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Ja, Høgskulen på Vestlandet



Høgskulen
på Vestlandet

MASTERS THESIS

Implementing change and innovation in
the academic sector

Implementering av endring og innovasjon
i akademisk sektor

Ola Alsterholm

Master i Innovasjon og Ledelse

Institutt for økonomi og administrasjon

Abdul Quddus

20.05.2022

Jeg bekrefter at arbeidet er selvstendig utarbeidet, og at referanser/kildehenvisninger til alle

kilder som er brukt i arbeidet er oppgitt, jf. Forskrift om studium og eksamen ved Høgskulen på Vestlandet, § 12-1.

Summary

The use of projects for driving and implementing change and innovation in the academic sector is the overarching theme of this thesis. To begin with I will present some aspects of the organisation that is being studied. The recent history of the University College of Western Norway (HVL) is important for how it is structured and how the culture is developing. This history includes a merger, restructuring of all faculties and most administrative departments. With that background it is relevant to describe some of the different departments that are focal to this thesis. Also presented will be how the organisation runs and implements projects, most notably digital change and innovation projects.

These projects are the focal area of the thesis and have been analysed within the framework of a qualitative case study – the Masterportal project. This is a project that includes both the academic side of the organisation as well as the administrative side, with the effect that employees from most parts of the organisation are involved. It also directly affects students and external organisations, resulting in a case that includes most major stakeholders at HVL.

Several theories and the research that they stem from will be presented, theories through which the organisation will be analysed. They are in the realm of change and innovation management, both public and private. They also cover areas of organisational structure and culture through a prism of project management. Finally, I have looked at certain theories within organisational psychology as well as knowledge management and development that can assist in giving insight and answers to the research questions.

The data collected generated interesting insights into the main drivers for successful implementation of innovation. Clearly defining the roles of project participants and stakeholders in relation to the department that they belong to is essential to finding the right people, since who these are defined depends on the department. Also, communication and information need to be adapted to the culture and structure of each department, since they have clear differences that influence what works and what does not. Finally, leadership and especially some aspects of the middle manager role are key in succeeding in implementing change and innovation.

Sammendrag

Bruk av prosjekter for å drive og iverksette endring og innovasjon i akademisk sektor er det overordnede temaet for denne oppgaven. Til å begynne med vil jeg presentere organisasjonen som studeres, Høgskolen på Vestlandet (HVL). Det inkluderer den nyere historien til HVL som er viktig for hvordan organisasjonen er bygget opp og hvordan kulturen utvikler seg. Denne historien inkluderer en sammenslåing, omstrukturering av alle fakulteter og de fleste administrative avdelinger. Med den bakgrunnen er det også relevant å beskrive noen av avdelingene i HVL som er sentrale i denne oppgaven. Det vil også bli presentert hvordan organisasjonen driver og gjennomfører prosjekter, og mer spesifikt digitale innovasjonsprosjekter.

Disse prosjektene er focusområdet for oppgaven og har blitt analysert innenfor rammen av en kvalitativ casestudie – Masterportal-prosjektet. Dette er et prosjekt som omfatter både den faglige siden av organisasjonen så vel som den administrative siden, med den effekt at ansatte fra de fleste deler av organisasjonen er involvert. Det påvirker også studenter og eksterne organisasjoner direkte, noe som resulterer i et prosjekt som inkluderer de fleste hovedinteressentene ved HVL.

Flere teorier og forskningen de stammer fra vil bli presentert, teorier som organisasjonen skal analyseres gjennom. Teoriene er innenfor endrings- og innovasjonsledelse, både fra det offentlige og private. De dekker også områder av organisasjonsstruktur og kultur sett fra en prosjektledelsesvinkling. Til slutt har jeg sett på enkelte teorier innen organisasjonspsykologi, kunnskapsledelse og utvikling som kan bistå med innsikt og svar på forskningsspørsmålene.

Dataene som ble samlet inn genererte interessant innsikt i hva som er de viktigste driverne for vellykket implementering av innovasjon. Å tydelig definere rollene til prosjektdeltakere og interessenter i forhold til avdelingen de tilhører er avgjørende for å finne de rette personene, siden hvordan disse defineres avhenger av avdelingen. Kommunikasjon og informasjon må også tilpasses kulturen og strukturen til hver avdeling, siden avdelingene har klare forskjeller som påvirker hva som fungerer og ikke gjør det. Til slutt er ledelse og spesielt noen aspekter ved mellomlederrollen essensielle for å lykkes med å gjennomføre endring og innovasjon.

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2022

Implementing change and innovation in the academic sector

Ola Alsterholm

Høgskulen på Vestlandet, Bergen

Foreword

Working with innovative projects is exciting, sometimes frustrating, and almost always rewarding. These projects allow for using all kinds of different capabilities, such as structuring of work and information, handling diverse groups of people as well as learning new technologies. For a few years, I have wanted to dig a deeper into what makes a project successful from a cultural point of view. Many projects that I have seen or been part of have either succeeded or failed even though their structure was set up in a similar way. Looking into other factors for success or failure was therefore something that has interested me for some time. I have cherished the opportunity given to me to research these areas within the very complex and interesting academic sector. The results of the research are already useful to me, and I hope that they can assist others in setting up projects for success.

The feedback and good conversations that I have had with Abdul Quddus have been invaluable, and at times when I have been stuck, they have been comforting as well. Family, friends, and fellow students have also been great sparring partners throughout the writing of this thesis. Finally, thank you to the respondents who were open, thoughtful, and reflected in the interviews, providing me with fantastic data and also some words of wisdom!

I hope you enjoy the reading of this thesis as much as I have enjoyed writing it!

Ola Alsterholm

Sogndal, May 2022

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1. Introduction to the thesis

1.1 Background

Projects are the main vehicle for innovation and change in most sectors by now (Jones, 2013), and that is valid for the academic sector as well. The innovation projects nowadays often have digital components as part of the delivery, which need to be implemented together with processes and workflows. The success rate of innovation and change projects, and especially the ones that are heavily digitised, is rather low. According to a report by Mackinsey (Robinson, 2019) at least 70% fail, which should be a point of concern for anybody working with digital transformation projects and innovation. I should therefore be concerned, having worked with innovation and digitalisation project on and off for quite a few years.

In the academic sector, where I now work, there are digital innovation projects happening on many levels. New teaching tools and reporting tools rushed in together with Covid in order to keep the organisations working have been implemented. At the same time, there is a push from the state to introduce common digital tools for the sector. Locally, at each institution there are initiatives to digitalise administrative processes and create new user interfaces for students, faculty and administrative employees (Kunnskapsdepartementet, 2021).

I have worked with digitalisation projects in the academic sector, from starting up the projects, to running them and sometimes implementing them. During this time, I have observed how some projects will succeed in one department, but then when using the same approach in the next department it does not work at all. Based on feedback from the failure the next project is adapted and will then be implemented efficiently where the previous project failed. However, in the department where the previous project was a success, the new one did not work out. Variations of this pattern has repeated itself, which has generated my interest in researching the mechanisms behind success and failure.

As it turns out, I was not the first to investigate change and innovation management in the academic sector. Khalil (2017) has looked into these issues but also previous research into the theme. The earlier research done focuses on resistance to change and change management in the academic sector, providing a solid theory base. On the other hand, there is little research

that discusses how to handle differences within an academic institution with regard to implementing digital change and innovation. Looking at aspects of culture, structure and leadership therefore rose as interesting areas to focus on for this thesis.

1.2 Relevance

With the increased rate of digital change and innovation, finding the mechanisms, culture and structure that affect the success in implementing an innovation project is an important topic to research. It affects all employees and stakeholders within the academic sector, not just those that work with projects. If the research can contribute to more efficient project management and implementation, it can ease the strain on many parts of the organisations that have to live with constant change.

1.3 Structure

To start with, I will set the scene for the thesis by introducing HVL and its project management. The section will go into some detail about the organisation, its recent history and how it runs projects through a project office. With that background in place, there will be a description of what will be explored followed by an introduction to the Masterportal case.

With the background in place and the case presented, I will describe the research questions that the case will provide the framework to investigate.

Following the research questions is the theory that will be used. The theory is divided into two sections, where the first section will look into structure in projects. Organisational theory for project management and innovation management will be the main focus. This theory is the framework that is used to understand the organisation. The second section of theory looks into the theory used to analyse culture, communication and leadership within the organisation and departments. These are the theories that will be prominent in understanding the departments and how they deal with innovation projects.

The method chapter describes the type of study that is used, the data sources, along with some background on why choices for ontology and epistemology. Validity and reliability will be described in this chapter as well, along with the approach for data analysis.

Into the main part of the thesis, the analysis of the data, which is split into three main sections that follow the research questions broadly. It begins with the individual project roles, and how those fit into their departments. Further on to the stakeholders, and the selection and involvement of those. On to an analysis of communication, information and training, and how those aspects are impacted by culture and structure. Finally, leadership, both formal and informal is analysed. Different types of leaders, and their place in and function within the projects and as change agents is analysed.

A discussion of the analysis follows where each main section of the analysis is discussed and related much more closely to the research questions, finally shedding some light on the themes.

Finally, the conclusion to the thesis summarises the findings. It also explains some on the limitations of the thesis and ends with several interesting questions for further research.

1.3.1 Note on content of presentation of HVL, Theory and Method

I have thought about this thesis for a couple of years, so I had good idea of the direction that I wanted to take at quite an early stage. In the autumn of 2021, we were tasked with writing drafts for method and theory chapters of the thesis as work requirements in other classes. Due to that I knew fairly well what I wanted to write about I wrote method and theory chapters that I have been able to use in the final thesis to a certain extent. Much of these chapters is new, some has been removed and most has been edited. But some sections have survived quite unscathed, and might therefore be highlighted.

2. Introduction to HVL and its project management

The University College of Western Norway (HVL) has been in a state of flux since it was created in a merger between three smaller colleges in 2017. Merging organisations of a certain age with deeply rooted traditions is always a challenge, primarily with regard to culture and organisation, but also for adapting and running daily operations. Every routine, system, data set, work process and communication channel must be reviewed, redrawn and operationalised. This was done to a certain degree in the year following the merger. But that initial organisational structure has been adapted and changed since, sometimes in small increments and at other times with larger and more important changes. As a result of this, HVL as an organisation has lived with change in all parts of its structure over the last few years. Living with important constant change is demanding on any organisation, and especially so in what has traditionally been a stable and quite rigid sector.

The academic sector in Norway is characterised by organisations with tall hierarchies that are highly structured, and HVL does not stray from norm in the sector. After the merger the hierarchy has naturally grown taller with the increased size of the organisation. The taller hierarchy makes the distance from decision-making to execution of tasks within the organisation grow, with the risk of making it less nimble and less adaptable. The geographical distance between campuses also contributes to a perceived, and sometimes actual, increase in bureaucracy. At the same time there is a culture for freedom and breaking of norms within the faculties that influences decision making, and more importantly the adherence to directives, routines and new initiatives. The changes to the formal structures of the organisation over the last years combined with the effects of these changes on the informal structures have transformed the internal landscape at HVL. These changes are factors that have to be taken into account in this thesis.

In the Norwegian academic sector, it is customary to have managers hired for four years at a time, with a maximum of eight consecutive years. Most managerial positions at HVL were assigned around the time of the merger. Now that we are five years in from the merger it is once again time to change management in many instances. In those five years most administrative departments and faculties have gone through important adjustments to their organisation and structure. The adjustments and changes were based on what has been experienced since the merger. In late 2021, with the new managers in place, many

organisational changes were initiated in concert with the change of manager. These adjustments have often been facilitated by the department of Organisational Development and Digitalisation (ODD). Not one department to be exempt from changes, time has now also come for ODD to examine its own structure in how it runs projects. The department has two distinct divisions: Organisational Development and IT. The IT division runs the digital infrastructure of HVL, and is as such very day-to-day focused, with the addition of some system implementation projects. The organisational development side of ODD runs all its work through projects, with barely any routine work. Its mission is to drive change and innovation for administrative processes, organisational structure, leadership structure, and the digital tools connected with these processes. The reason for reorganising the department is to improve how well it manages to facilitate and implement change and innovation in all departments and faculties at HVL. Change and innovation are mainly driven through projects of varying size, meaning that this restructuring within the ODD will focus on how to run and implement projects as efficiently as possible.

The structure for running projects at HVL is quite diverse at the moment, with some projects being run strictly in the line organisations and others run across functions. Many projects are coordinated through ODD, but sometimes initiatives emerge that are not coordinated with the rest of the organisation. An initiative to aid with the coordination of projects is the Project Support Team, that consists of project leaders and coordinators from all parts of the organisation. The aim of this team is to help one another in running the projects, while also coordinating the efforts. Another factor affecting the project portfolio is that budgets for running various types of projects are dispersed throughout the organisation, leading to a higher probability of non-coordinated efforts.

The projects that are being run or coordinated by ODD always draw on the resources of various other departments and faculties. These resources are either active participants in running the project, or passive contributors that assist with insight and knowledge about themes of the project, or as project owners or project leaders when relevant. Finding the right people as well as getting these resources dedicated is also part of the tasks of ODD, and it can be demanding. The other resource that is necessary for the projects is a budget. Some projects have dedicated budgets within ODD, and at other times the budget will come from one or many other departments. The split of contributions between departments can cause delays

because of lacking funding and uncertainties when it comes to project ownership and authority. All in all, there are some hurdles to overcome in running projects efficiently with regard to resources and coordination.

Challenges with structure and funding aside, the last step for the projects is implementation. This is largely seen as the responsibility of each department using and benefitting from the product of a project, and the leader of each of them. In the implementation process the project organisation is tasked with producing information and training materials, as well as to perform some basic introduction to what the project has produced. Theoretically, there is a very clear cut split of responsibilities and very little overlap. This approach is not working particularly well, and this thesis will try to explore the reasons why and how the implementation process can be improved. For example, why a particular project works well in the context of one academic department and falters in another academic department. Some aspects that will be researched are the understanding of the different roles that are assigned and responsibilities in implementation as well as dedication of resources for this step.

Projects at HVL that are run with the coordination or guidance of OUD are run using *Prosjektveiviseren* (a state-sponsored framework for project management) (DigDir, 2022) and Prince2 (including Prince2 Agile). These are extensive project management frameworks that have been adapted for the variation of projects that are run at HVL. The basic model for *Prosjektveiviseren* is usually represented like this:



Figure 1: Prosjektveiviseren

Within these frameworks there are many project roles and stakeholder roles that are identified, and these roles have also been adapted for use within HVL. Having an idea how these roles are defined is useful for the understanding the project ecosystem at HVL.

Here is a quick run-down of how the project roles are defined within HVL:

- A project owner has the budgetary responsibility and is generally responsible for the work process or the product that is aimed to improve with the project.
- The project leader has the operational responsibility for the project and runs the day to day operations.
- Project members make up the work force within the project. They are usually chosen based on skillsets that are relevant to the project.
- Reference users have inherent knowledge and experience with the processes or products that are improved or created. They provide insights into needs, requirements and wishes for the project. They also provide feedback in the development phases.
- A process owner has the responsibility for the main process or processes focused by the project. It frequently is the same person as Project owner and sometimes as System owner.
- A System owner is relevant when there is a digital support solution that is developed within the project. The system owner has the operational ownership of the finished digital solution that the project develops.
- Primary users are the people that are going to directly have a role in the work process that is changed or created. It is from this group of people that the reference users generally are chosen.
- Secondary users have no or few direct tasks in the work process, but they either supply input, use output or are directly affected by the process.
- Other internal stakeholders are ones that are affected in one way or another by either the project or the work process. It can be by having a new resource situation due to a shift in resource use, or being indirectly affected by the process. It might also be people that can see the use of the product of the project in another setting, and therefore have an interest in how the project evolves.
- External stakeholders have a connection with HVL and will have a stake in the project or process, much in the same way as internal stakeholders. These can be other

organisations in the academic sector that HVL cooperates with, or other partners such as hospitals or schools.

Projects within organisational development very often have digital components, therefore there are often a set of technical roles as well. Those roles will not be discussed in this context since they can usually be counted as being either project members or internal stakeholders. In some cases, when there are external suppliers they might be counted as external stakeholders as well.

2. What I am going to explore

In the last decade higher education has seen demands for increased digitalisation and new ways of teaching. The academic sector has generally proven to be a bit conservative regarding change and innovation, specially within the use of digital tools (Khalil, 2017). However, the pandemic that has affected everybody over the last couple of years has also forced a higher rate of change in academia. This is due to not having been able to teach on campus and having to cooperate with colleagues and students with digital tools. (Babbar & Gupta, 2021) Not only has it forced the digital teaching tools to evolve, but also the administrative tools. With an increased number of tasks moving to digital platforms the work processes that are being digitised have also had to change to a certain degree to make the best use of the digital possibilities. The possibilities within the digital tools are further discovered with more use and thus the work processes are continuously being changed and adapted. The increasing rate of change with regard to adopting digital tools but also to change in work processes results in a strain on the organisations with regard to implementing these changes.

With this background of digital tools, processes and constant change, I have chosen the Masterportal project as a case to explore several questions. These will include amongst others how projects are run and how implementation is carried out at HVL. I have chosen this case since the project relies heavily on introducing new digital tools, and when doing so also will change how the work is carried out. The Masterportal will be implemented in many different departments, which will give the basis for an interesting comparison. In the following section I will describe the Masterportal project in more detail.

2.1 Masterportal Project – The case

Writing a master's thesis is the culmination of years of hard work for the student and an important opportunity to go in depth into a subject of interest. What the writing of the master's thesis also is, is a heavy workload for the supervisor, the professor responsible for the study programme, and also for administrative support functions. Within this context, a suggestion for reviewing the work process so that it could be set up with digital system support and user interfaces was submitted by a professor in computer sciences. After the initial project proposal was received from Computer Science studies within the Faculty of Engineering, two more faculties approached the OUD dept with requests to look at different aspects of the master's thesis work flow, each with different priorities. Hence, the Masterportal project quickly became an organisation-wide project with a wide variety of functions to cover and prioritise between.

The scope of the project includes the creation of proposals for master's thesis themes, that can be initiated by either faculty, the student or an external organisation. It then goes through how these proposals are approved, then assigned to a student, and then how the student is assigned to a supervisor. The flow then continues on to handle variables such as work plans, mid-term evaluations, exam planning and grading. See the following work flow charts for the initial mapping of the workflows.

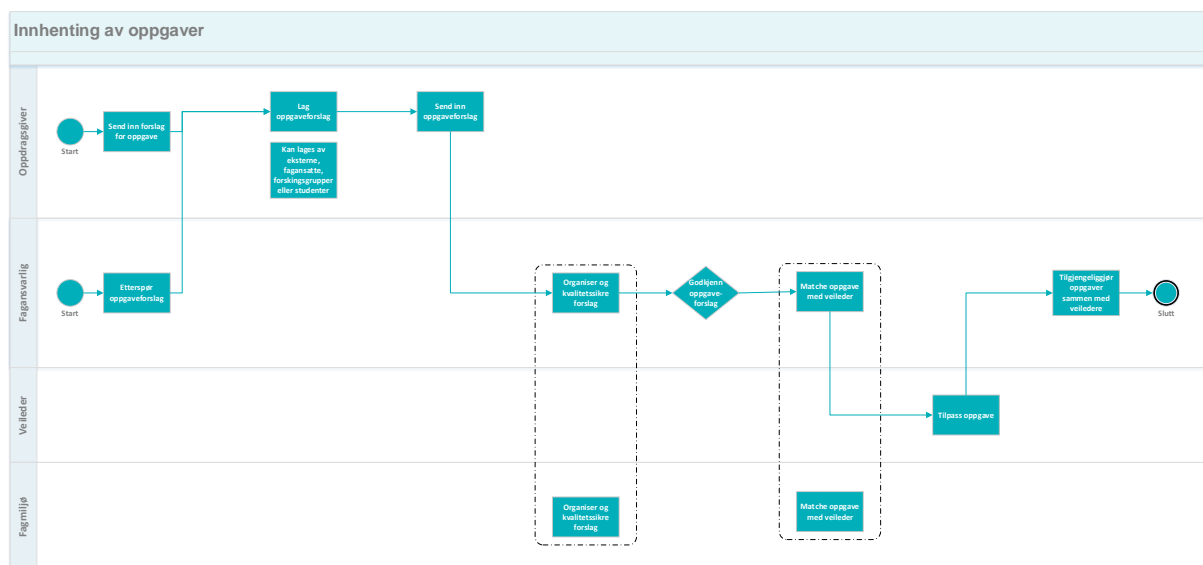


Figure 2: Masterportal workflow 1

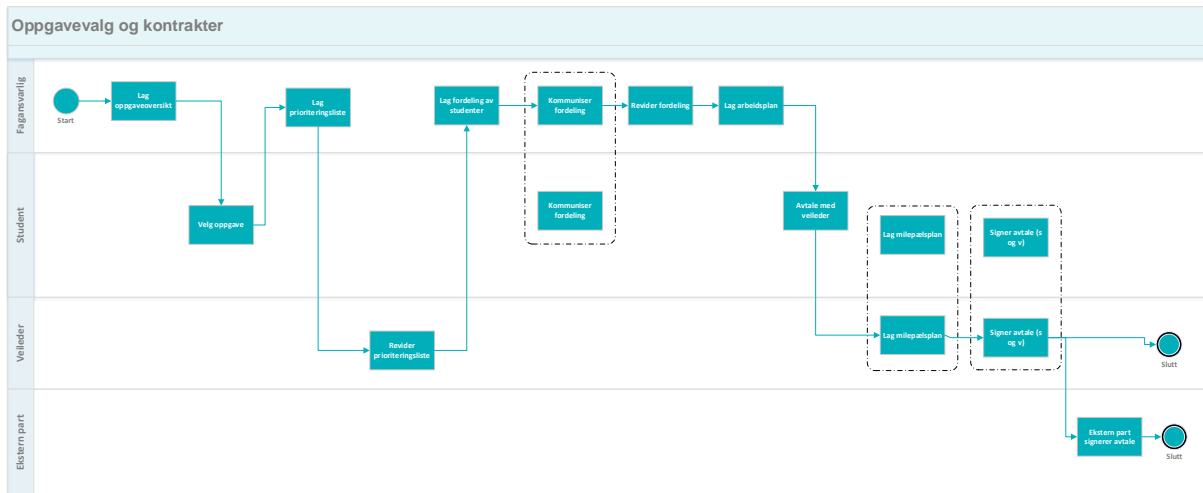


Figure 3: Masterportal workflow 2

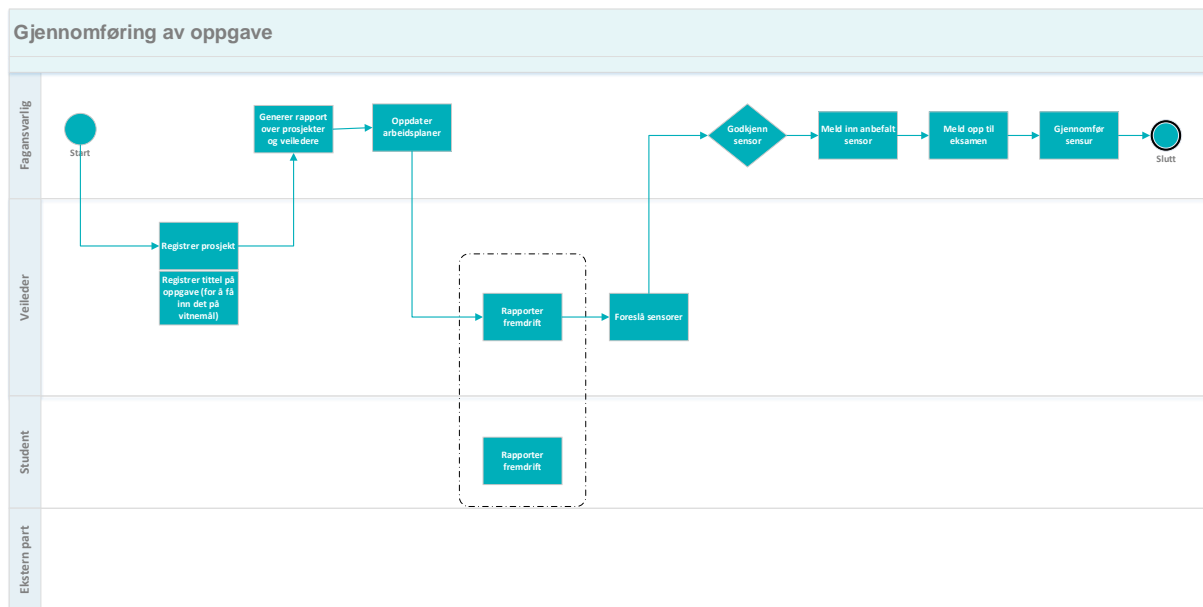


Figure 4: Masterportal workflow 3

The project has gone through an exploration phase with initial interviews and workshops to establish the first workflows and find out what the most immediate needs are. In the early stages the main stakeholders and specialists were identified, those being people that were asked to be either directly involved in the project or being used for gathering information. An extensive interview round with 18 of the identified stakeholders was carried out, with semi-structured interviews as the chosen format. The interviews were carried out by a group of three people: the project manager, a project support specialised in IT systems specifications,

and a UX designer. Having this group with different skills doing the interviews was done with the intention to let their complimentary skills generate a prototype that came as close as possible to a finished solution in a short amount of time. Based on the information gathered in interviews and workshops a prototype was made, on which a select group of stakeholders gave feedback.

The work in the exploration and prototyping phases produced enough basis for starting development of a first version of the digital solution, a Minimum Viable Product. This Minimum Viable Product had enough of the functionalities that were identified as essential, enabling the project to get actual user feedback on the digital solution. Quite obviously, there were quite a few changes after testing, implemented together with the remaining prioritised functionalities.

Pilot testing is ongoing at the time of writing, with some expected additional development at the tail end of the testing period.

The project methodology used for Masterportalen project is based on Prosjektveiviseren (DigDir, 2022) that is developed by the Norwegian Directorate for Digitalisation (DigDir). As mentioned earlier, this methodology closely follows the established Prince2 structure, albeit with some local adaptations. At HVL most projects are now run using a combination of Prosjektveiviseren and the updated Prince2 Agile. The agile version uses the main phases of Prince2 but add agile ways of working for parts of the projects. Product development as well as the exploratory work is carried out using Agile methods while some of the control and guidance structures are using standard Prince2 waterfall structure. This approach to projects is what HVL has gone towards, especially for digitalisation projects, over the last 3 years.

3. Research question

Against this background of projects at HVL, digitalisation and the Masterportal project specifically, the following overarching research question will be answered in this thesis:

- What are the main drivers for successful implantation of change and innovation projects at HVL?
 - This research question will be operationalized by the following questions:
 - What actors are involved and how is their authority structure, culture and background influencing the design and implementation of an innovation project like the Masterportal?
 - How are the stakeholder roles defined with regard to ensuring lasting change in innovation projects like the Masterportal?
 - What effects should the variations of cultures and structures in different departments have on how projects are organised and implemented?
 - In what ways do such factors as leadership role, leadership capacity and leadership continuity affect the willingness and capacity to contribute to innovation projects?

4. Framework and theories

For this thesis the theory will be divided into two parts. The first part will look at structure and process or project formulation and implementation, for instance theory around the concepts of matrix organisations, resource allocation as well as formal and informal structures. The second part of theory will be used to look closer at concepts like culture, communication, and social capital. The first part of theory is organised to make a good foundation for the second part.

4.1 Part one – Structure in projects

As mentioned in the introduction, HVL uses projects to drive change and innovation. This first part of theory will explore some of the theories for project management that are relevant for HVL. Some are directly related to projects; other theories focus to a larger extent on the organisational structure and culture that enable projects. The theories and concepts presented below are present at HVL in various guises and will help in understanding the organisation.

4.1.1 Structure and culture

Running and implementing projects depends on many factors, amongst those are structure and culture, previously mentioned in the presentation of HVL.

Beginning with the structure of projects, which is the formal system of authority and organisation of tasks that control how actions are coordinated and resources used (Jones, 2013, s. 30). Based on this definition we need to consider how the project organisational structure and management is set up. A common approach is using a matrix organisation for projects, where resources are recruited to projects, but where the ownership of the resource still resides in the line organisation. Another possible structure, called an ambidextrous organisation, is where you set up a separate unit where innovation and change projects are located. (O'Reilly & Tushman, 2004) This unit has ownership and control over its own resources. Also, projects can be run in each of the line organisations, using the resources and management usually running day-to-day operations. An example of when this is relevant is

when there are specialised change projects for a process that is entirely handled within one department. Or the project organisation can be a mix of all of these structures to varying degrees. These different types of structures will be explained in further detail in subsequent parts.

Culture is another factor in how change projects are run and implemented. Jones (Jones, 2013, s. 31) defines culture as a set of shared values and norms that controls organisational members' interactions with each other as well as people outside the organisation. At HVL culture at different departments and faculties have developed quickly, partially as a response to the uncertainties of change. Finding comfort in a common culture and group is a normal response in these situations (Jones, 2013, s. 301). These cultures evolve over time and can also differ quite distinctly between departments.

In implementing new structures for how to run projects, one needs to consider how the different departments and faculties respond to input and expectations for change, based on their internal authority structure and culture. That, in turn, must be matched to how the whole organisation reacts when faced with new projects. This reaction might also vary depending on the type of project; a work process change might actually be feasible, but when a technological component is added it can become much more challenging (Khalil, 2017). It might also be the other way around, that technological change is easier than a work process change, depending on culture and structure.

4.1.2 Change and Innovation

Two concepts that repeatedly are mentioned with regard to the projects at HVL are Change and Innovation. Often these are involuntarily mixed, but I will use them both purposely since they highlight two adjacent types of projects.

The creation of new products, processes or ideas, and operationalising and implementing them is what we call innovation. Under that definition we have two main types of innovation: Incremental and Radical. Incremental innovation builds on already existing concepts, adding something new or modifying so that they can be improved. Radical innovation breaks with existing concepts or products, or the use thereof and brings something new and different to

the market. (Jones, 2013) Innovation can stem from many sources, for instance unexpected occurrences triggering new ideas or uses, incongruities when a shift in viewpoint is needed, or changes in environment or demographics (Drucker, 2002). What is needed to be able to find and develop these innovations is a structure and culture that embraces innovation and its triggers.

I previously mentioned that change is adjacent and related to innovation. “Change can be understood as alteration over time” (Figueiredo Moreira & de Aquino Guimarães, 2016). This can be exemplified by demographic change, where there will be a difference in the composition of the population from one point in time to another. Change can also be illustrated by an organisational change, where the various departments might be reorganised for any one reason, thus triggering a difference over time. Change does not necessarily include that something novel is being created, just that there has been an alteration.

4.1.3 Matrix organisations

The way that projects are organised in many organisations is using a matrix structure, with regards to use of resources and competences. A matrix structure can be defined as a “structure in which people and resources are grouped in at least two ways simultaneously: by function and by project” (Jones, 2013, s. 188). In this type of structure, the reporting an employee does is usually to the line manager, even when most of the work is carried out in project.

Jones (Jones, 2013) describes several advantages with this type of structure. Most notably is the flexibility in use of the resources that it enables. The competencies of the different employees can be used where they can contribute the most. Also, having people participate in different projects allows for better communication throughout the organisation. It is one efficient way of avoiding silo-fication, where departments tend to focus inward and interact less with other departments. Lastly, a matrix structure enables learning and adaptation throughout an organisation.

Where there are advantages, you will most often find disadvantages as is the case for a matrix structure. Role conflict is the first issue, where an employee has both a line allegiance and delivery requirements in a project. Prioritising their effort can be demanding for employees

when they are being measured on different parameters in their line function and project role. Another challenge can be the fight for the best resources, which generates conflict within the organisation when certain resources or employees are in high demand. This can result in another challenging and potentially difficult situation, where some key resources get overworked as well as stagnant due to having the same specialised tasks repeatedly, as described by Lindland et al. (Lindland Reisvaag, Mikkelson, & Nesheim, 2018).

4.1.4 Resource allocation

An important part of a successful matrix structure consists of having an efficient resource allocation. The resources being allocated are split in three parts: human, physical and budgetary. For HVL I will mainly focus on the human resources. This is explored by Lindland et al (Lindland Reisvaag, Mikkelson, & Nesheim, 2018) in other contexts than the academic sector, but the basic concepts are valid. Their article shows how clear and firm prioritising and distribution minimises conflict resulting from the fight for the best resources. It is also a way to care for the employees being used in projects by controlling their workload and tasks. They describe the role of resource manager as well as resource coordinator as essential for making projects work in an organisation. In the academic sector the individual work schedules are generally tightly packed and the workload intensive (Amundsen, Karlsen, & Lid, 2021). Therefore, careful management of the precious resources is even more relevant to avoid overly straining employees, as well as securing successful projects.

4.1.5 Ambidextrous organisations

A concept that is already partially in practice at HVL is the use of an ambidextrous organisation, in this case in the form of a dedicated project office. The ambidextrous organisation (O'Reilly & Tushman, 2004) is when a separate unit is set up as the main driver and developer of innovation projects. This means setting up a department that only focuses on innovation and change and has no line functions whatsoever. Ambidextrous organisations have proven to be more innovative and having a better success rate of their innovation and change projects (O'Reilly & Tushman, 2004). But even though they deliver on innovation, they do have some disadvantages as well. One main disadvantage is that they might lessen innovation in the line

organisation. Concentrating innovation in one unit can make employees in the line organisation feel less motivated to pitch new ideas. Another challenge is coordinating implementation of new innovative products or work processes with the line organisation when they have not been included in the innovation projects. This can result in a resistance to change that can hinder the successful implementation of new products or processes.

4.1.6 Project management principles

The Project Management Body Of Knowledge (from now on referred to as PMBOK) (Project Management Institute, Inc., 2021) ,amongst other things, outlines principles for successful project management that touch upon most aspects of how to run a project. With regard to this thesis, I have chosen to highlight two of the principles: Effectively engage with stakeholders and Enable change to achieve the envisioned future state. These two principles are the ones that most deal with the implementation aspect and how to deal with different stakeholders throughout the project, as well as ensuring a lasting change based on the project deliverables.

These principles, as well as most of the PMBOK, are mirrored in the main project method used at HVL, namely Prince2 and its agile addition. Stakeholder involvement is very clearly defined throughout the Prince2 framework and as such should be taken care of within the existing framework. Even though the stakeholders are organised in well-defined roles, these are not always so clear when looking at the organisation at HVL. Defined and updated stakeholder roles in projects with regard project management, product definition and implementation at HVL is one stakeholder principle that could be of relevance to this thesis.

Implementation is very often, and certainly within Prince2, focused on the project having clearly defined deliverables, and ensuring that they are delivered according to plan. Implementation plans always include what is to be delivered, but implementation in a larger scope is rarely mentioned (Axelos Ltd., 2021, s. 190). The actual responsibility of implementing mainly falls on the line management, which is logical but allows for large variations of adoption of the deliverables and subsequent changes. Here is where the principle of Enabling change to achieve the envisioned future state can become powerful. It is a principle that opens up for a much wider approach to ensuring that implementation and change is carried out. It does not

restrict itself to phases within the project framework either, and as such can be used in a more holistic way. Together with better a definition of what relevant stakeholders are at different phases of a project, exploring this could possibly yield interesting results.

4.1.7 The organic structure

Organising for innovation and change is most often associated with organic structures. These are defined by Jones (Jones, 2013) as “Structures that promote flexibility, so that people can initiate change and adapt quickly to changing conditions”. This is usually done with a decentralised decision-making and employee roles that are loosely defined so that they can take on many different tasks and responsibilities. Problems are solved in groups where the combined knowledge gives the best possibility to solve said problem, and these teams are rarely permanent. There is a high need for coordination and integration in organic structures in order to reach the joint specialisation necessary to deliver. Even though the academic sector might not be known for being organic, I will look at how some of the characteristics of organic structures might be present and contribute to innovation.

4.1.8 Summary of project structure and culture

The theories and concepts presented above are all present at HVL to a certain degree. How present they are varies between different parts of the organisation. But they are essential to understanding the framework within which projects are run at HVL, and how innovation and change is dealt with structurally. In the next section I will present theories around knowledge creation and sharing, networks, as well as status. These are relevant when analysing how projects are run on a micro level.

4.2 Part two – Sharing and building knowledge

To answer the research questions the structure and culture needs to be studied, described and analysed. But those are only a part of what is needed for a further analysis of the project

organisation. Starting, running, and implementing projects is dependent on an exchange of knowledge, willingness to do so, and creation of new knowledge. Exchange and creation of knowledge requires different actors available and being part of the projects. While formal authority is relevant to secure invested actors, informal leaders have important roles as well. Finally, understanding the mechanisms that secure a buy-in from the different user groups and interested parties is essential in order to analyse what constitutes success factors within projects and implementation.

The following concepts will give a theoretical basis for the aforementioned success factors.

4.2.1 Definition of knowledge and information

Knowledge and information are what the projects are gathering, processing, using and conveying. Hence, those are the base components of all projects, that need to be properly understood to be handled and shared. These are basic concepts that also can be quite challenging to define clearly. They are essential components for some theories that are used in this thesis and as such need to be included and defined.

Information can be described as a collection of data that generate meaning when combined and which might add to, restructure or change knowledge (Machlup, 1983). It needs to be separated from data, which lacks the meaning of information.

There have been many attempts over the years to define knowledge, and it is a rabbit-hole to go down all the discussions and arguments about it. I will therefore try to keep it short and use a fairly broad and generic definition. To narrow down the definition a bit I will have to start with the stance of this thesis, being social constructivist. A positivist definition would express knowledge as connected to acquiring absolute truth, which is static and with no influence from the environment. For this thesis on the other hand, I will lean on Nonaka (1994), who leans on Greek philosophers, in defining knowledge as “justified true belief”. The three parts to this definition are equally important, with “justified” being that there is an information base for the knowledge. “True” means that there is a search and aspiration to find a truth, or at least getting closer to a truth. Finally, “belief” is important since that implies that one does not have all information, that the environment might change, as well as that one self might change. Therefore, there needs to be a certain level of belief involved.

Based on this definition of knowledge, I will have to take into account the point of view of actors involved in sharing and generating knowledge. They will be part in defining the knowledge, which has an effect on how you would work in a project group. Being conscious about the fact that different parties will see the knowledge from their own viewpoint is important when interviewing the different respondents about the same project, but seeing from several different angles.

Of importance for the SECI model that I will describe next is the differentiation between tacit and explicit knowledge. Since Nonaka uses the definition of Polanyi (1966), I will do the same since it will be used in the same model. "Explicit knowledge refers to knowledge that is transmittable in a formal, systematic language. Tacit knowledge is deeply rooted in action, commitment, and involvement in a specific context." A quote from Polanyi (1966) describes it well: "We know more than we can tell".

4.2.3 SECI

The SECI model by Nonaka (1994) was widely seen as a paradigm shift when it was published. Before this article organisations were seen as entities that processed information and solved problems in a very linear way, such as "input-process-output". When an organisation is viewed within that framework it is reduced to how "efficiently it can deal with information and decisions in an uncertain environment" (Nonaka, 1994). Nonaka argues that organisations should not only process data but also actively strive to create knowledge and information.

The model includes four modes of knowledge creation: Socialisation, Externalisation, Internalisation and Combination. Which together make up SECI and are represented in the following model.



Figure 5: SECI model

The four modes are useful each on their own but need to be seen in the context of a “Spiral of knowledge” where all modes are being used in a continuing spiral. In this way knowledge can evolve from pure tacit knowledge that is being shared, to explicit knowledge that is internalized and shared. This again will generate new tacit knowledge that can be shared, and the spiral moves on.

The four steps are as follows:

Socialisation

The transfer of tacit knowledge from one person to another happens when they observe, cooperate or otherwise interact. This is for example when an apprentice learns skills by imitating and practicing without verbal directions. The depth of the tacit knowledge might be difficult to express in words, but comes across when being displayed.

Combination

On the other side of the modes of transfer of knowledge we have combination, where explicit knowledge is being exchanged, combined and reconfigured. This is done using words, graphic models, or other explicit modes of communication. The way that this knowledge is shared and reconfigured and recombined might generate new knowledge.

Externalisation

Sharing and transforming tacit knowledge into explicit knowledge is referred to as externalisation. Defining and putting words onto tacit knowledge, or expressing it graphically are ways of externalising knowledge. This is an essential step in the evolution of knowledge since it enables a much wider dispersion and sharing of said knowledge.

Internalisation

Sharing explicit knowledge and actually putting it into practice is what happens in internalisation. The knowledge goes from being something that one theoretically knows, to something one actually can do. It becomes part of the way of working and is knowledge that can be transmitted tacitly. This is also where new knowledge can be created in that the explicit knowledge will be combined with both existing explicit knowledge as well as tacit knowledge, generating new combinations.

These four steps will be used in two different stages of change and innovation projects. First, they are relevant when running a project. There they will be used to gather information, then expressing the information and finally using it to create the product of the project. The second use of these four steps is in the implementation, where the product of the project is being introduced to the users. They will have to learn, both tacitly and explicitly, and then internalise when putting it to use.

It might seem simple when looking at it schematically, but how these steps are used individually is essential to a successful project.

4.2.4 Capital theory – the importance of cultural and social capital

Motivated participants are necessary both when organising a project, when project participants are required to prioritise the project, and when it is being implemented. There are always questions on who needs to be involved, and in what role. Making the correct choices can make or break a project. Bourdieu and his capital theory can be relevant in helping us describe who should be involved and why. It can also help in deciding on how to approach various actors.

In his capital theory, Bourdieu describes different types of capital and how those affect the possibility to achieve things and gain more capital. For my case I will focus on Cultural capital and Social capital, since they are the most relevant for the environment at HVL and execution of projects.

To begin, the concepts of field and habitus are essential building blocks in capital theory. Field refers to a social space in which the actors are positioned with their given resources (Glover, Campion, Daniels, & Boocock, 2016). This is in essence the different settings that each person is in, for instance a department at work or a project team. Habitus refers to the combination of perception, thinking, evaluating, speaking and acting (Glover, Campion, Daniels, & Boocock, 2016). Each actor's combined experiences, background and personality gives them their habitus, it is how they are perceived and how they perceive the world.

Cultural capital is grounded in the habitus of each actor, where it consists of the knowledge, expertise, qualifications, and social background (Glover, Campion, Daniels, & Boocock, 2016). According to Bourdieu, much of the cultural capital comes from each individual's social background. It includes social markers and values that enables an individual to set itself apart and gain status and position. Some cultural capital can also be gained from qualifications, for instance educational and professional. It is directly applicable in the academic sector where qualifications are highly valued, and also social markers such as language and habits are noticeable.

The other capital that is directly relevant for this case is social capital. This consists of the resources embedded in social relations and social structures, that can then be accessed or mobilised in order to achieve a purpose or goal (Glover, Campion, Daniels, & Boocock, 2016). It is essentially the networks that each actor is a part of and that can present an advantage. In an environment with as many ties as the academic sector; from research projects, teaching cooperation and faculty ties, it is a relevant factor for understanding dynamics that can help in promoting change and innovation.

4.2.5 Leadership capacity and change agents

Ingrid Stensaker (2018) has written extensively about the capacity of leaders in an organisation. There is only so much that a leader can manage to follow up and control within the area that they are responsible for. This needs to be taken into account when planning for change and innovation projects, both for execution and implementation. Without leadership capacity available the success rate will likely be much lower.

Leadership capacity can be combined with the capacity of change agents. Change agents being individuals who can assist in assuring success of change and innovation. They can work in many different ways, for example as ambassadors for change or as operational members of change projects. With the right change agents the work load of the leader as well as the amount of ambassador work that the leader needs to do will be reduced, leading to possibly better results.

Rydland (2018) focuses on the middle manager and the important role that they have in projects, but also in driving innovation both from the bottom up and from the top down. They are some of the key change agents, but often are overlooked or lack the time and resources to drive change and innovation. The middle managers are broadly split into four different roles that they can use depending on the situation: The Champion, Synthesiser, Facilitator and Implementer (Floyd & Wooldridge, 1994). Rydland (2018) describe the Champion and Synthesiser roles as promoting concepts and ideas that rise from the bottom and up, and creating an understanding for how these can fit into the larger framework. On the other hand, Facilitator and Implementers are more focused on downward activities where they secure the adoption of top-down initiatives and the acceptance thereof.

4.3 Theories and concepts

All these theories are both relevant and necessary to be able to study and analyse change and innovation projects at HVL, such as the Masterportal project. Organisational structure of projects with all the different aspects that are at work at HVL are the building blocks for how

the organisation is set up for running projects. But it needs to be studied together with the varying cultures to fully understand how they interact, and how they can be improved. Also, identifying key individuals and network structures that can enable success. Then on an individual level, how each person can contribute to change and innovation.

On a larger scale, running change and innovation projects deals with creating new knowledge, structuring knowledge, and improving the individuals involved as well as the organisation. As such, also having a conscious relation to the concepts surrounding data, information and knowledge is key.

4.4 Conclusion on theory

This thesis offers a complex case study, the complexity being one of the reasons why I find it interesting. It is complex because the organisation that it exists within is composed of many parts with distinctly different cultures and structures. This heterogeneity is also present at the individual level, making it a case that can give insight into how projects for change and innovation can be run in a complex environment.

I realise that the breadth of theories presented is wide, but they all have their place. I wanted to not only study one small component in the process of running and implementing projects. That's why the essence of this thesis is to study how the projects function, with organisational structure as a base, but highlighting the effect that individuals and networks have.

Studying these aspects should make it possible to answer the research question, finding the main drivers for success in implementation of change and innovation projects.

In the end, it is likely that this thesis will raise more questions than it answers. When studying complex systems, there is only so many paths that can be followed. But the paths that I only uncover but not follow should generate some interesting possibilities for further research. At least I hope they do!

5. Method – a longitudinal case-study

For researching how to organise change projects efficiently I will follow a project that aims to improve the way master's thesis themes are decided and how the thesis work is followed up and administrated, the previously mentioned Masterportal project. This is an ongoing project that has a projected implementation in May of 2022. Thus, this is a very good timing for a longitudinal case-study. To be well prepared for the case study and to better understand the mechanisms and factors influencing this type of change I have gathered secondary data as well as read previous research on the subject. In the following sections I will describe the various components of the research method I have used. Firstly, I will begin with the ontology and epistemology, considering their importance when setting the premises for any type of research.

5.1 Social constructivism

When dealing with change in organisations and innovation that sometimes disrupt how we are used to work and interact, feelings often dictate how we react. Even when one looks at tangible factors like organisational structure, the reaction changes to it from the people involved make up and important part of the data gathered. Having the appropriate approach for both the data gathering and the analysis is required to have the best possible information to draw the most relevant conclusions. This is where making an informed decision about ontology and epistemology is important.

Ontology can in very short terms be described as how one views the nature of reality (Easterby-Smith, Jackson, & Jaspersen, 2018). Easterby-Smith et al. continue to describe it as set on a scale that goes from realism to nominalism, passing through internal realism and relativism. On one extreme there is realism which defines that there is one single truth and that facts exist that clearly define reality. The internal realist will argue that truth exists but is difficult to find, in part because accessing facts directly is very difficult therefore there is often some interpretation needed. A relativist goes a bit further, saying that there can be many truths and that they depend on the view of the observer. The nominalist goes all the way out and says that there are no firm truths and that all the facts are created by people.

For the case at HVL I have gathered data from people with different points of view, with each perspective having their own impression of truth. The ontological approach that makes sense would quite clearly be in the realm of relativism, to be able to openly approach the complexity of the case and embrace the different perspectives.

Easterby-Smith et al (2018) describe epistemology as “Views about the most appropriate ways of enquiring into the nature of the world”. I will not quite go into the depths of nature of the world on this occasion but limit myself to a small part of HVL. Even in this small endeavour it is important to use the most appropriate way of enquiring. Epistemology also is set on a scale that matches the ontological one, going from extreme positivism to extreme social constructivism. Positivism posits that facts can be directly observed, and these should be measured through objective methods. It has been the predominant view up until the 1970’s when social constructivism entered the stage. Social constructivism views reality as something that is defined by people instead of objective and external factors, therefore it is more important to find out how people see, experience and understand a situation or an experience (Easterby-Smith, Jackson, & Jaspersen, 2018). This approach has been embraced in social sciences where interactions, reactions, feelings and human perception colours the research results and reality.

As such, having a social constructivist approach makes sense for this case study, where such aspects as communication, social capital, and willingness to contribute are discussed and analysed. A deep understanding of the mechanisms, problems and consequences that result from different types of ways of organising for change and innovation will be crucial for making the best possible analysis for this case at HVL.

5.2 Secondary data

HVL is working diligently at becoming an even more innovative organisation. Project management is also highly prioritised as a development area. Hence, there is historical data and information from several other projects, some being similar to the Masterportal project. This data has been gathered for project management and business management purposes, but can be relevant all the same. Secondary data being data that is gathered for another purpose than this thesis, but that is relevant for the same questions that I am asking (Easterby-

Smith, Jackson, & Jaspersen, 2018). For instance, it is possible to see who and what roles that have been involved in prior projects. It is also documented in some of them what communication and training plans that have been made and carried out. Also, decision making and leadership structure is usually available.

In this case, it is very valuable to be an insider. Without this role, there would not have been possible to access secondary data of this quality.

5.3 Primary data

For this master thesis I have had the possibility of doing a longitudinal case study, since the most of the Masterportal project has been carried out in the first half of 2022. A longitudinal case study is done when the case is observed as it happens, with data gathered at two or more separate occasions in time (Yin, 2018, s. 51) . In this case parts of the planning phase and most of the production phase have been observed. Due to time constraints, only the initial parts of implementation have been observed. The time frame will not give any possibility to see the results of the project over time, just the initial reactions. Data has been gathered at several points, with the main collection happening at the later stages of the production phase. The first data sets contain some initial reactions, while the later are much more in-depth.

5.4 Data gathering of primary data

Data gathering at HVL has consisted of semi-structured face-to-face interviews. The respondents will come from two main groups: employees within the administrative departments at HVL, and employees at academic departments that are involved in the Masterportal project in various ways. The interviews focus on the set-up of the Masterportal project and set-up of implementation strategies. The interviews investigate how each respondent sees their role in the project, as well as different aspects about their department as well as the OUD. Since the interviewees see the project from different angles, and also have different backgrounds and experience, this should yield an interesting data set.

The semi-structured format is believed to be the most appropriate because some flexibility is needed in the interview situation, in order to explore questions that are quite open. Semi-

structured interviews also make it easier to get a higher degree of confidentiality (Easterby-Smith, Jackson, & Jaspersen, 2018, s. 185) which will be useful when exploring personal reactions to change projects. Also, in this case there are respondents that are in different positions and have various roles within the organisation. Therefore, it would have been difficult to make a highly structured interview guide that would be relevant for all respondents.

There is also data gathered in the early stages of the Masterportal project that are relevant to this thesis, namely background information on all respondents from initial interviews. The respondents have agreed that I can use these as well as other data from those early interviews in my analysis as long as they are anonymised.

There are however some drawbacks to the approach of researching a case where the author is a main actor, and those need to be taken seriously. One is the risk for lack of objectivity since the author is so closely integrated in the case. Another is conducting interviews with respondents that are familiar with the interviewer, this might result in skewed results. Another challenge can be conflicting roles, where the researcher can influence the case as well as the other way around (Easterby-Smith, Jackson, & Jaspersen, 2018, s. 218).

In this case the advantage of having the access to data, respondents, and background information, should outweigh the drawbacks as long as they are handled in a structured way.

5.5 Sample size and selection

A large portion of the employees at HVL are affected by how the project work is structured and carried out. That means that it is relevant to get as large and heterogenous sample of respondents as possible. Preferably that means getting a sample that covers all faculties, and most administrative departments, as well as some students. This sample quickly becomes too large for what is realistically feasible in the scope of a master's thesis, therefore a careful selection has had to be made.

Within the scope of the Masterportal, nine respondents have been chosen based on their different roles within the organisation and the project. The careful selection of these secures coverage of many points of view. The sample will thus not be a random sample, but a

very carefully selected group with specific insights. In this instance this approach was necessary to get a group representing as many views as possible, securing the best possible data. It is also an ambitious sample size, considering that the interviews were quite extensive. The extra work is worth the effort though, in order to get a data set that makes it possible to get a nuanced and representative view.

5.6 Interviews

The nine in-depth interviews were carried out over a couple of weeks during which the respondents had no other contact with the Masterportal project. The interviews ranged in time from approximately 40 minutes to close to 90 minutes, all in all giving large amounts of data to work with.

Due to the geographical spread of the respondents all interviews were carried out via MS Teams, even the ones where the respondents were in geographical proximity. This was done to keep the method as consistent as possible. With the consent of the respondents the interviews were recorded and also automatically transcribed by MS Teams. One reason for this set-up is convenience, but having an automatic transcription also helps in verifying that the interviewer is consistent since everything is transcribed verbatim. This makes it easier to follow up such aspects as wording of the questions or how follow-up questions were asked.

The interviewer being familiar to a varying degree with the respondents was also a reason to be conscious of tone of voice as well as how the questions were asked. After all the interviews were done, it could appear as having the interviews online was beneficial in this context, since it gives a certain distance between interviewer and respondent.

5.7 Data treatment

Based on the methodology of having a longitudinal study with several data points, with the main quantity of data coming from extensive interviews I deemed an approach using a grounded analysis mainly would be most appropriate.

The reason for this approach is that I was interested in looking at the data with an open mind and seeing what themes would emerge. Structuring in this way was also done to distance myself from biases that I would have if I would have tried to fit the data into preconceived categories. The risk being that with my close contact with the project I would slip into fitting ideas and opinions into a structure that I had established prior to the research, even if they would not match. Analysing the data and finding common themes that emerge from it is therefore one way to improve the objectivity. From this approach there were several themes that were not expected that emerged.

The data being in different languages made it difficult to use computer aided coding, or even do basic key-word searches. Those would not have generated representative results, therefore the analysis was done manually using a code-to-theory model (Easterby-Smith, Jackson, & Jaspersen, 2018, s. 245).

5.8 Validity and reliability

5.8.1 Reliability

Reliability refers to the ability to demonstrate that the operations of the study can be repeated, with the same results (Yin, 2018, s. 42). This can be demanding with qualitative studies, due to the low number of respondents and also because it will be difficult to repeat the study with the same circumstances. In this case especially the repeatability will be complicated since it deals with cultures that are actively being changed together with structures that were changing in the period of writing the thesis. It should be seen as a failure for the organisation if this research could be repeated with the exact same results. However, steps have been taken to be able to follow up this thesis at a later date and evaluate the change that has incurred. Therefore, the reliability built into the case study consists of very detailed recording of data, as well as a description of the framework and surroundings that make up the HVL and it's organisation at the time of the research. In this case, the benefit of the researcher being an insider greatly helps in having access to all documentation needed. For a future researcher this would prove helpful to be able to

replicate the research and being able to pinpoint what changes that have been made in order to research their effect.

To summarise, the method is set up so that it could be replicated but the changing culture and structure should yield different results.

5.8.2 Validity

This case study has some characteristics of a descriptive study, in that the data gathering has focused on how each respondent sees that organisation, their own role, the culture and mechanisms of their own department. There is also a rather large descriptive section about HVL as an organisation and the Masterportal project based on organisational documentation and project documentation. With regard to this Internal validity is not relevant, since internal validity can be defined as seeking to establish causal relationships (Yin, 2018, s. 42).

But even though the thesis starts out as very descriptive, the aim is to see how the different aspects of the organisation can be used in order to succeed in implementing innovation. With the basis in the theories used, there is an explanatory side to the case study. It does however not say directly that one factor yields a certain result, but mainly that using certain factors should yield a result closer to what is preferred. The mechanisms and cultures that are uncovered are consistently analysed through same theory, which should be add to the possibility to deduce internal validity.

For external validity, being if case findings can be generalised (Yin, 2018), the research questions and the resulting interview questions do set the scene for generalisable results. Having many how and why questions that describe mechanisms and culture are efficient ways to enable possible generalisations. The theory used is also not context specific and can therefore be used in similar ways in many settings. Even though the case is firmly rooted in academia, there are many possible sectors that can use the same type of analysis.

5.9 Ethics

For this thesis an application to NSD was sent describing the data collection, storing and use of personal information. The guidelines returned by the NSD after the acceptance of application have obviously been followed when collecting and treating the data for this thesis. All respondents have read and signed on consent for both recording and transcription of the interviews, as long as they are kept anonymous.

The respondents discuss subjects such as culture, structures, and leadership. This includes comments on their colleagues and also managers, which can be quite sensitive. A lot of care has been taken to keep them anonymous, and especially within the section about leadership. One aspect that has aided in keeping the respondents anonymous is that everything is translated into English, this removes some characteristic wording that might help identify respondents.

The interviews, both recordings and transcripts will also be deleted when they are no longer necessary for the use for this thesis.

5.10 Closing thoughts on the methodology

Even though the type of case study that I have chosen is demanding both from a data gathering perspective, and also from an ethical perspective, I am confident that it can be done and produce interesting insights and analysis. At the same time as it is demanding, the possibilities that this approach enable are enticing. Done with the very best effort it has allowed the gaining of a much deeper understanding of what can make implementation of change and innovation at HVL succeed in the different parts of the organisation.

6. Analysis of the interviews

In this section I will analyse the interviews against and through the theory that has already been described. Answering the research questions is the basis of the analysis, but the data treatment revealed some themes that I have pursued. Those give a structure in three parts that build on each other. First, there are the Roles within the project, that are seen together with the stakeholders. Understanding roles and stakeholders is important for the understanding of culture and structure both within innovation projects but also the different departments.

Secondly, the effect of culture and structure on information dissemination and communication within innovation projects will be analysed. How culture and structure influence how communication is carried out, and how the different roles are expected to act are some of the things that will be looked at.

Finally, leadership in innovation implementation is the last part to the puzzle. Several leadership roles and functions will be looked at in this section, and how they are to work with the roles, stakeholders describe earlier as well as how they are key in the communication and implementation of innovation.

6.1 The roles that are taken and given

The initial questions in the interviews deal with the roles of the respondents, as well as the roles of their colleagues within projects. This is directly connected to how the culture and structure influence who is involved and what roles and authority they are given. All interviewees except one were directly involved in the project and had many insights in the mechanisms surrounding their involvement and the involvement of their colleagues. The respondent that did not have direct involvement has on the other hand seen many projects in several departments, both ones that were successful and ones that were not, and therefore being able to provide complimentary insights.

Ideas for innovation pop up in many places in the organisation and sometimes generate the starting points for projects. Where the idea originates, both organisationally and physically, will most often dictate what pool of people that is available as actors within the project.

From this pool of people available to the project, there are several other factors to who actually gets to participate and have an active role. The respondents describe these factors that decide their involvement and the ones of their colleagues. Sometimes several factors working in a combination is necessary, and at other times one is sufficient.

6.1.1 Direct benefits

The first factor mentioned by most of the interviewees, is inherent interest in what the project is producing. As **respondent 4** describes it:

“What primarily drives me to participate in a project is how I can benefit from it. The motivation is very high when I can see that the end result will make my life easier and that the students also will see a direct benefit.”

Respondent 8 concurs:

“This project is important to me since it has the possibility to solve several issues that I have encountered when running masters’ programmes. Therefore, I do prioritise it even with a busy time schedule”

As can be seen from the above-mentioned statements by two respondents, the interest of actors to be involved in a project depends on the end product of the project. And that this end product ultimately will make work easier in one way or another, which we can define as a direct benefit. The interviewees describe a potential lightening of the administrative burden, as well as better overview of the whole process as some of the direct benefits. Another aspect mentioned by amongst others **respondent 4** is the time-frame for return on the investment:

“In the case of this project I can see a possible return on my time invested within one year. Having this quick return helps in keeping the motivation to be involved.”

When describing the direct benefits, several of the other interviewees also included that the benefits needed to be realised within a certain time-span in order to keep the motivation to contribute to the project. For example, **respondent 2** was insisting on the importance of quick progress in the project:

“When I deal with many different people, inside and outside of the organisation, it is important for how HVL is perceived that we get changes implemented. It affects how interested different actors are in dealing with us, and thus how much benefit I will get from it. It also affects how I am perceived as someone that works with the project, as in, can I get things done? Therefore, if I don’t feel that the project is moving fast enough I will lose motivation and lessen my involvement”

6.1.2 By appointment or character of the task

Another way to get involved in a project is to be designated as a representative by a departmental leader. Usually this is due to the project being in some way related to the day-to-day work of the person being designated. This is well described by **respondent 3** in the following way:

“Within the department there are several people that could be involved in this project and that have a direct connection to it. In my case, I work with establishing many of the connections that this solution is aiming to assist with. These work processes are changing since several of our programmes are changing due to new guidelines. For this reason my manager asked me to contribute to this project. In addition to myself it has been important to have administrative employees that are involved in other parts of this work area.”

Respondent 9 has another description of the involvement:

“As responsible for a master’s programme it was natural for me to be part of this project. My manager discussed this with me and we made the decision together. It was both logical since this directly affects my work, and since I would be a person who has good insights.”

Both these employees echo each other's reasons for being involved, but also mention that they see direct benefits in being part of the project. This was however not as clear when they signed on to it, with both mentioning that it was unclear what the project would mean.

Respondent 3 described it like this:

"My manager had heard about a project dealing with master's programmes and the administrative work with the thesis. The information was vague, and the end result was not clearly described, therefore I was designated even though we were not sure if I was the right person."

On occasion, the person designated to the project is in an administrative position that handles a variety of projects within the department, but without having a close connection to the work processes within the project. A good example of this is **respondent 1**:

"I do not have much direct involvement with the work processes that the master's portal will deal with. However, I do have a good overview of the whole department and its external partners, which can help a lot. I also am involved in several other projects and am therefore used to how those function, meaning that I know what to expect and who else to involve."

This should secure that there is some insight into the work processes that the project handles, as well as a network of colleagues that can be of relevance for the project.

6.1.3 The project person

Another reason to get involved seems to be the sheer interest in running projects, or in the technology used within the project. This might yield some indirect benefits, even though that isn't the primary motivation. This project work sometimes gets time dedicated from management, but often this type of involvement is done on top of standard working hours.

Respondent 2 describes it like this:

"The work is my hobby, I get involved in all types of projects and work that I find interesting. 15 hour work days are not unusual, but I really enjoy it. This project is a typical example of a

something that is so innovative and different that I very much want to be involved, even when that means more work on top of what I already have.”

Respondent 4 has a slightly different angle on this:

“The project is interesting to me from a technological point of view, meaning that I think that I can learn something new and see how new technology is being used.”

Both these employees were very clear on the fact that being part of the project would lead to more work hours, but they valued the participation such as to be worth the time considering the opportunity to acquire new, innovative and technology-based knowledge.

6.1.4 The structure of involvement

Various types of individual involvement have effects on each department’s involvement in different projects such as the Masterportal. Also, the different types of involvement were split between faculties, and this was also mirrored in the interviews. Two faculties consistently used the administrative employees in projects while the other two used members of the administrative staff as participants. This despite the project leader from OUD using the same position at each faculty as initial contact point, in this case the head of the faculty administration. There are some direct consequences emanating from the differences in both the individual representatives and the faculty split: it affects resource allocation, stakeholder involvement, and cultural capital of the project participants.

To begin with the resource allocation, often being a major challenge within a matrix organisation, such as HVL. Using administrative employees has the advantage that their time is more easily rescheduled or redirected. Their managers can change the priorities and free up a certain amount of time for a project. On the other hand, the employees that are academic staff have their work plans set a year in advance, with very little flexibility. Any project will result in extra work on top of an already full schedule. Intrinsic motivation for the project is therefore necessary for their participation in the project since it will demand of them to work over-time.

The next important part is Stakeholder involvement; PMBOK stresses the importance of including the right stakeholders already at an early stage (Project Management Institute, Inc., 2021). Having the correct stakeholders is necessary in order to secure a successful implementation of projects. The project participants might both have active project roles as well as stakeholder roles, as mentioned in several of the above quotes. According to PMBOK it is desirable to have stakeholders included early on in the project, which in this case would give an advantage to those departments that have academic staff as well as administrative staff involved. In the work process handled by the Masterportal, academic staff will be stakeholders since they are directly affected by what is produced in the project. Administrative employees are much less affected, so even if they are proficient at running projects, they would need to also involve academic staff to get the right stakeholders involved.

Cultural and social capital (Glover, Campion, Daniels, & Boocock, 2016, s. 27) are factors to include when looking at success of a project, having the right people on board will greatly affect the project. In this context cultural capital is a useful, albeit often vague, metric to use to define who is important to include in a project. Those with high cultural capital influence what is seen as relevant and important in their respective departments, and in many cases define it altogether. So, who has high cultural capital at HVL? The answer was partially very clear: it is the academic staff.

Respondent 6 described it as:

“It does not matter what position an administrative employee has, academic staff will always have a higher status. With the exception of the occasional professor that has gone into an administrative position.”

But who among the academic staff that has cultural capital seems to vary between the different academic departments. One employee described it as:

“the ones that have charisma and dare to take the room do set the tone, and are therefore very important to have on board.”

In another department the perception was a bit different:

“the ones that are the experts in the field are important to involve, they might not be very visible, but if they do not endorse the project it will be dead in the water”.

These comments present themselves in some of the first interviews, therefore they were specifically followed up on in later interviews, and the pattern was consistent. There was a clear cultural split between the academic departments as well as between administrative departments.

Social capital (Lin, 1999) is equally important in this discussion, within very large departments it pays off to have a large and active network. Consistently, the administrative employees were the ones that mentioned their wide network and how that helped in reaching the whole department across campuses. In the words of one of them:

“I have contacts with all parts of my department and can usually pick out the right colleagues to involve and work with. Even when I might not have the most knowledge about the project, I can usually make it happen within my department.”

6.1.5 The role of the project office

When discussing the different roles within a project it is logical to also include the OUD project office, that works as a project and innovation hub at HVL. It is the department that is dedicated to running and coordinating projects at HVL. It is modelled on ambidextrous organisation models, where the innovation within the organisation is concentrated to one department. However, this is not necessarily that clear cut at HVL, with the OUD department being more of an innovation hub, than a department that runs all innovation projects. It therefore has different roles depending on the project, and the needs of the project owner.

How these roles are set up varies, ranging from leading projects, being technical support to just coordinating with other initiatives. How these roles are decided happens from project to project and is sometimes well motivated and at other times more of a coincidence. For the Masterportal project the OUD role is a hands-on project management role, that also includes coordination with other projects. In this case, the decision of the role was based on lack of resources within the department that is the project owner as well as the large amount of coordination needed.

The interviewees were asked specifically about the role of the OUD related to various projects, and how they perceived it. The general answer was that it was very useful to have the OUD project team involved. **Respondent 2** described that project management skills sometimes are lacking in the department and having someone involved that is comfortable and experienced from the outside gives them more confidence in working with the projects. **Respondent 4** came with a different comment:

“Even though many of us are used to running projects and find it interesting, sometimes the focus is lacking and then having someone from the outside driving the project helps a lot for getting it done”

It appears that sometimes it is just a lack of time within the departments that makes an external involvement advantageous. Having someone else keeping the pressure on the project keeps it moving forward, where it might have been de-prioritised in the daily grind.

Respondent 7 had another take on the involvement of the OUD:

“There are so many initiatives and projects within HVL that it becomes difficult to have an overview of all that is happening. This regularly results in us starting up something that has already been done elsewhere. Having a centralised project office helps with the coordination and makes us use our resources more efficiently.”

This statement underlines that the coordinating function that OUD provides is key to keeping initiatives from duplicating and also making sure to remember several different points of view.

These are all quite positive comments, and a concern is that it may not entirely reflect reality. The interviewer being a part of the OUD will certainly make the respondents lean towards giving positive comments. The comments are most likely true, but it is probable that another interviewer would get more varied responses. For example, **respondent 8** expressed that:

“when the OUD or a central administrative function builds a system and dumps it on academic staff without enough involvement it will be received with reluctance. It happens regularly and shows that involvement from the faculty is not as good as it should be. Introducing change from an external actor is harder than when it is perceived to be generated from an internal source.”

It is not unlikely that this sentiment is common, even though it may not be directly aimed at the OUD, but at a top-down approach that can be seen as detached from the realities of the departments. This comment about the negative perception of top-down project implementation mirrors the advantages that are highlighted in projects described as having good involvement and stakeholder choices.

6.2 Stakeholders, strategy and innovation

In all project management models and methods, an important part is dedicated to stakeholders and how those should be managed. Within Prosjektveiviseren that HVL uses, and the Prince2 framework, there are a few standard recommended project roles. At HVL a few of these roles have been actively assigned in nearly all projects, namely Project owner, Project Leader, and Reference users. These are basic roles in projects, and it is difficult to run a project without those. On the other hand, there are several other roles and as well as stakeholders that could be important to use as well. Those project roles have been described previously in this thesis.

Referencing the PMBOK principle of effectively engaging with stakeholders (Project Management Institute, Inc., 2021) there were many interesting observations from the respondents regarding involvement. That is, when the stakeholders should be involved and what effects that were desired from stakeholder engagement. They were commenting on different aspects that stakeholders can affect in a project, and especially in innovation projects like the Masterportal. It shows how different stakeholders can and should be involved according to the respondents.

Stakeholders can be both internal and external, and there were comments on importance of external stakeholders in connection with the organisational strategy. HVL has a clear strategic aim of connecting and cooperating with the community around the campuses as well as more widely on an international scale (Høgskulen på Vestlandet, 2022).

Respondent 2 began describing the importance of cooperation:

“Because this project connects our closest partners with both students and researchers at HVL it will be beneficial for all parties and create a long-term bond. Therefore, these organisations should be involved early in the process.”

The same respondent continues with a comment of how to use projects to connect stakeholders: *“We often think in silos where you would match a teachers education to schools and nurses education to hospitals, but we need to think more on width and connect across traditional lines in order to reach the aims of the strategy. The Masterportal is one such project where we can be innovative and at the same time get closer to achieving the strategic goals of HVL.”*

Respondent 2 then continued with it’s own motivation and role as a stakeholder in the Masterportal project:

“Creating a digital solution that helps in getting closer to the vision that we have of HVL in the future is a main motivation for participating. Making HVL into a university that is close to the community and close to the workplaces is important to me. It connects to my work as well, and in the long term should help me in achieving my goals as well.”

In this context **respondent 2** sees their own stakeholder role, and how important it is to include external stakeholders as well at early stages in a project. But the main outtake of the comments is that the involvement of stakeholders should be chosen in accordance with the strategy of HVL. Always keeping the overall target of the organisation in focus and prioritising projects accordingly is one way to get employees and other stakeholders to work in the same direction.

To continue with **respondent 2**, there is another side to including stakeholders early, and a wide variety of them, namely transparency:

“Seeing the entirety of the organisation and understanding the different needs and wants is very important in these projects. Involving and engaging the right people, and enough of them early enough makes that somewhat easier. When you involve at the right levels in the organisation, for example those that are responsible for a subject, you gain transparency into the project. Then, the distance for an employee to knowing someone that has been involved is much shorter and thus it seems less secret.”

Respondent 5 agrees with the statement:

“ Finding the right people to involve, the ones that have “skin in the game” ensures the legitimacy of the end product.”

The Masterportal project will change how a work process is carried out, as well as changing interaction surfaces between several actors and stakeholders. Therefore, it needs transparency according to these respondents in order to be accepted. In innovation projects such as this one, there is a need to make product and new process seem more familiar and thus like less of a hurdle when it will be implemented (Khalil, 2017). The stakeholders also need to be chosen to be able to set scope for the project as well as help in the planning, which should help with establishing a common direction and feasible size.

Another role mentioned in many contexts within the interviews are the Middle managers. This role will be discussed further, but they are certainly important stakeholders within many projects. All respondents mentioned the middle managers in one way or another as important stakeholders, albeit often with little influence in the project phase other than for some resource prioritisation. On the other hand, they are key in an implementation phase and further on in a day-to-day work setting. **Respondent 6** described it as a leadership gap:

“In this organisation there is a leadership gap, meaning that upper management makes decisions, owns projects and systems. On the other end specialists without formal leader roles have direct involvement in these projects. Meanwhile the daily management falls on departmental leaders, that end up with little to say in decisions about innovation projects but with a requirement to implement, run the end product and to be an “ambassador”. With many such projects, there is a strain to be able to be a change and innovation agent, when they don’t see their direct benefit, or can influence the projects.”

Respondent 8 adds to the stakeholder role of the middle managers in the following way: *“The managers can talk about the new digital solutions that we are going to get, but they have never had the time to learn about them, so they don’t really understand what it is that they are talking about.”*

And on the issue of communication gap management:

“I do not really have any contact with the upper management, save for one or two emails. My only contact is my direct manager.”

Illustrated by these comments is the importance of involvement and engagement of the middle managers as stakeholders. To refer to the principles for stakeholder involvement as seen in PMBOK, they need early information and ability to influence so that they can guide the schedule, the resources and plans. As stakeholders they are also key in realizing the benefits, influencing a culture that accepts change and innovation, and to enable the work needed for the desired outcomes.

6.3 Effects of culture and structure of departments on projects, communication, and training

Throughout the interviews and data gathering there have been many indications on differences in culture and structure between departments, and some very clear data showing how these manifest themselves. However, it also has become very clear that some factors, issues and challenges are quite similar, therefore these will be highlighted as well as differences.

6.3.1 Similarities

Beginning with the similarities, nearly all the interviewees began with the fact that they needed to see the benefits of the project, as described by **respondent 8**:

“First I need to see the immediate benefit either for myself or for my colleagues for me to contribute to a project and be an ambassador for it.”

Most respondents had variations of this comment, and it also ties well into why they were chosen to be part of the project. It does show a general reluctance for change if there is no

direct benefit, and this certainly needs to be taken into account when initiating and running projects.

The next similarity generally mentioned is ease of use of the system that is being produced by the project. Having a low barrier for taking it into use is clearly one of the key points for successful implementation, as highlighted by **respondent 2**:

“even with training and involvement the system needs to be easy to use. There are many of my colleagues that won’t have or won’t take the time to do training and expect the system to be self-explanatory. If there is an initial barrier to the use the system will be dead in the water.”

This comment and similar ones from other respondents also show another aspect that is similar between the different parts of HVL, which is large gaps in technological prowess.

Respondent 5 describes this in conjunction with a description of superusers:

“superusers that are interested in the technology and the system resulting from the project are essential to support the less technologically skilled colleagues. They need to be able to communicate with a people at very different skill levels. We have a spectrum of employees that go from highly proficient in programming to employees that struggle with email.”

The factors that are similar across the different departments are not unusual and relate to barriers to adoption of a system. Ease of use, seeing direct benefits and as well having some possibility to get training are helpful in reducing these barriers. Resistance to change and the effort to learn new ways of working, both on a group level and individual level (Jones, 2013, ss. 300-302) are normal in any organisation and these comments confirm that HVL is no exception.

6.3.2 Communication

Further on into the interviews, most respondents were discussing the importance of communicating the project and making the relevant parties within the organisation aware of what was intended and expected. Initially, this appeared to be another similarity, but then

patterns within the comments became clearer and showed distinct differences between departments.

Communication at department meetings, combined with mass email and internal website communication was explained as useful at two of the departments. The reason was to avoid having colleagues feeling left out and surprised when a change happens. Also, a history of feeling left-out of the loop became evident from several interviews, and this often generated negative feelings about change. **Respondent 3** went into detail about this with the following statement:

“Changes are often perceived as a new task that is added to the already heavy workload and is therefore met with scepticism. In my department there is a culture for discussing everything, and the discussion is needed to get acceptance. Therefore, having early and extensive communication is important so that these discussions can happen with as good of an information base as possible.”

Respondent 7 adds to this comment with the following: *“Late and little information slows down the acceptance of the project, with discussions happening and a feeling of not being able to influence the end result. This becomes a speed hump in the implementation process that could be avoided with much more extensive information at earlier stages.”*

There are good reasons for having early mass communication with the aspect of helping establish healthy discussions and a feeling of inclusion in the processes. Both these aspects were highlighted for these departments.

The contrast to other departments very clear, even though they as well highlight the need for communication. However, they describe it very differently as shown by **respondent 4**:

“There is constant information going out in the organisation, so added info will just get drowned in the quantity. It is important to involve the right people early though, if you get the right people on board they will give the project and end product credibility as well as being able to inform their colleagues. In the case of information, less is more as long as it is targeted.”

Respondent 5 mirrors this comment:

“You need to inform and involve a small number of key people. These people are trusted by their colleagues, and therefore them relaying the information gives it more weight.”

These comments display how cultural capital based on expert roles and trust appear to change the dynamics around communication. The respondent also describes an actual involvement, not just information. Looking at the stakeholder concept relative to implementation, as described in PMBOK, this is a case of the importance for strong involvement of the correct stakeholders at an early stage. Without them the communication of the project as well as the credibility of the project in these departments will be seriously weakened.

The data shows significant differences in how a project should be communicated in order to secure good implementation. According to the respondents very different approaches are needed in order to reach the different departments with communication and information. It even goes deeper than that, it also has consequences on when to involve and who to involve and can cause quite the predicament. Involve some people deeply at an early stage from a department that is more discussion based and broad communication based and the project will not be accepted due to the lack of discussions. Also, the people that would be involved would get frustrated at being involved in a project before everything happens. On the other hand, forget to involve the key people from the other departments early enough, and the project will lack both credibility and communication channels.

6.3.3 Transmission of knowledge

The theme of information leads us to knowledge, and the transmission thereof. For the projects that comes in three main stages: Initial gathering, often in an empathy phase where the project team aims to understand the work process, the needs and wants of the users and stakeholders. Feedback during development, which is to keep the direction and adjust the product based on data gathered from select stakeholders. Finally, the training phase, where the users are to learn how to use the system that is delivered.

These phases match the SECI model quite well. When gathering initial information, it is all about seeing and experiencing how work is being carried out, basically understanding the tacit knowledge while at the same time gather the information that is explicit. This is then coded into explicit information so that there can be a transfer of explicit knowledge, using it to

develop something new. In development and feedback gathering, the information gathered is used together with feedback from users, resulting in a new work process and support system. Finally, there will be a transfer of knowledge to some superusers and trainers, who will become experts in the process and the system. They will then handle the knowledge transfer to all users.

The initial gathering has been explored to a certain extent when discussing who gets involved in the project and how they get involved. This also sets the tone for feedback during development, where a select few get to work with the project team. On the other hand, the training phase, which is happening as a part of either hand-over of a system or the implementation thereof has not been highlighted so far. As in the handling of information there are differences in how the respondents described the preferred way of transmitting knowledge.

The role of the superuser was widely described as important across all respondents, one example being **respondent 5**:

“Dedicating a few people in the department who can be superusers and that can assist their colleagues to get going in the solution, as well as helping when they can’t find their way is very important for long term success”.

Respondent 9 puts it a bit differently:

“Having one or two people that can insure that training is done, and that can handle and channel feedback, or make small changes themselves is important. These superusers are key to making a new system work in our department.”

These two comments both show the importance of the superuser, but also display how that title can mean different things to different people. In one case it is someone who can assist colleagues learn, in the other it is almost a technical support. This discrepancy is seen again in how the preferred transfer of knowledge is done.

Respondent 3 describes the need for extensive and detailed training material:

“When the system is launched it needs to have a library of training resources available, so that all employees can get started. This should be combined with trainer-led teaching sessions. But we do struggle to get our employees to participate in these sessions, so that is a challenge.”

Respondent 7 agrees with this comment:

“Informing widely about the new system is important, but that should be followed by training resources and training sessions.”

This view is not quite shared in all departments. **Respondent 4** describes an ideal system launch set-up in the following way:

“Ideally the system should be self-explanatory, but this is probably not very realistic, but should be the aim. Having easy tutorials, but also some colleagues available that can help out and work shoulder to shoulder in the beginning is the way forward as I see it.”

Respondent 4 also describes the colleague-trainer role:

“Having some people involved early makes them the best way to train the department. Colleagues can help each other when needed. It both helps in creating good communication but also builds trust.”

If we look at the SECI model in our analysis of these ways of transferring knowledge, one relies much more on tacit knowledge transfer, from tacit to tacit. The other way has a much clearer use of explicit knowledge being transferred in order to get the users up and going. We can discuss the reasons of why these different cultures have developed, and differences in size, geography as well as organising might influence this. However, the reasons why the culture has evolved are outside of the scope of this thesis, and will be left as a theme for another researcher. The cultures do have an effect on the ideal approach to transfer knowledge in the different departments, and the same approach will not work everywhere. This is one aspect that a project will need to deal with.

6.4 Leading innovation

Leadership in innovation is demanding in any organisation, whether you are a formal leader or an informal leader. There is usually a resistance to change and an effort is needed to be able to reap a possible future benefit (Khalil, 2017). In the academic sector many of the formal leaders only work for a limited number of years in a managerial position and are then expected

to go back to his/her original position without any formal leadership role again. This dynamic gives certain characteristics to the organisation that many of the respondents discussed quite a bit.

Also, the respondents expanded on the preferred role of a manager related to projects, and when leading innovation and change. There were variations on what was expected of a leader at various levels in the organisation, as well as an understanding of how complicated this role can be.

Since some of the respondents were a bit wary of talking about leaders, this section will not have quotes in order to ensure the highest degree of anonymity.

So, in what ways do such factors as leadership role, leadership capacity and leadership continuity affect the willingness and capacity to contribute to innovation projects?

6.4.1 The complicated middle manager role revisited

Most respondents referred to middle management when they were talking about leaders and leadership, therefore I focus mainly on those middle managers. What is expected of the leaders vary quite a bit but mainly falls into two categories as described by the respondents: I will call them The coaching and supporting leader, and The commanding leader. These categories of leaders have combinations of the four managerial categories first described by Floyd and Woolridge (Floyd & Woolridge, 1994) and further developed by Rydland (Rydland, 2018).

A coaching and supporting leader is described as enabling the employees to take responsibility to drive innovation projects. Having a leader that works to get the structures in place for a project as well as the employee to succeed is mentioned by several respondents. This type of leader is also asked to support new ideas, and to be an ambassador for projects run by the employees. The departments in which this was expressively described as desired also were clear on a bottom-up approach to innovation and projects, where ideas and initiatives by employees were preferred to projects initiated at the top of the hierarchy. Another

characteristic of these departments was a high degree of structure in the organisation, with clear roles.

Our respondents from some departments clearly favoured a leadership style where clear direction from the top and clear guidelines were in place. They supported this view because it makes it easier for those departments to channel their work in one common direction to achieve common goals. They also feel that it avoids having unclear roles and conflicting agendas. This is not to say that they favoured a dictatorial lead with the importance of securing support from the employees and gathering feedback frequently mentioned. The departments where this leadership style was preferred generally have a more complex organisational structure, but also strong informal leaders that are vocal. Having projects initiated at the top of the organisation was not mentioned as an issue, as long as there was a high degree of information and some involvement.

Several of the respondents elaborated on the complexity and high demands on the leadership roles within HVL. To begin with, the sheer amount of work is large enough that it is difficult to stay focused on innovation projects. For the middle managers administrative duties are added to teaching work, and in addition there is a high demand for participation in many meetings. On top of that, add projects that might not appear urgent, then those will be hard to prioritise. These projects are rarely initiated at the middle manager level, but as mentioned the managers are responsible for implementing these new systems and work processes. Having day-to-day tasks that take much of their focus, and then projects that are driven from top management can create a disconnect between what they feel they need to focus on, and what is demanded from top management. In that way they often get pushed in many directions, with demanding choices and prioritisations to make. This is also mentioned by Rydland (2018) who describes the balancing act that middle managers have to do between day-to-day operations and change management. Rydland also connects this to the disconnect found in ambidextrous organisations, where innovation is driven from a separate part of the organisation, but for the implementation of the innovation the managers have to have the capacity for both exploration and exploitation.

Also switching between the role of manager and back to employee can create unclear roles and varying degrees of authority. It can make it quite a bit more difficult to make an unpopular decision when you know that you will have to go back and defend it to your colleagues. Add

into that situation that there are previous leaders working in the department, often with an informal authority attached to them, making for a complex environment to navigate. These are all aspects that the leaders will have to navigate, and the respondents were quite aware of the difficulty of the situation.

One respondent commented specifically on the fact that the leaders often are only in place for a limited amount of time. The respondent said that for innovation projects there were both positive and negative consequences with this way of organising leadership roles. A positive side is that many leaders are open to change since they never get stuck in their ways. Always being relatively new in the role, they can see what needs to be changed and are open to taking action. A negative aspect can be that a lack of continuity in leadership leads to projects not being finished or being de-prioritised when a leader steps down. Another negative aspect is that many of these leaders are relatively inexperienced as managers. Leadership skills take time to build, and this lack of experience and skills can slow down work in the early parts of a leadership period. According to Rydland (2018, s. 11) the middle managers need to learn how to balance conflicting concerns, and this can slow down progress of change and innovation. Harvey and Broyles (2010) have management support and building of trust in change and innovation as antidotes to resisting change. Both of which are important tasks for middle managers.

Another respondent described the dynamism between leaders and other team members in a different but complimentary way. It described how employees support the leader that can help them further their own career, projects and work. Sometimes it was more useful to have a strong leader that can open doors, at other times it was preferred to have an enabler for them to be able to do as they like. Either way, the support for the leader was only there as long as they either had the same goal or that the leader supported the aim of the employee.

6.4.2 The role of informal leaders

In all organisations there are opinion leaders that are not formal leaders, and they exert a considerable influence on the success of a project or an innovation that is to be implemented.

When describing the different roles for involvement in projects, many of the respondents touched on this concept, but here it will be focused on a bit further.

Respondent 3 described the mechanisms to be aware of in quite some detail:

“The natural leaders are the ones that often get traction for their ideas in the group. They have an authority, either by merit of age, or title or position. But really, it’s more about their self-confidence, they talk like they are experts about everything, even when they are not. Those are the people that you have to get on board, they direct the group dynamic.”

There are several interesting points raised in the above-mentioned statements that can be analysed through Bourdieu’s capital theory (1986). Beginning with status from age, title or position, these are more formal factors that raises the cultural capital. But these factors are clearly not enough, there needs to be a natural authority and a possibility to act as an expert. This leads to the ability to direct the group and set the scene. These are typical for having a high cultural capital, these are the people that decide what is right, what is important and what direction to choose, and they can do this based on their status, not formal position.

Another aspect of this mechanism is highlighted by **respondent 6**:

“within some departments the formal leaders continue with the status that they had before they were formal leaders. Formal leadership is not the strongest indicator for authority in the academic sector, the academic role is much more important. So the formal leader must understand these dimensions of their department and use them to be able to get a project done. Without the support and active participation of those with the informal authority these projects do not stand a chance.”

This characterisation can be connected back to the champion and facilitator roles as described by Floyd and Wooldridge (1994), where these types of leaders work more for the employees than for the upper management. It is efficient in enabling change from within the organisation and can lead to a plethora of innovation as well as a high degree of satisfaction within the ranks of the employees. However, it can be detrimental to organisational goals, as well as wider cooperation and streamlining of the work processes due to the spread and varying focus of the initiatives pushed by the employees. It is not an unusual mechanism within organisations with high degree of independent and highly skilled employees, such as tech companies or the academic sector.

Continuing with these informal leaders, often it's the "ambassadors" that are being highlighted, but let's not forget the critical voices, they can be just as important. Several of the respondents were highlighting the importance of including the critical voices, and preferably the ones that carried weight in the department. **Respondent 8** had a short comment about it:

"I would like to see more of my colleagues involved, to open their eyes to the possibilities. And especially the one that are critical to new systems, they are key to lifting these digital solutions."

Respondent 3 elaborated on these mechanisms:

"My colleagues have their own projects and work that they are enthusiastic about, and that they champion. They can often be critical of other initiatives, but if you get them on board they will lift your project by having good input. If they are not involved, and understand your project, they will just talk more about their own initiatives and shift the focus away."

The critical voices were generally mentioned as ones to convert to positive ones, but also ones that could show the flaws in your own project and thus lift the quality of it. This is an important distinction, because it is a difference in the approach to criticism and feedback, how open the culture is for those aspects. Khalil (2017) writes about resistance to technology in academia and also notes that the culture for criticising has a tendency to not be all that common in the sector. For many, the work is so closely related to the person, so to criticise the work is to criticise the person. But for process changes and tech implementation, the critical voices are essential in order to be able to produce a workable end product. Without critical feedback, the acceptance rate for the final system is reduced.

7. Discussion of findings

The interviews generated much data and insights into several areas, closely related to the research questions. In this section, I will discuss these findings further and relate them to the research questions more closely.

7.2 Roles, authority and cultural capital

The academic sector is a complex one, and with many strong formal and informal hierarchies. These need to be understood and managed in order to successfully being able to run and implement a project, and especially an innovation project like the Masterportal. There are many wills and forces to consider and variations in culture to work with in order to being able to implement the change.

Cultural capital has been described as giving the possibility to always move the goalposts by the ones that have a large amount of it. They will set the scene, the requirements for fitting in and influencing, and if they are not on board, or feel threatened, they will just change what is “right” so that it is more in line with their views and requirements. According to Bourdieu (1986) the capital theory describes many of the mechanisms around status, popularity and power. Therefore, in an organisation such as HVL with complex formal structure and an equally complex informal structure, the understanding and evaluation of the cultural capital becomes one of the keys to implementing innovation.

Through the insights of the respondents, combined with data from interviews carried out in late 2021, we can see some main characteristics that give us a way in for analysing the authority and power relations in the organisation. As per the data from the interviews this appears to be highly relevant to correctly decide on information and involvement in projects.

Defining roles is important for a wholly other reason: how to create innovation that responds to the needs and wants of the users and stakeholders. Most respondents rated a high quality end product meeting their needs as being a main requirement for a successful project delivery. This shows the importance of correctly defining who should be involved, and at what time, since it affects the ability to create processes and products that resonate with all users. As

much as the cultural capital is important, the sheer skill of the actors that should be involved is necessary. Having competence and skills available can secure the input and contributions that are needed to produce a solution adapted to the users. In many cases having involved these skilled users also gives credibility to the project and thus the end product.

The definition of the roles that should have parts in the project and when they should be involved should be a defined task when establishing the project. It should be a very structured task that involves an analysis of the factors that are important for said project. As much as this is true for the project roles, it is also important when working with stakeholder involvement which is the subject of the next section.

7.3 Stakeholders and implementation of innovation

Stakeholder selection follows many of the same patterns as has been discussed for other roles, as in that they should be evaluated and involved based on structured analysis. But they do not necessarily need to be involved to the same degree as project participants and main users, for example. Within an academic organisation, such as HVL, there will often be stakeholders who also have some theoretical in-depth knowledge and expertise in the areas that a certain project targets. In those contexts, the stakeholders can be useful both as experts and as people that are affected by the project. These findings are very in line with the principles of stakeholder engagement described in PMBOK (2021), even if they do not go into all the aspects that are defined in the principles.

Projects at HVL are connected to the strategy already from the initial mandate. But including stakeholders in the project that can contribute to keeping the project in line with organisational vision and strategy is also important for the continued relevance of the project. These people can be upper management, or they can be involved in other projects that target other parts of the strategy. Structures for involvement of these stakeholders should be in place, and to some extent they are in the organisational structure for projects at HVL. But when looking at the data collected, they indicate that these could be improved.

With the risk of seeming repetitive, the middle managers are important stakeholders. They are nearly always affected by the changes, with little influence on the outcome. The structures in place for their involvement are lacking, and they often just get a project or process to implement at the tail end of the project. The lack of these structures seem to be a definite weak point within HVL.

Finally, the last stakeholders that were mentioned by some of the respondents, and that are essential for the Masterportal project: the external stakeholders. Within the Masterportal project they will receive a new user interface for pitching in ideas or concepts for new master's theses. Therefore, they are integral to the success, if they do not contribute the portal will be much less relevant. What makes their involvement difficult is the sheer number, and difficulty to assess their relevance. To a much larger degree, HVL needs to find the structures and mechanisms for how to involve the community and organisations in order to thrive and be able to create relevant innovation!

The next section will delve into how insights into the factors regarding roles and stakeholders are relevant for how involvement in projects is organised. It also highlights how this affects information and communication in the departments.

7.4 Culture, structure and it's effects on implementation

The data gathered showed clear differences between departments, and quite some differences in how they prefer their involvement to be. Analysing this aspect for each project requiring a significant amount of involvement should be part of the concept phase. In the case of the Masterportal, some lucky coincidences put the project on a path to many well-suited participants. For the departments that value high involvement at early stages the project got process and product experts on board early on. Also, the departments that wanted their involvement focused on later project phases, but with a wider involvement did get that. In upcoming innovation projects, one cannot rely on luck to find the right actors, but a more structured approach is necessary.

Mapping of the departments via the project support team (a group consisting of most project leaders at HVL) together with targeted meetings in the concept phase is one way to move forwards. Both the Prince2 (Axelos Ltd., 2021) methodology recommends careful selection of project participants, as well as the PMBOK principles (Project Management Institute, Inc., 2021), most notably the ones regarding the creation of collaborative project team environments.

A benefit to selecting a suitable group for the project team would be if they also can contribute as ambassadors for the project, and thus aiding in implementing the innovation. But as mentioned by several of the respondents, it is also important to recruit the people with influence in each department so that they will be ambassadors even if they do not actively participate in the project team. A careful mapping of who is necessary to communicate with and what role they can be expected to take, if any other than just being supportive to the project and what it aims to achieve. If the project team has representation in most departments, that is a logical starting point for finding out who are the key actors. Bourdieu does describe this as that most people in a certain group or environment will know who has the influence, and who it is that will use it. Therefore, mapping is not particularly complicated and should produce a list of the relevant people as long as it is carried out in a structured way that will produce consistent results. Being conscious of finding both those that have influence but also those with large networks is important in this context, when seeing these aspects through the lenses of social and cultural capital. Examples of this is having the same type of questions asked when searching for these people, and also asking similar roles in the different departments.

7.4.1 Communication, sharing information, and training

Now, there has been a lot of descriptions of roles, and how to find the project members and the key influencers. All these need to be communicated with, and the data from the interviews shows that the ideal communication is different depending on departments. There might be many reasons for this, such as size, geographical spread, tasks that they carry out, and many more. The reasons why can certainly be an interesting subject to further research for someone

else, but for this thesis the focus will be how communication should be adapted. The contrasts between a need for mass communication via several channels as requested in some departments, versus the much more scaled back communication that focuses on a few key people in a department, are quite important. They will require two different sets of communication materials, adapted for different types of audiences. The planning and timing as outlined in the project plan that is written in the concept phase will also be affected. Traditionally the communication plan was uniform, and a result of earlier successes or failures. What can be deduced from the data gathered here is that depending on what department the focus fell on for a project would reflect on what communication strategy that was successful. For large innovation projects, such as the Masterportal, a differentiated communications plan would be necessary to get the best possible implementation of the project. Seeing how this has not been done to a large enough extent in the project, this will have to be a learning point for future projects.

Looking at the communication and information aspect through the SECI framework is a useful approach. Nonaka (Nonaka, 1994) describes different ways of sharing information and knowledge and how they build on each other. The differences between the departments highlight how the information and knowledge transfer can be tailored to each context, but should be seen as one connected plan.

Finding the right people and communication is important, but if you cannot get a hold of those people with skills and high cultural capital with your communication or as parts of the project then the concept falls. Herein lies a structural issue that also strongly influences how to set up a project, especially the larger innovation projects. These need people to dedicate time to work or just even feedback. Many respondents commented on the fact that they had to do this work outside of their scheduled work hours. For the employees who are in academic positions within HVL these work schedules are tightly packed and set well over a year in advance, leaving little flexibility to contribute to projects that they might consider important. Workplans are not set up in a consistent manner between all the departments either, which impacts the amount of flexibility as well as the time spent updating and working on these plans. This leads to a skewed representation in projects, where some departments that have more flexibility are able to influence the organisational development to a higher degree. It also leads to less managerial involvement in those places where workplan follow up is down

to the minute, taking up valuable time from already overworked middle managers. All in all, the structure around how work is planned is a key factor for how innovation projects can succeed in the future.

With the background of the tight work plans at most departments, it is no surprise that the involvement of the OUD as a separate project office that can drive and coordinate is appreciated. Someone that can follow up and make sure that progress in some of the heavier organisational projects. Seeing how this is not really set up as a separate innovation department, as you would in an ambidextrous organisation, but closer to a coordination function in a matrix organisation, is there a risk that the project and process owners might think that they are relieved of their responsibilities? Avoiding this risk brings us to another success factor for the implementation of innovation projects: i.e. clear definition of roles and responsibilities. It has been mentioned earlier that the roles for project participants are important, but the project roles for those with responsibilities are essential for taking decisions. In the Masterportal project, most of the responsibility has been pushed over on the OUD and that does weaken legitimacy of the project in the moment that it is to be implemented. Working out and enforcing the different project and stakeholder roles would be a logical next step for improving innovation at HVL.

7.5 The managerial role

Process and project owners are usually upper management, and their responsibilities have been discussed earlier. It is however relevant to see their managerial role, in conjunction with leaders at lower levels. The upper management have amongst other things a responsibility to ensure that the projects and process changes have enough dedicated resources in their departments and that they have a secured support in other departments that will be affected by the changes. They also have a responsibility for implementation and that the product of the project will be running even after that the project is closed. These responsibilities are not always clearly expressed and the extent of them often surprise the managers that have them. Clarifying these roles and responsibilities is one key area to improve. But these responsibilities

also include enabling the middle managers and giving them the tools to secure the changes and innovation. On the other hand, the middle managers have to help dedicate resources into projects as well as supporting the changes, and also to be the voice of the employees up to top management. As it should, these roles are symbiotic and should have clear definitions of what is expected of them. These guidelines seem vague though, and from the data gathered it varies quite a bit from person to person how they are interpreted.

Which brings us to the middle managers, that have been discussed thoroughly throughout the thesis. According to the interviews, they are overworked, squeezed between the employees and top management; and very important for the success of projects and innovation!

The middle managers need all the support they can get, and one way of supporting them seems to be to analyse how to lighten the load. Going through the work processes that they do is a start, and checking what can be removed, what can be automated and what can be done more efficiently. Focus for most projects is either how to improve administrative processes, or on the other side, how to improve the situation for the teaching staff. Very seldom are the processes for middle management questioned and analysed, and therefore there could be improvements to find there, maybe even the odd innovation.

Training of the managers is already something that has a high priority at HVL. The training is quite standardised but follows best practice for management training. However, as we have found out from the data collected here, the demands on the leaders are not uniform and differ based on the culture of each department. A reevaluation of how management is trained could therefore be on the cards, in order to make them ready for the task of running their department, not just any department.

The focus on management training comes from the fact that there is a lack of continuity, resulting from the time limited contracts for most managers. This lack of continuity brings benefits in that it can make the organisation more accepting of change and new projects when the leaders are a bit more fresh in their roles. They also see the organisation from their old roles within it and can therefore improve on many processes. There are negatives as well, mainly that old projects can fall by the wayside and that previous changes and innovation can be forgotten. The organisational memory can be somewhat reduced from this mechanism. To work against the negatives, it would be useful to look into how to improve the continuity.

Some initiatives have already been started, amongst others the Project Portal that collects all change and innovation projects and can be used as a project management tool. Such tools that collect the project portfolio in one place show potential in keeping the documentation in one place so that there is less dependence on the one manager that might have left. Also, for this researcher it provided some good data on past and ongoing projects!

8. Conclusion

8.1 The approach to answering the questions

This thesis aims to explore how projects at HVL are run and what mechanisms that influence them. Answering the overarching research question of finding the main drivers for successful implementation of change and innovation projects at HVL should provide insight into the projects and mechanisms. To provide some context, the project management and project structure at HVL has been described, together with the OUD department. A case is used to give a framework for the questions asked, this case is the Masterportal project.

To operationalise the overall research question, four other questions were formulated:

- What actors are involved and how is their authority structure, culture and background influencing the design and implementation of an innovation project like the Masterportal?
- How are the stakeholder roles defined with regard to ensuring lasting change in innovation projects like the Masterportal?
- What effects should the variations of cultures and structures in different departments have on how projects are organised and implemented?
- In what ways do such factors as leadership role, leadership capacity and leadership continuity affect the willingness and capacity to contribute to innovation projects?

These questions set the direction for the theory that has been used throughout the thesis. The theory was split into two parts; the Structure in projects, and Sharing and building knowledge. The structure section lays a framework consisting of some of the main theories dealing with project structures. Sharing and building knowledge investigates cultures, communication and leadership theories, some which are rarely used in project management studies but are relevant for these research questions.

Data has been gathered, with the main source being in-depth interviews with a variety of employees at HVL, representing different roles and departments. Also, there is some secondary data from project management systems and older innovation projects at HVL that

has been used to find complimentary data to the interviews. The findings have been discussed and analysed resulting in answers to the research questions. So, what did we find out?

8.2 Successful implementation – drivers and factors to consider

Understanding the project roles and how they fit into each department, depending on the culture and structure is necessary to find the right people for the project. This can be done with a mapping of potential participants that have the relevant skills, but also have the influence and network within their respective department. How influence and network are gained differ between departments, thus there needs to be a selection on different criteria per department. The involvement of these project roles also needs to be timed correctly; the departments vary regarding what stage of the project they want to be involved in.

Intrinsic motivation is useful when it is available and increases the effort directed at the project, and thus the possibility for success. Motivators come in different guises, but a couple have been mentioned by the respondents. Direct benefits as results from a project is often highly motivating for project participants, return on the investment is important for many regardless of department. Some also just enjoy being part of projects, and their perceived benefit results from the involvement itself.

The role of the OUD as a driver of projects is mentioned by many of the respondents. In a busy workday prioritising projects might not be that easy, it can then be useful to have an external department driving the projects along. The project management expertise within the OUD is also relevant in many settings and can provide the necessary structure to keep projects on track. The OUD can have both the role of a driver of projects but also as a catalyst in helping them start up and move along.

According to the interviews, finding and involving stakeholders can be done in much of the same way as with active project roles, with a few additions. External stakeholders are important in some projects, as it is for the Masterportal project where they are an important user group. Finding the internal stakeholders that are the most appropriate should come

down to choosing based on involvement, influence and network. This mirrors very closely the PMBOK recommendations for stakeholder involvement. They also need to be involved early enough in the projects, which varies between roles and needs to be defined. It is also in the stakeholder data that the important middle manager role first comes up, as one of the main stakeholders in many projects. They are however very often involved too late in projects.

Another important driver of successful implementation is communication, information, and training. A one-size-fits-all approach to communication is not supported by the data, with the respondents clearly describing differing solutions to the preferred communication strategy. Adapted communication and information is needed for each department, adapted at each stage of the project life. This is also closely related to project involvement, where similar mechanisms were identified. The use of Nonaka's (1994) SECI model as a support for analysing and understanding how the learning and communication flows work in each department is recommended. This will assist in developing and applying an adapted channel strategy. Some factors were however already identified in this thesis. For example, that some departments were preferring a mass communication approach while others saw it more fit to have a few specialists involved who would then relay the information.

Finally, leadership in running and implementing innovation projects was one area where many of the respondents had interesting comments. Closely connected to both stakeholders and project roles are the informal leaders. These are the ones that set the scene and define what is important but may not have any formal authority. They need to be identified through the theories around cultural capital so that they can be brought on board, either as stakeholders, project members or as ambassadors. The characteristics of these informal leaders are different in the different departments, and much as the other project roles they need to be identified in the cultural context of their department.

Another leadership driver for successful implementation is continuity. With leaders at many levels only in place for a defined time frame there is a risk that a project might lose focus when there is a change of leadership. Building structures that ensure continuity, like for example the project portal is one way of dealing with that challenge.

The middle managers have been mentioned previously as stakeholders, but they are deemed as being extremely important by all respondents for the success of a project. However, they

also have many administrative duties, some have teaching duties and research as well. They also have a tight meeting schedule that makes it difficult to prioritise projects. Their leadership capacity as change agents is strained to say the least. Therefore, getting these middle managers involved and empowered so that they can champion as well as drive change and innovation is essential. Freeing up their time, training them to be change agents and helping them to be active stakeholders should be a priority!

8.3 Limitations to the thesis

There are a few limitations with this thesis, and I will start with the most obvious: the author and researcher. As an insider, there will without a doubt be some subjectivity no matter how hard I try to distance myself from the subject being researched. The advantage of going into the research and the writing with the notion that I had to be as objective as possible has kept me conscious of this factor along the way. Therefore, I have taken action in several situations so that I would stay as objective as possible, and to keep the respondents to answer as honestly as possible.

Another limitation is the number of respondents, which barely covers enough departments and roles within HVL. This is despite the number itself being in the upper end of amount of interviews that were manageable. Even though the respondents were open and candid in their responses and tried to see their departments with an open mind, it is clear that more input might yield more varied responses. Therefore, there are some comments that I have not followed up on since they only came from one source. All themes that made it into the thesis have come from several of the respondents, so that there always are several data points supporting a theme.

Lastly, the sheer complexity of what is researched in the thesis makes it necessary to make decisions and follow some themes that are recurrent, with the risk of having missed out on factors that are important. The complexity is also the reason why I decided to only focus on drivers for success and did not go into suggesting solutions to any extent. It would have been interesting but way too expansive. On the other hand, that leaves many exciting subjects for further research.

8.4 Further research

As promised, several subjects for further research were generated.

There are many possibilities for defining what metrics should be used in order to define what project participants or stakeholders are to be involved. This would be a logical step in order to operationalise the drivers for success that are defined within this thesis. Another interesting subject could be to investigate the factors that influence the culture within a department, and why it differs so much from other departments within the same organisation. Especially, when they theoretically have as much in common as for example the academic departments at HVL.

Building on the research by Rydland (2018), it would be quite useful to look at the roles of middle managers in the academic sector. Finding out how to set them up as successful change managers while balancing the day-to-day work could prove to be a good subject for a thesis or an article.

A larger theme to investigate further, that I have only touched briefly is organisation for innovation. Traditionally, organic structures are regarded as being more adapted to generate innovation than a mechanistic structure. However, within the academic institutions the structures and cultures have both very organic and very mechanistic characteristics. For example very strict hierarchies and delegation systems associated with mechanistic organisations exist alongside structures giving individuals large amounts of freedom within their work and networks, aspects that are seen as organic. Learning more about how this affects innovation and change would be research that at least this author would like to read.

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Appendix 1: NSD confirmation

Vurdering

Referansenummer

106672

Prosjekttittel

Driving change and innovation through projects at HVL

Behandlingsansvarlig institusjon

Høgskulen på Vestlandet / Fakultet for økonomi og samfunnsvitenskap / Institutt for økonomi og administrasjon

Prosjektperiode

11.01.2022 - 15.06.2022

Meldeskjema

Dato

16.03.2022

Type

Standard

Kommentar

OM VURDERINGEN

Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

TYPE OPPLYSNINGER OG VARIGHET

Prosjektet vil behandle alminnelige kategorier av personopplysninger frem til den datoen som er oppgitt i meldeskjemaet.

LOVLIG GRUNNLAG

Prosjektet vil innhente samtykke fra de registrerte til behandlingen av personopplysninger. Vår vurdering er at prosjektet legger opp til et samtykke i samsvar med kravene i art. 4 og 7, ved at det er en frivillig, spesifikk, informert og utvetydig bekreftelse som kan dokumenteres, og som den registrerte kan trekke tilbake.

Lovlig grunnlag for behandlingen vil dermed være den registrertes samtykke, jf. personvernforordningen art. 6 nr. 1 bokstav a.

PERSONVERNPRINSIPPER

Personverntjenester vurderer at den planlagte behandlingen av personopplysninger vil følge prinsippene i personvernforordningen om:

- lovlighet, rettferdighet og åpenhet (art. 5.1 a), ved at de registrerte får tilfredsstillende informasjon om og samtykker til behandlingen
- formålsbegrensning (art. 5.1 b), ved at personopplysninger samles inn for spesifikke, uttrykkelig angitte og berettigede formål, og ikke behandles til nye, uforenlige formål
- dataminimering (art. 5.1 c), ved at det kun behandles opplysninger som er adekvate, relevante og nødvendige for formålet med prosjektet
- lagringsbegrensning (art. 5.1 e), ved at personopplysningene ikke lagres lengre enn nødvendig for å oppfylle formålet

DE REGISTRERTES RETTIGHETER

Så lenge de registrerte kan identifiseres i datamaterialet vil de ha følgende rettigheter: innsyn (art. 15), retting (art. 16), sletting (art. 17), begrensning (art. 18), og dataportabilitet (art. 20).

Personverntjenester vurderer at informasjonen om behandlingen som de registrerte vil motta oppfyller lovens krav til form og innhold, jf. art. 12.1 og art. 13.

Vi minner om at hvis en registrert tar kontakt om sine rettigheter, har behandlingsansvarlig institusjon plikt til å svare innen en måned.

FØLG DIN INSTITUSJONS RETNINGSLINJER

Personverntjenester legger til grunn at behandlingen oppfyller kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

Ved bruk av databehandler (spørreskjemaleverandør, skylagring eller videosamtale) må behandlingen oppfylle kravene til bruk av databehandler, jf. art 28 og 29. Bruk leverandører som din institusjon har avtale med.

For å forsikre dere om at kravene oppfylles, må dere følge interne retningslinjer og/eller rådføre dere med behandlingsansvarlig institusjon.

MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Før du melder inn en endring, oppfordrer vi deg til å lese om hvilken type endringer det er nødvendig å melde:
<https://www.nsd.no/personverntjenester/fylle-ut-meldeskjema-for-personopplysninger/melde-endringer-i-meldeskjema>

Du må vente på svar fra oss før endringen gjennomføres.

OPPFØLGING AV PROSJEKTET

Personverntjenester vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

Appendix 2: Consent

Vil du delta i forskningsprosjektet:

**Implementing project-based change and innovation in the academic sector:
“The Masterportal as a case study at HVL” ?**

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å få en bedre forståelse for hvilke faktorer som kan være med å påvirke hvorfor et digitaliseringsprosjekt lykkes med implementering eller mislykkes. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Prosjekt brukes for å drive endring og innovasjon i akademisk sektor, som i mange andre sektorer. Det finnes forskning på at få av de endringsprosjektene er vellykket, og spesielt digitaliseringsprosjekter har en lav andel vellykkede prosjekter. Det finnes allerede mye forskning på hvordan organisasjonsstruktur og rammeverk kan påvirke prosjekter, men det er mindre som ser på kulturelle aspekter samt lederskapsaspekter for å lykkes med endringsprosjekter.

Jeg vil bruke et pågående prosjekt; Masterportalen, for å studere hvordan et digitaliseringsprosjekt mottas og blir implementert i ulike avdelinger basert på interessenter, organisasjonskultur og ulike lederskapsfaktorer.

Dette er en Masteroppgave innenfor Innovasjon og Ledelse, og data som hentes inn for denne oppgave vil kun bli brukt til denne oppgave.

Hvem er ansvarlig for forskningsprosjektet?

Høgskulen på Vestlandet, Fakultet for Økonomi og Samfunnsfag er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?

Du blir spurt om å delta fordi du har en rolle innenfor Masterportalprosjektet.

Hva innebærer det for deg å delta?

Data vil bli innhentet i en semi-strukturert intervju på omtrent en time. Der vil det bli tatt opp et lydopptak, som slettes i det at det blir transkribert. Du vil bli bedt om å lese transkriberingen for å sikre at den er korrekt.

Utover dette kan det bli brukt noe informasjon fra brukerintervjuer fra prosjektet. I det tilfelle den type informasjon fra deg vurderes å bli brukt, så vil du bli spurt om samtykke for det.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

Det vil kun bli Masterstudent og veileder som har tilgang til intervjuene.

Navn og kontaktopplysninger vil bli lagret separat fra intervjuene.

All data vil bli lagret kryptert, på en sikker server.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, noe som etter planen er 15.6.2022. Personopplysninger og opptak vil bli slettet senest ved prosjektavslutt.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

innsyn i hvilke personopplysninger som er registrert om deg, og å få utlevert en kopi av opplysningene,

å få rettet personopplysninger om deg,

å få slettet personopplysninger om deg, og

å sende klage til Datatilsynet om behandlingen av dine personopplysninger.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra *Høgskulen på Vestlandet* har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Hvor kan jeg finne ut mer?

Hvis du har spørsmål til studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med:

Høgskulen på Vestlandet ved Ola Alsterholm ola.alsterholm@hvl.no (masterstudent) og Abdul Quddus abdul.quddus@hvl.no (Veileder)

Vårt personvernombud: Trine Anikken Larsen trine.anikken.larsen@hvl.no

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:

NSD – Norsk senter for forskningsdata AS på epost (personverntjenester@nsd.no) eller på telefon: 55 58 21 17.

Med vennlig hilsen

Abdul Quddus

(Forsker/veileder)

Ola Alsterholm

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet: Implementing project-based change and innovation in the academic sector: “Masterportal - a case study at HVL”

og har fått anledning til å stille spørsmål. Jeg samtykker til:

å delta i intervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

(Signert av prosjektdeltaker, dato)

Appendix 3: Questionnaire

Intervjuguide

Prosjektorganisering og implementering HVL

Case – Masterportal

1. What connection do you have to the Masterportal project?
Hvilken kobling har du til Masterportal prosjektet?
2. Have you been involved in other digitalisation projects at HVL?
Har du vært involvert i andre digitaliseringsprosjekter på HVL?
3. What factors influence the extent of your involvement in a digitalisation project like the Masterportal?
Hvilke faktorer påvirker omfanget på din involvering i digitaliseringsprosjekt som Masterportalen?
4. What aspects makes it more likely for you to use a digital support in your work situation?
Hvilke aspekter gjør det mer sannsynlig for deg å bruke et digitalt støtteverktøy på jobb?
5. In your opinion, what makes adoption and implementation of a new digital system, like the Masterportal, more likely at your department?
Fra ditt ståsted, hva gjør det mer sannsynlig at et nytt system blir tatt i bruk på din avdeling?
6. How would you describe your role in a successful adoption and implementation of the Masterportal?
Hvordan ville du beskrive din rolle har du i en vellykket implementering av Masterportalen?
7. How would you describe the role of your colleagues in implementation and adoption of the Masterportal?
Hvordan ville du beskrevet rollen til dine kollegaer i implementering av Masterportalen?
8. What would be success factors for the project team from OUD in the implementation of the Masterportal project?
Hvilke er suksessfaktorene for prosjektteamet fra OUD for en implementering av Masterportalen?

9. From your point of view, could you elaborate on the role of the department leaders in the implementation and adoption of a new digital system?
Fra ditt ståsted, can du beskrive rollen til avdelingslederne i det å implementere en ny digital løsning?
10. Are there other stakeholders within your department that are essential for running the project and for successful implementation?
Er der andre interessenter i din avdeling/fakultet som er viktig for prosjektet og for implementering?
11. Could you describe other important mechanisms and roles within your department for a successful adoption and implementation?
Kan du beskrive andre viktige mekanismer og roller i din avdeling for en vellykket implementering?