The use of ITIL and its effect on organizational culture

- bringing the employee perspective to the scene

Master's Thesis in Applied Computer Science

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Abstract

This thesis uncovers that existing academic research on ITIL (Information Technology Infrastructure Library) provides insight on several success factors when implementing. Although this is a well-documented topic, the subjects for collecting data were often ITIL experts or Information Technology (IT) executives, consultants or managers. This implies that existing research on ITIL is frequently presented from an expert point of view. This thesis highlights an existing research gap in literature where the employee perceptive is lacking. In addition, aimed to add the perspective of differences in national culture to the discussion by focusing on Norwegian organizations and possible cultural implications. Both employees working in a IT department and ITIL experts were used as sources for information during this master thesis project.

The findings showed that ITIL results in more formalization to organizational cultures by increasing the use of procedures, standardization and regulations. As a IT Service Management (ITSM) concept, ITIL often resulted in a more service-oriented focus for IT employees. However, factors that weakened the effect of the framework were prominent as well. Immature organizational cultures where management commitment was lacking were important topics which could influence the success of ITIL. Thus, several barriers for success were uncovered: unfulfilled roles, lack of management commitment, too time consuming to implement, and lack of employee training. ITIL education was concluded to be too dominated by conveying theoretical knowledge. It is therefore recommended, that the courses should be adjusted to provide more practical examples. This will make it easier for employees to relate the theoretical knowledge to real life situations. The results showed that the impact of the choice of software could have significant effects on whether employees felt motivated. ITIL supported software often lacked adaptability to the people who used it everyday. It is therefore recommended that thorough research should be done on different types of software and involving employees in the decision making.

Lastly, it is recommended that management increase their understanding of ITIL and align it to existing business processes, as well as lowering the standards for documentation for employees. Their aim should be to support and maintain the framework continuously after the implementation.

Keywords: ITIL, organizational culture, employee and management perspective

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Kristina Rakneberg Berntsen, 15.05.2017

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Chapter 1

Introduction

This chapter will briefly explain the background for this master thesis, completed during the fall of 2016 and spring of 2017. The chapter informs of the motivation for the thesis, research questions, scope, and the structure for the rest of this document.

1.1 Background

The use of information technology (IT) is a vital contribution to the global economy where the development of information systems has helped improve business processes. For example, processes previously performed manually are now completed automatically [1]. Hedman and Kalling [2] clarified that IT had changed the way we do business, and is a significant investment for improving the way organizations provide customer service, and improve decision making.

IT service management (ITSM) frameworks have helped organizations change from a hardware and application oriented perspective to a service-oriented focus. Since the 1980's, there have been massive changes to ITSM business models and standards. Similar to the way IT has affected business and business processes, ITSM has transformed work practices in the direction of a service-oriented path [3, p. 866].

One ITSM concept that is commonly used is the Information Technology Infrastructure Library (ITIL), which has become increasingly important in the IT community [4]. ITIL is a framework for quality management of deliveries, operations, and support in businesses. ITIL includes life-cycle phases for development of services and processes, as well as suggestions for a service catalog, work processes, roles, and functions. The most common reasons firms implement ITIL is to increase their operational efficiency and improve service quality or customer satisfaction.

Eikebrokk and Iden [5] stated that the growing popularity of ITIL in the Nordic countries from 2006 to 2008 is reflected in the booming interest in IT service management, triggered by the release of ITIL version 3 in 2007.

1.2 Motivation

ITIL is considered the de facto standard of ITSM frameworks. However, there exists a lack of research on how ITIL usage impacts the everyday work life from the employee perspective. Academic research is mostly dominated by research on ITIL success factors during implementation processes. One interesting aspect of this research is that it mostly acquire its basis by collecting data from ITIL experts, managers, executives or IT consultants. This gap in academic literature was used as inspiration for this master thesis. After participating in the NIKT 2016 conference in Bergen, Norway [1], where a short conversation with ITIL academics Jon Iden and Tom Roar Eikebrokk took place. The assumption that the employee perspective was lacking in existing literature was confirmed.

1.3 Research questions

Previous studies found that organizational culture is an important factor to take into consideration when conducting an ITIL implementation[2]. Hence, it is interesting to take the employee[3] perspective into consideration to uncover possible contrasts and add to existing academic research on success and how ITIL affect the organizational culture in Norwegian businesses. This thesis will be structured around the following research questions:

RQ1: In what way do employees believe ITIL can influence organizational culture?

RQ2: What do employees consider important for ITIL success?

RQ3: What kind of differences or similarities between the employee perspective and management perspective exist?

RQ 1 and RQ2 focuses on the employee perspective. RQ 3 then tries to compare the results from RQ 1 and RQ 2 to the management perspective. Both qualitative and quantitative research methods (Chapter 3) were applied to answer these RQ's in Chapter 6.

1.4 Scope

The main scope was the choice of only using ITIL as the subject of study. The reasoning being that the framework is used frequently in Norwegian organizations compared to other ITSM concepts, which makes finding respondents an easier task. As discussed in Chapter 2, ITIL is often used differently depending on national culture. By only including respondents within Norway, an in-depth study of Norwegian organizations who use ITIL was possible. Respondents included individuals who use and work with ITIL on a daily basis in Norwegian organization (employees in IT support, Service Desk and Help-desk).

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[1] Read more about NIKT here: http://nik.no/

[2] Implementation refers to the process of putting a decision or plan into effect, url: https://en.oxforddictionaries.com/definition/implementation

[3] Employee, IT staff and IT employee are terms which will be used interchangeably and refers to employees in an IT department

The reason being to acquire data from people who work with ITIL on a practical level in Norway. To supplement the information gathered from the data-collection on employees, ITIL experts were interviewed to uncover any differences or similarities in perspectives.

1.5 Thesis structure

Chapter 2: Background Clarifies relevant background theory, similar research and concepts. The content in this chapter concerns basic theoretical knowledge about ITSM and the ITIL framework. In addition to organizational culture and theory. Lastly, a short description of the literature review process. These topics are addressed in during the discussion in Chapter 5.

Chapter 3 Method Summarize the selected methodologies used to answer the research questions in section 1.3. To gather a sample of information from different organizations in Norway who use the ITIL framework, both qualitative and quantitative methods were applied.

Chapter 4 Results describe the results from the quantitative and qualitative data collection process. Results from interviews with employees and the questionnaire will be presented first and will be used further in Chapter 5 to answer RQ 1 and RQ 2. Results from the interview process with ITIL experts will be presented in section 4.2 and used further to answer RQ 3 in Chapter 5.

Chapter 5 Discussion compare the results in chapter 4 to similar research presented in chapter 2. In addition, the research questions (RQ 1, RQ 2 and RQ 3) will be discussed and answered in this chapter.

Chapter 6 Conclusion summarize the topics that were discussed in chapter 5 and briefly presents the answers to the research questions. Additional suggestions for future research will then be described.

Chapter 2

Background

This chapter contains theoretical background about ITSM. As well as information about ITIL. Additionally, theoretical background on organizational culture, and a short description of the literature review process will be described. This chapter is dedicated to elaborate on the theoretical background which will be useful when discussing the results in Chapter 5.

2.1 ITSM frameworks and standards

ITSM has become increasingly important in the IT community [4]. As a management concept, it concerns IT services, customers, and the daily activities of the IT department [9]. A vast specter of reference models for ITSM exist. However, it is important to establish the differences between ITSM standards and ITSM frameworks. Standards are clearly defined set of rules which have to be followed to comply with the standard in question. Frameworks are “best practices” which are guidelines that suggest “what to do” rather than “how to do it” [10].

The ITIL framework has grown to become the most preferred approach to ITSM [3]. Therefore, it is interesting to continue research on ITIL and add new knowledge to academic literature. Nevertheless, it is still relevant to explore complementary frameworks, and standards, to find possible differences and similarities. Zitek [10] provided a visually intuitive model of ITSM concepts shown in Figure 2.1, for comparison.

Figure 2.1 provides a perspective on how the different frameworks or practices fit into their respective areas of organizational control, processes, workflow or individual tasks of ITSM. The bubbles differ in size, which represents that the larger bubbles have a greater importance and impact to ITSM in general [10]. Each concept has different strengths and weaknesses. For example, ITIL offers a detailed guide on the implementation of processes. Despite this, it is weaker when it comes to governance and control. In comparison, COBIT is strong on governance and goal-setting, but provides less detail about the process implementation. Lastly, ISO 20000 offer guidelines, but does not explain how these can be met [11].

Based on this knowledge about the strengths and weaknesses for different ITSM concepts. It becomes clear that their success rate will often vary in different organizations depending

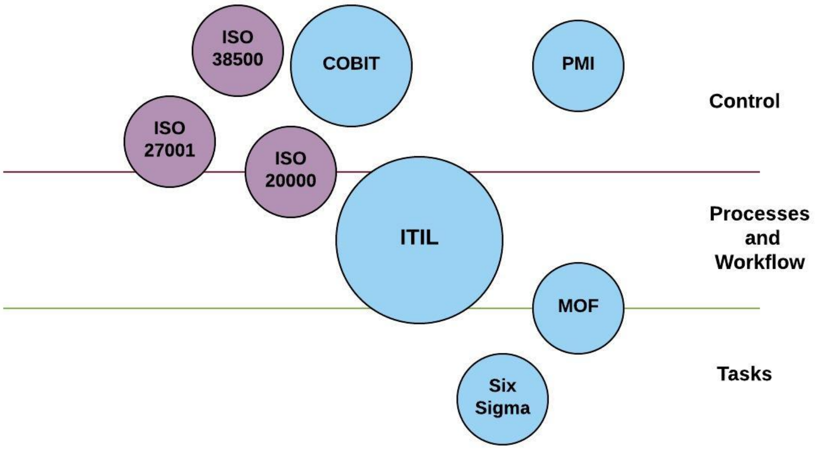

Figure 2.1: Illustrative bubbles of ITSM concepts inspired by Zitek [10]

on how they use these ITSM concepts. For example, Rance [11] states that a misplaced focus on trying to run an “ITIL project” or a “COBIT project” and striving to accomplish all of the suggested changes in that guidance often lead to little value for the organization, in the form of a more bureaucratic management system. This may cause changes to the organization that will appear too demanding. More on this topic in RQ 3 (see chapter 5, section 5.3).

Today, ITIL is the most recognizable ITSM practice which describes processes involved in the service life-cycle, with a focus on efficiency. Zitek [10] suggests that this kind of approach makes ITIL the center of ITSM. other frameworks and standards can be considered complements to ITIL within ITSM. Since ITIL is the most popular ITSM practice, it often means that getting access to companies who uses ITIL is more likely. As discussed in Chapter 1, this one of the reasons that ITIL is a relevant topic of choice in this thesis. However, more information about the ITIL framework is necessary to find out what it envelops. This will be explained further in the upcoming section (section 2.2).

2.2 ITIL

The first conception of ITIL was developed by the Central Computer and Telecommunications Agency (CCTA)[1] during the 1980s. ITIL became a merged set of best practices observed in the industry at the time. The aim was to accommodate for the increasing dependency on IT, and align it with business goals [12]. It was not used on a large scale until 2001 when ITIL version 2 was released, but since then it has evolved to be the most used ITSM practice and viewed as the “de facto” standard for ITSM worldwide [8]. ITIL version 3 was first released in 2007. However, it did not fully replace version 2 until 2011. The most significant change was the transition from a specialized set of service management guidelines that focused on functionality, to the more process oriented approach and service life-cycle model in version 3 [9].

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[1] More information at: http://discovery.nationalarchives.gov.uk/details/r/C149

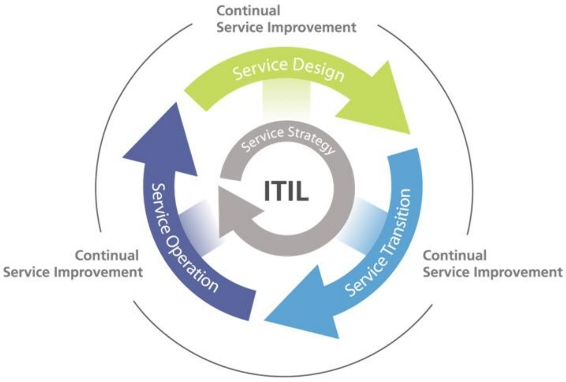
Continual Service Improvement
Service Design
Service Strategy
ITIL
Service Operation
Service Transition
Continual Service Improvement
Continual Service Improvement

Figure 2.2: The ITIL service life-cycle model by HALIMBULUS [13]

The differences between the 2007 edition and the 2011 edition consisted of corrections of errors and inconsistencies, in addition to the definition of formal processes that were previously only implied but not mentioned in detail. ITIL, as it is now, is a collection of five core publications that provides a detailed explanation of the service life-cycle seen in Figure 2.2. The five stages of the service life-cycle will be described in greater detail further in this section. Most of the terms related to the different processes are available in Appendix C:

Service Strategy

Service Strategy is the foundation of the service life-cycle. This is the stage where goals, choices, and plans are made in order to create value and a return on investment for the business. Service strategy aims to make decision-makers think “why” before “how”. Processes associated with service strategy include: Strategy Generation Management, Financial Management, Demand Management and Service Portfolio Management [14].

Service Design

Service Design aims to design new services or change existing services to maintain value for the business. Service design turns service strategy into a plan for delivering services. The objective is to design clear, simple, and relevant architectures that maintain IT plans to meet business goals. It is also common to use a Service Level Agreement (SLA) which provides a formal agreement between supplier and customer, concerning how services should be delivered [9].

Service Transition

Service Transition is the stage where both new and modified services are implemented for customer and operational use. Also, the services that went through the service design process are tested, evaluated and documented before use. The purpose is to ensure that new, modified or retired services meet the expectations of the business and are consistent with the documentation in the Service Design and Service Strategy stages [9].

Service Operation

Service Operation is the stage where daily services are monitored and managed. It handles customer or user requests, as well as uncovering and recovering issues in the IT infrastructure [5]. Processes like: Request Management, Incident Management, Event Management and Problem Management are essential to ensure value for customers and service providers. Service operation is the main focus of study in this master thesis project where IT employees often work in a help desk, IT support or service desk, see Chapter 3.

Continual Service Improvement (CSI)

CSI aims to adjust services to changes in business needs by continuously identify opportunities for improvement and measure the impact of efforts for improving. CSI maintain value for customers through the design, introduction and operation of services. It is a phase in the service life-cycle which aims to create a continuous improvement driven culture in an organization. Change Management is a core component of CSI. The CSI aspect of ITIL will be a addressed in the discussion (see Chapter 5).

2.2.1 ITIL success

The topic ITIL success is highly relevant to answer RQ2 and supplement RQ3 in Chapter 5. Therefore it was pertinent to include ITIL success as a theme when investigating the employee and management perspective. Further in this chapter, a literature study (section 2.4) shows that the most common theme in academic literature is how to achieve a successful implementation of ITIL.

Among previous studies, Lunde [15] researched 13 success factors described in literature and compared them to those described by ten ITIL experts [2] in Norway. She found that literature and "real life" success-factors had a high degree of compliance. However, some success factors were only described in theory. She claimed that today's theoretical models may be outdated since the ITIL framework is changing and renewed frequently.
Iden and Langeland [16] studied the Norwegian armed forces in 2010 to rank the most important factors for a successful ITIL adoption [3]. Their study validated findings by Hochstein, Zarnekow, and Brenner [17] and Pollard and Cater-Steel [4]. Thus, concluded that the following list is the most important factors for an ITIL adoption:

- Managers at all levels must have ownership in the introduction of ITIL.
- Senior management must formally make the decision to introduce ITIL.
- Key personnel should be identified and involved in the design and improvement of processes.

In a more recent study by Eikebrokk and Iden [8], the authors questioned 446 Nordic ITIL experts. Unlike the previous study from 2010 [16], the authors found that group efficacy[4] and organizational commitment is more significant in an adoption of ITIL than management involvement.

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[2] ITIL experts refers to individuals having extensive knowledge on a expert level regarding ITIL and its processes.

[3] In this thesis, ITIL adoption is referred to as the state where a ITIL implementation has been completed.

[4] According to Gibson, Randel, and Earley [18] group efficacy is defined as a group's perceived capability to perform

2.2.2 Barriers for adopting ITIL

Marrone, Gacenga, Cater-Steel, *et al.* [3] stated that, when considering an ITIL adoption, it is important to ask "why?". For managers it may be a matter of legal issues, customer satisfaction, risk management or for cost saving measures. Sahibbudin, Ayat, Sharifi, *et al.* [19] lists several barriers for adopting ITIL: lack of management commitment, lack of work instructions, lack of realistic goals, momentum, and process owners[5], as well as problems with time and staff management. This will be addressed further in Chapter 5.

2.2.3 ITIL education and software

Cater-Steel, Toleman, and Toowoomba [20] concluded that ITIL has radically changed the field of ITSM and resulted in a growing demand for IT staff to have knowledge of ITIL concepts and processes. Education was considered essential to prepare employees for the workplace. As shown in Figure 2.3, ITIL foundations[6] is the most basic educational certificate, with ITIL Manager level providing more extensive knowledge about the setup and implementation processes. Spremic, Zmirak, and Kraljevic [21] found that when the IT manager achieved a higher level of education and the employees received basic training, the business were more likely to succeed with ITIL.

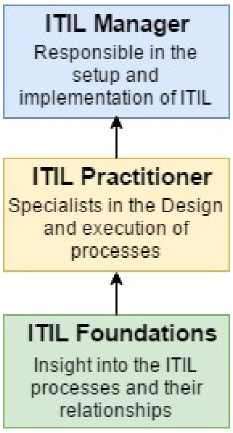
ITIL Manager
Responsible in the setup and implementation of ITIL
ITIL Practitioner
Specialists in the Design and execution of processes
ITIL Foundations
Insight into the ITIL processes and their relationships

Figure 2.3: The different levels of ITIL education.

Successful ITIL implementations are completely dependent on proper education and familiarization with ITIL was therefore an important area to investigate further in this master thesis. Lunde [15] found that the decision on which software to use before developing processes was an important factor. Langeland [22] also elaborates the importance of software. He claimed that choosing the right software is one of the most important aspects to consider when conducting an ITIL implementation. Education and software are two important factors to consider when discussing ITIL success. Therefore, these topics will be discussed further in Chapter 5.

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[5] A process owner is a person who has responsibility for the performance of a process. This person also has the authority to make changes to the process

[6] Read more about ITIL foundations courses here: https://www.qa.com/training-courses/itil-and-it-service-management-training/itil/itil-foundation

2.2.4 ITIL in the private and public sector

Jacobsen and Thorsvik [23] claimed that public and private organizations are becoming more and more similar to each other, especially when considering the reforms that have taken place in public organizations in the last 20 years. Private organizations are increasingly subjected to follow efficiency standards, and are exposed to higher competition and risks. At the same time, the distinction between public and private sectors have become smaller. However, empirical studies show that public organizations are more bureaucratic, use rules and routines on a higher level than private organizations.

Public organizations have more complex organizational goals and a culture which is less affected by external factors and risks [23]. Graupner, Basu, and Singhal [24]. ITIL was originally an initiative of a national government which over time has flowed into the private sector, and therefore require refinements and specialization for particular industries [3]. The differences between private and public organizations will be taken into consideration further in this thesis.

2.3 Organizational culture

This section will present a theoretical knowledge base for understanding organizational theory and factors like communication, formalization, and motivation in work settings. This is useful for understanding cultural factors and how ITIL can affect organizations. The topics in this section, are further discussed in Chapter 5. In early studies, Pyburn [25] emphasized that alignment between IT and business must be culturally supported throughout the organization, or else it becomes a never-ending issue. This can be said for ITIL as well, since most researchers seem to agree that ITIL is a full organizational change rather than something that is going on in one department [11].

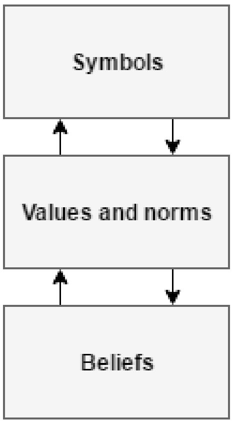

Figure 2.4: The different cultural levels which affect each other, inspired by Jacobsen and Thorsvik [23, p. 132]

In order to understand what organizational culture may entail, some cultural elements can help to specify what to search for will be described. As shown in Figure 2.4, organizational culture exists on three different levels: symbols, values / norms and beliefs. Organizational culture can be defined as:

> Organizational culture is shaped by common norms, values and perception of reality. These factors develops when the members in the organization interacts with each other and their environment. Bang [26, p. 23]

Norms, values and the employees perspective makes it easier to find out more about the organizational culture and go beyond these specific elements. Norms can be understood as what is considered “normal”. It is the unspoken rules which every employee must follow. It is important to note that norms are often based on context. This means that norms can have different functions in different contexts and will not necessarily apply to everyone. Values, as a contrast to norms, is more focused on abstract preferences like “how things should be” rather than “how things are” [23, p. 132].

2.3.1 Communication

Culture in an organizational setting can be interpreted as a characteristic. Similar to individual characteristics, it manifests through verbal and nonverbal behavior. It is formed by everyday experiences as well as exposure to individual and helps us to find which concepts to analyze to understand its behavior [27]. As described by Hennestad [28] the organizational culture can be interpreted as a “sensemaking device”. Due to its shaping of the individuals interpretation of situations, events and actions. Resulting in a choice of action. Communication in organizations can be described as the foundation for decision making and the force which keeps the organization together.

2.3.2 Formalization in organizations

The benefits with formalization in organizations are clear assignments for employees, safety, efficiency, and control. Although organizations need structure and predictability in workflow, overly imposed formalization and procedures may cause a rigid organization. According to Lawler and Worley [29], formalization may prove to be an obstacle for change in an organization. The authors argue that formal procedures can potentially lead to less flexibility and cause a resistance to change among employees. Which results in a culture that does not encourage individual initiative and may cultivate unmotivated employees. As the degree of formalization in an organization increases, so does the inability to be flexible. Thus, it is important for organizations to maintain a balanced relationship between stability, predictability and flexibility [30].

According to Jacobsen and Thorsvik [23, p. 165], the interests of employees and management often differ depending on their position in the company. With many stakeholders to take into consideration, conflicts, and power struggles are likely to occur. It has therefore become more common for leaders to study how to overcome resistance in organizations.

2.3.3 Motivational theory

Psychologists have long studied the effects of power balance and work motivation factors in organizations. Herzberg [31], made a lasting contribution to work motivation theory by shifting the focus to the importance of the work itself instead of factors like employee benefits. He found that the job itself must be enriching and engaging for people to become motivated to perform effectively. He directed attention to the psychological effects of what a job contains, which is a growing problem in a world of changing technology.

As a reaction to Herzberg's theory and the lack of his inclusion of individual differences among employees. Hackman and Oldham [32] developed a survey to assess potential motivational factors for a job and the need for growth for an employee. They found that:

1. Employees must experience meaningfulness, meaning their job and values must align
2. They must feel responsible for their own work
3. They need knowledge of their own results

Their theory is that employees with a great need for growth are more satisfied when they are placed in an enriched job [7] [33].

2.3.4 Variations between countries

According to Marrone, Gacenga, Cater-Steel, *et al.* [3], ITIL is used differently in various countries across the world. They aimed to asses the adoption of ITIL and possible variations based on country, organizational size, and industry sector. The study involved IT executives in regions like UK, USA, DACH[8], and Australia. Marrone, Gacenga, Cater-Steel, *et al.* [3] found that DACH countries have a higher level of ITIL adoption, and that the UK is leading in the Anglo-Saxon world relative to USA and Australia. They explain this by using Hofstede's [34] national culture theory and propose that DACH countries mostly use ITIL version 3 because of the higher uncertainty avoidance of German national culture. This may be due to the structure of ITIL version 2 and the fact that IT organizations are still following the service delivery approach rather than the life-cycle approach in ITIL version 3 [3].

2.3.5 Norwegian work culture

Levin [35] discuss the Norwegian working model as a unique phenomenon, that is based on democratic rights and extensive involvement from individual employees in their daily work. The typical Norwegian business structure is often non-hierarchical, and the organizational culture is informal in the way that employees have equal opportunities in the workplace[9]. Iden, Eikebrokk, Olsen, *et al.* [36] results suggested that participants in Norwegian process change projects, often have the chance to influence design of new processes and its impact of their own work. Negative reactions to process change were rare. When it happened, it usually came from people with little understanding to the process approach. When investigating Information and Communication Technology (ICT) as an enabler for change, the authors found that very few of the businesses had ICT driven projects in general.

They did not find a conclusive explanation to why this is the case, but they discuss it further in terms of Hofstede [37] four dimensions and Jaeger [38] optimal cultural conditions for organizational development. That it might be caused by the more feminine, low power distance and less individualist culture that exist in Norway. Where a human-centered approach was more important rather than the more masculine (high power distance) culture which prefers a control approach where ICT often plays an important part [36].

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[7] Enriched job: one that scores high on skill, variety, task identity, task significance and autonomy [33].

[8] DACH countries, eg. Germany, Austria and Switzerland.

[9] The Norwegian trading portal portraying the Norwegian business culture: http://www.nortrade.com/invest/norwegian-business-culture/

2.3.6 Formalization tendencies in Norwegian organizations

Jacobsen and Thorsvik [23, p. 144] claims that it is not unusual for the organizational culture to weaken the effect of governance or change. Culture is a documented cause for unsuccessful changes in organizations. One example is the attempt to implement "Total Quality Management" (TQM) in 500 businesses during the 90's where only 20 % were successful. The reason being that even though the organizations implemented the new technology and quality formally, the culture remained unchanged [23, p. 144].

The research by Ingvaldsen, Rolfsen, and Finsrud [40] directed attention towards how international trends for organization of work life affects the Norwegian work life. Their contribution increased attention towards an interesting question: is it true that the introduction of production systems based on the "lean" mindset[10] is a contradiction to basic features in the Norwegian model.

Eivind Falkum [39] stated in a recent news article that the Norwegian work life is becoming more formalized and bureaucratic. His results show signs of employees having less influence over their own work life in Norway, and that 45 % of respondents believe that the Norwegian work life is changing towards a more formal direction where authority and control is becoming more important. He explained this as a consequence from importing new forms of government like the "New public management"[11] initiative, which was introduces in Norway during the 90's. This initiative aimed to make the public sector more similar to the private sector in Norway, and impose more standardization and control. Falkum [39] believed that this movement has been growing over the years. Standards and procedures are becoming ruling factors in the everyday work life and he wishes to increase the interest for this issue, to secure the influence employees have in their workplace to maintain a democratic work life.

2.3.7 How to analyze organizational culture using quantitative methods

Investigating organizational culture on a quantitative level is no easy task. When looking at several organizations at a time, empirical models like Edgar Schein's [41], seven culture dimensions are often used as a foundation to find the basic cultural assumptions in organizations. However, according to Jacobsen and Thorsvik [23, p. 139], studies have successfully managed to categorize organizational cultures by identifying cultural types. Cultural types can be used to describe typical features or characteristics in a culture. Even though each organizational culture is unique in one way or another, cultural types are based on the assumption that some cultures are similar and more common than others [23].

Figure 2.5 illustrates the four cultural types originally created by Cameron, Quinn, DeGraff, *et al.* [42, p. 8]: 1) clan, recognized by its belief that efficiency is created through

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[10] More about the Lean mindset here: http://www.leansystemsinstitute.com/blog/what-is-the-lean-mindset/

[11] Read more about the New public management here: http://www.velferdsstaten.no/tema/markedsretting/offentligstyring/

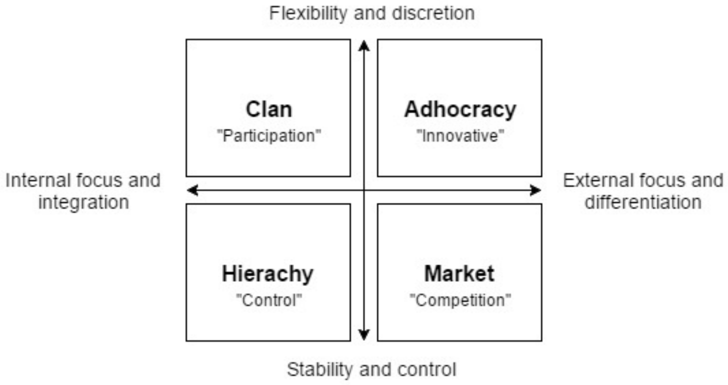

Figure 2.5: The four culture types inspired originally by Cameron, Quinn, DeGraff, *et al.* [42, p. 8]

cooperation, 2) adhocracy, efficiency is connected to innovation, 3) hierarchy, efficiency is created through predictable stable processes and 4) market which is highly competitive. These cultural types have been used to identify cultures who are similar to those in the model.

To find out what kind of cultural types is most typical for an organization which uses ITIL, this thesis takes inspiration from the research by Kanungo, Sadavarti, and Srinivas [43]. They investigated the relation between organizational culture and IT-strategy using quantitative methods in 72 businesses in India. Their focus was directed by how the organizational culture affects the choice of IT-strategy. One interesting aspect from their study was how they categorized and analyzed the organizational culture by using case studies and surveys. They came up with three categories for defining organizations and related cultural types: bureaucratic, innovative and supportive. These three cultural types are explained further below.

Bureaucratic cultures

have a clearly defined system of authority and responsibility. The work is organized and roles are clearly defined. Bureaucratic organizations tend to mature slowly and can't adapt quickly to changes in customer needs or market. Categories that tend to describe this culture are: hierarchical, procedural, structured, ordered, regulated, established, solid, cautions and power-oriented [43].

Innovative cultures

are often recognized by their creative work environment. In a marked often subjected to rapid changes, a innovative business has to adapt itself by taking on new risks and challenges. The work environment is stimulative for employees, however it can easily take it's toll on people who feel pressured by great stress. Categories often used to describe a innovative culture are: risk-taking, result-oriented, creative, pressurized, stimulating, challenging, enterprising and driving [43].

Supportive cultures

tend to have employees who work in a friendly and helpful environment. This culture is characterized as open and harmonious where the organization becomes a "family".

> The categories used to describe this culture are: supportive, trusting, equitable, safe, social, encouraging, relationship-oriented and collaborative [43].

Kanungo, Sadavarti, and Srinivas [43] describe these categories for investigating organizational culture as valid for most organizations. However they may vary to some extent. Organizational culture is therefore studied by the help of categories which in turn describe the content of the three culture categories. These categories were used as inspiration for categories included in the questionnaire (Chapter 3, section 3.3.6). The theoretical applications provided by Kanungo, Sadavarti, and Srinivas [43] was also used to see the context between IT-strategy and organizational culture-type in Chapter 5, section 5.1.1.

2.3.8 How ITIL affects organizational culture

According to Iden and Vindegg [44], ITIL often result in a more service-oriented organizational culture and Iden and Eikebrokk [45] found that most research frequently mentioning benefits like: improved customer / user satisfaction, increased service-orientation for IT staff, increased professional standards by implementing best practice, reduced costs, and clarified organizational roles. The master thesis by Hauge [14] explored how ITIL implementations affects organizational culture and structure, found that ITIL implementations had several effects within the organization. ITIL increased the organizations standardization, and added new roles and decision makers within the organizational hierarchy. However, she points out that isolating the coherence between the implementation of ITIL in itself and cultural change is difficult, if not impossible to achieve.

Hirth and Melander [12], tried to acquire general knowledge about how to make the best use of ITIL and how to implement it sensibly in real-life situations. In addition, they found that there is no “universal introduction recipe” when implementing ITIL and that developing the people and organization in parallel with the adoption of ITIL is key to reducing resistance for change. They also discovered that businesses should focus more on continuous improvement of ITIL after the implementation is complete. Although the respondents consisted of project leaders and consultants with various experience with ITIL implementations. Lunde [15] found that an ITIL adoption means introducing more bureaucracy in an organization, especially in the case of public organizations where a existing bureaucratic structure is prominent. She found that two out of three respondents from the public sector feared the increasing bureaucracy introduced by ITIL.

2.4 Literature study

The literature study was used to find similar research and theory about ITIL. The process of selecting relevant studies, began with the definition of the following inclusion criteria:

- The literature was published between 2011 - 2017
- The findings must be related to the information systems or computer science field if this option is available in the search engine or database

This was done to limit the subject of research to preferably include only the most recent version of ITIL (ITIL 2011 edition). Literature published before 2011 may be less interesting and outdated at this point in time due to ITIL being a continuously maturing set of practices, which are frequently renewed and revised. The second inclusion criteria makes it possible to exclude research where “ITIL” may be a term for something else outside the computer science field. The academic databases that were used was as follows:

- Google Scholar (https://scholar.google.com)
- JStor (http://www.jstor.org/)
- Bibsys ASK (http://www.bibsys.no/)

To find out what kind of topics that are frequently discussed in literature about ITIL, the search terms aimed to incorporate the employee (“bottom up”) perspective as well as the management perspective (“top-down”). The search term “ITIL” was used to provide literature with relevant information in general about ITIL and find out approximately how much academic research that exists on this topic.

Keyword	Scholar	JStor	Bibsys	Total number of hits:
ITIL	1 420	17	393	1830
ITIL AND work culture	3 370	17	4	3391
ITIL AND employee	2 350	9	43	2402
ITIL + IT staff	4 530	17	40	4587
ITIL + barriers	1 580	1	4	1585
ITIL + success	5 820	12	66	5898

Table 2.1: Overview over the results from the literature search

“ITIL” + “work culture” tried to provide literature with the combination of keywords “ITIL” and “work culture”. This was to find out if work culture and ITIL was a frequently discussed subject in literature. “ITIL + employees” and “ITIL + IT staff” aimed to find a connection between ITIL and employees, and the second search term aimed to narrow it down to include just the IT staff instead of employees in general. To find out if ITIL barriers and success are frequently used topics in literature, the search terms “ITIL + success” and “ITIL + barriers” were used. These search terms aims to find papers or studies regarding ITIL success factors or barriers for implementation.

The literature study described in table 2.1, show that overall ITIL success is the most frequently used keyword in literature. It has the most evenly distributed number of hits when comparing the different academic databases. The second most used keyword are IT staff. However, the results emerging from the different keywords provided a great number of irrelevant papers. It was therefore important to filter out papers based on title, abstract or conclusion to find interesting articles and papers. The literature that was selected from a combination of books, case studies, surveys, other master thesis’s and peer-reviewed academic papers. Next, some of the findings from the literature study will be presented.

2.4.1 Employee perspective or management perspective?

Table 2.2 is a summary of some of the academic articles and research that were found during the literature study in section 2.4. The inclusion criteria for these papers were simply that they were interesting and helpful when discussing the findings from this project in

Chapter 5. Table 2.2 lists authors and the research theme, as well as whether the study is focused on the management (Mgmt) or employee perspective (Emp). A “yes”, “partially” or “no” in these columns represents what the articles are mostly about. For example, if the dataset only consists of respondents from the ITIL practitioners or expert community, “yes” will appear in the column for “Mgmt. perspective”.

Author(s)	Mgmt. perspective	Emp. perspective	Theme
Fung [46]	No	Yes	ITIL usage impacting malaysian IT employees
Marrone and Kolbe [47]	Yes	No	IT executives’ perception on benefits and Business-IT alignment
Eikebrokk and Iden [5]	Yes	No	Maturity of ITIL in firms
Sousa, Costa, and Aparicio [48]	Yes	Partially	A conceptual model for knowledge management
Ahmad and Shamsudin [49]	Yes	No	Successful ITIL implementation
Eikebrokk and Iden [6]	Yes	No	Implementing ITSM: SLR [12]
Eikebrokk and Iden [7]	Yes	Partially	Increasing IT governance through the ITIL framework
Marrone, Gacenga, Cater-Steel, *et al.* [3]	Yes	No	ITIL adoption comparison between countries and culture
Eikebrokk and Iden [8]	Yes	Partially	ITIL benefit realization

Table 2.2: Literature consisting of the management or employee perspective

Table 2.2 shows that most academic research takes the management perspective into consideration more often than the employee perspective. When investigating some of this research further, it appears that when the employee perspective is included in a discussion, it is usually concerned about organizational effects when implementing ITIL and how to reduce resistance for change among IT staff or employees to achieve a successful ITIL adoption. It is therefore likely that the most discussed topic regarding ITIL is how to manage and achieve a successful ITIL implementation.

In 2013, Eikebrokk and Iden [6] conducted a Systematic Literature Review (SLR) of existing literature regarding ITIL. Their results suggested that research on ITIL is dominated by the following research questions:

- What are the underlying motives for implementing?
- What are the key factors for implementation success?
- What is the the implementation status?
- What are the outcomes or benefits of implementation?

A more recent study by Eikebrokk and Iden [8] found that group efficacy and organizational commitment is more significant in an adoption of ITIL than management involvement in the Nordic countries. They also suggest that future studies should investigate this further. This reveals a interesting research topic, as Fung [46] found that there exist a significant lack of research on how ITIL usage affects IT employees work. Specifically factors like job performance, satisfaction and the impact of ITIL supported software. This is a part of the reasoning discussed in Chapter 1 to provide a basis for the research question in this project. He describe this as a clear research gap and created a conceptual study to investigate this in Malaysia in 2011. However, it is unclear if these results can be applied to other countries as well. Especially since ITIL is often used differently depending on country and national culture [3].

2.5 Summary

This chapter presented background information about ITIL. Theory about the ITIL framework and its basis for success, as well factors such as software, education, and variation of use was available in this chapter. Organizational culture was then described in relation to several topics: communication, formalization, work motivation, and how to analyze organizational culture using quantitative methods. The combination of these topics were used as inspiration to investigate the research gap presented in a literature study. This literature review process described a research gap in academic literature where research from the employee perspective was lacking.

Chapter 3

Method

This chapter explains the methods that were used to answer the research questions presented in Chapter 1. Information about the different methodologies and why these were used is available in this chapter. In addition to how the collected data was analyzed and validated.

3.1 Research model

Starting with a literature review in chapter 2, section 2.4, which revealed an area of research to explore further. Focus groups were used to probe for information and generate questions to investigate further. A questionnaire was then developed to gather data from more respondents. This research approach is similar to Glaser and Strauss [50] grounded theory, by using focus groups to generate ideas, and concepts to create a basis for further research, rather than looking for confirmation on existing findings.

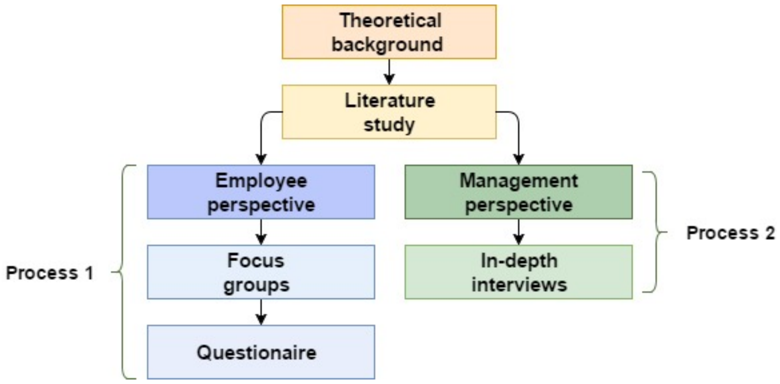
Theoretical background
Literature study
Employee perspective
Management perspective
Focus groups
In-depth interviews
Questionaire
Process 1
Process 2

Figure 3.1: Research model and approach to answer research questions

As seen in Figure 3.1, the employee and management perspective were both explored. Process 1 included a mixed-methods approach, using focus group sessions to generate questions and themes to ask in the questionnaire. As seen in section 3.3.6, these were also inspired by similar research in chapter 2. The questionnaire was sent to 134 employees who worked with ITIL on a daily basis. Since most existing research concerns the management perspective, process 2 aimed to compare findings from the employee perceptive to the management perspective using existing research and in-depth interviews with eight ITIL experts.

3.2 Data collection

To answer the research questions presented in Chapter 1, the data collection model in Figure 3.2 shows that data was collected through three stages. The first stage included three focus group sessions where a literature study, academic literature, theory and similar research presented in chapter 2, functioned as a base for inspiring the research guide in appendix A.1 used during this first stage.

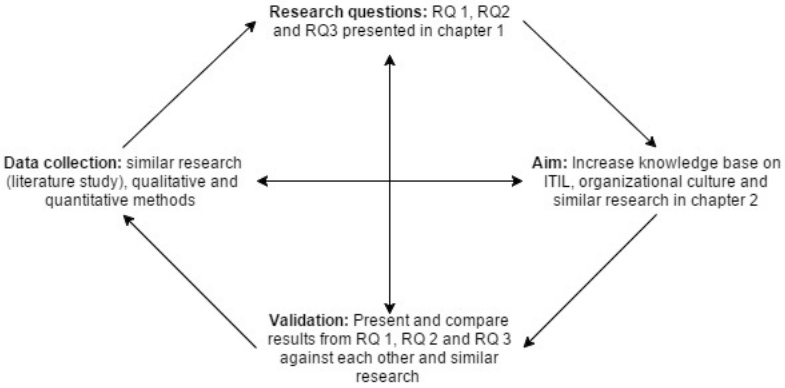
Research questions: RQ 1, RQ2 and RQ3 presented in chapter 1
Data collection: similar research (literature study), qualitative and quantitative methods
Aim: Increase knowledge base on ITIL, organizational culture and similar research in chapter 2
Validation: Present and compare results from RQ 1, RQ 2 and RQ 3 against each other and similar research

Figure 3.2: Data collection model inspired by Maxwell [51]

The second stage aimed to gather quantitative data from a sample of employees working in an IT department. This was done to collect a sample of data from employees who use ITIL on a daily basis across the country and compare the results to the information gathered during the first stage. A questionnaire was used to achieve this goal. The questions included themes that was discussed during the interviews in the first stage as seen in Appendix B.

The third stage involved interviews with ITIL experts. These interviews were based on the interview guide available in appendix A.2 and aimed to provide an answer for RQ 3. ITIL experts with their practical experience with ITIL implementations from the management perspective were suitable respondents to provide insight when comparing the employee perspective and management perspective in chapter 5.

3.2.1 Qualitative methods

Qualitative research methods aims to explore a large specter of the respondents values and opinions. Sander [52] describe qualitative methods as a communication process in which the respondents can feel free to discuss their own opinion without being pressured to think or answer in a certain way. As a contrast to quantitative methods, where respondents needs to choose from a set of predefined alternatives, qualitative methods provides the benefit of collecting more ambiguous responses. Two interview methods was used to gather data: focus groups and in-depth interviews. These will be presented in section 3.3 and section 3.4.

3.2.2 Quantitative Method

Sander [53] emphasized that quantitative methods are mostly suitable for questionnaires where the average results can be calculated or you can collect representative data. Quantitative methods are done by questioning the respondent. This is in contrast to qualitative studies where a dialog between the respondent and interviewer are more common. Section 3.3.4 elaborates about the questionnaire that was distributed to IT employees.

3.3 Investigating the employee perspective

3.3.1 Focus groups

A focus group is a qualitative method which has become increasingly popular in fields such as marketing to find a foundation for decisions. For example when designing concepts, products or services [54]. Eliot and Associates [55] suggests that it takes more than one focus group on any topic to produce valid results, ideally three to four. Alternatively, it is also recommended that enough focus groups have been completed when one reaches a point of saturation with the same set of questions [55].

Contrary to the purpose of marketing, this master thesis aimed to use focus groups as an exploratory approach to gather information. Three focus group sessions was therefore satisfactory to provide enough data in order to develop a questionnaire for further data collection (see section 3.3.4). The focus group sessions were structured with the interview guide in Appendix A.1 in mind. The questions were designed to keep the discussion free-flowing to stimulate the forming of new opinions and questions. As recommended by Pihl [54], the guide did not exceed 10 questions. This was to make sure the interview did not exceed the time limit of 90 minutes, and to avoid imposition on the respondents time.

3.3.2 Respondents

Three focus group sessions were completed with nine respondents in total. The respondents were all asked to sign a background information form which is available in Appendix A.4. Some of the information gathered from these forms will be presented below.

Organization 1

In this organization, four respondents participated in the focus group session. The organization has a IT department with 4 - 500 employees. The interview was carried out at the organizations headquarters in Oslo. The four respondents received education on ITIL through the ITIL foundations course or by colleagues. The organization implemented ITIL in 2007, with a significant focus on Incident management.

Organization 2

Four respondents participated in a focus group session and organization is medium sized. The interview was carried out at the organizations location in a meeting room. Two of the respondents did not receive any formal ITIL training, but were tutored by colleagues who participated in a ITIL foundations course. The organization started implementing ITIL in 2005.

Organization 3

The organization is a multinational privately owned company with offices in several Nordic countries and their headquarters in Oslo. The respondent received training on a ITIL foundations course in Norway. The organization started implementing ITIL 3 years ago.

3.3.3 Conducting focus group interviews

Considering the scope of this master thesis, it is not possible to interview a large number of people from different areas in Norway. Because of this, it was important to contact respondents within driving distance for a face to face interview. Interviews were conducted in a private meeting room or quiet area with respondents who were available at the time.

3.3.4 Questionnaire for employees

After completing the focus group sessions, a questionnaire was developed to gain insight on how ITIL affected the organizational culture in other companies as well. Even though organizational culture can be explored in-depth using qualitative methods, it is time consuming and inefficient when trying to uncover information from several different organizations. This is why a short questionnaire with the purpose of gaining a small amount of information from a sample of different organizations was developed. This approach was partly inspired by Bang [26, p. 167] who suggests how to structure information on organizational culture using several methodological approaches in order to achieve deeper insight. The questionnaire was therefore developed on the foundation laid by the results from the focus groups available in Chapter 4.

3.3.5 Developing the questionnaire

After testing several questionnaire tools like SurveyMonkey and SurveyPlanet, it came to light that most of them required premium memberships to function optimally. This is the reason the choice fell on SurveyExcact, which Østfold University College had licensed. The most important factor when choosing a questionnaire tool was the opportunity to collect as much data from multiple respondents. One of the challenging factors to consider was the time of the ITIL implementation. Some respondents may find themselves in the middle of an implementation and others might have gone through the implementation process a long time ago. This made it challenging to find the right questions to ask regarding before and after ITIL.

Respondent could answer on a scale of “strongly agree” to “strongly disagree” with four to five values. To avoid too much data where the respondents could answer neutrally, the questions and options were often formulated in a way where the respondent were forced to form an opinion or skip the question. This is further discussed in section 3.7. Questionnaires also tend to exclude any ambiguous responses. Bang [26, p. 166] points out that studying culture through a questionnaire will be easier when discovering the expressed norms, values and opinions that the respondents are aware of themselves rather than what they are unaware of. To add some way for the respondents to express their opinions further, comment boxes were added (as shown in Appendix B).

3.3.6 Questionnaire questions

The questionnaire considered the possibility that respondents could have varying knowledge about ITIL and its processes. Meaning that the respondents aren't required to have a specific relationship towards ITIL as a concept, but rather the principles and processes they follow every day. The questions included in the questionnaire were developed using similar research and results from the focus groups as inspiration. An overview over the different themes which emerged during the focus groups and were used further in the questionnaire were as follows:

Background

Factors which were helpful when gathering background data about the respondents and finding possible comparing variables.

Education

Described by Cater-Steel, Toleman, and Toowoomba [20] to be important for successful ITIL implementations which makes this theme relevant to RQ 2. In addition, education may describe what kind of knowledge-base that exists in organizations.

Software and digital tools

According to Langeland [22] and Lunde [15], the decision of which tool or software to use is one of the most important factors to a successful ITIL implementation.

Organizational culture

Findings from the research by Kanungo, Sadavarti, and Srinivas [43] provided inspiration for categories to describe cultural types. The respondents where therefore asked to describe how ITIL affected the organizational culture using these categories.

Communication

Communication is an essential part of organizational culture. Therefore it helps to answer RQ 1 and uncover how ITIL has affected how the employees communicate within the organization

ITIL and its effect on everyday work life

According to [46], there exist a lack of research on how ITIL affect employees work life. This theme aims to add more research on this.

ITIL success

Relevant to RQ 2 and 3. The respondents have the opportunity to describe important success factors and barriers for success, that they consider relevant for ITIL adoption processes.

An overview over these themes and related questions are available in appendix B. Chapter 2, section 2.3.7 discusses how other researchers have used questionnaires as a data collection method to find out how IT systems or IT strategy affects organizational culture. Findings from the research by Kanungo, Sadavarti, and Srinivas [43] provided inspiration for categories to describe cultural types. The respondents were therefore asked to describe how ITIL affected the organizational culture using these categories. In addition, when asked to describe how ITIL has affected their workday, the respondents could use categories such as: motivating, boring and stressful. These categories were inspired by similar research by Hauge [14].

3.3.7 Respondents

The aim of this questionnaire was to gather a sample of information from different organizations in Norway who use the ITIL framework and its processes. When considering the research question and aim for this project explained in Chapter 1, it was important to gather data from the following respondents:

- Help desk, service desk employees and employees who work in an IT department and use ITIL on a daily basis.

In order to find the right respondents, an elaborate explanation about the context of this thesis and the target population was provided. Invitations to participate was sent as an e-mail containing an introductory text and the web-link to the questionnaire itself. This e-mail was sent to IT managers, experts and members of the itSMF board[1]. These recipients were advised to not answer the questionnaire themselves but rather forward it to employees working in a IT department or others who suited the criteria stated above. If respondents completed the questionnaire, and did not fit the criteria, they would be removed from the analysis by exuding their answerers from the excel sheet containing the results. This ensures greater confidence that the right respondents answer the questionnaire. Additionally, anonymity lessens the likelihood of outside influence or contamination of the respondent's answers.

How was the questionnaire distributed?

The questionnaire tool was fitted with functionality which kept track of whether the link to the questionnaire was opened by a recipient. If the link was opened, a respondent ID would be created in a database. Statistics on whether the questionnaire was completed or not was also provided by the questionnaire tool. An overview over how it was distributed is listed below:

- The IT departments in the organizations who participated in the focus group sessions, see section 3.3.
- One private organization and it's IT department who's contact information was provided by one participant during the focus groups.
- One contact in the itSMF Norway directive board who forwarded the link through their member database.

The mail with the link to the questionnaire was sent to contacts from the organizations who participated in the focus groups (see section 3.3) and distributed to the rest of the IT department. It was also sent through the itSMF Norway database. This database included the e-mails to all the members of itSMF Norway, such as ITSM enthusiasts, academics, ITIL consultants / experts and IT managers in organizations.

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[1] Read more about itSMF here: http://itsmf.no/

How many respondents completed the questionnaire?

Although the questionnaire was sent through the vast member database provided by itSMF Norway which included 2659 mail addresses. A mail list can be considered an impersonal channel for administering such data collection methods and it isn't unusual that e-mails end up as "Spam" or is deleted. This resulted in a response rate of 5 %, which is similar to the study by Hirth and Melander [12] who used the itSMF member database which resulted in a response rate of 6.69 %. This response rate is low considering the large number of recipients in both cases.

However, it is unreasonable to expect a high response rate considering the respondent inclusion criteria as a factor in the unfiltered and large e-mail list. Therefore it is likely that the few who answered the questionnaire was the right target population. SurveyExcact registered 171 respondents whom "clicked" on the e-mail invitation, a total of 134 respondents answered the questionnaire itself. 96 respondents answered all the questions they were asked and 38 respondents gave partial answers. This resulted in a response rate of 78 %. The response rate could be better. However, it is high enough for the purpose of inferring general features from the responses.

3.4 Investigating the management perspective

3.4.1 In-depth interviews

In-depth interviews were used to collect information from eight ITIL experts to represent the management perspective in this study. An in-depth interview can be used as a standalone research method or as supplement to a multi-method design depending on the researchers needs [56]. In-depth qualitative interviews fit well with the style of focus groups because it aims to stimulate conversation and discussion with the respondent. It is typically done face-to-face and the interview is done in a "conversation" style where the interviewer has a general idea of inquiry but not specific questions that must be answered in a specific order [56]. As a qualitative method, it is suited for collecting descriptive and rich data about a respondents opinions on a specific subject. Unlike focus groups which are more structured to keep the conversation flowing between several people at a time, an in-depth interview give the interviewer a chance to explore a topic thoroughly and more freely with only one respondent to be concerned about [57].

3.4.2 Respondents

The interviews with ITIL experts were conducted during the 2017 itSMF conference in Norway. When using the term ITIL experts in this master thesis document, it is used as a common term for someone who is qualified and specialized in consulting businesses regarding the best practice use of ITIL. Respondents whom were available for an estimated 20 minute interview were found by using random sampling. This is considered a fair way to collect data from representatives of a population was used to select respondents [58]. Although the respondents will remain anonymous in this master thesis document, some background information regarding their general role are presented in table 3.1.
The respondents usually had several years of experience with IT and ITIL process management. The interviews with ITIL experts were conducted using the interview guide in

Table 3.1: Overview over the ITIL experts which were interviewed

Respondent ID	Role
R1	ITIL advisor
R2	ITIL advisor
R3	ITIL advisor
R4	ITIL advisor
R5	ITIL process manager
R6	IT manager
R7	ITIL course instructor
R8	ITIL advisor

appendix A.2. As shown, the questions revolved around the results from the questionnaire (see section 4.1.2) and aimed to create discussion with the respondents.

3.4.3 Conducting in-depth interviews

When interviewing ITIL experts at the 2017 itSMF conference, respondents were taken to a quiet area in the conference hall. It was important to conduct a interview which did not take too much of the respondents time. Therefore, few themes were included in the interview guide in appendix A.2.

3.5 Data analysis

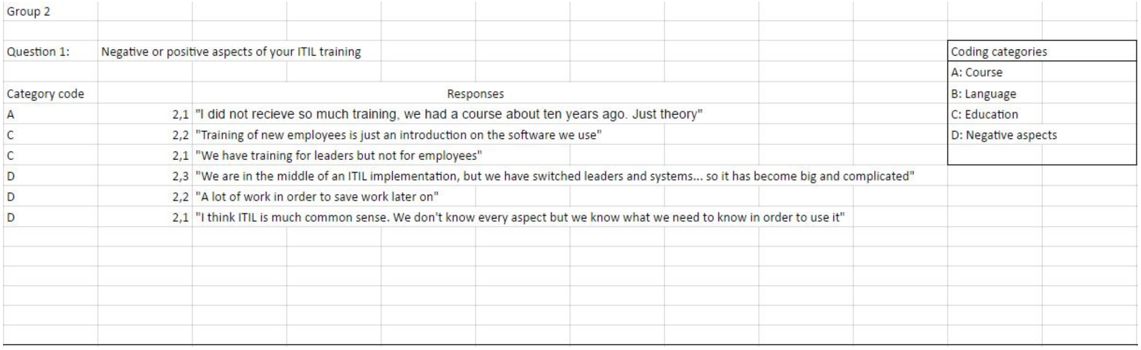
3.5.1 Data analysis of interviews

Open Coding is a systematic and verifiable process to sort and find similarities between data. The open coding categories which emerged were used as headlines when presenting the results in Chapter 4. The voice recordings of the interviews were transcribed, word for word, into separate documents. The transcribed data was then reduced to essential information by removing nonessential words or sentences without influencing the meaning of the data. Each participant in the interview process was assigned a participant ID code and group number. For example, participant 1 from group 2 would be assigned the number 2,6. This is a method inspired by the transcripts from the company Eliot and Associates [55]. Each quote from the participants was then entered into an Excel form as seen in Figure 3.3.

The data from the interviews were entered into separate Excel spreadsheets for each group. Categories were identified for each question to give a context to the quote and highlight similarities or differences across groups. The quotes were then synthesized into a summary where key quotes were highlighted as bullet-points.

3.6 Data validity of interviews

By collecting data through an interview process, it is always a possibility that the gathered information is affected by one or multiple factors. One factor which is highly relevant to this master thesis, is the respondent's opinion of ITIL. Which may be affected by the source in which they learned about ITIL in the first place. Relevant influential factors



Group 2			
Question 1:	Negative or positive aspects of your ITIL training		Coding categories
			A: Course
Category code		Responses	B: Language
A	2,1	"I did not recieve so much training, we had a course about ten years ago. Just theory"	C: Education
C	2,2	"Training of new employees is just an introduction on the software we use"	D: Negative aspects
C	2,1	"We have training for leaders but not for employees"	
D	2,3	"We are in the middle of an ITIL implementation, but we have switched leaders and systems... so it has become big and complicated"	
D	2,2	"A lot of work in order to save work later on"	
D	2,1	"I think ITIL is much common sense. We don't know every aspect but we know what we need to know in order to use it"	

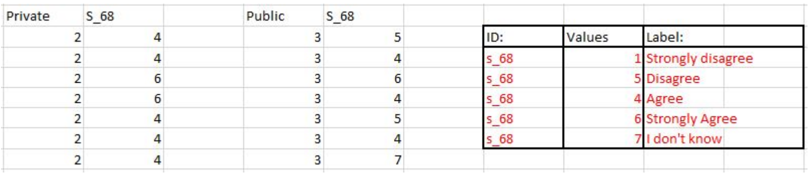
Figure 3.3: Quote matched with participant ID and category, inspired by Eliot and Associates [55]

could be: how they heard about it, how they were trained / educated and how their colleagues / managers view or talk about ITIL. This originates from the theory about social influence by Rashotte [59], which suggests that individuals can make changes to their feelings, behavior and opinion by interacting with others. Especially people who are perceived as experts in a certain field.

In this case, if respondents receive training in ITIL processes from their manager or the ITIL foundations course. They could potentially adopt a similar perception of ITIL from these sources of information. This is something to take into consideration in Chapter 5. By structuring and comparing the information from the interviews, it was easier to see common features in respondent's opinions. In cases where just one respondent had one individual opinion, it was compared and validated by looking at similar theory and literature. The questionnaire, described in section 3.3.4 provided a way of validating the information retrieved from the focus group interviews to see if it applied to others as well.

3.7 Analyzing questionnaire data

The questionnaire and its results were fitted into an excel form and converted into diagrams or pie charts. Similar to the method used when analyzing the interviews in section 3.5.1, the responses in comment boxes were analyzed using Open Coding and sorted into the categories which emerged. The results were also calculated as percentage. By using one or more variables to compare data, such as: gender, sector, geographical differences and organizational size. It was possible to compare answers across the questionnaire. As presented in Chapter 4, data was compared using industry sector as a differentiator. One example of how this data was analyzed is available in Figure 3.4.



Private	S_68		Public	S_68		ID:	Values	Label:
2	4		3	5		s_68	1	Strongly disagree
2	4		3	4		s_68	5	Disagree
2	6		3	6		s_68	4	Agree
2	6		3	4		s_68	6	Strongly Agree
2	4		3	5		s_68	7	I don't know
2	4		3	4				
2	4		3	7				

Figure 3.4: Using industry sector as a comparing value, how it was done

The columns representing public and private sector (values 2 and 3) was compared to column S_68 which represents a question asked in the questionnaire. The box to the right shows which values that represent each label. The choice to use industry sector as a differentiator was based on background theory in Chapter 2 which revealed that there may be interesting differences based on industry sector and to add more contribution to existing research.

3.7.1 Data validation of questionnaire

The data sample collected through the questionnaire is not representative of the whole population. It can merely be used as a sample and an interesting foundation for further research with a larger sample population (discussed in Chapter 6). To make the findings more generalizable, they were compared with findings from the focus groups. With an anonymous questionnaire, there might be difficulties with validating whether the respondents are who they claim. In this case, employees who use ITIL. To avoid responses from leaders, ITIL practitioners / experts or high ranking managers, a specification of the desired respondents was needed. The respondent criteria presented in section 3.3.7 were documented in the mail containing the link to the questionnaire and in the questionnaire itself.

One weakness with the questionnaire was the possibility of leading questions, which could have guided the respondents to answer in a certain way. According to Beadell [63], this is something which is difficult, and sometimes impossible to avoid. However, making the questionnaire anonymous could encourage respondent's to feel more comfortable answering truthfully. The questions themselves could have been formulated differently, and may have been perceived as too intrusive or indicative. The choice to exclude neutral options as much as possible may have had an impact on the results. In the sense that respondents choose to skip the questions, this can result in a lack of data to analyze. From the respondent perspective, it may have been uncomfortable to be forced to form an opinion (see Appendix B).

3.8 Anonymity

The questionnaire was anonymous to make the respondents feel more comfortable, and answering more questions without pondering on possible consequences. Although the questionnaire lacks the possibility of generating sensitive information, anonymity ensures that if any such information were collected it could not be tracked back to the respondent. During interviews, all respondents approved of recording the interview on a voice recorder. They were informed that the data from the interviews would be deleted after use and that their identity would remain anonymous. This was to ensure that the participants felt comfortable enough to state their own opinion, both negative and positive without any consequences in the future.

For the purpose of this master thesis, it was necessary to have questions which encouraged discussion surrounding the topic. Especially during the focus groups. This meant that, for the respondents to feel comfortable in discussing their personal opinions in a group session scenario. The respondents had to sign a consent form which informed of their right to stop the discussion at any time during the session. In addition, their right to be anonymous in this report. Please see Appendix A.3 for the consent form, that was distributed to the participants during the focus group sessions.

3.9 Summary

This chapter described the research model, data collection method and how both qualitative and quantitative methods were applied. When investigating the employee perspective, focus groups were used to find inspiration for themes to include in the questionnaire. This aimed to gather information from employees who used ITIL on a daily basis. The management perspective was explored by conducting in-depth interviews to collect data from ITIL experts. The data collected from interviews were analyzed using Open Coding. The data from the questionnaire were sorted into pie charts, diagrams and compared using industry sector as the differentiator

Chapter 4

Results

This chapter presents the results from the data collection process described in Chapter 3. The results will be available in the following sequence: Results from interviews with employees (section 4.1.1), results from the questionnaire (section 4.1.2) and lastly the results from interviews with ITIL experts (section 4.2). All of the results presented in this chapter will be discussed further in Chapter 5.

4.1 Results from the employee perspective

Results from interview session 1 (focus groups) and the questionnaire will be presented and structured according to the following themes: 1) Background, 2) Education 3), Software and digital tools, 4) Organizational culture, 5) Communication, 6) ITIL and its effect on everyday work life, 7) ITIL success.

4.1.1 Results from focus groups

The respondents from the different interview sessions are separated into groups and sorted using a respondent ID. This was further explained in Chapter 3 and the ID will be used to identify the respondents whose quote were used.

1) Background

Several respondents thought that the framework took a lot of time to implement and employees often stated that skepticism occurred in the beginning of the ITIL implementation process. Several respondents mentioned that people had difficulties accepting the new way of working. Examples of resistance for change occurred was:

> There are some employees that have worked here a long time who never managed to accept the new way of working, that has been a huge challenge [...] Old habits and because they have worked in the same company for years and know everyone, but then they are told to change how they work. (3.1)

All of the respondents had experienced a resistance to change in the beginning of the ITIL implementation and employees had difficulties adapting to the new way of working. Although a resistance for change was still present in the organization, positive aspects included the fact that employees followed the same routines and processes.

2) Education

Most of the respondents received some training about ITIL processes, either by a colleague or through a ITIL foundations course. However, the training took place several years ago when the organization was implementing ITIL. Therefore employees that were hired at a later time were trained by coworkers. Those who participated in a ITIL foundations course perceived it as heavily based on theoretical knowledge. Other issues included difficulties with language since the course was in English. It depended on your language skills whether you pass the final exam or not. In addition, there were cases where several employees did not pass the exam. A majority of respondents do not consider extensive education necessary for themselves. Several believe that it is not important to know every detail of the ITIL framework in order to perform well:

> Maybe expensive courses are better suited for those who design the processes and routines. I didn't receive any training, is it that necessary? [...] Is it important to know all the details and concepts to know how to do your job? Maybe it's worse with too much education on ITIL? (1.1).

However, extensive training for managers and leaders was believed to be more important.

3) Software and digital tools

When asked about their satisfaction level with the software they use on a daily basis, one of the frequently mentioned reasons for dissatisfaction was the system being too slow, complex or not adapted to the way the employees work. Comments concerning the amount of time it took to complete a simple task were mentioned by a majority of respondents. The software was viewed as inconvenient and employees therefore lost interest. Resulting in the employees preferring other systems or methods to complete their work. The ITSM supported software was often stated as too complex, and not adapted to the organization or the ones who use it:

> It does not support the way we work today at all [...] We use another communication tool instead where we pick up problems much faster than in the ITSM supported software. (3.1)

Respondents prefer the use of web portals or e-mail to complete their work. When asked about the process of documenting incidents, all of the respondents agree that it is a time consuming process.

4) Organizational culture

All of the respondents reported that ITIL caused an increase in service quality. In addition, ITIL introduced stability to the work day, increased product quality and predictable services. A common response when asked about negative aspects about ITIL was the slow and bureaucratic process. It was considered both demanding and time consuming to follow ITIL for the employees. Especially if managers wanted incidents to be solved quickly:

> There are groups in the IT department who experience our software, ITIL and that structure [...] They want to solve the problem quickly and experience the processes as very bureaucratic.(1.1)

The ITIL process was described as slow and demanding, thus it was difficult to solve incidents quickly. This was emphasized by the fact that small errors could take too much time because it needed to be analyzed:

> There are some people who don't understand why we work like we do, It is very rigid, ITIL has also made the business more cumbersome, we aren't able to solve problems quickly. (2.2)

Most of the respondents felt that ITIL had introduced more standardization to the work day. It was viewed as a framework where the business can adapt and choose which parts to use in order to fit the framework according to the organizations business processes. However, the slow processes which ITIL represents was viewed as something bureaucratic. Respondents do not consider ITIL as a significant bureaucratic force in their own department. However, they recognized the inconvenience of logging several incidents at a time and cases where there it is a lot to do.

5) Communication

Communication and good customer service were emphasized as important factors by all of the respondents. When asked how communication has changed with the introduction of ITIL, the respondents were aware of one common occurrence. The customers had tendencies to call or contact someone they knew in the IT department:

> Customers often call directly without going through the system. This is because they know they can get their problem fixed straight away. The employees are told to say "no" to those customers, but that is not always easy. (3.1)

The respondents thought that it is difficult to say “no” to users they know because it is regarded as bad costumer service. Respondents still understood why they should use the ITIL supported system. When asked about roles in the organization, all of the respondents could report that they were struggling with unfulfilled roles. New ITIL processes result in new roles to fill. In organization 2 and 3 they had issues with the fact that if one person quits his / hers job, all of the associated ITIL processes would disappear as well:

> If one person like a service manager quits, we have no one to take over the position. If someone quits, the processes that belonged to that position goes down as well. (3.1)

With the adoption of ITIL, one change that was mentioned by several of the respondents was the uncertainty of who is responsible for what. Although, the formal gap was ‘’closed” and they better knew who was responsible for which case, it was still some uncertainty of who was in charge of what system or process. Therefore misunderstandings regarding responsibility occurred:

> Some people outside of the IT department thinks that it is our task to answer, when it's the other support department's job. (1.1)

Within the organization, there exists a gap between the IT department and the rest of the organization. Both organization 1 and 2 could relate to the fact that there are divided opinions about their department and that they would not mind a better reputation. Some of the respondents mentioned a knowledge gap between the users and themselves regarding technical knowledge. This made the process of helping customers challenging.

6) ITIL and its effect on everyday work life

All of the respondents believed that their work day had become more standardized. Examples included the fact that they were able to use the ITIL framework as a guide and work with solid processes which made the work day more structured. Another benefit was that everyone worked in the same way, therefore the quality of services had improved significantly. The respondents used the framework to support their decisions on a daily basis. One example of this was as follows:

> A standardized work day improves the everyday life because we use the framework as support. (2.2)

Most of the respondents considered their work day unchanged regardless of the ITIL adoption. Respondents consider the organizational culture in the IT department to be informal, and the standardized way of working have made things easier. The predictability of workflow was considered a positive change and annual events like main deliveries was regarded as exciting. The quality of service and predictability is positive both for the employees and the users. Additionally, most of the respondents must follow a KPI (see appendix C for description) which include goals or requirements for case management introduced by managers. For example:

> We are measured by time to answer and achievement within two days or the request goes to someone else [...] Every case should be started within one day and solved within three days. (1.3)

Most of the respondent did not mind the process of measuring work efficiency, however it was mentioned that it is considered uncomfortable when managers tried to create competition between the employees. It was also difficult for the respondents to remember documenting incidents when there was a lot to do:

> When there's a queue, it's easy to forget a couple of steps you should have done. Later when you look at the case it might therefore not contain the information that is necessary. As a consequence, you don't get the statistics. (2.3)

The respondents were aware of the reasoning for why it is important to document incidents. However, it is also a frequently discussed issue that a supervisor or manager wants the employees to document cases in detail. From the employee's perspective it was viewed in such a way that managers are only interested in statistics. The respondents know how detailed documentation can affect other people's work if they don't document properly. Both in the sense that the business will lack traceability and control of who did what. However, it is not always done. The respondents believed that it important to deliver good quality services to the customers and helping users with their problems were considered both rewarding and motivating. All of the respondents thinks that delivering good quality takes priority over solving incidents quickly. However, their manager might prioritize differently and focus more on quicker incident management.

7) ITIL success

Most of the respondents agree that the success of ITIL depends on the degree of management involvement. Respondents also mentioned that the organization is about to lose its stability because of differences on the executive level:

> To achieve a successful implementation you need a management who are 100 % dedicated. [...] We are at a crossroad now, it is important that everything is supported by management. If not everything will fall apart, and that's what I feel is going to happen. (1.3)

Some issues that have occurred previously are related to miscommunication between management, users and employees. Employees in other departments often lack understanding for what the employees in the IT department do.

4.1.2 Results from the questionnaire

This section concerns the results from the questionnaire and will be structured using the themes in appendix B as inspiration. However, some topics were found to have higher affiliation to other results and were therefore relocated according to the themes presented in section 4.1.

1) Background

Questions concerning gender, industry sector and geographical location are common to include in questionnaires in order to collect background information about respondents. As seen in Figure 4.1, the questionnaire collected data from respondents who mostly worked in the public sector. However, a high number of respondents from the private sector is represented as well.

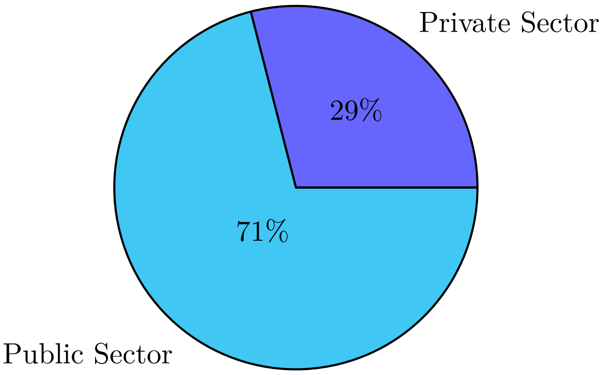


Figure 4.1: Private / public sector

Figure 4.1 in Chapter 3, showed that 71 % of respondents worked in the public sector, while 29 % worked in the private sector. In addition the respondent sample consists of 89 % from large organizations with more than 100 employees, 4 % from medium businesses (between 50 - 100 employees) and 7 % from small businesses (1 - 50 employees). The

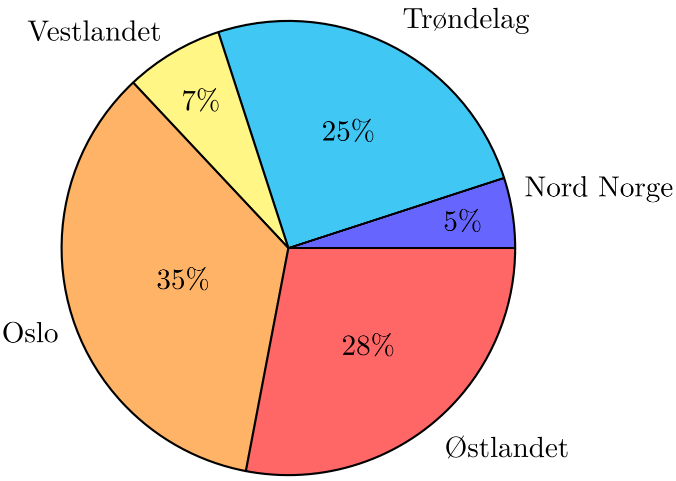


Figure 4.2: Geographical distribution of respondents

organizational size will be discussed further in Chapter 5, section 5.1. Figure 4.2 shows that most respondents worked at organizations located in Oslo. It also illustrates that the questionnaire was answered by respondents from other areas in Norway as well, but Oslo and Østlandet represent the largest population.

2) Education

The majority of respondents have had experience with ITIL and its processes for more than four years. 6 % had worked with ITIL for less than four years and the remaining 6 % had worked with the framework for two years or less. When asked how they received their ITIL education, 66 % were trained in Norway, 15 % learned about ITIL with others (informal education) and 8 % were taught by their manager. Only 3 % were sent on a course abroad. The results in Figure 4.3 illustrates the respondents familiarity with ITIL and it's processes.

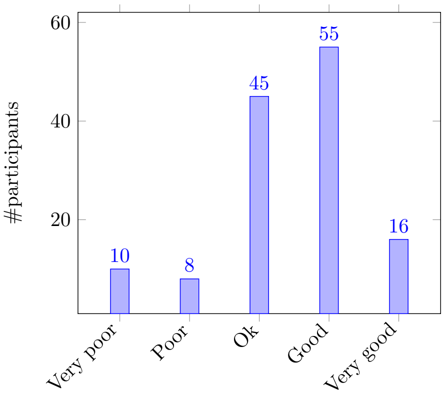
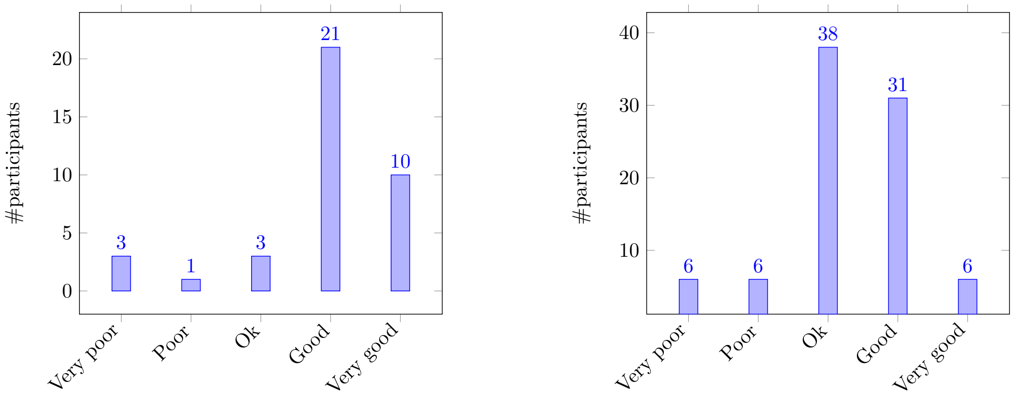


Figure 4.3: Familiarity with the ITIL framework and it's processes

Considering the respondent sample where 71 % worked in the public sector and 29 % in the private sector. The results from Figure 4.4 show that 81,5 % of respondents from the



(a) Private sector responses

(b) Public sector responses

Figure 4.4: Public sector and private sector differences regarding ITIL familiarity

private sector and 42,5 % from the public sector consider their familiarity with ITIL to be Good or Very good.

3) Software and digital tools

Regarding how the software was acquired, 81 % of the respondents answered that the software was developed by an external supplier. 8 % answered that the software was developed by their own company and 11 % of the respondents don't know how the software was acquired. When asked how the software was adapted to the organization, 76 % answered that the software was adapted to their organization and the processes they use. The remaining 18% answered that the software was used as it is, and 7% do not know.

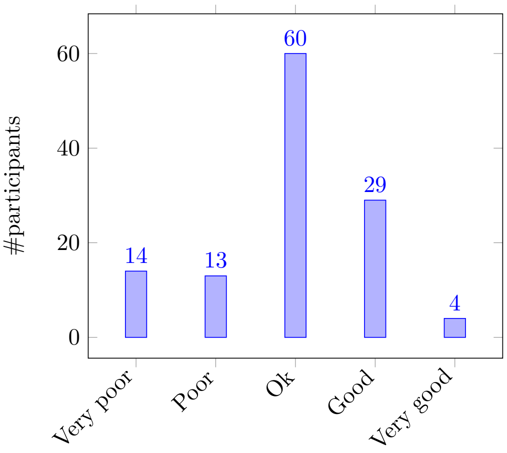


Figure 4.5: Respondent overall satisfaction with software

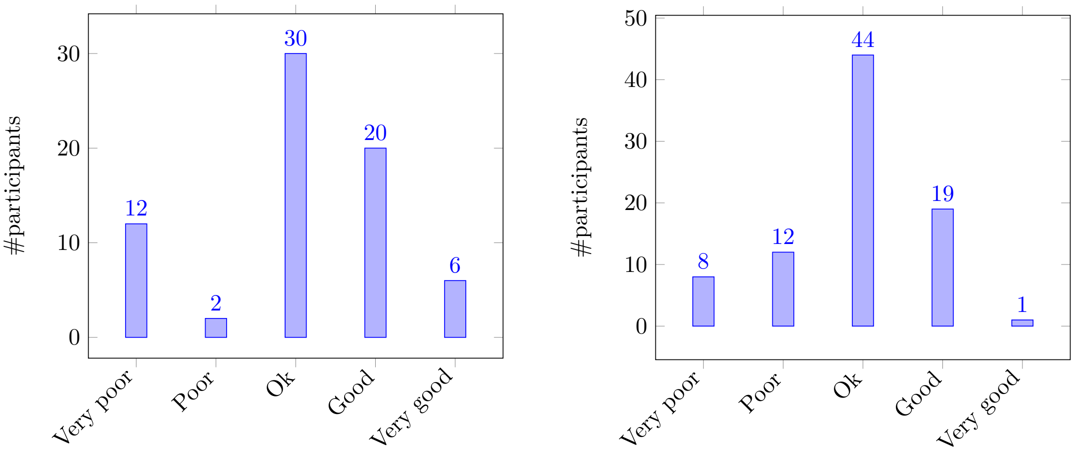
Figure 4.5 shows that most of the respondents were satisfied with the software to some extent. 27,5 % were satisfied, 50 % answered neutrally and 22,5 % were dissatisfied. Although this question was optional, a total of 100 respondents provided information about which type of software they used on an everyday basis to manage ITIL in the organization.

Software:	Respondents
BMC Remedy	23
Pilar	15
HP Service Management	14
MS Service Manager	13

Table 4.1: Some of the software used by the respondents

Table 4.1 illustrates which software was most frequently used among the respondents. The most popular software was BMC Remedy [1], HP Service Management[2], Pilar and Microsoft Service Manager[3].

The majority of respondents are somewhat satisfied regardless of which software they used. However, respondents who used BMC Remedy and Microsoft Service Manager are more satisfied with their software than the respondents who uses Pilar and HP Service Management. 40 % of those who used BMC Remedy, and 38 % of those who used Microsoft Service Manager thought that the software was either Good or Very good. 13 % who used Pilar, and 7,1 % who used HP Service Management answered that the software was Good.



(a) Private sector employees

(b) Public sector employees

Figure 4.6: Differences between private and public sector regarding software satisfaction

Figure 4.6 shows the general satisfaction with ITIL software using industry sector as the differentiator. 37 % of private sector employees and 24 % of public sector employees thought that the software they used to manage ITIL was Good or Very good. Figure 4.6a shows that 20 % of private sector employees are dissatisfied with the software and Figure 4.6b illustrates that 24 % of public sector employees are dissatisfied as well.

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[1] Read more about BMC Remedy here: http://www.bmc.com/it-solutions/it-service-management.html

[2] Read more about HP Service Management here: https://saas.hpe.com/en-us/software/service-desk

[3] Read more about Microsoft Service Manager here: https://technet.microsoft.com/en-us/library/hh305220(v=sc.12).aspx

4) Organizational culture

The respondents where asked to clarify if they had participated in an ITIL implementation process. The results are shown in Figure 4.7.

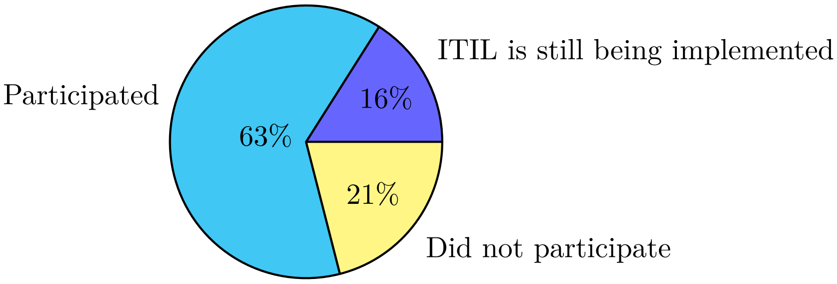

Figure 4.7: Did you participate in a before / after ITIL implementation?

The results showed that 72 % of the respondents agree or strongly agree that it has become easier to cooperate with others in the organization with the use of ITIL. In addition, 83 % of the respondents agree or strongly agree to the statement that ITIL has increased their awareness of their own work and its connection to other people's work. Respondents could then choose one or more categories inspired by [43] to express how ITIL has affected the organizational culture. The results in Figure 4.8 shows that most respondents thinks that the organizational culture has become more "procedural", "regulated" and "result-oriented". Those respondents who answered "procedural" frequently answered "regulated" and "hierarchical" as well.

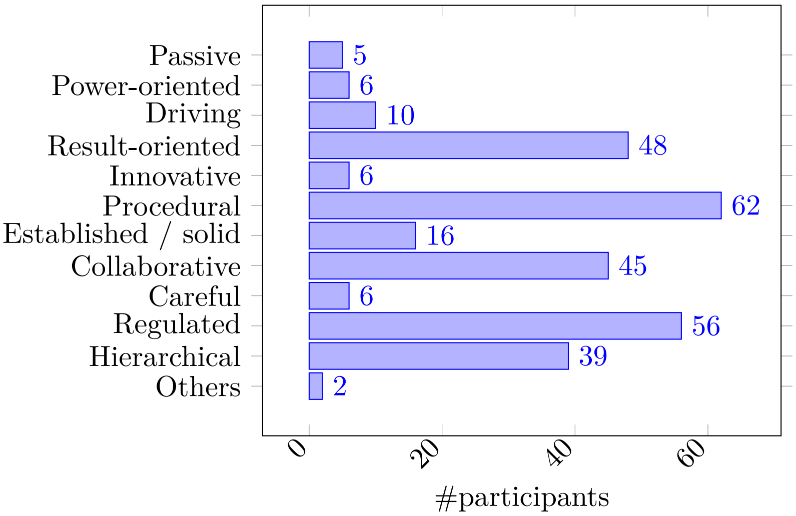

Figure 4.8: The use of ITIL makes the organizational culture more... (select one or more categories)

As a follow-up question, the respondents were asked if these changes to the organization was positive. The results showed that 67 % of the respondents agree that the changes to the organization was a positive change. When using industry sector as a comparing variable, the results showed that 82 % of private sector employees and 58 % public sector employees agree that positive changes had occurred with the introduction of ITIL.

5) Communication

Communication was a theme in the involved questions which aim was to find out more about how ITIL has affected the communication in the organizations. Results showed that 58 % agree or strongly agree that ITIL has made communication easier with colleagues and superiors. In addition, the results showed that 55 % of the respondents agree or strongly agree that ITIL has made it easier to communicate with customers and 44,5 % disagree or strongly disagree to the same statement.

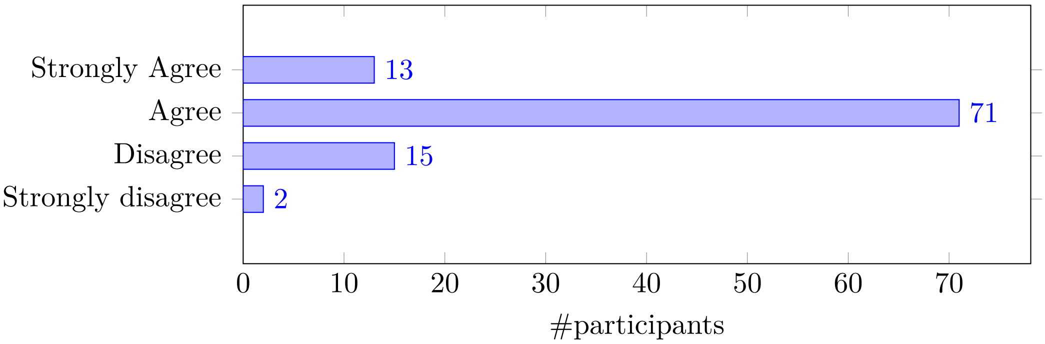

Figure 4.9: ITIL terminology has helped to increase collaboration in the organization

The respondents were asked if ITIL has helped to increase the collaboration in the organization (created a common language in a way) within the organization. Figure 4.9 shows that 83 % of the respondents agree or strongly agree to this statement.

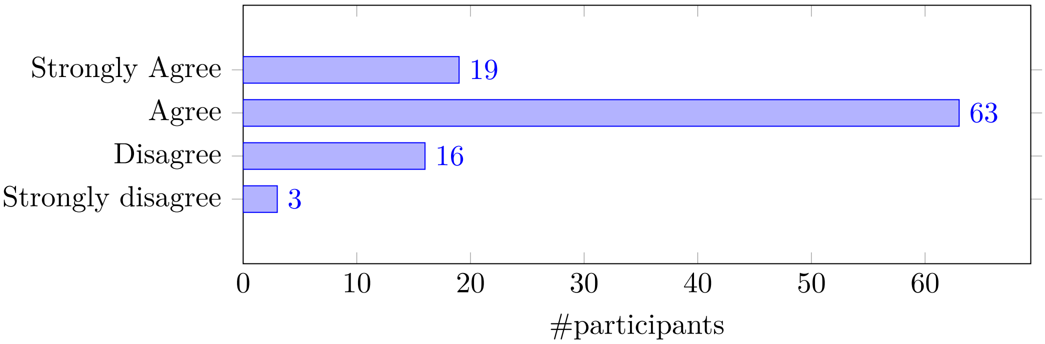

Figure 4.10: Users often call directly to someone they know in the IT department rather than going through the system

Using the results from the interviews (see section 3.5.1) as inspiration. The results from the question of whether users called directly instead of going through the system is illustrated in Figure 4.10. Figure 4.10 shows that 81 % of the respondents agree or strongly agree to this statement.

6) ITIL and it's effect on everyday work life

Figure 4.11 shows that most respondents thought ITIL made their everyday work life more "predictable" and "established / solid". In addition, results showed that ITIL makes the work life more motivating and stimulating. The results also revealed that respondents who answered that their work life had become more "predictable" showed tendencies to answer "established / solid" as well. As explained in Chapter 2 and Chapter 3, these categories were inspired by similar research.

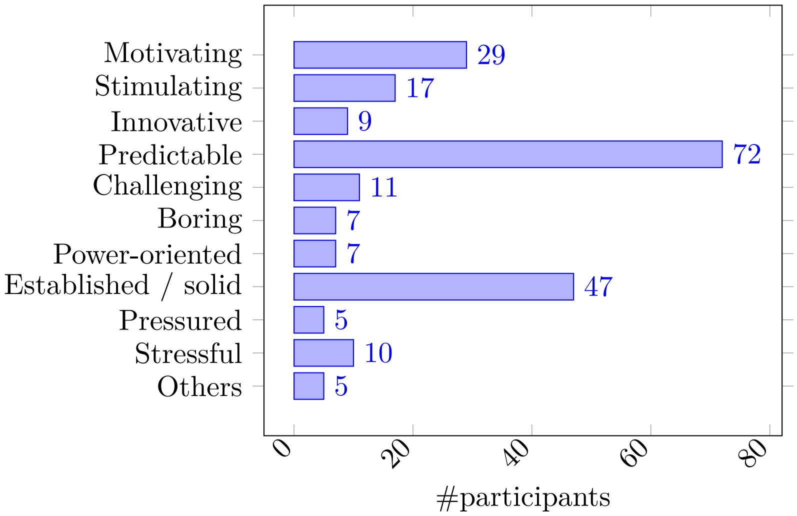

Figure 4.11: How ITIL has affected the everyday work life

Figure 4.12 illustrates that most respondents agree that ITIL makes their work more standardized and that this makes it easier to know what to do. 77 % of respondents agree or strongly agree that ITIL makes the work day more standardized and 25 % disagree.

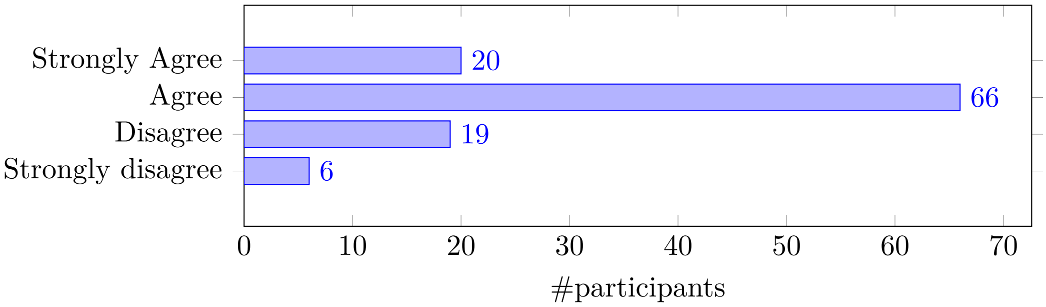

Figure 4.12: ITIL makes the work day more standardized and I therefore better know what to do

Additionally, most respondents agree that ITIL has led to an increase in the number of procedures and routines to take into consideration. This is illustrated in Figure 4.13 which shows that 75,6 % of respondents agree or strongly agree that ITIL has led to an increase in procedures and routines.

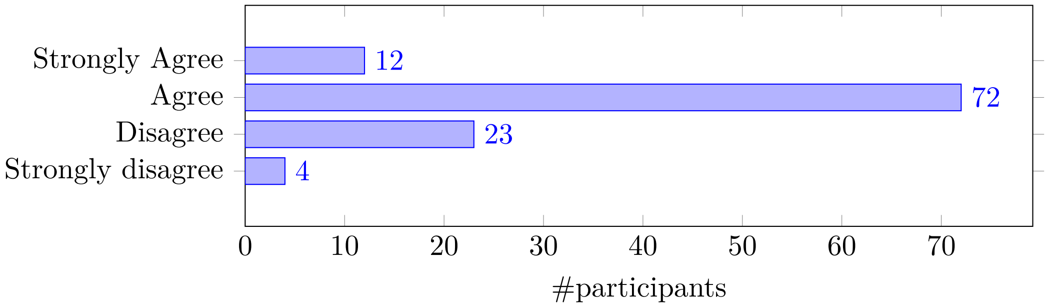

Figure 4.13: ITIL has led to an increase in procedure and routines to take into consideration

As illustrated in Figure 4.14, 70 % of respondents disagree to this statement. As a related question, the respondents were asked if their supervisors often mention that they should document incidents in greater detail. Figure 4.15 shows that 55,4 % of the respondents agree or strongly agree and 44,5 % disagree.

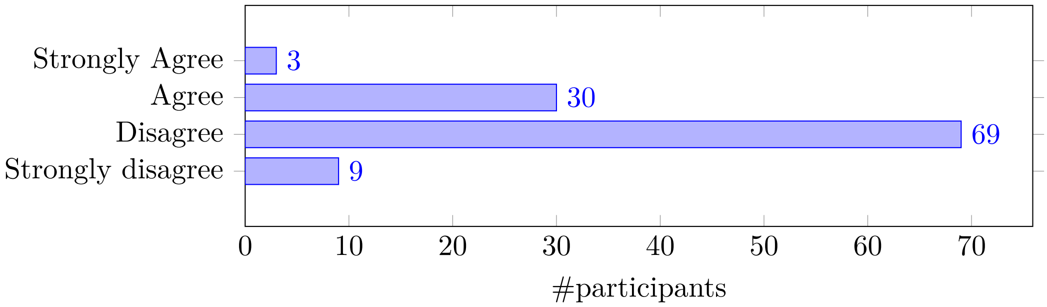

Figure 4.14: It takes time to document incidents and this contributes to why I don't feel efficient in my work

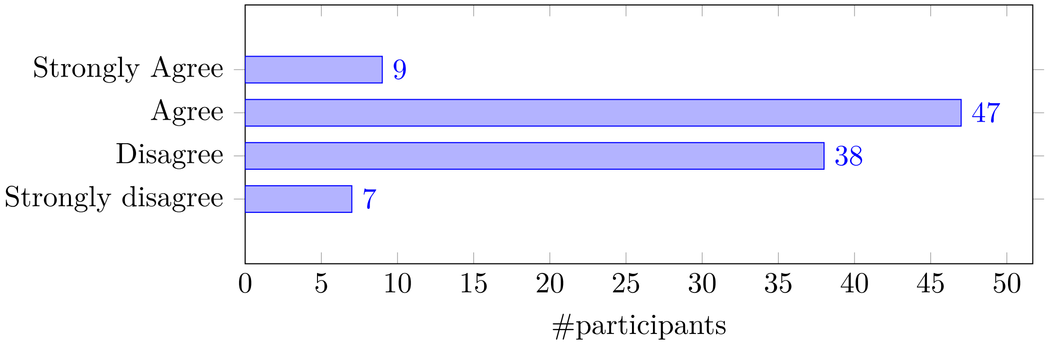

Figure 4.15: Does your supervisor often mention that you should document incidents in greater detail?

The respondents were asked if working with ITIL processes made them prioritize quantity and number of cases solved or quality of service. The results in Figure 4.16 show that a majority of respondents prioritize quality of service during their everyday work day. Continuing on this theme, the respondents were asked if the use of ITIL has made them more conscious on satisfied users and delivering quality service to the users. The results in

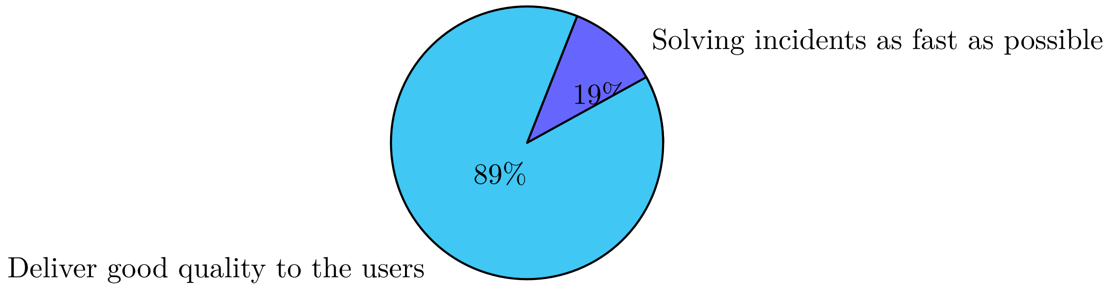

Figure 4.16: ITIL makes me prioritize...

Figure 4.17 shows that 80 % of respondents agree that ITIL has increased their awareness on user satisfaction and delivering quality services to the users.

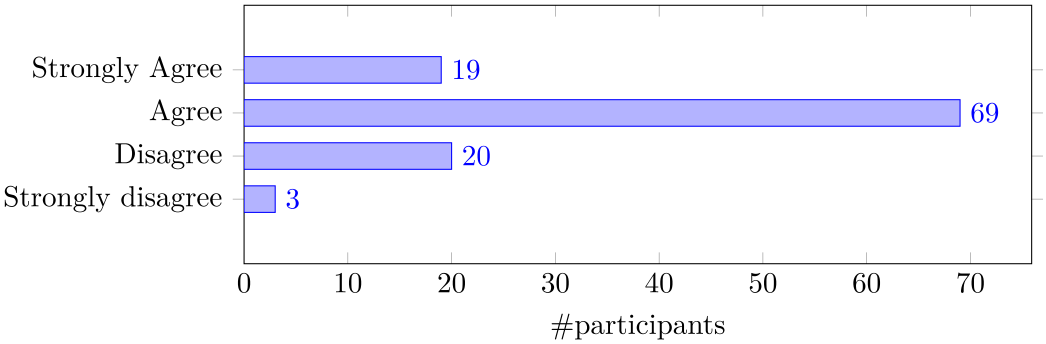

Figure 4.17: Has ITIL made you more conscious of satisfied users and delivering quality services

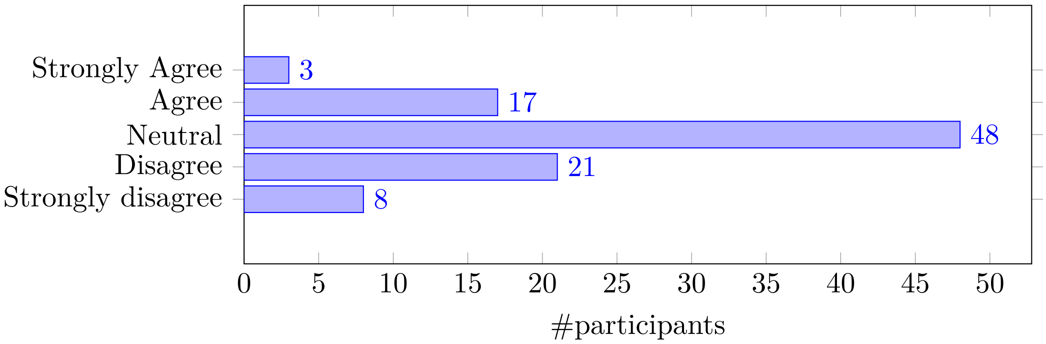

Figure 4.18: Does ITIL has any effect on whether your work day is enriching?

The last question clarify whether the respondents think ITIL has had a major role regarding their work satisfaction in the everyday work life. Figure 4.18 illustrates that 50 % of respondents answered neutral. In addition, 20 % respondents disagree and 20 % agree to the statement.

7) ITIL success

The final theme in the survey was about ITIL success and whether the employees themselves considered ITIL to be a success in their organization. Figure 4.19 shows that 61,4 % agree that ITIL is a success and 38,5 % disagree.

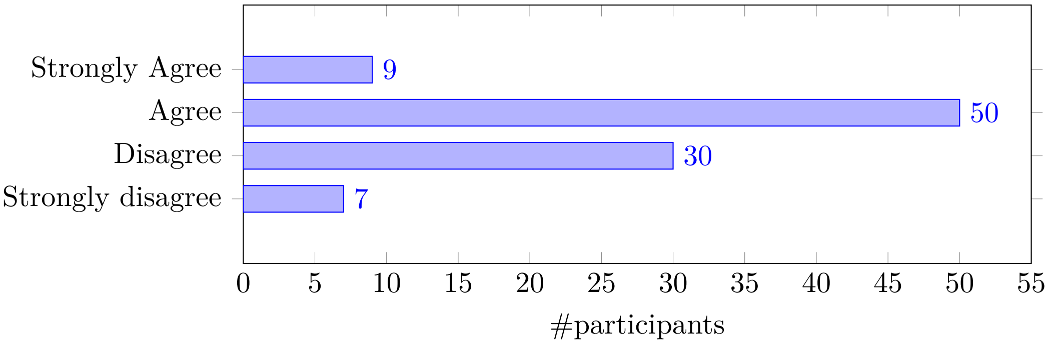

Figure 4.19: I think that ITIL is a success in the organization I work at

When asked why ITIL is a success or not, the respondents could choose one or more reasons as seen in Figure 4.20. The three top reasons for unsuccessful ITIL stated by the respondents was: 1) lack of management commitment, 2) lack of employee training and 3) immature organization.

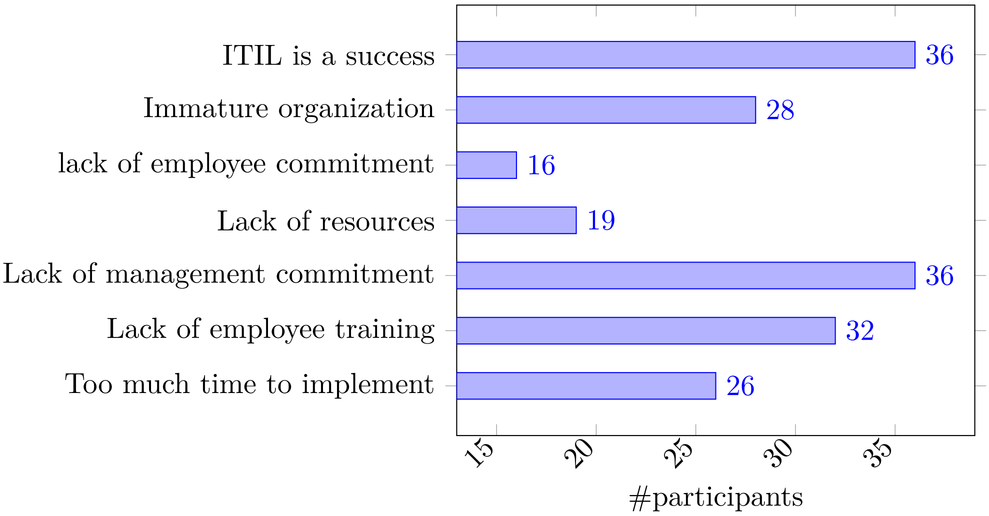

Figure 4.20: Why or why not are ITIL a success? (select one or more choices)

When asked if these factors stated in Figure 4.20 were impactful or a serious issue in the organization, 41 % of respondents disagreed. 37 % answered neutrally and 20 % agreed.

4.1.3 Comments from the comment boxes

To supplement the information from the questions in the questionnaire, the respondents were asked to provide their opinion in comment boxes as seen in appendix B. The themes which included commenting options such as software and digital tools, organizational culture, ITIL and its effect on everyday work life, and ITIL success. Similar to results from interviews with employees, the most frequently stated reason for dissatisfaction with software was a slow or complicated system and lack of software adaption to the employee's needs. Respondents also described the software as rigid and not adapted to the way they worked. Lack of understanding and support from management was a frequently stated issue. Managers and leaders did not fully support or had a significant lack of knowledge of ITIL, which in turn was the main reason for an unsuccessful implementation:

> ITIL is a framework with clear structures. However, it isn't clearly understood by management. This prevents a good case-flow and sharing information efficiently.

ITIL was a long process that could result in misunderstandings and power struggles within the organization. It was also reported that the work day would be better without the use of ITIL. However, positive aspects such as better overview over work processes, clear roles and a decreasing number of incidents were reported. One common theme that most people mentioned was that ITIL had provided more cooperative and transparent roles in the organization. This introduced more predictability to the everyday work life. Delivering good quality was an important factor for motivation for the employees, where good customer service and positive feedback was important for a motivating work day.

4.2 Results from the management perspective

This section is sorted using the following categories: education, software, ITIL effects and ITIL success. The respondents are identified using a respondent id, such as RX. With X varying from 1 to 8. The respondents id was available in Figure 3.1 in Chapter 3.

4.2.1 Education

When asked about of ITIL education in Norway, one common perception was that the courses are heavily based on theory. The courses aim to cover a large amount of information during a short period of time. This makes it difficult to provide practical examples for course participants in order to create a better understanding of what the framework entails. Respondent 1 provided an example:

> The instructors talk mostly about the theory, which is a massive topic. There is not any real education on how to actually use this theory in practice. (R1)

Respondent 1 has extensive knowledge about ITIL courses and thinks that it needs some changes. One common opinion was that it is more important to learn something of value for the business rather than passing the exam at the end of the courses. Therefore, some instructors try to focus more on simulations rather theory:

> It depends on who the lecturer is, it is definitely most important with an understanding on why one should choose this framework and what the desired results are [...] just having a good understanding of the framework is not helpful in itself. (R3)

A majority of the respondents mentioned the importance of having a common goal with the ITIL courses. Meaning that education on ITIL and its processes are less important than understanding the business. In addition, knowing why the business should use the framework instead of understanding the framework is challenging:

> I do not think that one needs to understand ITIL, but understand the business processes instead [...] It is incredibly important to combine it with the business perspective. Something that is complicated to do for many out there. (R8)

ITIL terminology was emphasized as important to create a common understanding in businesses. When asked who is participating in ITIL courses, the most frequent response was that IT employees are the ones who mostly participate. In some cases, the managers take higher level courses to educate themselves. However, there are few who does:

> There are a lot of ‘’doers” or people working in user support who participate, but I wish that more leaders participated as well because I think they could use some understanding [...] when leaders send their employees on courses, they forget what kind of value they really want from that training. (R7)

Respondent 7 adds that many leaders may lack in-depth knowledge on the framework and provides an example: *Some leaders may know what it is, others have some idea of what it is without having been to a ITIL course themselves.*

4.2.2 Software

When asked about their thoughts on whether software should be adjusted to the business, all of the respondents agree that software should always support the organization and its processes. Even switching software was mentioned as unhelpful if it does not support the processes. The respondents recognized and could relate to the reasons for dissatisfaction with software: 1) complicated system, 2) not adapted to the ones who use it and 3) a slow system. Respondent 7 regarded the organizational processes to be essential for correcting these reasons for dissatisfaction. The general opinion was that these factors could be a sign of poor background research when ordering software and insufficient adaptability to the ones who are using it. One respondent emphasized this further:

> The reason for dissatisfaction it that people often forget the users of the system and what is best for them. At the same time it’s possible that some parts of the system needs to be complicated in order to provide value for the business. (R8)

Regarding degree of software adaptability, one common response was one needs to make compromises and consider challenges that may occur. Such as later updates and aligning the software to the processes. Choosing the right software and aligning it with the business was considered extremely important for achieving a successful ITIL implementation by all the respondents. It was mentioned by Respondent 5, that there is a considerable difference between different types of software even though they appear to be similar. Since the software is mostly developed by people who do not have experience working in IT support, they are at an disadvantage when trying to adapt it to their needs:

> When software providers sell their products, a majority of businesses in Norway don't have an actual need for all the functionality provided. This creates a situation where businesses think they need a lot of functionality and documentation, but forget why. (R5)

Respondent 5 added that there is a considerable difference between software, though they appear similar. Since the software is mostly developed by people who do not have experience with working in support, they are at an disadvantage when trying to adapt it to their needs.

4.2.3 ITIL effects

A common perception among the respondents was that the business needs to acquire an awareness of why and what should be documented. An understanding of what the documentation should be used for to create a knowledge base is needed. The respondents have experienced cases urging on more statistics was necessary because leaders seek some sort of safety, which documentation provides. Respondent 8 thinks that business understanding is an important factor:

> I think it depends on the business understanding and that the employees don't understand why they are documenting. They don't understand why it's important. This may be because of their training and there has to be lower standards to make documenting easier. (R8)

In the same context, it was mentioned that there is a lack of effort to include the people who are actually using the software and processes regarding the job of adapting, documenting and changing the processes. All eight of the respondents had experience with cases where users call directly to someone they know in the IT department rather than going through the system. A majority of respondents believe that the cause of this is human-centered:

> It is because the users will always find the easiest way to do things [...] When we have the person on support who like to help and maybe like to be the person who is always called when something happens, but it is not documented. (R5)

It was stated by several respondents that the main challenge with this occurrence is that some processes tend to be overlooked and the risk of prioritizing wrong cases increases. In addition, it becomes easier to forget to register or document incidents. It was added that, if the person who takes the call and provides great service quits the company, the business becomes unable to provide the same level of customer service. When asked to elaborate on possible reasons for why this happens, one respondent stated that it could be because of a recent organizational change:

> It could be a recent reorganization where the employees and customers haven't developed any faith in the system, so it's easier to just call someone they know rather than going through the system because it takes too much time. This is often a sign that an old organization, that has existed for quite a while, have gone through a recent reorganization. (R1)

Another respondent thought that it could indicate that the framework is too rigid or inefficient, and therefore the customers know that it is quicker to go around the processes. In sum, all of the respondents agreed that the cause for this is that people like to a contact they can call. When asked how ITIL could affect communication in an organization, the eight respondents had the common perception that communication is based on the human aspect and organizational culture and is not necessarily something that is directly related to ITIL. However some mentioned that ITIL terminology could be a source for the development of a ‘’common language” in the IT department:

> It could be that people feel that they get a common language in IT, but it doesn’t extend farther than that. (R6)

ITIL could enhance the understanding and communication in IT, on the other hand it can end up separating the language throughout the organization, for example between the IT and finance department more than it did before. Respondent 2 pointed out that communication in an organization is dependent on the type of management and how they choose to shape the organizational culture.

4.2.4 ITIL success

The respondents had the common opinion that management commitment is important for ITIL success. However, the organizational culture was perceived as just as important:

> There isn’t one organization here in Norway who is mature enough to take on a full implementation of ITIL, no one. Management commitments role is how to get funding in the beginning and training for the employees. However a mature organization is absolutely important to keep the framework going in the long run. (R2)

Managers need to be a continuous driving force during and after a ITIL implementation. Both employees and managers need to experience the value of ITIL and see positive effects. Additionally, the organizational culture needs to be mature enough. Whether ITIL is a success in Norwegian businesses was stated as questionable by several respondents. One example was provided by Respondent 5:

> ITIL is a success in the sense that many businesses use it, however very few have actually made it. Expensive courses and books don’t help if the leadership aren’t able to correct the processes and engage themselves in the long run, something that most people don’t do. (R5)

The eight respondents concluded that ITIL success originates from the management perspective in the sense that the managers are the ones who develop the organizational culture and in turn becomes the deciding factor if ITIL is a success or not.

4.3 Summary

This chapter showed the results from the focus groups, questionnaire and in-depth interviews. ITIL has affected factors such as communication, level of formalization, and employees work day. Both focus group and questionnaire respondents stated similar reasons for dissatisfaction, and private sector businesses showed tendencies for higher satisfaction with the software than public sector respondents. Additionally, private sector employees considered their knowledge of ITIL to be better than public sector employees. ITIL experts also described a lack of education on the management level, and employees considered it as more important for managers to receive formal ITIL education. Lastly, management commitment was considered the most important factor for ITIL success by both employees and ITIL experts. However, several barriers for success were described, such as, lack of employee training, immature organizational culture and too much time to implement.

Chapter 5

Discussion

In order to answer the research questions introduced in Chapter 1. The results from the interviews and questionnaire, which was available in Chapter 4, will be used and discussed in relation to similar research, theory and literature study in Chapter 2.

5.1 RQ 1: In what way do employees believe ITIL can influence organizational culture?

A total of 79 % of respondents have participated in an ITIL implementation process and are therefore qualified to state noticeable changes to the organizational culture. These respondents may be more qualified to state what kind of factors are important for an successful implementation. However, answers from respondents who did not participate in an ITIL implementation process were not deliberately excluded from this study. This is because they may have valid opinions or experiences worth including. Otherwise, they were free to skip questions they did not feel qualified to answer. Approximately 76 % of the total number of respondents provided answers to questions which concerned changes to the organization.

In order to answer RQ 1 and find out how the use of ITIL affect the organizational culture in Norwegian organizations from the employee perspective, three main themes will be discussed further:

- Organizational cultural types
- Communication in the organization
- How ITIL is affecting everyday work life

Similar to the thesis by Hauge [14], cultural categorizations inspired by Kanungo, Sadavarti, and Srinivas [43] were used as an indicator for how organizational culture can be affected by the use of ITIL. The employees who answered the questionnaire could use these predefined categories to describe how they feel the organizational culture has changed. This will be discussed in section 5.1.1.

Communication and roles are basic functions which are key factors for well-functioning organizations. Section 5.1.2 discusses whether ITIL has had an effect on the communication and roles in an organization. Lastly, section 5.1.3 reveal how ITIL can affect everyday work life from the employee perspective.

5.1.1 Organizational cultural types

Previous studies show that IT and business must be culturally supported throughout the organization. However, isolating the coherence between the implementation of ITIL and cultural change is difficult. Therefore, using predefined categories inspired by Kanungo, Sadavarti, and Srinivas [43] in Chapter 2 (section 2.3.7), may help to identify what kind of cultural types have emerged with the use of ITIL. The results from Chapter 4 showed that the most frequently selected categories were as follows (see table 5.1):

Table 5.1: Frequently selected cultural type categories

Category	Percentage
Procedural	65 %
Regulated	58 %
Result-oriented	50 %
Collaborative	49 %

Similar to the study by Hauge [14] (Chapter 2, section 2.3.8), the most frequently selected category was “procedural”. When selecting this category, respondents often selected categories such as “regulated” and “hierarchical” as well. With the culture becoming more procedural and regulated, the majority of respondents answered that ITIL has led to an increase in procedures and routines to take into account, which was also supported by findings from the focus group sessions. Additionally, similar to the study by Iden and Vindegg [44]. A high rate of respondents reported that ITIL affected the organization to become more result-oriented, which was also supported by the focus group findings, where a majority of respondents believed that predictability of delivering services to the user was improved.

The fact that several respondents chose the category “collaborative”, align with the findings from the focus group discussion. Which revealed that it was easier to cooperate with others when everyone used the same processes and procedures. This could also be connected to ITIL education, where understanding ITIL terminology could be important for communication and collaboration in the IT department (see section 5.2.2). Several employees thought that the workday was more random before the ITIL implementation and had become more standardized and structured which in turn made it easier to deliver predictable services to the customers. The categories which were rarely selected by the questionnaire respondents are shown in table 5.2.

Even though the respondents believed that the organizational culture had become more similar to a bureaucratic culture, traits representing an innovative and supportive culture were still present. Employees from the interview process could describe their work-place as informal. This suggest that despite using the ITIL framework, the organizational culture remain informal within the IT department. This is consistent with Levin [35] and Iden, Eikebrokk, Olsen, *et al.* [36] findings, which suggests that Norwegian organizational

Table 5.2: Rarely selected cultural type categories

Category	Percentage
Passive	1,6 %
Careful	2 %
Innovative	2 %
Power-oriented	2 %

cultures are often informal and based on a more human-centered approach. Therefore categories like “power-oriented” are something respondents did not associate with.

Was the cultural changes positive?

When asked if these cultural changes have been a positive change, the majority of respondents agreed, while only 33 % disagreed. Similar to benefits with formalization such as clear assignments for employees, safety, efficiency and control (section 2.3.2). Comments on these cultural changes from the questionnaire showed that increased control of processes and clear roles in the organization were considered positive changes. The benefits with formalization in organizations are clear assignments for employees, safety, efficiency and control.

The results showed that 82 % of private sector and 58 % of public sector employees, agree that the organizational changes were positive. This finding suggests that employees from the private sector has a more positive attitude to the organizational changes than public sector employees. This could be due to private sector organization being less restricted by the higher level of bureaucracy and complex organizational goals which are often prominent in public sector organizations [23].

5.1.2 Communication in the organization

Communication was described by Jacobsen and Thorsvik [23, p. 278], as a basic process needed for well-functioning organizations. In addition to choosing categories describing a bureaucratic culture, table 5.1 showed that ‘’collaborative” was a frequently selected term as well. The findings in Chapter 4, showed that the respondents had divided opinions of whether ITIL has made it easier to communicate with customers and colleagues. However, a majority of respondents agreed that ITIL terminology has helped increase the understanding in the organization. This was also described during the focus group sessions, where examples of the IT department developing a “common language” and terminology having a “unifying effect” were frequently mentioned. Despite this, a gap between themselves and others in the organization was described as well, in the sense that employees in the IT department felt misunderstood by people working in other departments.
Similar to findings from the focus group session, several questionnaire respondents recognized the following as a frequent occurrence. As illustrated in Figure 5.1, customers often called directly to someone they know in the IT department instead of using the ITIL supported system and processes. Employees stated that they were aware of the challenges associated with this and lack of documentation could be a consequence. Employees were also aware of how lack of documentation could potentially affect business processes. This

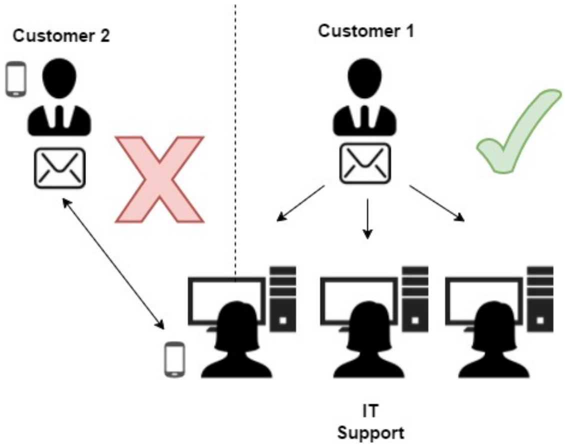

Figure 5.1: Customer 2 calling directly to someone he knows in the IT support department.

topic will be discussed further in RQ 3, see section 5.3. A majority of respondents reported that their awareness of work relations has increased. Few agree that ITIL have caused any positive changes regarding communication between customers and colleagues. Therefore, whether ITIL has increased collaboration and communication in the organization is still questionable

Roles and process owners

The findings showed that respondents mentioned ITIL as an unifying force. Both in the sense that people work in the same way and increased the role clarification in the organization. Iden and Eikebrokk [45] claimed that clarified roles is a considerable benefit with the framework. Additionally, aligning with findings by Hauge [14], employees also reported that ITIL has resulted in better awareness of work relations.

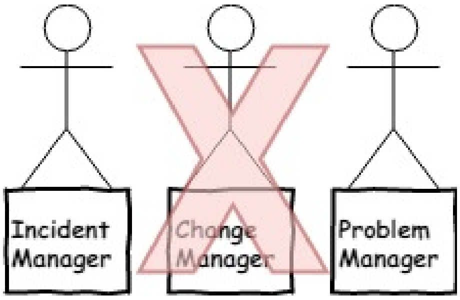

Figure 5.2: If change manager quits, all related processes may disappear as well.

Despite this, a majority of respondents reported issues with unfulfilled roles and process owners in the organization. As shown in Figure 5.2, if someone who manages a ITIL process quits, all of the related processes associated with that job disappears as well. This could potentially cause confusion regarding who is responsible for what. Which was a frequent occurrence according to the focus group participants. This finding shows that even though ITIL provides clarified organizational roles, it is not always the case that those roles can be maintained.

5.1.3 How ITIL can affect everyday work life for employees

As explained in Chapter 2, section 2.4. There exist a significant lack of research on how ITIL usage affect how IT employees work. Fung [46] found that research on factors like job performance, satisfaction and the impact of ITIL supported software is lacking. It is therefore relevant to add more research to academic literature on how ITIL has affected the everyday work life for IT employees. The findings from Chapter 4 showed that the most frequently selected categories used to describe changes to work life were as follows (shown in Figure 5.3):

Table 5.3: Frequently selected work life categories

Category	Percentage
Predictable	33 %
Established / solid	21,4 %
Innovative	13 %

The category “predictable” was the most frequently selected category. Several respondents stated that their workday had become more structured and employees use the framework to support their decision-making and workflow. 77 % of respondents agreed or strongly agreed that this standardization is helpful, and the predictability in workflow was considered a positive change. This implies that benefits such as clear assignments for employees and control has been achieved through formalization. Despite this, Lawler and Worley [29] and Sander [30] argued that too much imposed formalization may cause less flexibility and a rigid organization.

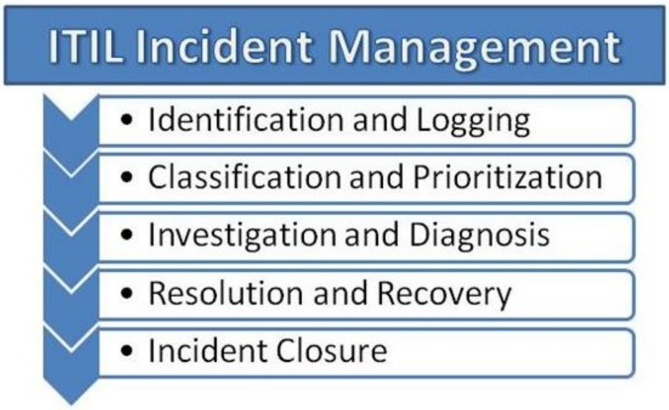
ITIL Incident Management
• Identification and Logging
• Classification and Prioritization
• Investigation and Diagnosis
• Resolution and Recovery
• Incident Closure

Figure 5.3: The process of ITIL incident management collected from [60]

In this thesis, results showed that ITIL was also considered a demanding and slow process. One example of this is shown in figure 5.3. Focus group respondents often reported that it was difficult to solve incidents quickly and it provided a more rigid way to work. In addition, the business became more cumbersome and inefficient. Employees reported that ITIL could be viewed as bureaucratic and inconvenient. Especially in cases where work becomes stressful and documentation became inconvenient. This was investigated further in the questionnaire where 55,4% of respondents recognized it as a frequent occurrence that their managers wants them to document in greater detail, which will be discussed further in RQ

3. However, despite the fact that ITIL has led to an increase in procedures and routines to take into account, the majority of respondents disagreed with the statement that ITIL is a hindrance to their work. This finding implies that questionnaire respondents disagree that it takes time to document incidents, while focus group respondents thought otherwise.

A majority of respondents believed that the formalization in the organization was a positive change regarding the work day becoming more predictable, regulated and procedural. Despite this, negative effects of formalization was also frequently described. Similar to findings by Lunde [15], ITIL represent increased bureaucracy in organizations and ITIL could be viewed as cumbersome. This was further highlighted by findings from Chapter 4, which revealed that some employees did not use the framework or considered their work day to be better without ITIL. This topic will also be discussed in the next section.

Motivating work day

Contributing to lack of research on job satisfaction stated by Fung [46] proved to be difficult during this master thesis project. The majority of respondent who answered the questionnaire stated that ITIL has little implication on whether their work is enriching or not. Despite this, several respondents also empathizes that the predictable and cooperative work environment were motivating factors. Similar to factors mentioned during the focus groups, respondents from the questionnaire also frequently reported that delivering good quality to the customers were an important motivational factor.

It was uncovered that the majority of the respondents prioritized delivering good quality to the customers rather than solving incidents quickly. Being more conscious of delivering predictable services was also mentioned by several respondents, which may indicate that the culture has become more service-oriented. Although, this finding is similar to findings by Hauge [14] and Iden and Eikebrokk [45] who claimed that ITIL contributes to a more service-oriented organizational culture, it is more likely that service-oriented IT staff is more directly influenced by individuals, their own motivations and the organizational culture itself. This should be investigated further in future research.

As presented in Chapter 2, motivational theory and factors for work motivation have been studied by psychologists for a long time. Herzberg [31] shifted the focus from material rewards to the importance of an enriching and interesting job which has become increasingly important in a world of changing technology. Delivering good quality to the customers and receiving good feedback from customers are clearly factors which contributes to a motivating and enriching work experience for the employees. One factor which was often described as negative was the fact that management often focused too much on statistics. In addition to increased pressure to document incidents in greater detail, which will be discussed further in section 5.3. Employees also reported that their work day would be better without the use of ITIL. This may indicate a resistance to the framework, which could have an impact on a successful ITIL adoption. This will be discussed further in section 5.2.

5.2 RQ 2: What do employees consider important for ITIL success?

To find out what kind of factors may influence successful ITIL implementations from the employee perspective, three themes will be discussed further:

- ITIL success
- Education
- Software and digital tools

These themes will be discussed further to answer RQ 2 by comparing the results in Chapter 4 to organizational culture or similar theory from Chapter 2. Section 5.2.1 is a introduction to success factors and what the employees considered to be important for success. In addition to what kind of organizational factors could impact ITIL success. Section 5.2.2 provides a discussion about the importance of education for success. Lastly, section 5.2.3 provides insight on why the choice of software is important for ITIL success.

5.2.1 ITIL success

The results in Chapter 4 showed that 61 % of respondents agreed that ITIL was a success in their organization. This shows that the remaining respondents who answered that ITIL is not a success is significant. When asked to state what barriers for success they had experienced, the four most common reasons were as follows:

1. Lack of management commitment
2. Lack of employee training
3. Immature organizational culture
4. Too much time to implement

These factors for success affect each other and can be said to be equally important for successful ITIL implementations. When asked if these factors were impactful or a serious issue in the organization, most respondents disagreed. However, a large population of respondents were unsure and answered neutrally. This will be discussed further in terms of the findings from interviews with ITIL experts in RQ 3, section 5.3.

Lack of management commitment

According to Sahibbudin, Ayat, Sharifi, *et al.* [19], lack of management commitment is a common barrier for successful ITIL adoptions which was also supported by the findings from this thesis. Respondents frequently stated that management had to be 100 % dedicated and success was described as entirely dependent on management commitment. One example that emerged from the focus groups, was that everything concerning ITIL was about to fall apart because of lack of steady commitment from top management. Iden and

Langeland [16] stated that managers at all levels must have ownership in the introduction of ITIL and identify key personnel to design and improve the processes further. In this case, managers had failed to make correct decisions when implementing the framework. In addition, they were not committed to improve and adapt the framework continuously after the implementation. This will be discussed further in section 5.3.

Lack of employee training

The second reason for unsuccessful implementations provided by the respondents in this thesis, was lack of employee training. The findings showed that employees perceive the ITIL courses as highly dominated by theory, which makes it difficult to understand how and why the framework should be used in practice. This could potentially cause lack of understanding for the process approach, which is also a documented cause for resistance to ICT driven projects [36]. As emphasized by [26], organizational culture is shaped by common norms, values and perception of reality. Additionally, how every member of an organization interacts to each other. Education can be considered essential to prepare employees for the workplace [21], and may even lay the foundation for how employees perceive ITIL [59]. Educational processes may therefore influence organizational culture by affecting how employees interact, by using ITIL terminology and related knowledge. ITIL education as a factor for ITIL success will be discussed in greater detail in section section 5.2.2.

Immature organizational culture

An immature organizational culture was the third most frequently stated reason for unsuccessful ITIL adoption. This may suggest a lack of cultural fit between the organization and ITIL. As claimed by Rance [11], ITIL is a full organizational change which requires that IT and business is culturally supported throughout the organization to maintain sustainability [25]. Symptoms of an immature organization are highly similar to factors described in literature as barriers for successful ITIL implementations (Chapter 2, section 2.2.1). According to Jacobsen and Thorsvik [23, p. 144], rejection and weakening the effect of change is a well-documented cause for unsuccessful changes in organizations. A common reason for this is the introduction of formalization and new technologies. With ITIL being found to increase the formalization in organizations, it is likely that rejection of the framework occurs. As briefly mentioned in section 5.1.3, employees described that the work day would be better without the use of ITIL. The focus group sessions support these findings where several examples of resistance to ITIL and unwillingness to use the framework was uncovered. This will be discussed further with the management perspective in mind in section 5.3.

Too much time to implement

Lastly, several respondents considered the ITIL framework to be a time consuming process to fully implement. Although it is a well-known phenomenon that organizational changes often takes a lot of time, they can often lead to several consequences. Sahibbudin, Ayat, Sharifi, *et al.* [19] emphasized that lack of realistic goals (discussed further in RQ 3), work instructions, process owners and issues with time and staff management are common barriers. These are all factors which can be mutual affected by each other, which implies that lack of time management can cause issues with unfulfilled roles and misunderstandings in the organization. Examples of unfulfilled roles occurred frequently during the focus group discussion. Especially in organization 3, where ITIL processes were highly dependent on individuals and whether they continued their employment or not.

5.2.2 Education

As discussed in Chapter 2, section 2.2.3, education is essential to prepare employees for the workplace [20]. Familiarization with ITIL is important to investigate further to reveal information about the educational processes, knowledge base and competence level in organizations [14]. Successful implementations are completely dependent on proper education, this was supported by the findings presented in section 5.2.1 where lack of employee training was a highly ranked barrier for success. The focus group participants used ITIL differently in their organizations. They each had varying knowledge of ITIL, in addition to significantly different organizational structures and cultures. Some of the respondents were highly aware of which ITIL processes which were used and what the framework entailed. Others simply did their job as they were instructed to and were less conscious of the fact that they used ITIL in their everyday work. Additionally, employees were often sent on a ITIL foundations course during the period where the organization was in the starting phase with the implementation. When new employees were hired, they usually received informal training from their colleagues or superiors rather than being educated in a ITIL foundations course.

A majority of respondents have more than four years experience with ITIL processes and almost all received training in Norway. Differences in knowledge depending on industry sector showed that 82 % of respondents from the private sector, and 43 % from the public sector considered their knowledge level to be good or very good. This implies that private sector employees has a deeper understanding of ITIL processes and has a larger knowledge base in their organization. This in turn may imply that private sector organization are often more successful when using ITIL. However, this needs to be researched further since this thesis does not have the basis to make such assumptions.

Education as a success factor

When asked about success factors, comments from the questionnaire revealed that even though ITIL was implemented, few people actually followed it, which may be caused by lack of understanding for the framework. This can be supported by findings by Iden, Eikebrokk, Olsen, *et al.* [36] who found that participants in Norwegian process change projects, rarely had negative attitudes to process change because they often had the opportunity to influence the new processes and their own work. However, negative attitudes to process change usually occurred when people had little understanding of the process approach.

The focus group discussion uncovered that the ITIL foundations courses in Norway are mostly based on theoretical knowledge. This makes it hard for course participants to learn how to use the framework in practice, and the respondents often wondered if extensive education for them was necessary in order to do their job. A common opinion was that it could be more beneficial for managers to receive education, since they are the ones who maintain and design the processes. This will be discussed further in section 5.3.

Employees also had difficulties with the course being in English, and passing the exam therefore depended on the individual's language skills.

5.2.3 Software

As previously concluded by Lunde [15] and Langeland [22], ITIL supported software can be described as a important aspect to consider when conducting an ITIL implementation. It is therefore safe to assume that adapting the software to the business and its processes is of great importance. 81 % of the respondents answered that they acquired their software from external suppliers, and the most popular software which was used among the respondents were:

- BMC Remedy
- HP Service Management
- Microsoft Service Manager
- Pilar

When comparing the different software and their degree of satisfaction, BMC Remedy and Microsoft Service manager emerged at the top. HP Service Management and Pilar had a more neutral satisfaction rate. However, even though 76 % respondents answered that the software was adapted to their organization and the processes they use, the majority of respondents were unsure if they were satisfied with the software. The majority of responses implied that employees were neutrally satisfied and 23 % of the respondents were dissatisfied. When comparing satisfaction with industry sector, the results showed that private sector employees had tendencies to be more satisfied with their software than public sector employees.

Reasons for software dissatisfaction

When asked to state reasons for dissatisfaction with software, the three common reasons which were frequently mentioned from the findings were as follows:

1. Slow system
2. Complicated system
3. Lack of adaption to the way the employees work

Slow and complicated system can be viewed as two factors originating from the same cause. In the sense that if the system is slow, it is likely that it is complicated as well. This may create a situation where it becomes easier for employees to resort to other tools like e-mail in order to work faster.

It was also a common theme that the software consisted of proper functionality and was adapted to the routines in the organization. However, it often lacked a user friendly interface and was perceived as not adapted to the way employees work. The software was therefore often too complex and performing simple tasks quickly was difficult. It was a frequently occurring theme that the employees were forced to adapt themselves to the software. Thus, employees may become unmotivated and this could potentially weaken the effect of a successful ITIL adoption.

These findings support existing conclusions by Lunde [15] and Langeland [22]. When acquiring ITIL supported software, the importance of doing thorough background research on what type of software fit the business and its processes cannot be emphasized enough. This topic will be addressed further in relation to the management perspective in section 5.3.

5.3 RQ 3: What kind of differences or similarities between the employee and management perspective exist?

This research question aims to compare the employee to the management perspective. As explained in Chapter 3, the management perspective is represented combining existing literature in Chapter 2 with the results from interviews with ITIL experts in Chapter 4, section 4.2.

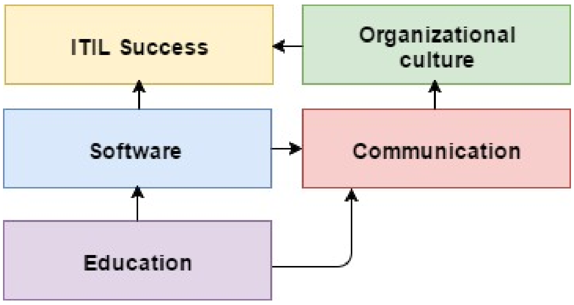

Figure 5.4: The topics from the discussed in this chapter and their relationship

As seen in Figure 5.4, the topics include themes which were discussed in the previous RQ's. The main focus will be how organizational culture affect ITIL success and the impact of communication, education and software.

5.3.1 Organizational culture and its impact on ITIL success

This section will focus on how the organizational culture in organizations can be affected by communication, software and education. In addition to how these factors can in turn affect a successful ITIL implementation. These topics will be discussed with the aim of highlighting similarities or differences between the employee perspective (described in RQ 1 and RQ 2) and the management perspective.

Communication and its effect on documentation

According to experts, communication in an organization is based on the organizational culture and not something that could be directly linked to ITIL. However, ITIL terminology can influence the communication and understanding in the IT department.

The phenomenon of calling directly to someone the customers know in the IT department was a known occurrence in general. The most common reason is human-centered and communication dependent. Combined with the fact that the customers know that they get help much quicker. Which suggests that both customers and employees consider the ITIL framework to be rigid. Secondly, similar to findings by Hauge [14], the IT employees are service-oriented and enjoy providing predictable services. Experts mentioned that the phenomenon of calling directly could be a symptom of a recent organizational change, often in an organization who has existed for a long time where both customers and employees have not accepted the new system yet.

This is supported by Lawler and Worley [29], who stated that formalization may prove to be an obstacle for change in an organization. Combined with the theory that culture originating from history where values and norms are developed in an evolutionary way [61], new formal procedures can potentially lead to less flexibility and cause resistance for change. The main issue with ITIL as stated by employees, is the slow rigid processes. The findings showed that solving incidents quickly was difficult, while also maintaining high customer service. Several focus group respondents reported that one often has to make a choice on what to prioritize. Therefore, it is not realistic of managers to expect employees to solve incidents quickly. In some cases, managers trying to create competition between the employees regarding incident management, were viewed as contradictory to their values[62], which may lessen the motivation for employees to use the framework further.

Education and its effect on documentation

Pressure from management to document incidents in greater detail can be viewed as a conflict of interest. Employees often described it as negative that management focused too much on statistics. On this topic, ITIL experts frequently emphasized the need to understand the business and what kind of documentation is needed to provide value for the business. Leaders therefore develop tendencies to push for more documentation because they lack this understanding. Additionally, it causes employees to not understand why they are documenting. The discussion in section 5.1.2 showed that employees are in fact aware why documentation is important for the business processes. However, if managers wants them to document in greater detail, this may imply that neither the managers or employees are aware of why or what should be documented. Employees may therefore lack information and knowledge of what their work entails, which is an important motivational factor described by Hackman and Oldham [32].

According to Iden, Eikebrokk, Olsen, *et al.* [36], changes in Norwegian organizations are seldom met with resistance. When resistance happened it usually came from people with little understanding of the process approach. This implies that making sure employees and managers are involved and know “what” should be documented and “why” according to established business processes is essential for motivating employees. Additionally, lowering the standards in order to make documenting a easier process for employees. These measures should minimize resistance for using the framework in organizations and increase the probability of success.

Education and its effect on communication

According to findings from interviews with experts, ITIL terminology can affect the communication in the IT department in organizations, in the sense that employees develop a common language. However, the experts believed that it can potentially create a distance between the IT department and the rest of the organization. An example of this was provided during the focus group session, where several respondents mentioned a knowledge gap and cases of misunderstandings in the organization. Jacobsen and Thorsvik [23, p. 278] claimed that communication in organizations is described as the foundation for decision making and the force which keeps the organization together. A basic knowledge base of the ITIL framework is necessary in order to understand why the organization use it and what kind of advantages it brings forth.

Experts could confirm that the ITIL courses are highly based on theory which seldom provides examples of practical applications for the framework. This makes it difficult for IT employees to use the theoretical knowledge from the course in practice and limits the value of this education for the business. Spremic, Zmirak, and Kraljevic [21] claimed that education on the different levels (foundation to manager level) increased the success of an ITIL implementation. The findings from Chapter 4, showed that this is not always the case. It was more common for employees to receive education than managers

Both employees and ITIL experts perceived it as more important for managers to participate in courses and increase their understanding of the framework and its effects. Something that, especially experts thought was lacking in most organizations. They empathized that managers could use more understanding and basic knowledge about ITIL, in addition to greater awareness of the business needs.

Thus, it is recommended that the ITIL courses include more practical examples on the ITIL foundations level. This should be done to make it easier for employees to understand practical applications for the framework rather than theoretical. In addition, managers should take initiative to participate in educational courses to achieve a better understanding of the framework and how to align it to their business.

The impact of software

Although employees did not generally feel that documenting incidents was too time consuming and inefficient. The results discussed in section 5.2.3 showed that employees often resort to e-mail or other digital tools because of the ITIL supported software being too slow and complex. As discussed with experts during the interviews, it is not uncommon for there to be a lack of effort to include the people who is actually using the software.

This makes it difficult for employees to use the software as intended. Thus, resorting to other digital tools such as e-mail or chat to provide some insight into the degree of adaptability regarding the ITIL supported software. One common description was that the interface was complicated, too much clicking[1] in order to get something done or that the employees needed to adapt themselves to the software rather than the other way around.

When working with software which is slow, complicated or not adapted to the employees needs, it may be an additional reason for lack of documentation and why employees do not mind customers calling directly as well. ITIL experts considered lack of background

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[1] Clicking refers to the action of pressing the mouse to interact in a digital environment on a computer.

research before choosing software was the main reason for software dissatisfaction. Developers of software often tend to have little experience working with ITIL processes on a daily basis, and are therefore not able to fully adapt the software to IT employees needs. Management must therefore do considerable background research on different software and involve employees in the selection process.
Although this thesis confirm the findings by Lunde [15] and Langeland [22], that choosing ITIL supported software is an important aspect to consider in order to achieve a successful implementation. This thesis emphasize the importance of involving employees in decision making processes. The factor of making sure that employees are satisfied with the software can be viewed as essential when considering a implementation in order to avoid lack of documentation, dissatisfaction and unmotivated employees.

The impact of management commitment on ITIL success

Both ITIL experts and employees agreed that management commitment is the most important factor for successful implementations. Some arguments were that management must support IT and the way they work. In addition to shape the organizational culture and continuously adapt the framework to the business. As explained in Chapter 2, Marrone, Gacenga, Cater-Steel, *et al.* [3] found that ITIL is often used differently depending on national culture. This was supported by Iden, Eikebrokk, Olsen, *et al.* [36] who found that national cultures with a higher power distance were more likely to accept a control approach driven by ICT. The more feminine, low power distance culture that exist in Norway was found to be less driven by ICT as an enabler for change. In addition, typical Norwegian businesses often give participants the opportunity to influence new changes and their own work, which rarely resulted in negative attitudes towards these changes. Which may be why, when investigating important factors for ITIL success, Eikebrokk and Iden [8] found that group efficacy and organizational commitment is more important than management commitment when studying Nordic organizations.

However, when changes are implemented in organizations, it is generally assumed that these changes are controlled by management [23, p. 387]. Similar to Jacobsen and Thorsvik [23, p. 146], experts believed that organizational culture is highly affected and developed by its management. This perspective suggests that the culture in organizations can be viewed as a system which are controlled by management, rather than external factors like national culture, market and industry. Previously stated reasons for unsuccessful changes in organizations are frequently connected to lack of management commitment, both in the context of ITIL and other ITSM systems. One example which was also presented in Chapter 2, was the introduction of TQM in Norwegian organizations during the 90's where the culture remained unchanged despite implementing the system formally. Levin [35] described Norwegian organizational culture as a unique phenomenon that is highly affected by its democratic national culture. Therefore, Eikebrokk and Iden [8] conclusion that group efficacy and organizational commitment is more important than management commitment can be said to align with the perspective where organizations are more affected by external factors.

Therefore, management must support the national culture and take external factors into account when trying to implement changes to the organization. As discussed previously in Chapter 2, section 2.2. ITIL is a framework where businesses can select parts which fit well into their organization. The ideal aim is to align the framework to the business. However, as discussed previously in this section, several respondents reported that the framework made the business more cumbersome and rigid. This may imply that management have not done enough research, or do not have the necessary knowledge base needed to align ITIL to their organization and its culture. Whether the organization is mature enough for an implementation is dependent on management commitment and their efforts to prepare and maintain the organizational changes that ITIL may cause. This will be discussed further in the next section.

Lack of commitment after the implementation

As stated by Sahibbudin, Ayat, Sharifi, *et al.* [19], lack realistic goals is a highly concerning barrier for success. Marrone, Gacenga, Cater-Steel, *et al.* [3] emphasized the importance of asking the question "why" when considering a implementation. Managers often try to implement a full "ITIL project"[2], where the success rate will often vary in different organizations. There exists a misplaced focus on trying to achieve a full "ITIL project" and accomplish all of the suggested changes. This often lead to little value for the organization and may even cause a more bureaucratic management system [11].

Ingvaldsen, Rolfsen, and Finsrud [40] stated that introduction of production systems based on the "lean" mindset is a contradiction to basic features in the Norwegian model, and by trying to implement a full ITIL project a fear of bureaucracy and resistance to change are likely to occur. Employees described that the work day would be better without the use of ITIL. Several examples of resistance to ITIL and unwillingness to use the framework was uncovered. Respondents emphasized, similar to existing research in Chapter 2, that all frameworks introduces some form of bureaucracy. ITIL was considered a success in Norwegian organizations in the sense that there exist many businesses who use it. On the other hand, whether the businesses have achieved the kind of benefits described in literature is questionable.

Hirth and Melander [12] claimed that it is naive to believe that the process of implementing ITIL is finished when the framework is in place. In relation to this, several experts considered it essential that management focus on continuously improving the processes and adapt it to the organization "after" the implementation. Additionally, this was mentioned as a common reason for why organizations in Norway fail to make ITIL work long term.

5.4 Summary

ITIL was shown to increase the degree of formalization in organizations, but with several positive effects such as standardized work tasks, increased awareness of results and clear roles. However, employees sometimes experienced ITIL as a slow and cumbersome process. Although ITIL has introduced collective processes and terminology, it is questionable if it has any direct effect on the communication in organizations apart from this. Delivering good quality to the customers were considered more important than solving incidents quickly. Solving incidents quickly was viewed as difficult considering the amount of time is required to follow the correct procedures.

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[2] A ITIL project refers to all the processes and related procedures which constitutes the whole ITIL framework.

Lack of education and software adaption could potentially lead to dissatisfaction among employees. Lack of software adaption lead to use of other tools to complete work and may cause lack of documentation. This may create conflict in the sense that managers push for more documentation from employees. Since education was considered an important success factor, it is essential that both employees and managers understand the established business processes and how ITIL should be adapted to these.

With ITIL foundations courses being too dominated by theory, it can be difficult for both managers and employees to use this theoretical knowledge in practice. Additionally, lowering the standards in order to make documenting a easier process for employees. Lastly, management commitment was reported as the most important factor for success. Managers must choose to shape and affect the organizational culture to make it mature enough for the implementation of ITIL, and continuously strive to improve and adapt the processes after the implementation is complete.

Chapter 6

Conclusion

There exist a significant lack of research on how Information Technology Infrastructure Library (ITIL) affect organizational culture from the employee perspective. Most existing research focuses on cultural changes and how to best achieve a successful implementation from the management perspective. This is supported by Fung [46] who found that research on how ITIL affect IT employees work is severely lacking, as well as the effects of software.

As explained in chapter 1, it is interesting to contribute research on these topics and provide insight on how employees experience cultural changes and ITIL success factors. Research question 1 and 2 aimed to answer how ITIL can influence organizational culture and what is important for success from the employee perspective. Lastly, research question 3 added ITIL experts opinion on the topics included in RQ 1 and RQ 2, and compared the two perspectives.

This master thesis found that employees recognize existing findings on positive effects such as : clear roles, increased collaboration, structured workflow and predictability of services. The findings show that organizations become more formalized and had tendencies to become increasingly similar to bureaucratic cultures. Characteristics such as increased use of procedures, standardization, clear roles, and awareness of delivering quality services were recognized by employees as positive aspects with ITIL. However, negative aspects such as rigid and cumbersome processes were the main reason for dissatisfaction with the framework. This rigidness could potentially be the reason for why customers feel the need to call directly, which in turn can cause a lack of documentation. Employees also reported that their workday would be better without the use of ITIL which may imply that the framework has not been completely accepted in the organization.

Findings on whether ITIL had any effect on job satisfaction was lacking. However, respondents reported several factors which had helped to improve their work day. The findings showed that the work day had become more predictable and it was easier to cooperative with others since employees used the same processes. This implies that despite using formalized processes, the informal culture in the IT department remained. Additionally, delivering good quality services to customers was considered important for a motivating work day. Although, increased service-oriented and result-oriented culture is documented benefits with ITIL. It is likely that service-orientation is a cultural effect rather than directly influenced by ITIL. However, the findings showed that increased predictability in workflow and services may increase employees awareness of delivering quality services. Some of the other findings from this thesis are summarized as follows:

- Employees frequently described manager's concern with statistics. Managers should consider lowering the standards, increase their understanding for what is necessary to document and involve employees in the process to make documenting a easier.
- Although ITIL provided clear roles, several respondents reported that some roles were unfilled. For example, if one person with an important role quit, the related processes would disappear as well. This may impact communication in businesses.
- Lack of software adaptability was a reoccurring issue. Employees therefore resorted to other tools to do their work, which could result in a lack of documentation. Including employees when choosing software is therefore important to avoid dissatisfaction.
- Lack of management commitment during and after the implementation are considerable barriers for successful ITIL implementations. Managers also need to adapt the processes to support the organization, include employees in decision making and increase their awareness / understanding of the ITIL framework.
- ITIL courses include too much theoretical knowledge. This implies that ITIL educational courses need to be adjusted to make it easier for employees and managers to understand the connection between the theoretical, and practical applications for the framework.

The finding that the framework was considered a slow, rigid and cumbersome process, was linked to several factors. ITIL require refinements, and specialization for particular industries. The findings showed that private sector employees had tendencies to be more confident and have a higher level of knowledge regarding ITIL than public sector employees. In addition, private sector employees were also more satisfied with the software than public sector respondents. This could be due to private sector employees being less affected by stricter use of rules and routines which is more important in public sector organizations with their more complex goals.

6.1 Future Research

When comparing the employee and management perspective, it is important to note some factors which may have an impact. One of these factors is the difference in perspective on ITIL in itself. According to Rashotte [59], individuals can make changes to their feelings, behavior and opinions by interacting with others. In this context, experts are likely to interact and share opinions with each other. Thus, more likely to have a stronger, more positive connection to ITIL than employees. This topic has not been thoroughly investigated in this thesis. Despite this, it is interesting to take this into consideration, as well as explore this further. Previous research also claims that ITIL contributes to a more service-oriented organizational culture. However, motivational theory and social influence factors should be considered when discussing the credibility of this phenomenon. This thesis suggests that IT staff is more likely influenced by their work environment and their own motivation to be service-oriented, rather than ITIL having a direct impact. Future research should evaluate this further.

The research method achieved the predefined goals by gathering data from both the employee and management perspective. Focus group interviews were a suitable method to probe for information, and generate questions to investigate further. However, more data collection by focus group interviews with employees could have been beneficial to further the validity of the results. It is also important to note that the data sample collected through the questionnaire is not representative of the whole population. It can merely be used as a sample population which opinions can be used as an interesting foundation for further research with a larger sample population.

Hirth and Melander [12] suggest that more informal communication between IT and the business often occur in smaller organizations, which may cause a lack of documentation. However, this study erred in trying to find the correct size of organizations who participated in the questionnaire, and failed to contribute to existing research regarding differences in organizational size. Some respondents from small organizations participated in this study, with an employee count below 100. The population from small organizations were not large enough to use organizational size as a comparing variable. Future research should therefore investigate this further, and try to achieve a larger sample by comparing across organizational seize is possible.

Similar to research available in Chapter 2, this study uncovered several similarities. Examples include, clear roles, increase in procedures, standardization, service-orientation and result-orientation. Additionally known factors which are described as barriers for success were found as well, namely a lack of process owners, lack of management commitment and problems with time. Lack of realistic goals were also discussed in relation to RQ 3. This study has further confirmed the importance of management commitment to existing research and contributed to further highlight the impact of software for success. In contrast to other studies on Norwegian organizations and ITIL, the focus on the employee perspective and education are new contributions.

The research questions are considered answered. However, more nuances on the differences and similarities between the management and employee perspective should be researched further. With a recommended focus on work motivation, job performance and job satisfaction.

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Appendix A

Interview guides and attachments

A.1 Interview guide: employees

Interview guide: employees

Opening:

Start with a discussion of the topic and the research question. Encourage that respondents keep the conversation flowing with new thoughts and ideas. Emphasize that there is no right or wrong answer.

Theme 1: ITIL in general

1) How was the education you received on ITIL, what was positive or negative?

2) In what way is ITIL used in the organization today?
    a) In what way has the organization adapted itself to the ITIL framework?

3) How is ITIL affecting your everyday work-life, what is negative or positive?
    a) Do you consider ITIL to be a success?

4) What is most important in your work?
    a) Do ITIL has any effect on what you prioritize during your workday?

5) In what way is the effect of your work measured?

6) Is it more important with quality of service or quantity regarding number of incidents solved?

Theme 2: organizational culture

7) Have you participated in a before / after ITIL process?
    a) What kind of changes did you notice?

    b) Has there been any changes to the organizational culture such? Or maybe new roles, software and terminology?

    c) What was the motivation to use ITIL?

    d) Is communication important? Do you know what kind of impact your work has on others in the organization?

8) Has ITIL resulted in a standardized workday?
    a) Do you have examples?
    b) Positive or negative aspects?

9) Do ITIL affect how you communicate with your superiors or colleagues?
    a) Do you feel that ITIL has led to a more formalized organizational culture?
    b) Positive or negative aspects?

10) How would you describe your everyday worklife?
    a) What do you find most motivating?

A.2 Interview guide: ITIL experts

133 employees working in an IT department in Norway answered a questionnaire. The results that emerged from this questionnaire is the topic up for discussion.

ITIL education

1) 88 of133 respondents had received their education in ITIL here in Norway. What do you think of the quality of the courses and training here in Norway?

    - How important is it to have an understanding of the framework for the employees to achieve a successful implementation?

Software

2) Is it important to adapt software to the organization or adapt the organization to the software?

    - What about the degree of adaption?

3) Slow system, complicated and not adapted to the ones who use it are the most quoted reasons for dissatisfaction, what are your thoughts on this?

4) How important is the choice of software for a successful ITIL implementation?

ITIL effects

5) Some respondents experience pressure from their supervisors to document incidents better. What are your thoughts on this?

6) Several respondents claimed that it is a frequent occurrence that users / costumers call directly to someone they know in the IT department rather than going through the system. What can this imply?

7) What are your thoughts about ITIL improving the communication in an organization?

ITIL success

8) Respondents claim that management commitment is important for ITIL success. However many also think that lack of employee training and an ‘’immature’’ organization can be a cause for an unsuccessful implementation. What are your thoughts on this?

A.3 Consent form for interview participants

You have been invited to participate in this interview organized by Østfold University College. The aim for this interview with a focus group consisting of four participants is to achieve a discussing regarding the following theme:

In what way does the use of the ITIL framework affect the organizational culture in Norwegian businesses from the employees perspective?

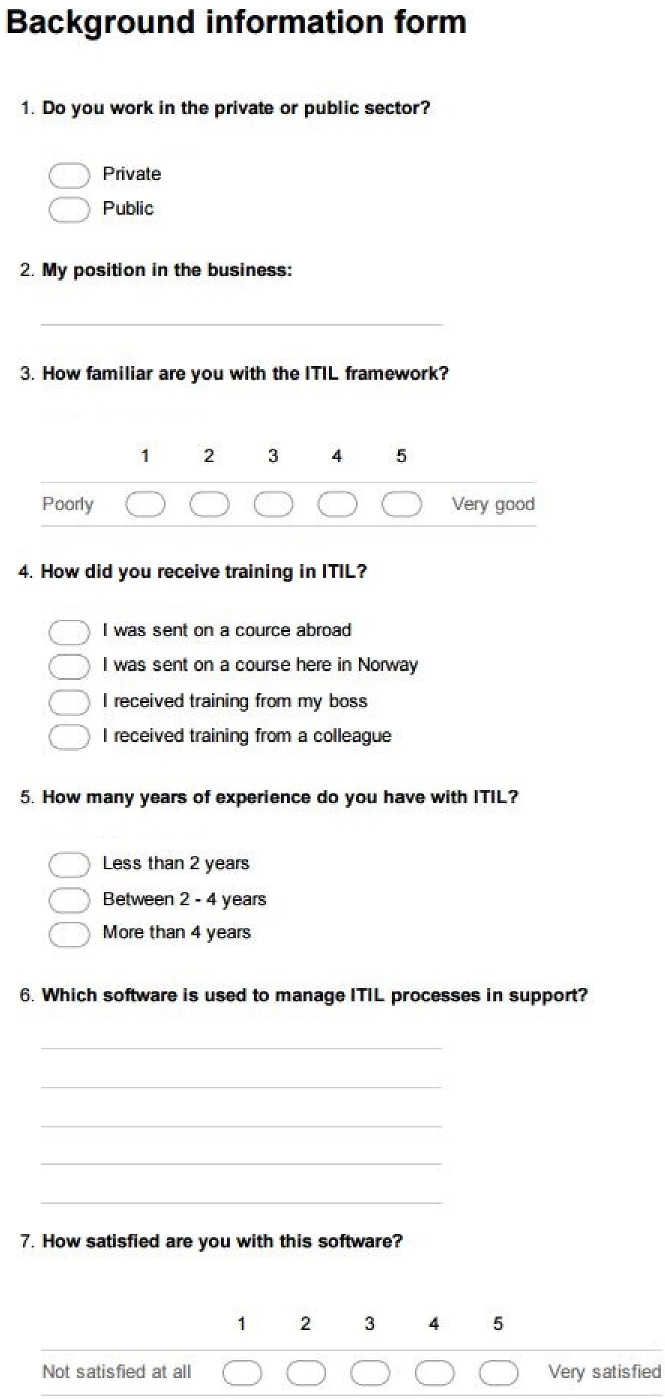
The information that emerges from this discussion will be used further in a master thesis report which will, after its completion be available through the database at Østfold University College. Therefore all participants in the focus group interview will remain anonymous and you as a respondent have the right to not answer any questions, in addition to stopping the interview process at any time if you wish. However it is desirable that you answer truthfully, with an open mind and contribute to the discussion in a manner which represents your individual perspective.

Note that there is no right or wrong answer and be mindful of the other members of the focus group to make sure that everyones opinion get to see the light of day, so please show respect and discuss one at a time. This makes it easier to avoid too much information at the same time.

When signing below, you should have read the information above carefully and agree to participate in the focus group interview.

Signed:..................... Date:.......................

A.4 Background information form



Background information form

1. **Do you work in the private or public sector?**

○ Private
○ Public

2. **My position in the business:**

3. **How familiar are you with the ITIL framework?**

	1	2	3	4	5	
Poorly	○	○	○	○	○	Very good

4. **How did you receive training in ITIL?**

○ I was sent on a cource abroad
○ I was sent on a course here in Norway
○ I received training from my boss
○ I received training from a colleague

5. **How many years of experience do you have with ITIL?**

○ Less than 2 years
○ Between 2 - 4 years
○ More than 4 years

6. **Which software is used to manage ITIL processes in support?**

7. **How satisfied are you with this software?**

	1	2	3	4	5	
Not satisfied at all	○	○	○	○	○	Very satisfied

Figure A.1: Background information form

Appendix B

Questionnaire

Theme 1: Background

This questionnaire is anonymous with optional questions, so please skip questions you don't feel like answering. However some background information is necessary in order to create an overview over the respondents.

Please choose a gender

- ☐ Male
- ☐ Female

Which industry sector do you work in?

- ☐ Private
- ☐ Public

Where in Norway do you work?

- ☐ Akershus
- ☐ Aust-Agder
- ☐ Buskerud
- ☐ Finnmark
- ☐ Hedemark
- ☐ Hordaland
- ☐ Møre og Romsdal
- ☐ Nord-Trøndelag
- ☐ Nordland
- ☐ Oppland
- ☐ Oslo
- ☐ Rogaland
- ☐ Sogn og Fjordane
- ☐ Sør-Trøndelag
- ☐ Telemark
- ☐ Troms

- ☐ Vest-Agder
- ☐ Vestfold
- ☐ Østfold

What is the name of the company you work in? (optional)

____

How large is the company you work in?

- ☐ Small business (1 – 50 employees)
- ☐ Medium sized business (50 – 100)
- ☐ Large business (100 + employees)

For how many years have you worked with ITIL?

- ☐ Less than 2 years
- ☐ Between 2 - 4 years
- ☐ More than 4 years

How did you receive ITIL training?

- ☐ ITIL education course abroad
- ☐ ITIL education course in Norway
- ☐ I was taught by my boss / colleague
- ☐ I learned with others (informal education)
- ☐ I did not receive any training

How familiar do you consider yourself with the ITIL framework and processes?

☐ Very poor ☐ Poor ☐ Ok ☐ Good ☐ Very good

Theme 2: Software and digital tools

In this theme, there will be questions about ITIL related software and other digital tools that are used to manage ITIL processes.

Which software is used to manage ITIL in your company?

____

In what way is this software adapted to the business?

- ☐ The software is adapted to our business and the processes we use
- ☐ We use the software as it is
- ☐ I don't know

How was the software acquired?

- ☐ We developed it ourselves
- ☐ It was developed by an external party (another company)
- ☐ I am not sure

How satisfied are you with the choice of software?

☐ Very poor ☐ Poor ☐ Ok ☐ Good ☐ Very good

Please write a comment:

____

____

Theme 3: ITIL and its effect on everyday work life

Please skip questions you aren't comfortable answering or you don't know the answer to.

The use of ITIL makes the everyday work life more... (select one or more categories)

- ☐ Stressende (stressful)
- ☐ Under press (pressured)
- ☐ Etablert, solid (established / solid)
- ☐ Maktorientert (power-oriented)
- ☐ Kjedelig (unstimulating)
- ☐ Utfordrende (challenging)

- ☐ Forutsigbar (predictable)
- ☐ Innovativ (innovative)
- ☐ Spennende (stimulating)
- ☐ Motiverende (motivating)
- ☐ Annet (others)

Does ITIL has any effect on whether your work-day is enriching?

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

Please write a comment:

____

____

ITIL makes me prioritize… (choose one option)

- ☐ Solving incidents as quickly as possible
- ☐ Delivering good quality of service to the user

ITIL has led to an increase in procedure and routines to take into consideration

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

It takes time to document incidents and this is one reason for why I’m not efficient

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

ITIL makes the workday more standardized and I therefore better know what to do

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

Has ITIL made you more conscious of satisfied users and delivering quality services?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

Theme 4: ITIL and communication

The questions to come consist of claims, please answer truthfully on whether you agree or disagree to these claims.

ITIL terminology has helped to increase the collaboration in the organization

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

ITIL has made it easier to communicate with the user / costumer

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

Users often call directly to someone they know rather than going through the system

- ☐ Strongly disagree

- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

ITIL has made it easier to communicate with colleagues and superiors

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

Does your supervisor often mention that you should document incidents in greater detail?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

With the use of ITIL, it has become easier to cooperate with others in the organization

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

ITIL has increased my awareness that my work is connected to others

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

Theme 5: ITIL and organizational culture

Did you participate in a before / after ITIL implementation?

- ☐ Participated
- ☐ Did not participate
- ☐ We are still in a process of implementing ITIL

Has the organizational changes been positive?

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree
- ☐ I don’t know

Please write a comment:

____

____

The use of ITIL makes the organizational culture more... (select one or more categories)

- ☐ Hierarkisk (hierarchical)
- ☐ Regulert (regulated)
- ☐ Forsiktig (careful)
- ☐ Samarbeidene (collaborative)
- ☐ Etablert / solid (established / solid)
- ☐ Rutinestyrt (procedural)
- ☐ Innovativ (innovative)
- ☐ Resultatorientert (result-oriented)
- ☐ Konkurrerende (driving)
- ☐ Maktorientert (power-oriented)
- ☐ Passiv (passive)

- ☐ Annet (others)

Theme 6: ITIL and success

This questionnaire is almost done, I appreciate your patience :)

I think that ITIL is a success in the business I work in

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Agree
- ☐ Strongly agree

Why / why not is ITIL a success? (choose several options if needed)

- ☐ Too much time to implement
- ☐ Lack of employee training
- ☐ Lack of management commitment
- ☐ Lack of resources
- ☐ Lack of employee commitment
- ☐ "Immature" organization
- ☐ ITIL is a success

Is the reasons stated above an issue in the organization?

☐ Strongly disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly agree

Please write a comment

____

____

Appendix C

Glossary

This is a selection of terms that were used in this report, sorted alphabetically.

ITIL: A well-documented practice for managing IT services. Currently owned by Axelos, it is a collection of seven books which provides guidance on delivering IT services with a certain level of quality. In addition to a guide on which processes and resources that are required [1]

Best practice: Recognized documented activities and processes which have achieved successful results. In addition to being commonly used in IT businesses [14].

Process: A structured set of activities which are put together to achieve the same goal. A process requires a predefined input which is converged to an output.

Process owner / roles: The owner of a process with responsibility of maintaining and improving this process. Eg. incident manager, problem manager and change manager.

Incident: Refers to issues with a service. For example e-mail malfunction.

Incident Management: Is a Service Operational process which aims to recover incidents as quickly as possible.

Problem: Is the underlying cause for one or more incidents.

Change: A change can be described as the change or removal of something which has affected the IT services.

Financial Management: Ensures that the IT infrastructure is cost effective.

Service Portfolio Management: The provider of a service must ensure that customers receive the required quality services. Service Portfolio Management aims to ensure that services are defined and meet the specific requirements set by the customers.

KPI: A Key Performance Indicator, provides a measurable scale that shows how effectively a business can achieve key business objectives.

Service catalog: A service catalog (or catalogue), is an organized and curated collection of any and all business and information technology related services that can be performed by, for, or within an enterprise.

Service Desk: Provides a single point of contact of communication between the customer and IT employees.

Help Desk: Provides the customer with information and help related to a business products or services. The purpose with a help desk is to find problems and provide support related to products. It is also common with in-house help desks that provide guidance to coworkers and employees in other departments.

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[1] For more information, please visit url: https://www.axelos.com/best-practice-solutions/itil

IT support: Technical support provides technical assistance to users of products and address problems with these products.

ITIL experts: ITIL experts refers to individuals having extensive knowledge on a expert level regarding ITIL and its processes.

Employees and IT employees: Employees and IT employees refers to the same role. When using the term employees in the context of this thesis, it refers to those working in a IT department. IT employees is a term that is sometimes used to highlight this and IT staff also refers to the same thing.

Customer(s): Normally, customers refers to the entity that is paying for the IT services provided by a business. In the context of this thesis customers refers to the actual user of the service instead. This is to avoid mixing-up IT employees as users.