days. Interestingly, teams that participated in Hack Days did very similar projects just like the interviewee. Another interviewee defined themselves as not participating in Hack Days but that they really wanted to.

Another interesting aspect was that even though it was possible to spend a whole week on Hack Days it was very common that people from non tech or
product departments that only spent a couple of hours per day on their Hack Days project. This could be due to the fact that they still had their ordinary work to do during the week. One interviewee from one of these departments still thought that everyone should participate and because the interviewee themselves thought that it was so fun to participate in Hack Days they worked more efficiently with their ordinary tasks during Hack Days. Another employee said that because the week in itself is very intense that it was double the effort during Hack Days even though they only worked on the Hack Days project during Hack Days.

The teams for Hack Days were created in many different ways and team members found each other through formal and informal channels. Examples of teams that had been created through formal channels were that some of the interviewees had been a part of a team that was created in the workshop that was held before Hack Days. Another example was an interviewee that had used one of the formal communication channels to present an idea they had and another employee responded that they were interested to collaborate on the idea. That team was created because of the team members sharing personal interests.

It was more common that the interviewees had found their team members through informal channels and that the teams were created weeks before Hack Days even. Many of the employees that had participated in Hack Days in previous iterations said that since Hack Days is a reoccurring concept they have Hack Days in the back of their mind. Several of the employees said that a lot of the teams are formed with people that you know in your network and are created weeks before Hack Days. In some cases teams are formed because employees discuss a topic or an idea during lunch or coffee breaks which was explained in the idea cluster. In other cases one is looking for a specific competence to include in their projects. Employees that had a specific purpose in a project were some times included as a team member but sometimes they were not. One interviewee described a project where they had been invited to join where the project leader had gone and discussed their project with different employees, weeks before Hack Days, and then had assigned people to specific tasks in their project before they asked them to join them. Another example was that one interviewee had tried to reach out and find people through different formal channels but had not found someone that wanted to join so they went to their colleague in another team that referred them to someone. At first the colleague that they asked said that they did not have time but after explaining what they wanted help with they were able to get the help they needed. Even though one might not know specifically what you need help with in your project it is nice to know the people you will work with before Hack Days. One interviewee that has worked in the company for a couple of years says:

“...people that I would like to work with (during Hack Days), in total it might be 20 people that you know well enough, and you know that they know me too, so there is a mutual trust”

The interviewee continues by explaining that they try to do an informal market analysis by talking about a couple of ideas and then they would know if they have 4 people that are interested in a specific idea. One interviewee that worked outside Tech and Product asked a colleague in their team to help them find team members from other departments since they had previously worked more closely
to those departments and had some contacts. The interviewee seemed to believe that this was the only way to recruit team members and said:

“If you have not prepitched, like guerrilla marketing during coffee breaks, then I think you almost have no chance at all of finding teammates”

Some employees also joined teams during the week. Sometimes they were recruited because a team needed help with something meanwhile sometimes they started talking to someone that was working on a Hack Days project and thought that the project was interesting.

Since Hack Days have existed for some years now it has almost spawned its own hack culture. Many of the employees have the presumption that Hack Days is only for people with technical competences or that you need someone with these competences to be able to create something during Hack Days. Many of the interviewees with technical skills could not come up with a reason of why projects needed to include employees with non-technical skills in their teams while on the other hand, people outside Tech and Product often thought themselves to be totally dependent of having team members with technical skills to be able to participate. One interviewee from the commercial team said:

“Most of my department said that “No, we can’t participate because I have nothing to add to the value”. And i said that “Of course, you can add a lot!”

Another interesting quote on the same topic was:

“It seems odd that a department exists that isn’t needed in a commercial idea. So everyone should participate!”

Interviewees that had been a part of teams with cross-functional competences said that that was the most positive thing of the week and those that had never participated said that it was useful for them just to attend the presentations since they got to see a lot of employees that they had never even seen before. They could recognize more people in the company and they knew what they work with which increases the overall transparency at the company. Interviewees that had participated from teams that were included in this Hack Days for the first time really wanted to participate in the next Hack Days and expected that they would be included. In that aspects it is very beneficial that everyone is included in the concept.

However, almost everyone that were interviewed from the non-tech teams said that they had a hard time to understand what some of the projects were about. They felt that the presenters did not explain the projects so that everyone could understand it.

5.6.5 Lessons Learned

This section will contain a presentation of the theme Lessons Learned.

The last theme to describe is Lessons learned. This theme did not fit into a specific cluster since it contains the lessons learned that participants bring with them from Hack Days into their regular work or future iterations of Hack
Days. In some sense it represents the feedback from Hack Days to the identified clusters.

One type of learning that we found in the interviews was the experience that employees got from working with new things and other colleagues than usual. One interviewee from a non-tech department on the sixth floor stated that:

“It is pretty educational just to be down there (on the fifth floor) and kind of intern at another department or with another question formulation.”

Another interviewee from the sixth floor say that:

“In that way I learned some other different perspective to see the product.” and further added that “But also when I do advertising I kind of like start to think about things in the long run instead of just drive sales”.

These quotes demonstrate experiences that increase the understanding for the purpose of the work done in other departments and parts of the product. Knowing what aspects are important in customer retention affect the latter interviewee to think about advertising for customer recruitment from a new perspective.

One interviewee describe their team’s process during Hack Days as learning. They let the product owner formulate the objective on a high level without governing how or with what they should reach it. The team then broke it down into units they could commit to, initiated a design phase and then converged into a concrete result. The interviewee thinks this was an efficient approach to a problem and expresses a desire to use it more often.

Increased competence is another potential learning mentioned in interviews. One interviewee mentions that during some previous Hack Days when you were permitted to do what you want but related to your work you could, for example, try to learn a new programming language. Another approach is to learn from other members of the Hack Days team or others you cooperate with during Hack Days, as exemplified by an interviewee from Tech:

“Well, the person from the design team, I had sort of worked with before but the guys from front end are sort of new with new ideas about front end technologies and that is what I actually learned this time.”

A Hack Days project does not have to end up in something innovative or concrete to become lessons learned. One team had an idea that they realized could not be done in a week and that they could not make anything better out of it than the people that address the underlying problem in their daily work. Failing can also be a lesson, according to another interviewee:

“...if I would still be able to explain the reason for it (the failure), learn from it and, above all, show others and give them experiences, share my experiences, then people would think that’s a good outcome.”
6. Analysis

6.1 Comparing EDI initiatives at Viaplay to Pre-study Cases

The pre-study conducted at other companies was very helpful for our understanding of how EDI initiatives can differ and gave us illustrative examples of cases connected to some of the concepts found related to EDI. The companies had similar conditions as Viaplay and worked with either services or digital products as oppose to manufacturing.

It came as no surprise that the outside case that was administrated by a former employee at Viaplay was very similar to Hack Days. However, that case was from a company in a very different industry than the one Viaplay is in and their core business is very different. Still, the EDI activities were very similar.

Only one of the cases in the pre-study had invited all of their employees to participate in their innovation activity. Which makes it the only EDI case if one chooses to use LO’s definition from 2008 which says that “Employee-driven innovation is characterized by the all-inclusive involvement of both skilled and unskilled workers...” (LO, 2008, p. 10). It was clear that one company had only invited skilled experts in their case. However, if one uses Høyurup’s definition that innovation driven by employees is employee driven innovation then all of the three cases can be considered as EDI initiatives.

The pre-study case where one small group was working with innovation is very related to the intrapreneurship concept presented in chapter 3.2.2 describing related concepts to EDI. The interviewee was asked: “Could you describe it as people that are thinking like the entrepreneurs that creates challenges (for your company)?” and responded with:

“Yes, exactly. Trying to build a start-up environment in a large group.”

This corresponds very well to the intrapreneurship theory and the fact that they are focused on working with radical innovation which is more likely to result in new ventures. Nevertheless, the interviewee would like to organize innovation activities where a bigger part of the company was invited to participate. The methodology used in that pre-study case is very different from Viaplay. According to upper management and executives behind Hack Days there has not been
any encouragement towards employees to create new ventures or new organiza-
tions inside the organization which is the definition presented by (Antonicic &
Hisrich, 2003). This example reinforces the argument that we are not studying
intrapreneurship in our main case.

Even though only one case had invited their entire organization we deem that
the other case that had invited multiple departments from their organization
can be seen as close enough to Viaplay’s Hack Days to be similar enough to
compare them in our study as equal activities.

6.2 Incentives

The pre-study companies discussed why people want to participate and why it
was important that they do. One factor that came up during the pre-study
interviews, as well as the interviews conducted at Viaplay, was that people are
more involved and feel a kind of ownership when they get to choose what they
work with themselves. Additionally, one interviewee from the pre-study believed
that passion was crucial when working with innovation. One interviewee at Vi-
aplay similarly expressed that you were given time to be innovative and therefore
should use it as an obligation. Another factor was the ability to get recognition
for one’s ideas and work. Two of the pre-study cases and Viaplay let the em-
ployees present their projects for upper management. Some of the interviewees
at Viaplay expressed that it was very discouraging that, since the presentations
went on for a really long time, a lot of the audience had left when the last project
groups presented. One of the cases presented by Teglborg-Lefèvre (2010) also
thought that a motivational factor was that individuals and teams gained an
improved image through visibility and they developed their personal network.
One of the companies in the pre-study case arranged a competition. After a day
to collect ideas in an organized event 5 of the ideas that had been submitted
were selected. In that case there was not any prize money but the winners would
have their idea implemented. Both a jury and the employees cast a vote on the
idea they wanted to win.

One of the case studies in the multiple-case study by Teglborg-Lefèvre (2010)
rewarded the best idea with a reward. One of our interviewees also knew a
company that had rewarded the best idea and in the beginning, CI activi-
ties consisted of rewards for employees to motivate them to initiate improve-
ments(Bhuiyan & Baghel, 2005, 762). Rewards might motivate employees to
participate but it might also prevent employees from sharing their ideas until
the next competition. If there is a long time span between innovation activi-
ties ideas might get forgotten and lost. Viaplay also had a competition where
employees could vote on a Hack Days project. The difference between Viaplay
and the other cases is that a jury or committee decides what project is the best.
The pre-study and many of the cases in the paper written by Teglborg-Lefèvre
(2010) had juries or committees that evaluated suggestions of ideas. The CTO
at Viaplay explicitly said that they did not want to have a competition with a
jury at Viaplay. Viaplay want to avoid being hierarchical because it disconnects
with their organization and culture. Furthermore, the purpose of Hack Days is
not to train employees to pitch ideas for investors. One of the interviewees had

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worked at a company with a similar operation where their innovation activity focused on pitching the projects to the other employees.

6.3 Risks

None of the cases explored, from previous research and the case studied in this paper, suggest that involving employees in the company’s innovation processes to be damaging to the organization even though Alasoini (2013) suggest possible problems that might arise because of EDI activities. However, the problems that Alasoini present are possible to prevent through different activities. For example, the work load increases can be prevented by managers freeing up time in the employees schedules or conducting innovation activities during a time when the workload is low. Some interviewees at Viaplay mentioned that they had more to do during Hack Days but the rewards of participating was bigger than the negative effects of having an increased workload. Furthermore some employees believed that if administrators communicated with all the managers Hack Days could take during a more optimal week when more departments had a lower workload. As presented earlier Google’s 20% time has been criticized but compared to the amount of positive articles it is easy that they get lost. It is possible that failed initiatives are never heard of because in most cases the information is published by the company itself.

Høyrup claims that it is beneficial to include employees in innovation activities since “Employees can have considerable skills and acquire significant knowledge – in the form of experience-based knowledge and up-to-date information – in their close contacts with materials, the market, customers and users” (Høyrup, 2010, pp. 143–144). Høyrup present a lot of strong arguments why employees should be included in innovation activities and excluding such valuable resources could be considered even foolish.

6.4 Introducing EDI in Immature Companies and Products

During an interview with one of our contacts at Viaplay, one important aspect was brought up. They believed it to be impossible to introduce this particular format of EDI in the company when the core product was still in an early stage. Due to the amount of problems that needed to be solved every day it would not have been possible to deprioritize those issues and take time from regular work. It is likely that other companies experience the same thing when working with an immature product. However, EDI in another format could prove to be beneficial in immature products. Tirabeni et al. (2016) found that three large technology companies used dogfooding to discover improvements for their products. The authors conclude that applying dogfooding in the early stages of product development can lead to early corrections of bugs in the product that otherwise would have been discovered later.
Furthermore, our research has also found relations between the corporate life cycle and EDI methodologies. The corporate life cycle suggest that all firms go through the same set of stages which correlates to the resources, strategies, capabilities and structures of a firm Hasan, Hossain, Habib, et al. (2015). The EDI concept that is organized at Viaplay is executed in a context that suggest that they do not operate in the early stages of the corporate life cycle since they are an established actor within their industry, they have a strong customer base and has the resources and capabilities in the company associate to their business. Some of the interviewees that had experience from start-ups, which are typically in the first phase of the corporate life cycle, thought that innovation was naturally incorporated in the regular work. One interviewee from the pre-study expressed the difference as: “(at Viaplay) this is how it’s been working, now we have to do something differently; we (the start-up) are more like ‘how are we going to do this?’”. Furthermore, the start-up companies that interviewees had worked in were also very small and matters like transparency and collaboration, that Hack Days seemed to increased at Viaplay, were not challenges in such small companies.

6.5 Integrating Innovation Activities or Dedicating Time

The difference between our EDI case and the concept of CI is that the Hack Days concept in our case is an organized activity which dedicates some of their employees’ time on EDI activities instead of incorporating innovative thinking in the regular work. Continuing to compare the case at Viaplay to CI and the ten CI capabilities in the CI capability model that was presented by Caffyn (1999). What is interesting is that many of the behaviours that the authors mentions as crucial for CI has been discussed or mentioned during our data collection. This finding might suggest that our case is a CI activity. As previously mentioned CI is Incorporated in the daily operations and is more focused on creating innovative thinking than solving current problems which many of the companies did in previous research. Furthermore, CI equally focuses on employees and managers meanwhile the EDI cases in this study often exclude managers or solely focuses on employees.

One of the strongest factors why employees participate is getting a break from the regular. Approaches that incorporate EDI in the regular work, like CI, would lose this motivator for people to participate. The employees also describe that they feel revitalized after Hack Days which makes them perform better in their ordinary work. It is possible that they would not experience this to the same degree if Hack Days would only take place during one day. The case that held a one day hackathon tried it for the first time. Similarly, during our interview with the CTO, he said that since the first Hack Days was only one day it was very easy to do it and there were no obstacles why it could not be done.

Furthermore, according to some of the interviewees at Viaplay and our cases from the pre-study it is difficult to be innovative while still doing your regular
work. They often talk about a mindset that needs to be shifted in order to be innovative. Therefore, it is possible that EDI initiatives might spark more innovative ideas. Some of the aspects mentioned in the interviews, e.g., working with other people and within other areas, are achievable by using some of the CI designs. However, it seems that Berger (1997) proposes that a specific design should be used at a company. Although the EDI initiative at Viaplay is most similar to Organic CI design the projects at Viaplay does not align with the purpose of the CI concept.

6.6 Innovation During Daily Operations

One theme that was discussed in both the pre-study interviews and the interviews at Viaplay was how the innovation process works in the regular work. Similar to many of the cases presented by Teglborg-Lefèvre (2010) the processes were very formal and ideas went through a number of steps before they were implemented. Viaplay differed from the other companies since none of the employees said that they knew any formal channels to present ideas. The HoI mentioned that they are working on a framework for idea suggestion outside Hack Days but the CTO emphasized that that kind of tool might be good to have but that it is never optimal and cannot replace Hack Days. However, due to the company culture the employees believed that they would have no problem to present an idea to their manager or go to a manager in another team. Furthermore, both the CTO and the DoD mentioned that they want the organization to bring the mindset from Hack Days into the ordinary work.

Even though the pre-study cases had formal processes, all of the interviewees expressed that a suggestions box where employees always can submit their ideas and get evaluated had been used to a large extent in the past but that it was more or less useless to have today. They believed that employees would not use it and that it was not a suitable tool to get employees included in innovation activities. In contrast, three of the cases presented by Teglborg-Lefèvre (2010) incorporated EDI in their companies by having different channels where employees could suggest ideas. The suggestion box and the processes described in many of Teglborg-Lefèvre’s cases allow ideas to come from all of the employees but the implementation is done by experts. This process aligns with the Individual CI design presented in 3.2.2. It is possible that the distinct difference in companies’ views of this type of process derives from the larger context of the countries they operate in. All of our pre-study cases operate in Sweden while the companies in Teglborg-Lefèvre’s cases were French. Kesting and Parm Ulhøi (2010) mention in their articles fifth proposition that Scandinavian countries are favourable for EDI activities since they traditionally have management and employees working in close collaboration.

Some of the interviewees that had never participated in Hack Days at Viaplay expressed that they had tried to use Hack Days as a suggestion box. As described in chapter 5.6.3., employees from the commercial teams presented ideas through different channels but they expected them to be picked up and implemented by other employees with the right skills. Furthermore, they expressed that their ideas were not given much attention since they were uncool. From
information that we have gathered from employees that has participated earlier it is crucial for the project that the person that present the idea wants to work with and work on the project themselves. Therefore, Hack Days has not been an opportunity for employees to become a client for other employees in the company. EDI in this case means that employees need to drive the implementation as well and not just suggest ideas.

6.7 Breaking Down and Explaining Ideas

Ciriello et al. (2016) present an idea screening framework that can be used when companies have to choose between a lot of ideas. The idea screening framework help those that need to evaluate ideas to understand different factors e.g. the purpose, value, type, resources needed and risks. Even though Viaplay does not have a jury that judges projects, some of the managers expressed that they wished that the teams during Hack Days would think about and explain the purpose and possible values of their projects. Furthermore, the DoD said that a challenge to be solved is how to decide what to do with ideas after Hack Days. Teams at Viaplay had very few requirements of how to explain and present their projects during Hack Days. In the spreadsheet they only had to submit a short description. Reading through the descriptions of the projects the information that is included varies a lot between them. Being able to communicate an idea also proved helpful when creating teams for Hack Days. One of the pre-study cases used a template to collect ideas and choose a few of them as possible ideas to be implemented. The interviewees from that case did not explicitly mention that the template made it easier to evaluate but found other advantages such as helping employees that had trouble to communicate their ideas verbally. Teams that want to deploy their projects can also benefit from explaining their projects using the framework from the beginning to accommodate the added requirements.

6.8 Linguistic aspects

Some of the employees from the non-technical teams did not understand what some of the Hack Days projects were, which is also mentioned by two of the managers. This indicate that even though everyone is included in the concept, the way the projects are presented may be very excluding. If presenters are using terms that only some of the employees understand is excluding in itself. Our data indicates that it is very important that employees understand the projects in Hack Days. Firstly, it is possible to learn from projects in Hack Days and incorporate solutions in the ordinary work. Secondly, employees might have similar ideas for Hack Days projects and might be able to continue on projects instead of starting from scratch next time. Lastly, Hack Days projects might end up being added to the planned activities of a team’s work outside Hack Days. One of the interviewees in the pre-study said that if employees do not understand an idea or feel that an idea comes from upper management they
might have a tendency to work against it. The CCO suggest that explaining the purpose of a Hack Days project can help increase understanding.

It is not necessarily so that employees are aware of that they exclude some colleagues by using a certain language. It might be explained by that Hack Days has traditionally only been an event for departments with technical competences and it has not been necessary to try and explain it in a simplified way. Additionally, the other occasion where Tech and Product are presenting in a similar environment is during sprint demos. At the end of a sprint each team presents what they have done and teams are free to present whatever they want. These presentations are aimed at Tech and Product departments.

One of the pre-study cases also discussed how language might be an excluding factor. The name that they had used, *business hackathon*, proved to be confusing. As mentioned earlier Viaplay had used the name *Creative Days* during the time when non-tech departments were invited. However, changing the name and other efforts to include representatives did not result in participation from other departments. This suggests that independent of the name that the company chooses it is difficult to choose a suitable name that fully describes the activity. Instead, it is important that employees receive further information that explain the activity to understand and participate.

### 6.9 Including Everyone in Hack Days Teams

It seems that it is equally, or more, important that everyone is included in teams during Hack Days. As mentioned in the result many of the employees in the non-technical teams felt that they were dependent on having members with technical skills in their teams. Our conclusion from the Hack Days and the interviews is that a majority of the Hack Days projects result in a prototype that works as a proof of concept (POC) for further implementation. The POC is not required to have a high technical level. Therefore, it should be very possible for everyone to participate and lead a project during Hack Days. To enable everyone to create a POC, administrators could organize an onboarding activity before Hack Days where they learn how to create prototypes, as suggested by the HoI. Besides, at least one group was created in an onboarding activity last time and could work as an organized occasion for team building again. One interviewee had worked in a team that had explored new technique and focused on software development. That interviewee could not imagine that someone that could not code could join the group and contribute with anything. We agree with the interviewee and the manager that thought that when you add a commercial angle to a project anyone from the non-technical teams can join. Surely, there are some innovations that focuses on a narrow technical area or feature so that technical skills are essential for team members and other competences would not add much value to those projects.

Many of the employees from the technology departments could not imagine a project where they would benefit from having a cross-functional team and one employee that had worked in a cross-functional team last Hack Days was surprised of the knowledge they had attained during the week since they only
had focused on software development in their previous projects. Employees from the commercial departments had it equally difficult to imagine what they could do in Hack Days. The DoD said that this is something they will focus on until next Hack Days. Some of the projects during Hack Days consisted of employees from the technology and commercial departments and by highlighting some of these projects this might change, as suggested by the CTO and HoI. Another example of how to make sure that all competences is included is to highlight internal experts as one of the cases in the pre-study did. During their business hackathon experts from their support departments, very similar to some non-technical teams at Viaplay, that had clear signs of their area of expertise and walked around and asked groups if they could help them with anything. This would not be a permanent solution but can help everyone to learn and experience how different competences can contribute to different projects. As more employees get engaged in Hack Days and employees get to know each other it is possible that all departments are included in the informal team building activities that exists now.

The pre-study cases further built upon this idea that it is an advantage to have cross-functional teams. As previously mentioned all pre-study cases had teams consisting of different competences. In one case the interviewee said that since they had knowledge of different parts in the organization the end result was very good. In the other case the interviewees did not express any thoughts on why the most successful teams had mixed teams. It could be the same reason as mentioned in the previous case. Another possible aspect that affected the results of the group is the fact that the team members maybe did not know each other from before and not only because they possessed different competences. In that company most employees only worked with colleagues within their teams in their regular work. We did not collect any data that the other case studies had organized activities that facilitated these types of connections. In the study by Aaltonen and Hytti (2014), multiple of the barriers could be connected to limited interactions and communication between employees as well as between employees and superiors. Additionally, working with other employees from other teams seemed to be a strong motivator for employees at Viaplay which was expressed during the interviews. Collaboration seems to be an important factor in EDI and innovation activities but none of the definitions of EDI or related concepts mention collaboration in cross-functional groups. Both the EDI definition by LO (2008) and the definition of CI capability by Caffyn (1999) only define that the majority of an organization should be included. However, one of the drivers behind EDI suggested by Kesting and Parm Ulhøi (2010) is rewards that appreciate collective innovation. Collective is in this case focused on innovating in teams and not as an individual.

6.9.1 Physical Boundaries

One prohibiting factor, closely related to inclusion and exclusion, is the fact that Viaplay is divided on two separate floors. The case with the bakery, studied by Aaltonen and Hytti (2014), demonstrate similar conditions where the production is located on one floor and the business oriented departments are located on another. At Viaplay the tech departments, Product and Content are located on
the fifth floor and the business oriented departments on the sixth, due to the size of the company. Though Viaplay do not seem to have the same degree of problems as the bakery this physical barrier have its implications.

As mentioned in the interview results many of the teams are created when employees are discussing ideas with others through informal channels. Due to the physical boundaries of different floors it is not possible for some employees to take part of the discussions at the coffee machine. Therefore, a large part of the employees are not even considered when some teams are created. The ideation wall is another example. It was put up on the fifth floor as a way to raise awareness that Hack Days was coming up and to display the ideas that people had suggested so far. The location of the ideation wall meant that it was accessible for employees on the fifth floor but not as much for those on the sixth. Furthermore, the physical boundaries prevent the Hack Days atmosphere to spread to the sixth floor, since most of the participants worked on the fifth floor. The DoD and HoI tried to bridge the gap between the floors by physically visiting the sixth floor, in advance of Hack Days, to promote the initiative and presenting to the employees that everyone was welcome to participate and by inviting them to come down to the fifth floor during Hack Days, regardless of whether they were participating or not. On the one hand, this approach seems to have been successful to some extent since some interviewees say that they understood that they were welcome and that they could go through the organizers if they wanted to get in touch with people from the fifth floor. On the other hand, some interviewees seem to have missed out on this information and some that got the information still had trouble finding team members from the other floor.

However, the physical division of departments is probably nothing that can be changed. Having the technical departments, Product and Content located close to each other makes sense in the daily activities of Viaplay because they collaborate with each other more frequently than other departments. The same goes for the more business oriented departments. The only way to avoid splitting the company on two separate floors would be to have another office with a larger floor but they would probably still be clustered.

In one of the pre-study cases they moved the entire initiative off-site. This is a possible way to use physical means to get away from the physical boundaries of the ordinary office, and to get away from the daily issues like one of the interviewees at Viaplay said. However, moving the entire initiative off-site would make it a lot harder for those who want to participate part-time and probably would not allow the initiative to go on for an entire week, thus it may become a physical boundary in itself since many of the interviewees thought that having a week was much more beneficial than having a shorter time period.

6.10 Having the Time and Permission to Participate

In section 5.6.2, in the results chapter, it became clear that for the interviewees time is an essential factor affecting participation. To be able to participate in
Hack Days you need to be able to put aside your regular work even though it is accepted to not participate full time. Some interviewees simply did not participate because they had responsibilities they couldn’t ignore or transfer to someone else. Some of these responsibilities could probably have been done another week, if planned for in advance, while some had to be done that week. Trying to participate full time while still taking care of ordinary responsibilities could lead to a higher work load, and possibly like when Google’s 20 % Time result in employees working 120 % (D’Onfro, 2015), which according to Alasoini (2013) may result in decreased well-being at work.

This is also supported by the pre-study interviews. All of them agreed that putting aside regular work to allocate time for other things is difficult. Furthermore, they mention the importance of planning the initiative to be performed at a time when as many as possible can participate, which was an issue at Viaplay since there was a large amount of regular work, during that specific week, that could not have been done at another time for some departments. However, organizing it outside regular work hours will probably not increase participation as shown by Aaltonen and Hytti (2014) and D’Onfro (2015) and would imply a higher work load.

At Viaplay as well as in one of the pre-study cases there are some employees that cannot put their ordinary work aside at all, whether they want to or not. These findings, showing that time is an important factor, support the second research proposal suggested by Kesting and Parm Ulhøi (2010).

Some interviewees chose to participate as much as they were able to, even though their ordinary responsibilities prevented them from participating full time. They felt that they had their managers’ support to do this. These employees also had the perception that upper management wanted them to participate if able. However, other interviewees did not know that they were permitted or welcome to participate in this iteration of Hack Days. One interviewee wished that the team leader would be more verbal about that their team members could participate. Some interviewees felt that it was not enough to get permission from upper management but that they also needed to talk to their team leaders.

The fifth capability “managers at all levels display active commitment to, and leadership of, CI” (Caffyn, 1999, p. 1143) in the CI Capability model which is one of the crucial behaviors for CI (Caffyn, 1999) might be equally crucial in EDI initiatives. As mentioned in the previous chapter 5.6.2 one of the administrators pointed out that even if team leaders are informed that does not guarantee that they will remember to pass that information to their team members or that the information will not get down-prioritized during the meeting. In the case study at a medium-sized bakery one of the identified barriers was that there was a mismatch between management’s expectations and practice (Aaltonen & Hytti, 2014). This is similar situation that employees at Viaplay did not understand that they could participate this time. Somehow, the information from upper management did not get through to them. Interestingly, all of the employees that did not know that they were allowed to participate were from the same department at the sixth floor. Those that chose to participate were from other departments. The first research proposal by Kesting and Parm Ulhøi (2010), that management support is positively related to participation in EDI, and that an enabling management is a key factor for promoting EDI (Alasoini, 2013) thus
seem to be applicable in the Viaplay case as well as in the bakery case.

6.11 Capturing Lessons Learned and Turning Ideas into Innovations

During our research at Viaplay none of the managers or administrators could answer how many ideas from previous Hack Days that had been implemented and was used in the regular operations. The HoI estimated that only 5% of the ideas had been implemented up to the last Hack Days. One reason to why only a few projects had been implemented is that as many of the employees mentioned in their interviews it was more difficult to create a project good enough to become that could be implemented in the short time span of a day. It would probably be beneficial for everyone if there was some processes after Hack Days that followed up how the projects were going. Both managers and employees expressed that no feedback or follow-up activities had been performed in connection to previous Hack Days iterations. One of the pre-study cases explained that ideas that had not been chosen as one of the top five had been given feedback as to why their projects were not chosen. That feedback stopped employees from trying to keep pushing ideas that could never be implemented and understand why they were not chosen. Furthermore Alasoini (2013) discusses that companies promoting EDI might experience problems if the activities does not have visible results. This observation aligns with opinions expressed among employees at Viaplay that did not want Hack Days to just be fun but that it should result in something more. Performing and communicating follow-up activities could help to bring forth visible results. Both managers and employees have mentioned other positive effects more often than the projects that have been implemented. Some of these effects can be related to values such as an increased job satisfaction and a better and more healthy work environment. As mentioned in 3.1.1 innovation must be connected to value for the company but these values presented were created due to the activities during Hack Days and not the actual projects. Therefore, Viaplay could gain even more value if they focus on encouraging employees to do projects that can be implemented in daily operations or their product. Projects that are not taken outside Hack Days remain ideas and can not truly be considered to be innovations.

Similarly, there has not existed any formal processes to follow-up on feedback from employees to learn what they think of the Hack Days concept, even though the DoD said that it is through the feedback that they can improve it. One interviewee from a non-tech department said “It’s good that you are doing this kind of follow-up /.../ so that it just is not something that was fun but you don’t try to improve it the next time”. The managers express that even though there are no formal processes for feedback many of employees had communicated their feedback to the managers through their own initiative. This again points to that Viaplay has a culture of openness where management and employees work in a close collaboration. Still, employees might not want to express problems and issues to their managers. By collecting feedback in a short questionnaire we found that it was an easy tool to collect a lot of opinions on about Hack Days. The issue of the questionnaire is that the majority of the employees that
responded had participated in Hack Days.

After the Hack Days that was observed in March some efforts were made on follow-up of the projects as mentioned in 5.4. In the spreadsheet with all the projects, 17 teams, about half of all the projects, submitted information about the next steps that needed to be taken and their estimated time for implementation, and only one group wrote down their lessons learned from a retrospective. This is notably higher than the estimated 5% by the HoI of previous projects that had been implemented so far. It was presented during a meeting that two of the projects were planned to get implemented. The HoI thought that highlighting projects that are implemented might be a motivational factor. Factor why so many of the projects in the latest iterations of Hack Days are planned to be implemented might be, as suggested by managers and employees, because of the extended time or the increased experience from previous Hack Days. Many of the interviewees at Viaplay that had participated in Hack Days mentioned that they had attained new skills that they could use in their regular work and made new connections at the company which are presented in 5.6.5. Some of the interviewees mentioned that they also had a greater understanding of what other departments at the company do after Hack Days. Knowledge of the competences and operations is probably useful for everyone at the company and to highlight lessons like these could benefit the regular work outside Hack Days. Alasoini (2013) also states that employees’ desire to learn is one of the starting points for EDI.

Therefore we suggest that there should be more focus on follow-up activities to help teams evaluate if they should continue on their project and if they need any help to get resources to implement their projects. Furthermore, Viaplay should highlight lessons learned by employees so that that knowledge can be shared with others and used in the daily operations and in the next Hack Days. These activities are represented in figure 6.1 there dashed lines and arrows have been added to the figure. The big arrow that points down towards lessons learned represents that the connection between participation and lessons learned should be investigated further and emphasized in future Hack Days. We deem these activities to be highly beneficial for everyone at the company. Additionally, Caffyn (1999) has two behaviours connected to learning in their CI capability model that suggest that people should learn both positive and negative aspects from others and the learning from individuals and groups need to be captured and deployed. As mentioned earlier CI is in many ways applicable on our case but not completely.
7. Discussion

7.1 Research Approach

7.1.1 Observations

It was difficult to know who was participating in the Hack Days. Hack Days is taking place in the ordinary workplace and as the groups divide tasks among team members it was common that people were sitting at their regular desk but worked on their Hack Days project. Some teams also chose to work off-site to be able to focus more on the Hack Days project and to break habits. As an outsider that had not observed Hack Days before or the regular work environment outside Hack Days it was difficult to see which employees were participating in Hack Days.

Therefore, it has been valuable for us to be able to observe the atmosphere at the office after Hack Days. Furthermore, we have had the opportunity to join larger meetings at the company which have helped us to further understand the organization, culture and see the follow-up of Hack Days.

7.1.2 Interviewees

The selection of the interviewees was not done in a structured way which affects the reliability since researchers following this study might not have the same findings. However, since we wanted to interview employees from all of our predefined categories it limited us in terms of how we choose our interviewees. In the end we ended up having only one interviewee that did not participate from the Tech or Product departments. As presented in table 4.1, the distribution between the interviewees of other sub-groups were almost evenly distributed. The sub-group with only one interviewee was neither considered less important nor less interesting but it was difficult to find interviewees from that category. In our questionnaire, one employee from this sub-group could not participate due to being on parental leave; which is not an organizational factor. Our contacts at Viaplay only referred us to one employee and we could not find more ourselves. Generally, the perception among managers and employees was that most employees from Tech or Product did participate in Hack Days.

Additionally, it was easier for us to approach employees from certain departments close to where we were sitting at Viaplay. Therefore, we saw some em-
ployees more often and they had also seen us during and after Hack Days. Furthermore, since we asked some of the interviewees from our early interviews to refer us to other employees we ended up interviewing multiple people from the same ordinary work team or that had worked on the same Hack Days project. Therefore, it was important to have this in mind while doing the analysis so that the impact of those answers were not overestimated. There was only a few questions that were affected by this aspect and overall each interview added new discoveries and had its own purpose.

It was a possibility that since some of the interviewees were referred to us, by our contacts at Viaplay, they would only present employees with positive opinions. However, the results show that this was not the case and employees found through referrals expressed both positive and negative opinions.

Another interesting aspect was the amount of men and women that were interviewed. All women that were interviewed worked in departments outside Tech or Product. This is not because there are no women working in these departments but simply because most of the employees that we first came in contact with and asked to have an interview with were men. When we were trying to approach employees that represented other categories it was a conscious choice to try and interview more women. Still, the ratio between men and women in the Tech and Product seem to be different than the non-technical departments that seem to have a more balanced division of men and women. However, this is mostly the case at similar department at other companies that we know as well.

Additionally, most of our interviewees’ native language was Swedish so most of the interviews were conducted in Swedish, with the exception of two interviews that were conducted in English. The consequences have been that we have had to translate a lot of the quotes presented in the Results section. Doiing so, our choice of words or interpretations might have affected how we have translated the quotes. Furthermore, some expressions in Swedish do not exist in the English language. However, all interviewees allowed us to record their interviews which enabled us to go back and listen to how quotes and statements were expressed, thus giving us the opportunity to translate and interpret the interviews more accurately.

7.1.3 Finding Themes

It was good that we did not have predefined themes when structuring the responses in our interviews. Having the freedom to mark anything probably lowered the risk that interesting responses were missed because we were only looking for some specific themes or that sentences were forced to fit a specific theme. However, this might be why there are quite a lot of themes that were identified. There was going to be some common themes for all the interviews since they were semi-structured. Even though we did not have any themes when doing our individual analysis the majority of the markings were done in the same places.
7.2 EDI as a Concept

EDI is closely related to many other concepts. We have found in our study that other concepts are too restrictive to be able to include all of the cases we have found which can be considered as EDI. As mentioned before all innovation activities where the main driver emerges from employees can be considered as an EDI activity. Since EDI is not defined as a concept that only applies to certain categories of innovation the concept can be used by anyone independent of their definition or categorization of innovation. This might also explain why such different cases can all be included in EDI. However, some of the related concepts can be used to further categorize some of the cases. For example, one of the cases in the pre-study that focused on finding radical innovations was very similar to the intrapreneurship concept and more than one case had employees come up with suggestions but let the experts implement the idea which is similar to Individual CI design. This support Alasoini (2013) who referred to EDI as a broad umbrella concept. None of the concepts related to EDI can be used to describe the case studied in this paper which points to the fact that it is necessary for a broad concept like EDI to exist. An interesting aspect is that our data collected in this study suggest that cross-functional collaboration strongly affect the results of EDI to the better. This was not highlighted in many of the previous research that was found.

Many of our findings agree with our pre-study and the theory presented. This could be because of the fact that much of the research on the EDI phenomenon has been conducted in Scandinavia, and our pre-study cases and Viaplay mainly operates in Scandinavia. As mentioned previously, Kesting and Parm Ulhøi (2010) found that Scandinavian countries are favourable contexts for EDI due to the company culture that management and employees work and collaborate closely. This has been true for Viaplay where the culture is characterized by an openness that management and employees implement. To further build upon this the French companies used an approach to EDI that the interviewees from the Swedish companies did not believe in. The context in which a company operates seems to have a big impact on the format of their EDI activities. All of the cases found and analyzed are presented from research conducted in the last seven years which makes them relatively new. Furthermore, the companies where data was gathered were also similar in size which has also been proved in our research to affect the way EDI is incorporated in companies.

7.3 Organizational Factors Affecting Employee Participation

EDI is dependent on the participation of employees. Without employees EDI has no drivers in the innovation activities. This paper aims to find organizational factors that motivate or prevent employees from participating in EDI. We conclude that the most influential factors for participation at Viaplay were:

• The format of the EDI activity
• Information and how it is communicated
• Employees possibility to prioritize and plan their regular work
• The process of how teams for Hack Days were created
• Inclusion or exclusion in and outside Hack Days

Comparing these factors to if employees want to or can participate, as visualized in the four field matrix figure 7.1, these factors seem to have impacted if employees can participate more than if they wanted to in this case. The best example of why an employee had not participated in Hack Days was that they perceived that management wanted the projects to be connected to company goals which the interviewee felt was too constricting and too similar to the regular work. Other employees discussed how there was a trade-off between time, restrictions and expectations that affected their motivation to participate. Interviewees that had participated were very positive to having a full week and did not express that they felt restricted by the goals and themes that upper management had presented. It is difficult to create a format that pleases everyone but the format is something that the administrators can change with the support of management.

![Figure 7.1: The four field matrix suggested in the theoretical framework](image)

Information was an important factor since some information made employees understand that they had permission to participate. It also seemed to be a correlation between degree of understanding the concept and participation. Employees that had chosen to participate in Hack Days for the first time showed a greater understanding of the information that had been communicated than those that had never participated. Many of the employees that had not participated wanted to participate but expressed that they were unsure of what was expected of them and the process of Hack Days. Information in this case seems to enable the participation of employees and that support needed to be communicated from all team leaders and managers and not just from the administrating team or upper management. The need for management support also aligns with previous research. One of the pre-study cases had realized that they had an overriding belief that employees understood what business hackathon, in their case, meant and a similar situation might exist at Viaplay. As more employees participate the overall understanding at the company will
increase and there will be more employees that can function as informal ambassadors for Hack Days. Communicating information might be more troublesome in companies with physical barriers and the number of employees that Viaplay have.

During the interviews many of the employees explained that their ability to schedule their regular work to not take place during Hack Days affected their participation. The possibility to prioritize and plan ones work varied a lot between different employees in different departments. Some of the employees that wanted to participate could not since they had tasks that were bound to that specific time of the year. These tasks would not be possible to move to another time of the year or transferred to someone else but administrators can plan the Hack Days to happen during a time when as much employees as possible can participate. Again, it is good to include managers. Managers included in the planning of Hack Days can help to schedule Hack Days during the most optimal week. Many of the employees expressed that they had some tasks that needed to be done weekly but that they could still participate thanks to that there was no requirement to spend the whole week on the Hack Days project. In an organization with the size and number of departments as Viaplay it is probably difficult to find a week when everyone can participate.

The last two factors are closely related. The pre-study cases and the interviews conducted at Viaplay all suggest that the composition of the teams during Hack Days are very important, and cross-functional teams are believed to be more beneficial than homogeneous teams. Working with employees from other departments with different competences were mentioned as a strong motivator for many of the interviewees that had been working in cross-functional teams. On the other hand, interviewees that had only worked in teams where the team members had very similar competences they found it hard to imagine what other competences could contribute to their Hack Days projects. In our study we found that the process of building teams for Hack Days takes place in informal processes during the upcoming weeks before Hack Days. Since some employees does not believe everyone can contribute something to Hack Days projects, employees from departments lacking some specific competences are excluded in these informal processes. Because Hack Days has not included all departments there exists preconceptions of what a Hack Days project should be. When only technology focused departments participated the projects became technology heavy. It seems that it is difficult to change the hack culture that has emerged. Furthermore, language proved to be an excluding factor at Viaplay since some employees found it difficult to understand all of the presentations due to a high knowledge needed in those areas to understand. In contrast, some employees believed that their participation depended on if they had certain competences in their teams. This could again be traced back to the preconceptions of what a project during Hack Days should be. Our conclusion is by organizing onboarding activities before Hack Days where employees learn methodologies that everyone can use to test an idea, it might shift this preconception. Additionally, onboarding activities can also create a formal process where teams can be created and that everyone is included.

Some employees were deliberately excluded from our interviewees since managers and administrators knew that some employees would never be able to
participate in the format their they had chosen for Hack Days. These employees could not set aside their regular work e.g. they worked in daily operations. If they had been included in our research it is possible that other organizational factors had been found. Therefore, companies that have the majority of their employees tied up in their regular work should not use this type of format to encourage EDI and these factors might not be most influential on participation in those cases.

Lastly one possible future motivator that was presented in the analysis is learning. Some employees expressed that learning new skills for personal development or new skills that they could incorporate in their regular work as a motivator to participate. However, not enough of the interviewees mentioned it to be considered as one of the biggest organizational factors. Alasoini (2013) mentions that learning is one of the starting points for EDI. Many of the interviewees mentioned that they wanted Hack Days to be “more than just a fun week”. Making sure that lessons learned during Hack Days are taken back into the organization and develop Hack Days further can realize that. Furthermore follow-up activities can help Hack Days projects to become innovations and not just stay as ideas. Highlighting implemented projects is also mentioned as a possible motivator.

7.4 Implications and Conclusions

7.4.1 Scientific Contribution

This study present an additional case within the research area of EDI. Three of the five drivers of EDI suggested by Kesting and Parn Ulhøi (2010). The three drivers were: management support is positively related to employee involvement and that intra-organizational support and low power distance have positive impact on EDI which seem to be supported by our findings from the EDI initiative at Viaplay. Since Viaplay did not focus on rewards during Hack Days the driver connected to rewards could not be confirmed in this case as well as the driver that distributed authority has a positive impact on EDI.

Aaltonen and Hytti (2014) identified 5 barriers for EDI at a bakery in Finland but could not determine, from one case, whether those barriers were industry specific or not. Some of the barriers proved to prevail in the case at Viaplay as well e.g. physical barriers, the organizational structure and a mismatch between managers and employees. A bakery and a technology company that have the same barriers for EDI strongly indicates that the barriers might not be industry specific but more dependent on the context due to the very different industries represented in the two cases. However, some barriers will only exist in limited amount of cases. For example, the barrier of shift work can only exist in companies that work in shifts. Aaltonen and Hytti (2014) expressed that future research should focus on contributing to the understanding of how variety in context affect EDI which this case aims to do.
7.4.2 Conclusions

The purpose of this study was to expand knowledge on how organizations can increase participation in EDI; by describing and investigating EDI in a Swedish medium-sized tech company. After identifying a number of factors we found that the organizational factors that had the most impact were: the format of the EDI activity; information and how it is communicated; employees possibility to prioritize and plan their regular work; the process of how temporary teams for the EDI activity are created and inclusion or exclusion in the daily operations and EDI activity. Most of the factors affected both if employees can participate and if they want to participate. The exception is the ability to prioritize and plan which seem to almost exclusively affect if employees can participate. Overall, the employees and management were very positive and appreciated that an activity like Hack Days existed. Therefore, few of the opinions expressed in the interviews were connected to why employees did not want to participate. Furthermore, we did not interview any employees in our case that did not want to participate nor could.

7.5 Limitations and Further Research

The focus of this study has been to collect perceptions and thoughts from employees about the EDI activity at Viaplay in order to describe and investigate organizational factors that affect employee participation in EDI. A possible focus area could have been to investigate if there are any correlation between the types of innovations that emerges and the format of the EDI activity. The types of innovations created during Hack Days was not investigated in this study but it was noted that all types of innovations were welcome. It would also be possible to focus more on the planning behind Hack Days and what different trade-offs that need to be considered since the format affect employee participation.

Comparing the EDI cases presented in previous research and companies where data was collected, leads to the conclusion that EDI initiatives can have drastically different formats which makes it necessary to study more EDI cases. As previously mentioned the cases that have been studied has mainly operated in Scandinavia and much of EDI research has been done in Scandinavia. Therefore, we believe that cases outside Scandinavia is especially interesting.

This paper implies that some barriers to EDI, found in previous research, are not industry specific but also applicable in this case. This paper further suggests that the barriers might be related to contexts such as resources, organizational structure and culture. Our empirical findings suggest a connection between which stage a company operates in in the corporate life cycle and the EDI activity. Future research can also be done to investigate if this connection found in this paper is applicable to other industries and if specific EDI activities are more suitable or correlated to the stages in the corporate life cycle.
8. References


ness and Industrial Engineering, 10(1), 143–151.


Appendices
A. Questions for Pre-Study Interviews

These were the prepared questions used in the interviews during the pre-study. Since the interviews were semi-structured additional follow-up questions were asked. The questions were not always asked in this particular order. In the case where the interview concerned the interviewee’s role at a previous company these questions were asked in past tense. ¡company¿ in the questions below refers to the specific company discussed in respective interview.

General information:

- Name:
- Role:
- Time having the role:
- What is part of your job description?

Areas of interest:

- How do you (the interviewee) work with innovation at ¡company¿?
- How does ¡company¿ work with innovation?
- Which people work with innovation at ¡company¿?
- Which efforts are ¡company¿ making to foster innovation? When? How? Who are involved?
- What is ¡company¿ doing well, considering innovation?
- What could ¡company¿ improve in how they work with innovation?
B. Questions for Semi-Structured Interviews at Viaplay

*These were the prepared questions used in the interviews with employees at Viaplay. Since the interviews were semi-structured additional follow-up questions were asked. The questions were not always asked in this particular order.*

General information:
- Name:
- Role:
- Time working for Viaplay:
- What is your normal (regular) tasks?

Participation in Hack Days or similar concepts:
- Did you participate in Hack Days?
- Have you participated in previous Hack Days?
- Do you have any other experience from Hack Days at other companies?

Areas of interest:
- How is the normal day-to-day work affected by Hack Days?
- How was hack days communicated to you?
- Which factors have a negative or positive effect on your capacity to innovate?
- How has the structure of Hack Days affected your capacity to innovate?
- Have you collaborated with other (regular) teams during or outside Hack Days?
- Do you have any suggestions on how to improve Hack Days?
- How do you motivate people to participate in Hack Days?