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Developing a Framework Supporting the Employee's Self-direction in the Information Technology Unit

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<p>The objective of this thesis was to develop a framework that supports the individual employee's self-direction in the case company's Information Technology unit. To achieve this objective, the thesis starts by analyzing the employee's attitude towards own work and how it could be improved by allowing independent working.</p> <p>The thesis used qualitative research methods and was conducted using Action research methodology. The data collection for the study was gathered by conducting surveys & interviews with seven (7) selected IT unit employees, and two (2) selected management personnel.</p> <p>In the theoretical framework, the thesis explored the concept of self-direction, existing best practices, and technical solutions. In the practical part, the current state analysis in the IT unit was conducted to investigate the current individual & organizational values and establish strengths & weaknesses in self-direction supportive best practices and self-direction supportive solutions. The results revealed that self-direction, autonomy, creative thinking, and independent decision-making is highly supported in the case company, while self-directed working is hindered by an overall lack of responsibility, documentation, workflows, and CRM transparency.</p> <p>The outcome of the thesis is a self-direction supportive change enablement framework, which was built as a process based on agile-supportive ITIL 4 guidelines and practices. The framework consists of two voluntary change processes that focus on pain areas in daily work by clarifying the roles and responsibilities, having shared documentation responsibilities, and ensuring that the change is evaluated and documented to create transparency in the working environment.</p> <p>If implemented, the change enablement framework could improve the daily work quality & business environment in the case company's IT unit by streamlining scattered practices that have always existed in the internal and customer business environment, which leads to more self-directed capabilities in own work. The case company could re-evaluate organizational strategies with the proposed framework and evaluate how information visibility could help and motivate the employee to perform own job in a more self-directed way.</p>	
Keywords	Self-direction, Autonomy, Creative thinking, Independent decision-making, Change enablement, Organization structure, Leadership model

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Glossary

AI	Artificial Intelligence.
BI	Business Intelligence.
CRM	Customer Relationship Management.
CSA	Current State Analysis.
HCI	Human Computer Interaction.
HR	Human Resources.
IoT	Internet of Things.
IT	Information Technology.
ITIL	Information Technology Infrastructure Library.
ITSM	Information Technology Service Management.
LaaS	Leadership as a Service.
RFC	Request for Change.
SaaS	Software as a Service.
STS	Socio-technical System.
VoIP	Voice over Internet Protocol.

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1 Introduction

Self-direction is a concept that has long existed in the business landscape, and its effect in teams has been a research subject for a long time. There is not a common interpretation on what the concept means specifically, but on a general understanding it goes as follows; a person's ability to perform without external guidance & control (Martela and Jarenko, 2017: 12).

Self-direction on an organizational level is a new area for academic research (Savaspuro, 2019: 25-26). The research subject is new because changes have happened in the world of business; technology has advanced to become knowledge-intensive and dynamic, allowing industries to innovate solutions previously unable to have been developed (Muthusamy at al., 2005: 54). Work life has changed because of modernized thinking, which is leading organizations to meet new challenges in employee satisfaction. The emergence of measurement of self-direction is currently not on companies' priority lists, as there is a lack of tools and promotion for doing this. However, this is the topic of the near future.

1.1 Business Context

The case company for this study is a full-service IT house located near Helsinki, Finland, that specializes in multiple service areas: Information Technology solutions, network solutions, Voice over Internet Protocol phone solutions, programming solutions, Business Intelligence solutions, Internet of Things solutions, and marketing. The case organization is the Information Technology unit of the case company.

The case company participated in a one-year project, which had the goal to research self-direction and the necessity of the concept and its practices & metrics. The project was conducted in-house with all the service areas and with a few customer companies participating.

The project led to opening a few questions, such as: what business and individual based information is essential for enabling self-direction in a company? Are individual or company performance used as the model for organizational operation? Is individual

information relevant for the company, and will it have effect between company chains? What practices support self-direction? What tools are required to support self-direction?

The successful outcome of the project strengthened the belief that self-direction is currently a valuable concept to evaluate and build upon.

1.2 Business Challenge, Objective and Outcome

Since technology has previously had limited performance for measuring self-direction, the current challenge lies in how to exactly measure it. There is a lack of relevant information about self-direction in organizations.

Self-direction is one emerging concept in the changing work industry. New generations want to experience work as meaningful (Kiskonen, 2018: 31). Organizations have difficulties in predicting or measuring an employee's attitude towards own work and what possible consequences might occur (Lal, 2008: 85); the lack of knowledge about self-direction could affect negatively on organizational strategies if not taken into account during re-evaluation of these.

To know what information affects individual work performance, meaningfulness & evaluation is valuable when improving strategies, or when creating new ones. The information can lead to employees performing their jobs more self-directed and successfully. Organizations can utilize this information for company success by knowing how and what relevant business information visibility could help & motivate an employee to perform the job more self-directed and successfully, and if information visibility will affect self-direction's usage & enrichment. The metrics for this concept might be measurable with a BI-solution. By combining *people* with *information* and *technology* the result would be a software or platform used to visualize self-direction metrics and practices.

The *objective* of this study is to *develop a framework* that supports the individual employee's self-direction in the Information Technology unit.

The *outcome* of the study is a *framework* that supports the individual employee's self-direction in the Information Technology unit.

1.3 Thesis Outline

Due to a large variety of company services, this study focuses on the IT unit, which consists of an IT Service Desk, network solutions, VoIP phone solutions, and IoT-solutions. The scope of this thesis is limited to providing proven practices for practicing self-direction in the IT unit from the individual's perspective and showing how and why it could be deemed significant. The IT unit has shown interest in using self-direction practices & tools for its employees and has enough variety in its employees' daily work routines to provide different research outcome possibilities.

To develop the framework, this study, first, explores the definition, current best practices, and current technical solutions of practicing self-direction based on literature and best practices to create a holistic survey / questionnaire. The survey and interviews are developed for the case company's IT unit.

Next, the study assesses the current state of self-direction topic in the case company's IT unit.

After that, the study uses the data collected from the surveys and interviews to get an understanding on what information & practices the IT unit's employees find or do not find important in daily business. After the data analysis, the study identifies what practices & tools support the employee to practice self-direction.

1.4 Key Concepts

3x2-thought	A thought process used to create self-direction supportive organizational thinking by encouraging common thinking & understanding in business responsibility, originally branded by Futurice. (Syrjänen and Tolonen, 2017: 207)
Advice-process	A self-direction supportive practice that promotes autonomy & cultural experiment in organizational thinking, presented by business coach Frederic Laloux. (Liira at al., 2017: 244-247)
Change	Addition, modification, or removal of anything

	that could influence services. (Mathenge and Hall, 2020)
Change Enablement	A service management practice that ensures that risks are well appraised, authorizing changes to proceed and managing a change schedule to maximize the number of successful service & product changes. (Beyond20, 2020)
Cultural Experiment	The employee in an organization can act as the initiator of an experiment, where the initiator has freedom to do and develop things where the person finds to be useful, regardless of job title and assigned area of expertise. (Liira at al., 2017: 244)
Customer Relationship Management	A technology that manages all company relationships & interactions between customers. (Hargrave, 2019)
Decentralization	Activities are distributed or delegated from a central, authoritative location or group. (Byju's, n.d.)
Human Computer Interaction	A person using IT. (Interaction Design Foundation, n.d.)
Information Technology Infrastructure Library	Set of practices & guidelines that supports organizations & individuals in practicing ITSM. (Axelos, n.d.)
Information Technology Service Management	Processes that a company or organization uses to produce own IT services. (Ambientia, 2020)
Internet of Things	Objects connected to the internet, creating a network for enabling data collection & exchange. (Burgess, 2018)
Leadership as a Service	A self-direction supportive web-platform service that provides management model services, developed by Finnish IT-service company

	Vincit. (Kuitunen and Pystynen, 2017: 287)
Leadership in the Plural	A leadership that is collectively born and includes every team member's input. (Salovaara, 2017: 49-50)
Minimum Viable Structure	An organization structure that allows employees to have freedom and as minimal limitations and as possible to organize their work, but without giving them autocracy. (Martela and Jarenko, 2017: 13-14)
MyAnalytics	A self-direction supportive platform that gathers the employee's personal productivity data during work and creates personalized artificial intelligence-based suggestions to help set aside concentration time, developed by Microsoft. (McCullough, 2019)
Self-direction	Individual attribute: ability to perform without external guidance & control. (Martela and Jarenko (2017: 12)
Self-organization	Group attribute: same as self-direction, but on an organizational level where higher management has minimized finished organization structures. (Martela and Jarenko, 2017: 13-14)
Socio-technical System	A system that applies social sciences in form of social structures, roles, and rights in system designs that involve people & technology. (Interaction Design Foundation, n.d.)
Software as a Service	Software delivery & licensing in which a third-party provider hosts software via an online subscription rather than a physical computer installation. (Short, 2020)
Voice over Internet Protocol	Technology that enable voice- and multimedia communications over IP-networks, e.g. Internet. (VOIP-Info.org, n.d.)

2 Method and Material

This section describes the research approach, research design, and data collection & analysis methods used in this study, accompanied with visuals explaining the methods. The research quality criteria of this thesis are also discussed.

2.1 Research Approach

This sub-section elaborates the study's research approach and clarifies why the study's approach methods were selected.

The two main research approaches are *quantitative research* and *qualitative research*. Quantitative research emphasizes on collecting numerical data and making conclusions based on this data. Qualitative research generally emphasizes on collecting non-numerical data, and mainly makes conclusions based on descriptive or behavioral data. (Beutlich, n.d.)

A study is done as either a *field study* or a *desk study*. Field study means doing research and information gathering outside the target company, while desk study means doing research within the case company, using existing information (Bachelor of Management Studies, 2013).

Applied research methods are used for solving scientific, practical, and specific issues affecting an individual or group (Communications for Research, 2019). These research methods are well suited for business research, and are studied with *qualitative* or *quantitative* research methods, or both. Qualitative research is suited for studies with undefined metrics & results, behavioral studies, and individual cases & their impressions. Quantitative research is suited for studies with measurable metrics, and how those metrics will be utilized for the research's purpose (Farnsworth, 2019).

In applied research methods, the most common study types are either *action research* or *case study*. Action research is used for solving a particular / immediate problem, where the researcher both conducts research and is a member of the researched community. A case study is used for researching an event or situation, using both qualitative and quantitative methods to understand beyond statistical metrics. (Hasa, 2017.)

Typical research methods and techniques used in quantitative methods in applied research are questionnaires, surveys, and interviews in various forms (Farnsworth, 2019). These are based on measurable data that are used on statistical analysis and theory testing.

This study uses applied research methods, as the research focuses on how to improve a business with the help of new and improved processes for a specific group and purpose. The research is mainly studied with quantitative methods but includes qualitative research in parts. Much of the study results are based on gathered and analyzable data but are applied to little known variables that are difficult to measure. The research is conducted as a field study. The analysis utilizes new and self-gathered information. The study ends with a development proposal, which makes an addition to the case study.

This research was assigned to the author by the case company as the result of a long-time interest to this subject. The author is employed in an IT consultant position. The outcome of this study might not be a definite solution, but an answer to the question whether and how the research subject can be utilized within the company employees' daily activities.

2.2 Research Design

This sub-section elaborates the study's research design and clarifies why the study's design is established as follows.

Figure 1 below shows the research design of this study.

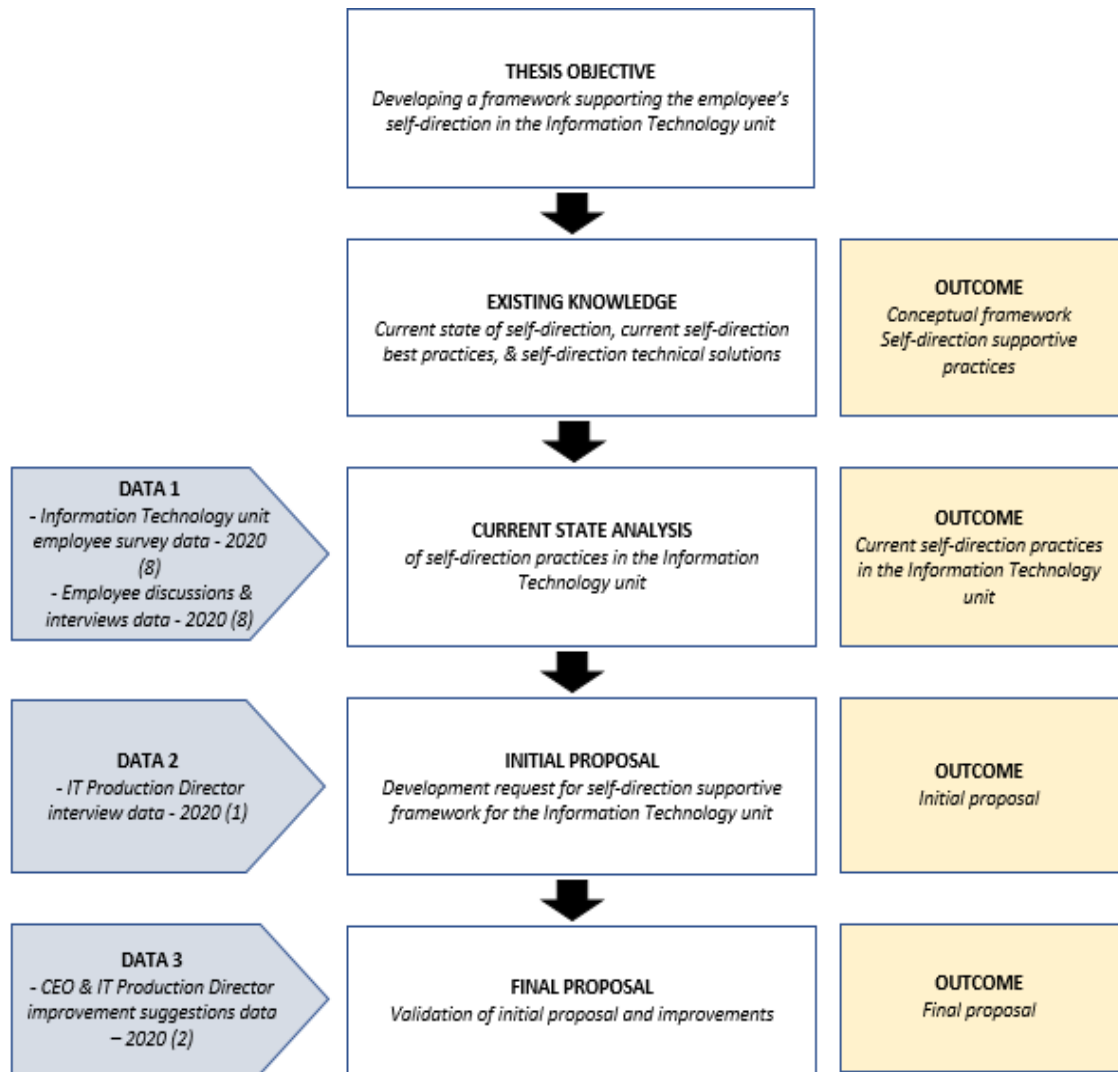


Figure 1. Research design of this study.

As shown in Figure 1, this study was conducted in five steps. Step 1 was setting the objective.

In step 2, to conduct the current state analysis, the first round of the study examined the existing knowledge on self-direction. This section analyzed the definition of the concept, existing best practices, and existing technical solutions and their utilization. The information for the existing knowledge was gathered from academic and business literature on self-direction as a concept, as well as the reviews of best practices and technical solutions. The content and target of the literature review is a comprehensive analysis of self-direction as a concept, self-direction best practices, and technical solutions utilizable for practicing self-direction. The outcome of the theoretical part is divided to two parts: a conceptual framework for practicing self-direction in a general

perspective, and a selection of self-direction supportive practices usable for formulating the survey and interview questions. Existing knowledge review can be found in section three of this study.

In step 3, the current state analysis of the case company IT unit's self-direction supportive practices was conducted. The data for the current state analysis was gathered by conducting employee surveys & interviews. The survey & interview questions are based on the inputs from the literary review, best practices review, and technical solutions review. The outcome of the current state analysis review is the case company IT unit's strengths & weaknesses in the current process for practicing self-direction on an individual level. The current state analysis review can be found in section four of this study.

In step 4, the initial proposal was developed for the supportive framework of the employee's self-direction in the case company's IT unit. The purpose was to re-design the conceptual framework by analyzing the employee survey & interview data. The outcome of the initial proposal development is a framework that supports the employee's self-direction in the case company's IT unit. Initial proposal development can be found in section five of this study.

In step 5, the final proposal was formulated for the supportive framework of the employee's self-direction in the case company's IT unit. The data for developing the final proposal was gathered by validating the initial proposal. The case company's Chief Executive Officer & IT Production Director evaluated the framework, and improvements were performed on the initial proposal based on the evaluation results. The final proposal can be found in section six of this study.

2.3 Data Collection and Analysis

This study uses questionnaires, surveys, and interviews as research methods, gathering data from the case company IT unit's employees, as well as perform statistical & behavioral analysis based on the results.

This sub-section elaborates the study's data collection and analysis methods. The data was collected from various sources, and the analysis was conducted in three rounds. Table 1 shows details of Data collections 1-3 used in this study.

Table 1. Data collection and analysis of this study conducted in three rounds.

	CONTENT AND TARGET	DATA SOURCES	PARTICIPANT	TIMING	OUTCOME
DATA 1 from Current State Analysis	<ul style="list-style-type: none"> ▪ Current state of case company IT unit's self-direction practices ▪ Identify +/- of current practices 	<ul style="list-style-type: none"> ▪ IT unit employee questionnaire / survey (8) ▪ IT unit employee 1 to 1 interviews (8) 	<ul style="list-style-type: none"> ▪ IT Production Director (1) ▪ Head of IoT solutions (1) ▪ System Specialist (3) ▪ Network Administrator (2) ▪ VoIP Consultant (1) 	September (2020)	<ul style="list-style-type: none"> ▪ Summary of case company IT unit's current state of self-direction practices ▪ S&Ws of current practices
DATA 2 for Initial Proposal development	<ul style="list-style-type: none"> ▪ Request for initial proposal development 	<ul style="list-style-type: none"> ▪ IT Production Director interview (1) 	<ul style="list-style-type: none"> ▪ IT Production Director (1) 	October (2020)	<ul style="list-style-type: none"> ▪ Initial proposal development request (framework)
DATA 3 for Final Proposal development & Validation	<ul style="list-style-type: none"> ▪ Request for final proposal development (framework) ▪ Identify +/- of initial proposal (framework) 	<ul style="list-style-type: none"> ▪ Chief Executive Officer & IT Production Director group interview (1) 	<ul style="list-style-type: none"> ▪ Chief Executive Officer (1) ▪ IT Production Director (1) 	October (2020)	<ul style="list-style-type: none"> ▪ S&Ws of initial proposal (framework) ▪ Final proposal validation

As seen from Table 1, data for this study was collected in three rounds.

In the first round, Data 1 was collected from conducting the current state analysis of the case company IT unit's self-direction practices and finding the strengths & weaknesses of these practices. Data sources for the first round are the results from the case company IT unit employee questionnaires / surveys and interviews. The outcome of the current state analysis is a summary of the case company IT unit's current state of self-direction practices, and strengths & weaknesses summarization of these practices.

In the second round, Data 2 was collected from conducting an interview with the IT Production Director to propose a framework for supporting & improving the currently used self-direction practices and improving the current weaknesses. Data sources for the second round is an interview with the IT Production Director. The outcome is the

initial proposal for a framework for improving the case company IT unit's supportive practices for the employee's self-direction.

In the third round, Data 3 was collected from conducting the validation discussion about the proposed framework for supporting self-direction practices and improving the current weaknesses. Data sources for the third round are the Chief Executive Officer and IT Production Director's improvement requests on the initial proposal. The outcome is the final proposal for the case company IT unit's supportive practices for the employee's self-direction in form of a framework.

In this study, the main methods of data collection were interviews, and questionnaires / surveys.

Conducting interviews was one of the main methods of Data 1 collection used in this study. These were conducted face-to-face, and on case company premises. The questions were conducted in advance and are based on inputs from the literature review. The interviews are recorded, and field notes taken. Interview participants for the first round were eight members of the case company's IT unit. Interview questions for the current state analysis section are in the Appendices section at the end of this study, as Appendix 1. Interview participants for the second round was the IT Production Director, and for the third round the case company's Chief Executive Officer joined the IT Production Director.

Table 2 shows the schedule for collecting Data 1 with the interview sessions.

Table 2. Schedule for collecting Data 1 with the interview sessions.

PARTICIPANT	DATA SOURCES	NOTES	DURATION	TIMING
▪ System Specialist 1	▪ Interview session	▪ Phone recording	▪ 45 minutes	▪ September 8th (2020)
▪ Network Administrator 1	▪ Interview session	▪ Phone recording	▪ 45 minutes	▪ September 9th (2020)
▪ System Specialist 2	▪ Interview session	▪ Phone recording	▪ 30 minutes	▪ September 9th (2020)
▪ Network Administrator 2	▪ Interview session	▪ Phone recording	▪ 45 minutes	▪ September 11th (2020)
▪ VoIP Consultant	▪ Interview session	▪ Phone recording	▪ 45 minutes	▪ September 15th (2020)
▪ Head of IoT Solutions	▪ Interview session	▪ Phone recording	▪ 60 minutes	▪ September 16th (2020)
▪ IT Production Director	▪ Interview session	▪ Phone recording	▪ 30 minutes	▪ September 16th (2020)
▪ System Specialist 3	▪ Interview session	▪ Phone recording	▪ 45 minutes	▪ September 17th (2020)

As seen from Table 2, participants are identified with their current job titles, but the interview answers are anonymous according to the agreement of keeping the case company and its employees anonymous. All participants are referred as *interviewees* with a randomly selected number between 1-8 in Section 4 of this study.

Data 2 collection for planning the initial proposal was conducted as a 55-minute discussion with the case company's IT Production Director, in company premises. The discussion took place 12th October 2020.

Data 3 collection for validating the initial proposal was conducted as a 70-minute discussion with the case company's Chief Executive Officer & IT Production Director, in company premises. The discussion took place 27th October 2020.

Finally, survey was another main method of Data 1 collection used in this study. These were conducted in the form of web surveys, independent of case company premises. The survey questions were conducted in advance and are based on findings from the literature review. Survey participants were eight members of the case company's IT unit.

Survey questions for the current state analysis section are in the Appendices section at the end of this study, as Appendix 2.

Table 3 shows the schedule for collecting Data 1 with the web survey.

Table 3. Schedule for collecting Data 1 with the web survey.

PARTICIPANT	DATA SOURCES	TIMING
▪ System Specialist 1	▪ Web survey	▪ September 3rd (2020)
▪ Network Administrator 1	▪ Web survey	▪ September 3rd (2020)
▪ System Specialist 2	▪ Web survey	▪ September 4th (2020)
▪ Network Administrator 2	▪ Web survey	▪ September 8th (2020)
▪ VoIP Consultant	▪ Web survey	▪ September 8th (2020)
▪ Head of IoT Solutions	▪ Web survey	▪ September 14th (2020)
▪ IT Production Director	▪ Web survey	▪ September 16th (2020)
▪ System Specialist 3	▪ Web survey	▪ September 16th (2020)

As seen from Table 3, participants are identified with their current job titles, but the survey replies are anonymous according to the agreement of keeping the case company and its employees anonymous. The survey answers have a consensus of 54%.

The textual data was analyzed using thematic analysis.

2.4 Thesis Research Quality Criteria

This study follows three research quality criteria necessary for quantitative research methods. This sub-section describes the research quality criteria, and how they are implemented in this study.

Validity is a research quality criterion that defines a quantitative research accuracy of measurement. Validity ensures that the research method covers all content accurately and with respect to the variable, measures the planned structure, and associates with appliances that measure the same variables (Active Campaign, 2009).

This study establishes validity of the research by implementing the criterion on surveys and interviews. With *construct validity*, the study ensures that survey results associate behavior to create a cohesive outcome, and with *statistical conclusion validity*, the study determines if survey results are legitimate in order to establish statistical tests and measurement procedures (National Research Business Institute, 2020). Validity allows establishing the right survey questions, and that they assess the important and relevant metrics.

Reliability is a research quality criterion that defines a quantitative research's consistency. Reliability ensures that the research assessment and study results remain consistent across time, the research participants' responses remain consistent and correlated with each other, and the research participants' judgements remain consistent (Mohajan, 2017: 11-14).

This study establishes reliability of the research by implementing the criterion on surveys and interviews. The study ensures this by creating consistent questionnaire surveys and interviews that assess the same subject. This criterion assessment is *internal consistency* (Adams at al., 2007: 236).

Relevance is a research quality criterion that defines a quantitative research's information relevance. Relevance ensures that research's information is supported by facts from other possible sources, objectified to the essential target, and that the referred source quality is reliable (University of Groningen, 2020).

This study establishes relevance of the research on all the study content. The study ensures this by referring all content to existing sources and facts, and keeps all analyses, questionnaires, surveys, interviews, and perspectives verifiable and concentrated on the study's primary goal.

3 Existing Knowledge and Best Practices of Self-direction

This section focuses on three key areas of theoretical research: definitions, best practices, and technical solutions. The outcome of this section is divided to two outcomes: a conceptual framework for practicing self-direction in a general perspective, and self-direction supportive practices usable for formulating the survey and interview questions.

3.1 Definitions

This sub-section describes three key definitions to establish the scope of the self-direction supportive framework by clarifying self-direction as a concept today, how it fits in an organization's way of thinking in a general perspective, and why self-direction is deemed significant in the evolving work landscape.

The elaborations establish the current values of self-direction and differentiate self-direction's misconceptions as a concept: self-direction is purely on an individual level, while self-organization is self-direction on a group level. The research and analysis of this study focuses on outcomes of individuals in a group, not the whole group. By knowing the definitions, the framework stays on the subject and its scope is clear.

3.1.1 Self-direction

In current business and academic literature, there is no common interpretation on what self-direction as a concept means specifically. According to Martela and Jarenko (2017: 12), self-direction means that a person can perform without external guidance & control: the person needs to be self-motivated to perform daily work without external coercion, needs to have a goal to understand what target self-direction is aimed at, and needs to have necessary expertise to reach the goal. This expertise is responsibilities that supervisors usually administer, such as time management, setting tasks, resource control, and prioritization of work. (Martela and Jarenko, 2017.)

According to Laloux (2014. Cited in: Savaspuro, 2019: 27), the central element in self-direction is the employee's opportunity to genuinely affect one's own work: to assert goals individually and define where & how the work will be performed, agree of the

division of labor with colleagues, and make individual decisions without approval from higher management. This results in more rapid decision-making, better productivity, and performance that is more agile. (Laloux, 2014. Cited in: Savaspuro, 2019.)

According to Toikka (2019: 11-12), self-direction is not a packet solution that can be implemented without taking the operating environment and plausibility of change into account, but a series of conscious choices that aim to improve a subject's fluidity, quality, or efficiency. These choices challenge an employee's relationships to information, power, organizational structures, responsibility, solutions, resources, and thinking. (Toikka, 2019.)

According to Kurtén (2001: 167), self-direction is based on a person's knowledge of own self, strengths, and areas of improvement. He states that the practice of self-direction might be one of the most important success factors in the future of business landscape, because a self-directed person can with less effort & faster differentiate the essential from the irrelevant in the evolving information flood than the average person. (Kurtén, 2001.)

This study utilizes the elaborated definitions of self-direction for establishing timely survey and interview questions for the current state analysis. Using all definitions help defining the individual IT unit employee's rules & requirements for practicing the framework when Data 2 collection further decides its purpose. By recognizing self-motivation, goal setting, possibilities to affect own work, and self-knowledge, clear requirements for using the framework can be established if seen necessary. Finally, the research and analysis of this study focuses on self-direction of individuals in a group, not the whole group. The difference between these, and the individual's part in the group, are discussed in the following sub-section.

3.1.2 Minimum Viable Organization

According to Martela and Jarenko (2017: 13-14), self-direction is an individual attribute, and self-organization is a group attribute where higher management has minimized finished structures. In these structures, there are no predetermined chains of command, hierarchies, fixed roles, or specific supervisors: the mutual organization between employees reshapes, as change requires. The opposite of self-organization is organization from above, where the management creates an organizational structure &

clear hierarchy. In between these are organizations whose team interactions are heavily self-organized, but with strict limits: the team members can decide how they want to organize their activities with each other, but the activities are guided with precise profit targets and established structures. Minimal viable structure allows employees to have freedom and as minimal limitations as possible to organize their work, but without giving them autocracy. An organization practicing this structure is a minimum viable organization. (Martela and Jarenko, 2017.)

According to Kilpi (2015), a minimum viable organization uses as little organization structures as possible in daily work: chain of command is not forced on employees but used as an incentive to tailor hierarchies as seen fit to different situations. The structure encourages employees to create their own balance in work content and choose how much they contribute to their employer voluntarily, e.g. meetings can be held on a digital platform with voluntary participation instead of requiring unnecessary participants in a physical meeting. (Kilpi, 2015.)

Renwick (2018: 27) describes a minimum viable organization as an organizational structure that has services, coordination, transparent governance, and impressions of the future of intelligence & innovation, all discussed within a purposeful mindset. He emphasizes that an organization structure's viability is best delivered using agile techniques and components where focus is on value, empowerment, and feedback. (Renwick, 2018.) Depending on how much self-direction and self-organization is used in an organization, the organization can be following one of four different organization structures.

Figure 2 shows a breakdown of organizations according to the amount of self-direction and self-organization used in an organization structure.

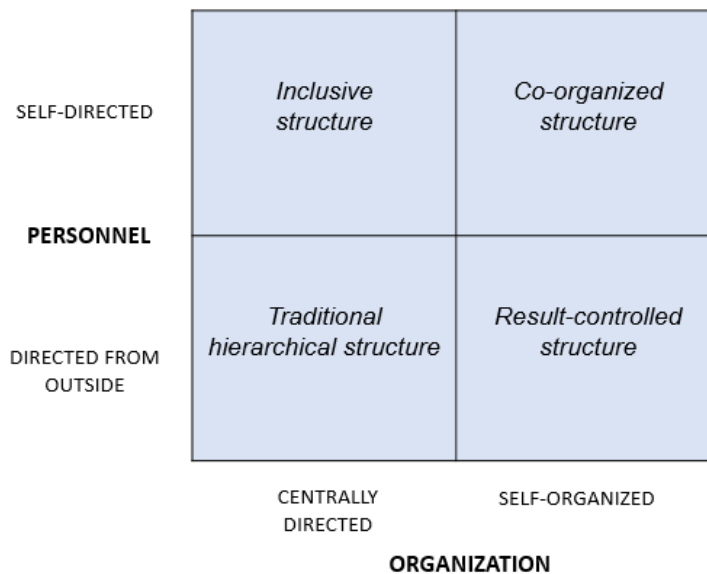


Figure 2. Breakdown of organizations according to the amount of self-direction and self-organization used in an organization structure (Martela and Jarenko, 2017: 14).

As shown in Figure 2, in the breakdown of organizations, there is one traditional organization structure, and three organization structures when practicing self-direction or self-organization, or both.

A traditional hierarchical organization structure (also called bureaucratic organization structure), according to Martela and Jarenko (2017: 16-17), is the most common type of organization structure. Senior management organizes how work is performed and coordinates the whole. Commands & information are communicated down from above. Employees do what they are told, and do not break from the path without managerial approval. (Martela and Jarenko, 2017.)

A result-controlled organization structure does not have middle management or other hierarchies. The employees' motivations are external and work activities are assisted. The personnel can organize how they want, without hierarchies or predetermined roles, but they are not self-directed. (Martela and Jarenko, 2017: 17-18)

An inclusive organization structure has traditional structures organized by senior management, and heavily self-directed personnel. According to Martela and Jarenko (2017: 16), the employees there are self-motivated and have small enough limitations to perform daily work how they want to. The employees have supervisors to report to, but

this management personnel work as mentors & encouragement instead of having a traditionally controlling position. (Martela and Jarenko, 2017.)

Finally, a co-organized organization structure is self-organized and has self-directed personnel. The personnel are self-motivated, and the management & hierarchies are almost completely absent. Senior management and personnel work together to define the common direction to aim for. The management then takes a serving position to ensure that everyone involved have the best possible circumstances to reach the common goal. Work is usually done in small teams or independently. The employees can affect the content of the work & how it will be done. Operational development is everyone's common responsibility, and decisions & improvements are handled independently without chains of approval. Rules, standards, and structures exist, but they are aimed to look at as experiments that can be modified in the future in case there are more rational ways to act. (Martela and Jarenko, 2017: 15.)

There are challenges in practicing organization structures with self-direction involved. In his dissertation, Lauri Pietinalho (2017) lists six central reasons to why not all organizations will aim to practice self-direction or fail in its implementation:

- The change is unfinished: a common error in organizations is that changing only one custom is deemed enough to become a self-directed organization. Change is required on all sections of the organization and needs constant nurturing.
- Hierarchy creates security: change in an organization is often done in an instant and completely, ignoring employees' necessary time requirement for changing own behavior.
- Stalking culture: a power vacuum can be formed in a self-directed organization or team and will be carried out by someone if questions regarding power & responsibilities are undefined.
- Unnecessary risks and negligence: an employee's power of decision can lead to taking too large risks, and on the contrary, an employee might not get anything done because of the lack of pressure from any higher management.

- The difficulty increases as the personnel size increases: the more personnel need to work as non-dependent of each other to reach the common organization goal, the more challenging it becomes to practice self-direction.
- The purpose is lost: an organization's external objectives might conflict with the organization's own identity and purpose, which leads to value conflicts within employees who do not share the common goal. (Pietinalho, 2017. Paraphrased in: Savaspuro, 2019: 34-35.)

Based on a research conducted by Misita and Milanovic (2019: 432) about future organization, management & technological changes in manufacturing technologies, self-organization and decentralized decision-making would play a crucial role in setting & reaching strategic goals during an organizational transition.

This study utilizes the elaborated definitions of minimum viable organization & self-organization and the challenges in practicing these for establishing survey and interview questions for the current state analysis section, encouraging the participant to identify what organization structure one is currently following in the case company, and what past failures have surfaced in organizational changes. After analyzing the survey & interview results, the framework can be developed to follow one of the four organization structures visualized in Figure 2 according to proposal requirements in Data 2 collection to create a general understanding on shared practices & processes in the IT unit. Any identified past & current challenges in practicing self-direction in the self-organized organization structure listed by Pietinalho (2017) can be aimed for improvement in the framework.

In addition to having a clear scope, rules & requirements for usage, and established structure, the framework has a clear motivation & purpose to be developed in relation to the evolving business landscape. The next sub-section discusses these motives.

3.1.3 Socio-technical System

According to Martela and Jarenko (2017: 18-25), there are three key reasons to why self-direction is emerging in the work industry. The first is associated with the operating environment: the business environment has become more complex & rapidly changing due to globalization, acceleration of information currency, and automation. This forces

organizations to become more adaptive and agile to survive in the business environment. The second reason is associated with the nature of work: daily work tasks are becoming more dependent on creative expertise and independent decision-making, replacing routine work and orders from higher management. The third reason is associated with technology: current technology solutions cannot provide decentralized structures provided by modern information technology. (Martela and Jarenko, 2017.)

A socio-technical system (shortened STS) applies social sciences in form of social structures, roles, and rights, in system designs that involve people & technology. The ground of a socio-technical system is the general systems theory, where no disciplines of science (e.g. information system, hardware system, and cognitive system) have monopoly on science. As incorporating people with technology is currently in high research & development, the socio-technological system is an evolutionary step in system design. (Interaction Design Foundation, n.d.)

Figure 3 below shows the evolution of computing applications and levels from technology to socio-technology.

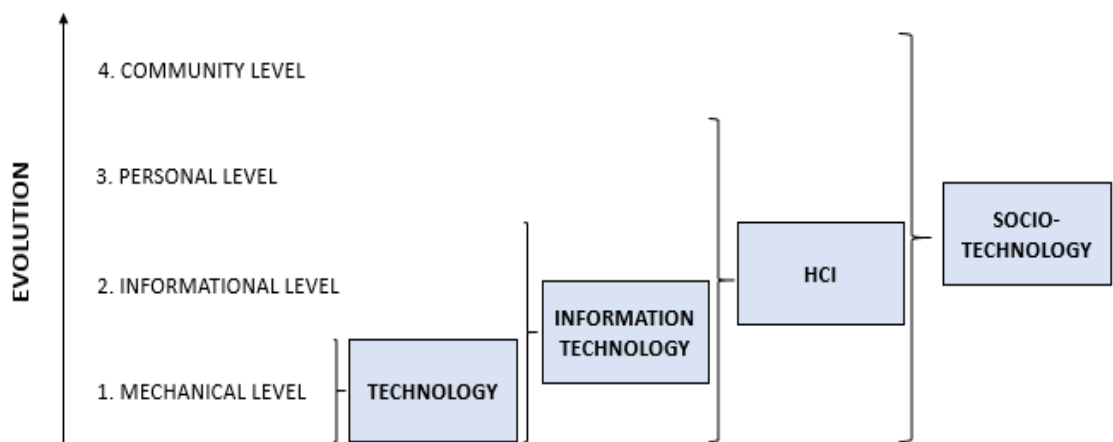


Figure 3. The evolution of computing applications and levels from technology to socio-technology (Whitworth and Ahmad, 2014).

Following the general systems theory allows to trace the evolution of computing, as shown in Figure 3: hardware devices become software & apparatus, followed by human computer interaction level in the form of IT, which eventually leads to a community level, or socio-technical system. (Interaction Design Foundation, n.d.)

Figure 4 below shows a visual presentation of a framework using the socio-technical approach.

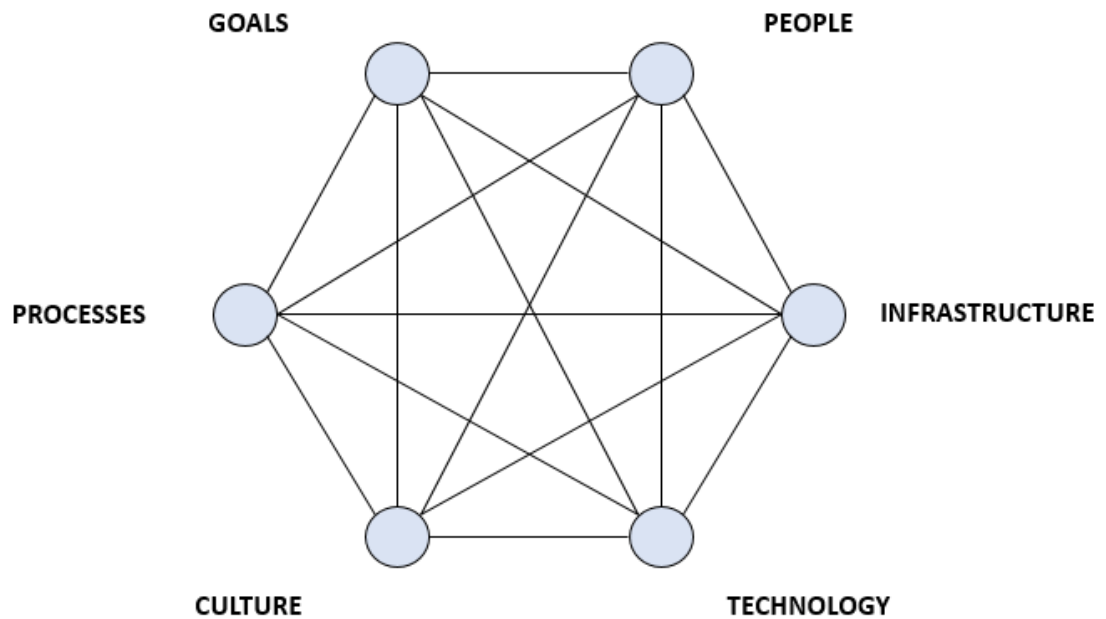


Figure 4. Visual presentation of a framework using the socio-technical approach (Hughes at al., 2017. Cited in: Davis at al., 2014).

Figure 4 shows a framework with six core components for analyzing and understanding complex systems. The lines represent existing dependencies between the components of the socio-technical system. According to this framework, variables should be approached in unification when executing organizational changes. (Hughes at al., 2017)

Table 4 lists classic socio-technical system design principles, with explanations.

Table 4. Classic socio-technical system design principles, with explanations (Pasmore at al., 2018).

PRINCIPLE	EXPLANATION
WHOLENESS	The work system should be conceived as a set of activities making up a functioning whole, rather than a collection of individual jobs.
TEAMS	The work group should be considered more central than individual jobholders.
PROCESS CONTROL	Variances should be identified and handled as close to their point of origin as possible, preferably by those who can prevent them from occurring, without requiring supervisory intervention.
SELF-DIRECTION	Internal regulation of the work system is preferable to external regulation of individuals by supervisors.
MULTI-SKILLING	The underlying design philosophy should be based on a redundancy of functions rather than on a redundancy of parts.
DISCRETION	The discretionary component of work is as important to the success of the system as the prescribed component.
JOINT-OPTIMIZATION	The individual should be viewed as complementary to the machine rather than as an extension to it.
ADAPTATION	The design of work should be variety increasing rather than variety decreasing, meaning that individual and organizational learning is essential to allow organizational adaptation to change.
MEANING	At the level of the individual job in a socio-technical system, there should be for each person an optimal level of variety, learning opportunities, some scope for setting decisions that affect the outcomes of work, organizational support, a job worthy of societal recognition, and the potential for a desirable future.
INCOMPLETION	Since the context of the organization will continue to evolve over time, no design can be considered 'finished'.

As seen from Table 4, self-direction is one of socio-technical systems' classic principles.

In 2017, Spring Network conducted a socio-technical action research lab, or STARLab, which gathered thirty academics, executives, futurists, technology professionals, ethicists, social scientists, and change practitioners to answer two questions: how will technological organizations' design & leaderships function in the future, and what change process attributes will lead to the change? One of the key predictions was that top-down leadership will become non-viable, and that leadership will become distributed among individuals or groups as seen fit. This results to companies practicing self-organization and self-direction. (Pasmore at al., 2018.)

This study utilizes the elaborated definitions of the socio-technical system & its three key reasons for emergence in the business industry for establishing survey and interview questions for the current state analysis section. The survey & interview participants are

encouraged to evaluate how the case company reacts to these factors and the framework's purpose & implementation area are selected based on the outcomes. The framework can be aimed at being built upon the socio-technical approach framework visualized in Figure 4. Developing the framework with socio-technical system designs & principles in mind provide motivation & purpose to lean toward self-direction & self-organization supportive thinking in relation to the evolving business landscape.

The three key definitions described in this sub-section establish a clear scope, rules & requirements for usage, established structure, and clear motivation & purpose to develop a self-direction supportive framework, and the next subsection describes current best practices that the framework can utilize or implement for the IT unit.

3.2 Best Practices

This sub-section describes three selected key definitions to establish the themes for the self-direction supportive framework by clarifying what organizational leadership model it can follow, and how the individual employee's business responsibility & autonomy can be utilized in it for self-directed working. By understanding the best practices, the framework can utilize or implement these, and the theme, purpose, and implementation area of the framework can be further directed toward a cohesive outcome.

3.2.1 Leadership in the Plural

Business practitioners believe (Salovaara, 2017) that those organizations practicing self-organization need more leadership than leaders: an employee who works as a leader in an organization is not the same as leadership as a principle. Employees in a team might work self-directed in different directions since self-direction does not involve co-operation or organizing. The freedom to do anything might not result in good co-operation or organizing in a team, but leadership as a phenomenon is always present. A leadership collectively born and including every team member input is called leadership in the plural. (Salovaara, 2017: 49-50.)

Leadership in the plural can be practiced in four different ways in an organization. Denis at al. (2012) encapsulate four models of leadership resulting from the collaboration of several employees, as shown in Figure 5:

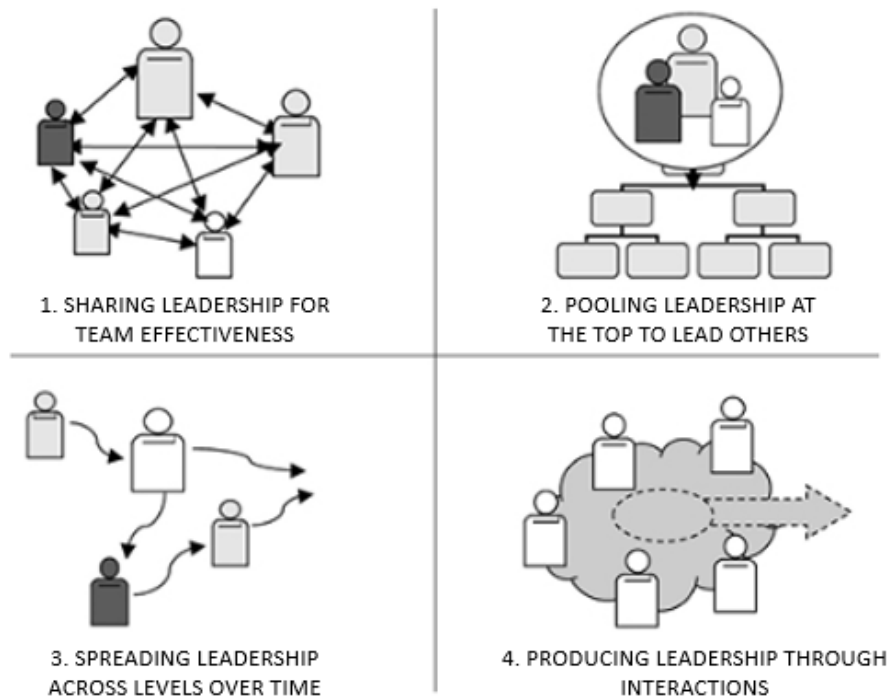


Figure 5. Four models of leadership resulting from the collaboration of several employees (Denis et al., 2012).

The four leadership models shown in Figure 5 can be described as follows:

1. Sharing leadership for team effectiveness: tasks are divided among team members; team members guide teamwork and each other.
2. Pooling leadership at the top to lead others: a pair, trio etc. are at the top of the hierarchy.
3. Spreading leadership across levels over time: leadership varies from employee to employee to perform a task.
4. Producing leadership through interactions: leadership is formed through relationships. (Denis et al., 2012: 215.)

According to Salovaara (2017), models 1-3 are built on traditional leadership roles, and are about how the role rotates or varies between different employees, or that the role tasks are shared between multiple employees with one being designated as the leader

in the direction of the hierarchy. These models are widely used in traditional organizations, as there is no necessity to dismantle all hierarchies or radically change all organization models. From the perspective of self-direction, these traditional models limit freedom as much as management permits. (Salovaara, 2017: 55.)

The fourth leadership model is supportive of self-direction: leadership is united in what employees do, practices, co-operation, communication, and power & influence relations. Leadership here is not a person, role, or individual, but a plural realized through interactions & structures of many employees in the organization. (Salovaara, 2017: 55.)

This study utilizes the elaborated definitions of leadership in the plural for establishing survey and interview questions for the current state analysis section, encouraging the participant to identify what leadership model one is currently following in the case company. After analyzing the survey & interview results, the framework can be developed to follow one of the four leadership models visualized in Figure 5 according to proposal requirements in Data 2 collection to create a general understanding on shared practices & processes in the IT unit.

After establishing the followed leadership model, tailored best practices can be implemented in the framework to support self-directed working. One selected best practice for this study discusses the employee's business responsibility and is elaborated in the following sub-section.

3.2.2 3x2-thought

Allowing the employee to take work decisions into own hands promotes self-direction. The 3x2-thought is an organizational thought process used in deciding mundane organizational matters. Originally branded by the Finnish innovation company Futurice, the purpose of 3x2-thought is to create self-direction supportive organizational thinking by encouraging common thinking & understanding in business responsibility among employees. (Syrjänen and Tolonen, 2017: 207.)

Futurice co-founder Syrjänen and communications specialist Tolonen summarize the 3x2-thought as a visualized interface (2017: 208), as shown in Figure 6:



Figure 6. 3x2-thought visualized as an interface (Syrjänen and Tolonen, 2017).

The purpose of the 3x2-thought is to have employees thinking about how a business decision affects colleagues, customers & corporate finance, and act how one sees fit if it passes the thought process:

- Will I learn or benefit from something that will benefit my own work?
- Will I learn or benefit from something that I can teach my colleagues?
- Will my newly acquired knowledge and skill benefit my customers?
- Is the investment required in relation to the benefits achieved? (Syrjänen and Tolonen, 2017: 209.)

With the help of the thought process, business responsibility can be defined with the 3x2-thought and is an enabling factor of self-direction for employees: it forces to look at things from various perspectives and balance often-conflicting needs. Balancing requires awareness & understanding of a broader vision. Employees can have much freedom, if it is used towards a shared vision of organization values & culture in an appropriate way, taking care of customers, people, and numbers. (Syrjänen and Tolonen, 2017: 209-210.)

This study utilizes elaborated definitions of the 3x2-thought process for establishing survey and interview questions for the current state analysis section, and encourages the participant to evaluate what, if any, business responsibilities one currently has, is missing, or would need to improve own work performance. The framework can apply the 3x2-thought or a tailored version of it based on improvement requirements in Data 2

collection, if the case company has no established business responsibility practices, or if additional responsibility is preferred for the IT unit employee.

Another applicable selected best practice for this study discusses the employee's autonomy & possibility for cultural experimenting in the organization and is elaborated in the following sub-section.

3.2.3 Advice-process

Allowing the employee to think outside own comfort zones and innovate promotes self-direction. The Advice-process is a self-direction supportive practice presented by business coach Frederic Laloux (2014), which promotes autonomy & cultural experiment in organizational thinking. Cultural experiment means that any employee in an organization can act as the initiator of an experiment, where the initiator has freedom to do and develop things where the person finds to be useful, regardless of job title and assigned area of expertise. The Advice-process can improve an organization's ability to seize opportunities and launch more experiments. (Liira at al., 2017: 244-247)

Following the Advice-process, the employee can make any decision after asking advice from everyone the decision will affect, and those who have previous expertise & knowledge on the matter to be decided. (Reinventing Organizations Wiki, n.d.)

The decision-maker must consider all received advice, and no colleague can force the decision when asked for advice, regardless of one's position in the organization. The decision-maker will decide the best way to move forward based on gathered information, feedback, and different views. The decision does not need to be selected between pre-defined options: it can be postponed for looking for new alternatives or launching a new experiment with it. (Sylvain, 2017.)

The Advice-process should not lead to a diluted compromise that fulfills other employees' wishes, but the aim is to utilize the organization's collective wisdom to reach the best possible decision. Reviewing different views during the process leads to higher quality decisions and learning in a decision-making situation for the employee. (Reinventing Organizations Wiki, n.d.)

The initiator of the Advice-process acts as the advice-seeking decision-maker, but the decision-making role can be transferred to the employee or team who will be most affected by the decision. (Martin, 2019)

The purpose of the Advice-process is not to ignore everyone the decision will affect, and those who have previous expertise & knowledge on the matter, but to challenge the traditional hierarchies where only named responsible personnel can contribute to their area of responsibility. The process creates practical conditions for anyone in the organization to take anything forward, including outside their own roles or responsibilities. Asking for advice leads to a common picture and at the same time increases learning within the organization & between areas of responsibility. (Liira et al., 2017: 247.)

This study utilizes elaborated definitions of the Advice-process for establishing survey and interview questions for the current state analysis section, and encourages the participant to evaluate what, if any, practical opportunities for cultural experimenting one currently has, is missing, or would need to improve own work performance. The framework can apply the Advice-process or a tailored version of it based on improvement requirements in Data 2 collection, if the case company has no established cultural experimenting practices, or if additional experimenting practices are preferred for the IT unit employee.

The three selected key best practices described in this sub-section establish clear themes and proven practices for self-direction supportive shared practices & processes to develop a self-direction supportive framework. These are applicable with a framework's defined scope, rules & requirements, established structure, and clear motivation & purpose. The following subsection describes selected current technical, self-direction supportive solutions, that the framework can utilize or implement for the IT unit if selected as a development subject in Data 2 collection.

3.3 Technical Solutions

This sub-section describes two selected technical solutions to establish the utilization capabilities for the self-direction supportive framework by reviewing what existing solutions can be utilized for promoting self-directed working. By understanding how the

solutions work, the framework can utilize or implement these, and the previously established scope, rules & requirements, established structure, clear motivation & purpose, theme, and implementation area of the framework can be further directed toward tangible results.

3.3.1 Leadership as a Service (LaaS)

Allowing the employee to modify personal working environment services to improve own well-being promotes self-direction. Leadership as a Service (shortened LaaS) is a self-direction supportive web-platform service that provides management model services, developed by Finnish IT-service Company Vincit. The management service model platform was developed in cooperation between human resources management and service design, where the aim was to challenge the traditional management model & stereotypical management thinking. The basic idea of the model is to give all employees opportunities to have management services that suits their own needs, instead of offering similar management solutions to all employees. The management mindset is here consumer-oriented: the employee can choose which management services to use & not to use. (Kuitunen and Pystynen, 2017: 287-289.)

On the LaaS website, the employee can choose services that suits own needs from different areas. There are two types of services: core services & express services: under these are approximately sixty different services. The services are divided into five different headings: well-being & occupational health, organization & management, competence & development opportunities, daily work sheet, and work community & atmosphere. After selecting the service, the employee can choose the most suitable service provider and the implementation for the service request. (Siikaniva, 2017.)

In addition to ready-made services, LaaS also has an open field: the ideas and suggestions posted in it are visible to every employee in the platform and brought up to the service menu based on popularity. In the platform, the employee can also leave a question to the management, and the question will be visible for everyone. This supports the principle of transparency in a straightforward way. (Kuitunen and Pystynen, 2017: 294.)

The purpose of LaaS is to make it easier to take the first step in promoting things that are important to oneself. The purpose is not to replace daily interactions at work, but to

support one's own well-being, skills, and career advancement. The goal is that each employee makes their own work-related decisions, but decision-making is made as easy as possible: there is a gradual shift towards self-direction, where each employee can move towards it based on their individual situation. Another goal is to shape the work environment of the staff and the management culture of the organization in such a way that people can lead themselves. (Kuitunen and Pystynen, 2017: 301-302.)

The work environment of the organization must be diverse for self-direction to be possible, and moving from a "one size fits all" approach to an "everyone needs it" model can be challenging because it requires employees to have a self-directed ability understand & ask for what they need. To facilitate this, LaaS has built analytics in the background of the tool to make selection easier. The employee only needs to identify a perceived need, after which the tool recommends services that are perceived as useful under this theme, as well as suggesting a possible path forward for the coming season. Thus, the employee can choose longer service packages, or service chains, to promote own goals. (Kuitunen and Pystynen, 2017: 302.)

This study utilizes LaaS as a concept for establishing survey and interview questions for the current state analysis section, and encourages the participant to evaluate what, if any, the case company's current self-direction supportive management culture, models & mind-sets are, or would be necessary to have to improve own work performance. The framework can apply tailored management service model frameworks reminiscent of LaaS if required in Data 2 collection, or if the case company has no established supportive management culture, models & mind-sets.

3.3.2 MyAnalytics

Allowing the employee to review own working by gathered behaviour analysis shown as visual information supports self-direction. MyAnalytics is a self-direction supportive platform developed by Microsoft that gathers the employee's personal productivity data during work and creates personalized artificial intelligence-based suggestions to help set aside concentration time. The goal of the platform is to explore the employee's way of working & learn smarter ways to work by improving focus, well-being, network, and collaboration. MyAnalytics creates summaries of how the employee spends time at work and makes proposals for smarter ways of working, for example by calling for a reduction

in unproductive meetings & working outside working hours, and by keeping the employee up to date on tasks by marking things agreed to do with email. (McCullough, 2019.)

MyAnalytics supports the employee's self-direction by reporting how & with whom collaboration is done with, and how working time is used weekly. The compilation of the platform helps to outline the course of the working day and prioritize tasks by finding out how much time is spent reading & replying to emails, how many meetings the employee has weekly, when the employee is most efficient & what way of working is right, and how much the employee works outside working hours. All information to build analytics is gathered from Microsoft Office 365 mailbox & calendar data. (Atea, 2018.)

This study utilizes MyAnalytics as a concept for establishing survey and interview questions for the current state analysis section, and encourages the participant to evaluate what, if any, personal work performance information the case company gathers, and if the data is used for constructive purposes. The framework can apply tailored personal productivity data practices reminiscent of MyAnalytics if required in Data 2 collection, or if the case company has no established data gathering processes to evaluate the IT unit employee's constructive productivity data.

The two selected technical solutions described in this sub-section establish clear utilization capabilities for a self-direction supportive framework. These are applicable with a framework's defined scope, rules & requirements, established structure, motivation & purpose, theme, and implementation area. If either solution is selected for further development, the outcome could be a framework for acquiring tangible, visual results of practices discussed in Section 3.

The following sub-section summarizes selected definitions, self-direction supportive best practices, and self-direction supportive technical solutions in a conceptual framework.

3.4 Conceptual Framework

The conceptual framework of this thesis is visualized in Figure 7, highlighting key elements, sub elements, and key sources.

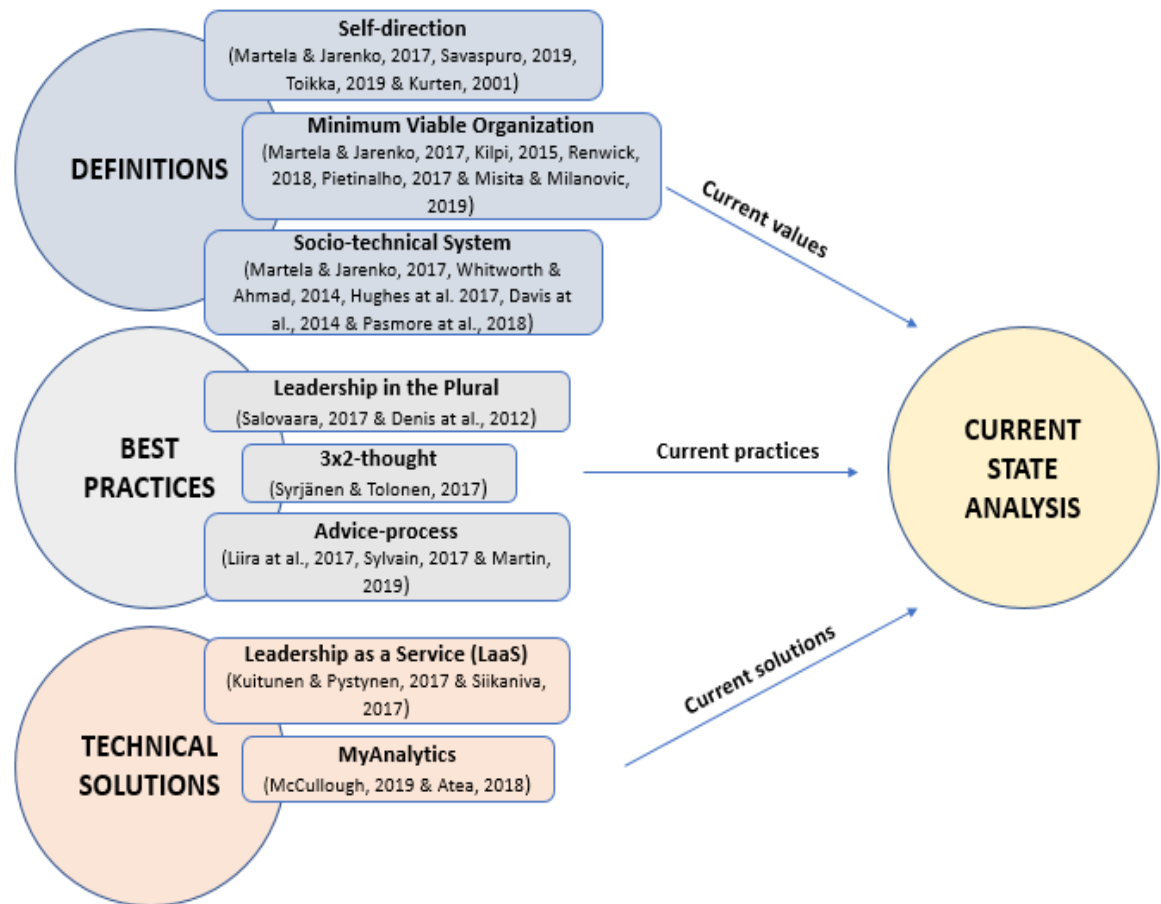


Figure 7. The conceptual framework of this thesis.

The first key element, Definitions, aims to elaborate the current values of self-direction on an individual & organizational level: the sub-elements establish the individual's requirements to practice self-direction, the organization's requirements and challenges to practice self-direction & self-organization, and the organization's evolution to practice self-direction & self-organization. The analyses of these values should be recognized when creating the survey & interview questions for the current state analysis section to keep the study subject relevant.

The definitions establish the scope of the self-direction supportive framework, and help defining the individual IT unit employee's rules & requirements for practicing the framework when Data 2 collection further decides its purpose. First, by recognizing self-direction values in self-motivation, goal setting, possibilities to affect own work, and self-knowledge, clear requirements for using the framework can be established if seen necessary. Second, after analyzing the survey & interview results related to minimum viable organization, the framework can be developed to follow one of the four

organization structures visualized in Figure 2 according to proposal requirements in Data 2 collection to create a general understanding on shared practices & processes in the IT unit. Any identified past & current challenges in practicing self-direction in the self-organized organization structure can be aimed for improvement in the framework. Third, the framework can be aimed at being built upon the socio-technical approach framework visualized in Figure 4, which provides motivation & purpose to lean toward self-direction & self-organization supportive thinking in relation to the evolving business landscape.

The second key element, Best Practices, aims to elaborate the current practices of self-direction in an organization: the sub-elements establish current self-direction supportive practices in organizational leadership models, organizational supportive thinking, and organizational cultural experiment & autonomy practices. The analyses of these practices should be recognized when creating the survey & interview questions for the current state analysis section to keep the study subject valid and reliable.

The best practices establish the themes for the self-direction supportive framework. First, after analyzing the survey & interview results related to leadership in the plural, the framework can be developed to follow one of the four leadership models visualized in Figure 5 according to proposal requirements in Data 2 collection to create a general understanding on shared practices & processes in the IT unit. Second, the framework can apply the 3x2-thought or a tailored version of it based on improvement requirements in Data 2 collection, if the case company has no established business responsibility practices, or if additional responsibility is preferred for the IT unit employee. Third, the framework can apply the Advice-process or a tailored version of it based on improvement requirements in Data 2 collection, if the case company has no established cultural experimenting practices, or if additional experimenting practices are preferred for the IT unit employee.

The third key element, Technical Solutions, aims to elaborate the current self-direction supportive solutions in the market: the sub-elements establish current self-direction supportive solutions that practice management culture, models & mind-sets, and tools utilization practices. The analyses of these solutions should be recognized when creating the survey & interview questions for the current state analysis section to keep the study subject relevant and reliable.

The technical solutions establish the utilization capabilities for the self-direction supportive framework. First, after analyzing the survey & interview results, the framework can apply tailored management service model frameworks reminiscent of LaaS if required in Data 2 collection, or if the case company has no established supportive management culture, models & mind-sets. Finally, the framework can apply tailored personal productivity data practices reminiscent of MyAnalytics if required in Data 2 collection, or if the case company has no established data gathering processes to evaluate the IT unit employee's constructive productivity data. If either solution is selected for further development, the outcome could be a framework for acquiring tangible, visual results of practices visualized in the conceptual framework.

The answers to the surveys & interviews based on the conceptual framework are analyzed in Section 4 of this study.

4 Current State Analysis of the IT Unit Self-direction Practices

This section discusses the current state analysis on the case company IT unit's self-direction practices, based on answers from the survey & interview questions created from the literature review in Section 3. The section begins with an overview of how the current state analysis was planned, conducted, and implemented. The overview is followed by the description of the IT unit's current self-direction practices with three main topics in focus: values, best practices, and technical solutions. The section ends with the analysis of key findings from the current state analysis, followed by a list of the current self-direction practices' strengths & weaknesses.

4.1 Overview of the Current State Analysis

The goal of the current state analysis was to get a picture of the case company IT unit's current self-direction supportive practices from the individual employee's perspective. Because self-direction as a concept is abstract and can be visible in multiple ways in various areas, the case company does not have defined practices & metrics to rely upon when performing a current state analysis. Because of this, all the information in this section (Data 1) is based upon the individual employees' perceptions on what the current states are.

The current state analysis was performed in two steps. The first step for collecting Data 1 was conducting the survey, based on questions shown in Appendix 2. Questions 1-9 are focused on current values, questions 10-17 on current best practices, and questions 18-20 on current technical solutions. The survey was implemented & its results analyzed in a cost-licensed web survey template developed by ZEF, a Finnish web survey specialized company.

The second step for collecting Data 1 for the current state analysis was conducting interviews, based on questions shown in Appendix 1. Questions 1-10 focus on current values, questions 11-13 on current best practices, and questions 14-15 on current technical solutions. The interview was conducted as a continuation on the survey, and all participants were required to finish the survey before booking an interview meeting. This was because most of the interview questions are discussion subjects of the clearly defined survey questions, which give a basis for the research area & purpose. All interviews were conducted on office premises, as a dialogue between the author and the

participant. The interview questions were showed with a Microsoft PowerPoint-presentation. All interviews were recorded with the author's mobile phone, and notes were later made by listening to the audio recordings. This was done to keep the interview uninterrupted by having to possibly repeat any answers.

The current state analysis ends with a list of the current self-direction practices' strengths & weaknesses. The list motivates the focus area improvement choices that will be analyzed & implemented with an initial proposal in Section 5 of this study.

4.2 Description of Current Self-direction Practices

The current self-direction supportive practices in the case company's IT unit are divided into three categories: individual & organizational values, self-direction supportive best practices, and self-direction supportive solutions. All descriptions are based on the employees' own perceptions, as none of the practices is pre-defined in the case company's regulations.

4.2.1 Individual and Organizational Values

Self-direction as a concept was established for all employees in the IT unit that have worked in the organization between years 2017-2019. All interviewees have either learned or heard about the concept because of the externally funded one-year project, where the goal was to research self-direction and the necessity of the concept and its practices & metrics. The project was conducted in-house with all the service areas and with a few customer companies participating. All employees participated in monthly workshops where self-direction was discussed. The newest employee joined the IT unit in year 2020, and has heard about self-direction as a concept, but not from the case company (Interviewee 5).

Organizational practices that promote the individual's rapid decision-making, better productivity, and performance that is more agile are not officially documented, but these are supported in the IT unit. All employees have a supervisor, but there are rarely any orders or activities required from higher management. Because of the small company size, there are not many chains of command in the IT unit. This supports quick & unproblematic decision-making and leads to faster income opportunities in daily work. (Interviewee 6)

The case company's chains of command, hierarchies, and fixed roles are partially established, while specific supervisors are clearly established. Employees in the IT unit know whom to contact internally in area & subject-specific matters, and new employees learn these non-established contact personnel responsibilities with time. (Interviewee 5)

All IT unit employees have autonomy in how to perform daily work in their current job titles, in the confines that customer service based concrete job functions allow to practice it. The individual employee can work independently or in teams, as per agreement in how to share workloads & objectives with colleagues. The supervisor trusts the employee morale in what amount the individual wants to practice autonomy and does not give commands in how to execute actions unless asked. All employees have customized methods in how to act when financial decisions take place. In traditional customer service & consultation, the employee can take preferred actions first, and inform or document the actions for the IT unit afterwards.

All IT unit employees can affect the content of own work & how to perform it, in the confines that customer service based concrete job functions & time constraints allow doing it. Depending on what the customer wants or needs, the employee has freedom to improvise to reach the goal without managerial approval in basic customer service management, if seen necessary (Interviewee 8).

The case company reacts to the changing operation & business environment by improving incrementally more agile methods in its organization processes, although agility has always been a part of the organization's identity. The possibility to work remotely is a supported solution to each employee in the IT unit. The business environment & interfaces are mostly cloud-based, which supports independent working from a preferred location (Interviewee 1). Marketing channel platforms are channeled towards cloud & social media platforms, and sales roles channel more towards social media knowledge & utilization (Interviewee 7). On-site premise visits to customers are decreasing due to less necessity of physical work & company representative presence (Interviewee 6). Automation in finance is streamlined with a financial management system, replacing the need for a physical financial management employment position in the company (Interviewee 8).

The case company reacts to changes as the evolving IT industry requires to keep a competitive advantage, and values the employees' morale to suggest innovations,

systems, vendors, and suppliers. The establishment of a new service area in the IT unit, IoT, is the largest investment, and shows good results in competitive advantage and financial results. (Interviewee 7)

The case company reacts to the changing nature of working by allowing the IT unit employee to use creative thinking & independent decision-making in daily work. Because of this, the employee has little routine work. Decision-approval chains are streamlined, and orders, notifications, or interruptions from supervisors & higher management are low. Employees' opinions & suggestions regarding how the working environment & methods can be improved are considered, and multiple renewals in technical solutions & licensing begin as initiatives recommended from employees. (Interviewee 8)

The case company reacts to modernizing information technology solutions by both using internally & selling to customers cloud-based SaaS-solutions, because these can be used everywhere with a working & occasionally secured internet connection. Apart from physical work & on-site premise visits, there is currently nothing in daily work that requires physical office presence. (Interviewee 1)

4.2.2 Self-direction Supportive Best Practices

The IT unit supervisor occasionally shares leadership roles & responsibilities to subordinates to ease own schedule & workload. This is a supported best practice in projects, and the employee is trusted to follow it because shared leadership in the IT unit is based on trust, rather than leadership as a concept (Interviewee 8). During on-site premise visits, the employee can recognize business opportunities in the customer environment that the supervisor does not know about and make predictive decisions that can lead to additional income for the case company (Interviewee 7).

Each employee in the IT unit has voluntary business responsibility and is trusted to sell hardware & software solutions to customers independently (Interviewee 7). Employees acting as key customer IT representatives have added sales responsibility possibilities to provide services for customers without managerial approval (Interviewee 3). The case company promotes business responsibility to its employees by showing how it is handling financially, and what the common financial goals are. Even if voluntary, IT unit employees are required to be able to tell the customer how the case company serves them (Interviewee 8).

The case company does not practice cultural experiment in the form of the Advice-process, but each employee in the IT unit is allowed to initiate experiments up to the point where a final decision is to be made: the IT unit's supervisor or higher management always decide the outcome (Interviewee 8). Experiments in forms of recognized improvement areas are always listened & acted upon if deemed significant or possible (Interviewee 7).

4.2.3 Self-direction Supportive Solutions

The case company's IT unit does not currently use or utilize self-direction supportive technical solutions.

The IT unit employee's personal productivity data is not gathered at any level for exploring new or smarter ways of working. The only gathered data is working hour marks for invoicing reports, and this data is not used for analyzing personal productivity data but team-based results. (Interviewee 2)

4.3 Key Findings from the Current State Analysis

The key findings from the current self-direction supportive practices in the case company's IT unit are divided into three categories: values, best practices, and solutions. All findings are based on the employees' own perceptions, as none of the practices is pre-defined in the case company's regulations. The following sub-section analyzes results related to definitions in the conceptual framework.

4.3.1 Values

Values analysis focuses on the IT unit employees' perceptions about individual capabilities, responsibilities, identified & supported structures, and reactions to a changing business environment. According to the current state analysis survey results, 87,5% of the survey participants identify themselves as self-directed employees: they can perform without external guidance & control, are self-motivated to perform daily work without coercion, understand what target self-direction is aimed at, and have necessary expertise to reach the common goal established by the case company. 12,5% of the

survey participants identify themselves as partially self-directed, and one employee motivates the choice as follows:

I am self-directed when I know all changing factors in my work assignments, and the overall picture is clear. If something surprising comes along and is not documented or has a clear action plan, I cannot work independently but must take the matter forward to my supervisor. *(Survey Participant)*

According to the CSA survey results, 100% of the survey participants identify themselves as capable to affect their own work by asserting goals individually, define where and how the work will be performed, agree of the division of labor with colleagues, and make individual decisions without approval from higher management. 100% of the survey participants support affecting their own work according to these actions, and all recognize the knowledge of their strengths & areas of improvement to practice self-direction.

Self-direction can be talked about in various contexts & several perspectives, but it is not an active subject in the IT unit (Interviewee 1). Promotion and usage of self-direction supportive methods & thinking are not documented, and there are no official practices supporting these. Because rapid decision-making & agile performance is supported, employees have either always been or become self-directed in their current job title (Interviewee 4). The IT unit interaction with the supervisor is dynamic and supports agility in one-time events, decision-making, project management, and measurements. On the contrary, static measurements practiced by higher management do not affect the individual's daily work (Interviewee 5).

Almost all employees in the IT unit have a specialty area where to make individual decisions. All the decisions in these areas are trusted, and do not require further approval from the unit's supervisor or higher management. (Interviewee 8)

The IT unit has fixed roles & responsibilities that are not specified for one employee but change according to need & availability. Roles such as being a key customer representative, project manager, software or hardware specialist, procurement manager, or on-site personnel for customers are either undefined or shared roles that are agreed upon among the employees in the IT unit. Larger roles, such as Human Resources (HR) activities, are shared among supervisors. (Interviewee 7)

According to the CSA survey results, 62,5% of the survey participants identify themselves to be following the inclusive organization structure, where traditional structures are organized by higher management & heavily self-directed personnel, employees are self-motivated & have small enough limitations to perform daily work how they want to, and employees have supervisors to report to but management work as mentors & encouragement instead of having a traditionally controlling position. 25% of the survey participants identify themselves to be following the co-organized organization structure, which supports complete self-direction & self-organization in management & hierarchies.

The lack of role specifications cause challenges when trying to work in a self-directed manner: there is not an environment or documentation to investigate whom in the case company is responsible or has knowledge of a specific area, software or hardware, or niche practices. The IT unit only know their own unit clearly, because of asking colleagues continuously for specific information. The overall company hierarchy is siloed, and each service area have own production cells that are independent from other units. (Interviewee 5)

According to the CSA survey results, 50% of the survey participants support an organizational structure without chains of command, hierarchies, fixed roles, or specific supervisors in exchange for freedom & as minimal limitations as possible to organize one's own work, but without having autocracy. 37,5% of the survey participants partly support this, and one employee motivates the choice as follows:

Some amount of hierarchy is always required; otherwise, anarchy will appear in the working environment. A commonly unruled work democracy leads often to employees doing what they want, which is not always beneficial for the paying customer. Regardless of the organization structure, the customer value & the own company's received benefits should always be a priority. (*Survey Participant*)

According to all interviewees, there are currently no command chains, company hierarchies, fixed roles, or employee or supervisor positions that are unnecessary in the case company. The chains of command in the IT unit are practically non-existent and are referred to as responsibility areas instead. Personnel changes has led to both less roles to fill or added responsibilities & different methods of working. These changes have not affected the interviewees' notions to change their daily work methods.

According to the CSA survey results, 87,5% of the survey participants support that chain of command is not forced upon the employee but is used as an incentive to tailor hierarchies as seen fit to different situations.

All interviewees agree that their current job titles have already enough autonomy in how to perform daily work, and that increased autonomy would not make a meaningful difference anymore. The current amount of autonomy recognizes higher management and does not release any responsibility but ensures that more actions are finished (Interviewee 8).

The IT unit has no agreements, rules, minimal requirements & builds, or overall framework in how to practice autonomy in daily work. The employee must personally manage how autonomy affects own & others' work, which has shown diminishing results in shared documentation responsibilities & information flow among team members (Interviewee 5). The individual employee might personally ensure that new or existing information has been updated in the Customer Relationship Management (CRM) database or cloud-based knowledge base system, but the information can become incorrect or obsolete if a colleague has not ensured one's own documentation updates (Interviewee 4). In certain circumstances own work is disrupted by having to re-evaluate other colleagues' work due to lack of documentation and backtrack through information in the CRM to find correct information or solutions (Interviewee 2).

Having a framework in practicing autonomy is supported in the IT unit, as goal setting, orders from supervisors, and more specific roles would make own working easier by having certain limits. Employees can have a supervisory position during projects, but delegating responsibility to other colleagues occasionally proves difficult due to lack of constraints & not having the supervisor's authority level. (Interviewee 3)

If the employee requests a change to anything that would affect own work & how to perform it, the supervisor always listens and takes actions if possible (Interviewee 6).

When asked in the current state analysis interview what are 1-3 biggest recurring challenges when performing daily work, the interviewees listed in total nine (9) recurring events.

Table 5 shows the biggest recurring challenges when performing daily work in the IT unit, with the summarized amount of similar mentions.

Table 5. Biggest recurring challenges when performing daily work in the IT unit, with summarized amount of similar mentions (Appendix 1, Question 7, 2020).

RECURRING CHALLENGE	TIMES MENTIONED DURING INTERVIEW
▪ Uneven documentation causes unnecessary backtracking & improvisation	▪ 5
▪ No established project-related practices cause unnecessary or repeated steps	▪ 4
▪ Obsolete documentation platform causes scattered documentation and difficulty to find right information	▪ 3
▪ Only one expert in specific area causes pauses in service if the expert is unavailable	▪ 3
▪ Unclear workflows cause lack of responsibility & teamwork-planning	▪ 3
▪ Fractured customer service processes cause challenges in administering customer relations	▪ 2
▪ Lack of predictive analytics cause difficulties in predicting upcoming workloads	▪ 2
▪ Unbalanced order management knowledge causes unnecessary improvisation in order management	▪ 1
▪ Unclear order processes with niche products due to lack of responsible persons	▪ 1

The interviewees motivate the recurring challenges listed in Table 5 as follows:

- Uneven documentation: the most common recurring challenge in the IT unit. Overall, the documentation in CRM & knowledge base is good, but there is often non-existent information about customers' technical environment details, software instructions, system documentation, and best practices to solve specific tasks or issues. As administrators, employees are expected to know about specifics from the customer perspective.
- No established project-related practices: project-related leading & forward-motioning practices are missing and hinders the possibility that everything is

completed at once. Lack of transparency in larger projects can lead to project members do unnecessary or repeated steps: missing information or undefined metrics become visible in invoicing, as a project member forgets to add necessary information or does not know how to add it.

- Obsolete documentation platform: the CRM documentation platform's features do not follow current structure trends and is not in popular use. The documentation is scattered through current & old platforms and causes uncertainty in where to find specific information. An official documentation knowledge base is missing.
- Only one expert in specific area: internal expertise is more focused on certain employees, which causes issues in performing daily work and scheduling. If the expert is unavailable, services & expertise cannot be provided in that given time.
- Unclear workflows: previous employees' work have become others', but responsible persons & work processes have not been established for these. Clear workflows are not visible and causes difficulties in planning teamwork.
- Fractured customer service processes: many customers are served with similar products, services, and practices, but instead of following one establishment or template, many customers have different environments & solutions. Administering these cause unnecessary challenges, as everyone has different rules of management. Customer visibility & cohesiveness is often unclear, and the IT unit is missing tools to administer these.
- Lack of predictive analytics: there are no clear metrics & visibility for predicting financial situations and amount of work for coming months.
- Unbalanced order management knowledge: overall lack of knowledge in order management among employees causes improvisation instead of everyone handling orders in a similar way.
- Order processes unclear with niche products: certain programs & licenses' order processes are unclear because these processes are rarely repeated and have no responsible person to handle.

The majority of the recurring challenges listed above are examples of results caused by not having fixed roles & responsibilities, lack of role specifications, lack of a framework in practicing autonomy, and not following the same organization structure in the IT unit.

According to Interviewee 8, the case company's reactions to the changing operation & business environment has not led to big changes in the employees' working practices during the past three years, because most of the customers want conservativeness, and their business environment do not evolve as rapidly as the IT industry itself does (Interviewee 8). The employees' agile working methods have always been supported & any changes have never been required (Interviewee 1). The increasing possibility for voluntary remote working has led to more self-directed working in the IT unit: as the entire physical work office environment's tools & practices cannot be recreated in a cloud-based environment, employees need to make individual decisions & utilize creative thinking in daily work (Interviewee 3).

The case company's reactions to the changing nature of working has not led to big changes in the employees' working practices during the past three years, because creative expertise & independent decision-making have always been supported. The necessity for these factors is needed to provide diverse customer service & consultation in IT and on-site premise visits, but the need for more creativity has not grown in the IT unit. (Interviewee 2).

The case company's reactions to modernizing information technology solutions shows visible results in the IT unit: providing cloud-based SaaS-solutions to customers have increased in the past three years, and the knowledge for administrating & selling these has become more important. The provision & procurement of SaaS-solutions are up to date with the competition in the IT industry, but effective selling methods are lacking because the IT unit does not have assigned system specialists & clear documentation for each solution. (Interviewee 1). The case company has changed suppliers & vendors to be able to provide competitive prices to customers (Interviewee 6).

Internally, the reactions to implement new technologies are slow. The IT unit's used solutions are partially up to current standards: according to all interviewees, the CRM system should be updated to enhance transparency in the whole organization, and some systems, such as the remote control portal, work as a complete package but are difficult to use. Solutions change, but the lack of rapid changes causes specific services to

become static, which diminishes decentralization both in the IT unit and customer services (Interviewee 5). Transparency in customer errands, ticketing, division of labor, and daily invoicing would improve the employee's self-direction in the IT unit and diminish communication chains between employees & management (Interviewee 7).

When listed in the CSA survey if specific challenges have affected own work during past organizational structure changes, the interviewees listed in total five (5) challenges. Table 6 lists challenges that have affected the IT unit employee's work during past organizational structure changes, with the summarized amount of selections.

Table 6. Challenges that have affected the IT unit employee's work during past organizational structure changes. (Appendix 2, Question 8, 2020)

CHALLENGE	TIMES SELECTED IN SURVEY
▪ The change is unfinished: all necessary customs not changed	▪ 5
▪ Lack of management pressure leads to not getting anything done	▪ 4
▪ The purpose is lost: external objectives conflict with own identity & purpose, leading to value conflicts within employees	▪ 3
▪ The change is done too fast, ignoring own time requirement to change work behavior	▪ 1
▪ Personnel size increases working difficulty	▪ 1
▪ None	▪ 1

As seen from Table 6, the most common challenge the case company IT unit employees have faced during organizational changes is that changes are left unfinished, because all necessary customs have not been changed to complete them. Lack of management pressure to get things done & the organization having conflicts in keeping the changes' purposes relevant are other common challenges.

The following sub-section analyzes results related to best practices in the conceptual framework.

4.3.2 Best Practices

Best practices analysis focuses on what current possibilities employees in the IT unit have in practicing self-directed working, and how these best practices' necessities are perceived. According to all interviewees, added amount of shared leadership possibilities would not overall make own work easier in the current job position, and none of the employees is looking to get more leadership roles. Sharing leadership is more visible in projects than in daily customer service assignments (Interviewee 1).

According to the CSA survey results, 50% of the survey participants agree that individual leadership & the possibility to practice it has not affected their daily work. 37,5% of the survey participants state that the best practice has affected their daily work.

Most employees in the IT unit do not have previous project management experience but suspect that leadership responsibilities would be allowed if voluntarily signed up. Taking additional leadership responsibilities should be noticed with a compensation, because having more demanding roles without benefit is not a supported best practice in a healthy work environment (Interviewee 3).

According to the CSA survey results, 37,5% of the survey participants identify that the leadership model they currently follow is *spreading leadership across levels over time*, where leadership varies from employee to employee to perform a task. 25% of the survey participants identify that they follow *sharing leadership for team effectiveness*, where tasks are divided among team members who guide own teamwork & each other. Another 25% of the survey participants identify that they follow a leadership model where *leadership is produced through interactions*, which supports self-direction as leadership is formed through relationships.

Traditional customer service-oriented IT unit employees practice business responsibility occasionally in small-scale hardware & software sales. It is unclear how much responsibility exists, what the structure & strategy is to follow accurate usage of it, and what minimal requirements are for a legitimate decision, as these are not documented anywhere (Interviewee 5). According to the CSA survey results, 50% of the survey participants identify that the case company does not have criteria to pass for a business decision to be allowed to be made.

Most of the interviewees do not find added business responsibility necessary to perform daily job assignments, and according to the CSA survey results, 37,5% do not think that added amount of business decision authority would make own job easier in the current job position. Taking additional business responsibilities should be noticed with a commission, because having more demanding roles without benefit is not a supported best practice in a healthy work environment (Interviewee 1).

According to the CSA survey results, 62,5% of the survey participants are encouraged to use common thinking & understanding in business responsibility in daily work, and 50% identify that they are allowed to make business decisions individually in daily job assignments.

IT unit employees managing projects and serving as key customer IT representatives have not volunteered for their positions but been assigned with more business responsibility on a wider scale: they can affect the case company's product catalogue without managerial approval. (Interviewee 3).

Promoting business responsibility is a current challenge in the IT unit, as common company & financial goals need enhancement: internal metrics & milestones are confused with customer-oriented metrics (Interviewee 7). There are currently no solutions in use to create visibility on real-time income of the case company (Interviewee 8).

According to the CSA survey results, 50% of the survey participants agree that cultural experimenting is currently allowed in the IT unit. 25% of the participants partially agree to this, and one employee motivates the choice as follows:

I do not know, maybe. Discussing and agreeing with the supervisor or stakeholders is at least fine but making a final decision regardless of others' opinions might be a barrier depending on the decision subject. (Survey Participant)

According to the CSA survey results, 50% of the survey participants state that using the Advice-process is currently not allowed in the IT unit. 25% of the participants partially agree to this, and one employee motivates the choice as follows:

The Advice-process can be used on a case-by-case basis if the task so permits. However, some tasks are so routine that the Advice-process is not needed, and

it may even hamper effective advancement if used too much. (*Survey Participant*)

Practicing cultural experimenting in the form of the Advice-process raised skepticism in all interviewees, because voluntary experiment initiating leads to added responsibility. For experimenting to work, self-direction should be clearly established in not only the IT unit, but also the whole organization, and the best practice should have a framework to make it worth having & working (Interviewee 7). If cultural experimenting became an established & used practice, it could risk taking over common processes (Interviewee 8).

The majority of the interviewees stated that cultural experimenting would not make own work easier, but it might make overcoming non-specific obstacles faster, and would promote good leadership in the organization, as long as the current job assignments are not negatively affected. According to the CSA survey results, 50% of the survey participants think that using the Advice-process would not make own work easier in the current job description.

The following sub-section analyzes results related to technical solutions in the conceptual framework

4.3.3 Solutions

Solutions analysis focuses on what technical utilization capabilities employees in the IT unit have in practicing or measure self-directed working, and how these solutions' necessities are perceived. According to the CSA survey results, 62,5% of the survey participants do not use self-direction supportive technical solutions, web-based platforms, or software, in their daily work. 62,5% support using LaaS or similar management service model platform tools to enhance the work environment in the organization. 37,5% of the survey participants partially agree using these tools, and one employee motivates the choice as follows:

It is difficult to verify solutions like LaaS before getting to know & use portal services such as these. They will not facilitate or promote my work if they become a mandatory, extra, or a time-consuming burden. If they can be flexibly & possibly transparently adapted to every-day work tasks, then they may improve the work environment. (*Survey Participant*)

According to the CSA survey results, 37,5% of the survey participants support MyAnalytics or similar tools using AI-based practices & suggestions to make one's own

work easier. 50% do not support using these, and one employee motivates the choice as follows:

Because these analyses provided by AI-based applications do not know me as a person, they can justify their recommendations solely based on how I have used a few IT tools in my work. However, since I strive to ensure that my identity is not entirely just a matter of my work, I cannot quite believe in such tools. *(Survey Participant)*

Currently, gathering & analyzing the IT unit employee's personal productivity data to explore different or smarter ways to work is not possible, because tools for gathering & analyzing productivity data is not in use. Necessary productivity data might already exist, but it lacks transparency, and is not broad enough for a small organization like the case company to analyze. Additionally, utilizing this data would require a framework to ensure that correct productivity metrics are evaluated to avoid wrong conclusions, and that stalking culture would not be born within the organization. (Interviewee 7)

All interviewees support gathering productivity data & making it transparent in the whole organization if visibility would affect the employee's self-direction & motivation for ticketing daily work in the CRM. The results should be presented regularly within the whole organization, and productivity data could be made more competitive with a bonus or compensation for best performance within a period (Interviewee 3).

All interviewees stated that the IT unit's current technical solutions cause only small challenges when trying to perform daily work independently: aside from common, but solvable, technical issues, obsolete or non-existing documentation about internal & customer environments hinders self-directed working. From the supervisor's perspective, having a BI-solution to show the IT unit's whole picture & added transparency would improve predicting and analyzing work assignments.

All current state analysis results are summarized with a list of the current self-direction practices' strengths & weaknesses in the following sub-section.

4.3.4 Strengths and Weaknesses of Current Self-direction Practices

Table 7 visualizes the current strengths & weaknesses of the IT unit self-direction practices in a list, color-categorized in their respective areas.

Table 7. Current strengths & weaknesses of the IT unit self-direction practices color-categorized in their respective areas.

	STRENGTHS	WEAKNESSES
INDIVIDUAL & ORGANIZATIONAL VALUES	<ul style="list-style-type: none"> + Self-direction concept well established + Employees are capable to be self-directed + Agile organization practices supported + High autonomy in performing own work + Can affect own work & how to perform it + Independent & remote working supported + Employees' opinions listened to + Creative thinking & independent decision-making supported + No unnecessary hierarchies & roles 	<ul style="list-style-type: none"> - No official documented self-direction practices - Many undefined or shared roles - Not all identify following same organization structure - Lacking responsibility matrix - No framework in practicing autonomy - No documentation responsibilities - Obsolete documentation platform - No project-related practices - Only one expert in specific area - Unclear workflows - Fractured customer service processes - Lack of predictive analytics - Order management & processes unclear - Lacking transparency in CRM
SELF-DIRECTION SUPPORTIVE BEST PRACTICES	<ul style="list-style-type: none"> + Voluntary shared leadership supported + Voluntary business responsibility supported + Partial cultural experimenting supported 	<ul style="list-style-type: none"> - No compensation for additional leadership - Not all identify following same leadership model - No framework in practicing business responsibility - No compensation for additional responsibility - Lacking visibility on common financial goals & real-time income - No framework in practicing cultural experimenting
SELF-DIRECTION SUPPORTIVE SOLUTIONS	<ul style="list-style-type: none"> + Management service model platforms mostly supported + Gathering productivity data supported + No considerable technical challenges in working independently 	<ul style="list-style-type: none"> - Few self-direction supportive solutions in use - Personal productivity data not used for result improvement analysis - Productivity data tools not in use - Productivity data transparency lacking - AI-based practices & suggestions improvement tools mainly not supported

As the analysis revealed, the individual and organizational values are supportive of self-direction: as the case company has been researching the concept, it has already become a part of the company's identity. The employees in the IT unit identify themselves to be self-directed, and are capable to find improvement requirements in themselves, if necessary. Overall, agile methods & rapid decision-making are supported in the employee's daily work assignments, which allows to improvise how & when work is performed. The employee's independency to work is further supported by allowing flexible remote working. The IT unit employee has high autonomy in organizing & performing own work if customer service quality & time constraints will not diminish. Command chains are not particular & strict but are referred to as responsibility areas, and there are currently no unnecessary hierarchies, fixed roles, and positions in the IT

unit. The employee's opinions & suggestions are listened to, which promotes the individual's creative thinking & idea ball parking with the supervisor.

The case company IT unit has self-direction supportive best practices in use, up to a point. Having the possibility to take leadership positions and business responsibility in projects to steer own ideas & decisions supports self-direction. Partial cultural experimenting is also supported to innovate and try something new. All best practices are voluntary.

The case company IT unit does not use self-direction supportive technical solutions currently, but the employees support them if used for constructive purposes. There are no considerable challenges with the current technical solutions when working independently.

The individual and organizational values might be supportive of self-direction, but they cause challenges for the employee who tries to work self-directed daily. The largest recurring barrier to perform job assignments independently is documentation or lack thereof: self-direction may be supported, but the employees have become self-directed by themselves, not as documented guidelines by the organization. There are many undefined roles in the IT unit, or shared roles without established responsible persons. In addition, there is also one expert in specific areas, which causes service issues when the person is not reachable. A responsibility matrix is missing, and there are no established documentation responsibilities. There is no framework in practicing autonomy, which leads to employees performing work how one sees fit, but without documenting anything for colleagues. Another reason for lacking documentation is that the documentation platform is obsolete, and this should be updated or renewed.

The IT unit employees do not collectively agree on what organization structure they are following, which hinders creating a general understanding on shared practices & processes. There are no established project-related practices, and this can lead to either unfinished details or unnecessarily repeated actions in the project. Another reason for this is that there are unclear workflows, fractured customer service processes, and unclear processes in order management.

There is a lack of transparency in many areas of the IT unit, which hinders self-directed working: visual project-tracking, workflow visibility, predictive analytics to analyze IT unit

& organization financial performance, and customer relationship management could be more transparent.

Self-direction supportive best practices are partially supported in the IT unit, but these are not very known about. There are no frameworks in practicing business responsibility & cultural experimenting. Even if these are voluntary, employees are not highly motivated to practice them because there is no compensation for taking added responsibility. When compared to the 3x2-thought, criteria for a passable business responsibility decision is not established in the case company. Additionally, when compared to the Advice-process, there are limits in making decisions in cultural experimenting.

The IT unit employees do not collectively agree on what leadership model they are following, which hinders creating a general understanding on shared practices & processes.

There is currently low enthusiasm to utilize self-direction supportive technical solutions in the IT unit. These are mostly supported, but the trust in them is low due to lack of evidence for their purpose. There are currently no productivity data gathering tools in use, and the data transparency is largely lacking. The data that might exist is not currently used for improving the employees' working from any perspective.

Selected focus areas for the initial proposal in Section 5 of this study are selected from the strengths & weaknesses list in Table 7.

4.3.5 Selected Focus Areas

The selected focus areas for the initial proposal of this study were discussed with the case company's IT Production Director, by the author's initiative. The outcome of the discussion led to the conclusion that none of the weaknesses listed in Table 7 are critical for the IT unit's daily business' survival, but incrementally improvable attributes. The initial proposal was selected to be a change enablement framework, where multiple identified weaknesses in individual & organizational values and self-direction supportive best practices can be improved or removed completely. Self-direction supportive solutions are not concentrated on due to current lack of necessity & interest in the IT unit. Building the change enablement framework as the initial proposal for the case company IT unit is conducted in Section 5 of this study.

5 Building Proposal for Change Enablement Framework for the IT Unit

This section focuses on building an initial proposal for a change enablement framework for the case company IT unit, which supports self-direction practices. The framework is based on the literature review in Section 3, and interview & survey answers for the current state analysis in Section 4. The section begins with an overview of how the initial proposal building was planned, conducted, and implemented. The overview is followed by the description of the ITIL 4 framework & Change Enablement process, which is utilized in building the initial proposal. The descriptions are followed by development of two change processes, which construct the change enablement framework. The section ends with the initial proposal for a change enablement framework for the case company's IT unit. This motivates the evaluation and improvement choices that are analyzed & implemented with a final proposal & validation in Section 6 of this study.

5.1 Overview of the Proposal Building Stage

The goal of the proposal building stage was to develop a change enablement framework for the case company IT unit, which utilizes values & best practices established in the literature review, and supports strengths established in the current state analysis, while improving on selected weaknesses.

Planning the initial proposal began with a discussion with the IT Production Director in the company premises, who had read Section 4 of this study. The aim of the discussion was to concentrate on strengths & weaknesses established by the current state analysis, summarized in Table 7. The discussion ended with an agreement that the proposal will promote individual & organizational values, and self-direction supportive best practices. Self-direction supportive solutions are not concentrated on due to current lack of necessity & interest in the IT unit.

The discussion results construct Data 2 focus of this study, and the selected focus areas for the initial proposal are summarized in Table 8 below.

Table 8. Summarized selected focus areas for the initial proposal.

	STRENGTHS	WEAKNESSES
INDIVIDUAL & ORGANIZATIONAL VALUES	<ul style="list-style-type: none"> + Employees are capable to be self-directed + Agile organization practices supported + High autonomy in performing own work + Can affect own work & how to perform it + Employees' opinions listened to + Creative thinking & independent decision-making supported + No unnecessary hierarchies & roles 	<ul style="list-style-type: none"> - Many undefined or shared roles - Lacking responsibility matrix - No documentation responsibilities - Obsolete documentation platform - Only one expert in specific area - Unclear workflows - Lacking transparency in CRM
SELF-DIRECTION SUPPORTIVE BEST PRACTICES	<ul style="list-style-type: none"> + Voluntary business responsibility supported + Partial cultural experimenting supported 	<ul style="list-style-type: none"> - No framework in practicing business responsibility - No framework in practicing cultural experimenting

As seen from Table 8, focus areas for the initial proposal are promoting self-direction, autonomy, creative thinking, and independent decision-making. Another focus area is to improve responsibility, documentation, workflows, and CRM transparency, while providing guidelines for practicing business responsibility & cultural experimenting. In the discussion, the IT Production Director requested developing a change enablement framework for the IT unit. The subject was agreed upon as the initial proposal unanimously. The rationale guiding this choice are summarized in following key points, collectively chosen by the IT Production Director & the author:

- The change enablement framework supports self-direction, as the IT unit employee can autonomously use it as seen fit, thus affecting own work & how to perform it.
- The framework supports agile working methods and will be developed by leveraging existing agile solutions.
- Initiating a change process promotes that the employee is listened to by higher management. In addition, individual initiation removes necessities for additional hierarchies & roles.

- Initiating a change process allows implementation of business responsibility & cultural experimenting practices, as the employee can propose something new, or improve existing areas. Rules & responsibilities like the 3x2-thought & Advice-process can be established in the framework to ensure that the change process supports an administrative mentality for the IT unit employee.
- The change enablement framework gives every IT unit employee same documentation responsibility.
- The change process will require assigned responsibility, and will diminish undefined & shared roles, and having only one expert in a specific area.
- Responsible & regular use of the change enablement framework will create clearer workflows in the IT unit.
- Responsible & regular use of the change enablement framework will create more transparency if documentation in the CRM & knowledge base are handled correctly, allowing more self-directed working for own self & colleagues. (IT Production Director and Author.)

The discussion continued by collectively agreeing that the change enablement framework would be based on the ITIL 4-framework & guidelines. The case company has plans in using ITIL-guidelines in its business practices, making the change enablement framework a timely solution. 50% of the IT unit personnel have the ITIL 4 Foundation Certificate in IT Service Management, author included.

The discussion ended by agreeing on the scale in which the proposal would be tested: the initial proposal is not tested in the IT unit, because the framework is not considered tangible enough for instant implementation. Instead, the final proposal is reviewed on a managerial level, and its future implementation reviewed among all service area managers in the case company. The Chief Executive Officer and IT Production Director agreed that they would validate the proposal.

The next phase in building the proposal was to select how the framework would be developed. This study focuses on developing two change processes: standard change

and normal change. The IT Production Director recommended during the discussion that any critical changes would not be focused on in the framework.

The final phase of building the proposal was to summarize the change processes in a framework, which constructs the initial proposal. The summarization was visualized with Miro, a free web-based whiteboard platform. Existing framework & guidelines utilization for developing the change enablement framework are described in the following sub-section.

5.2 ITIL 4

ITIL, or Information Technology Infrastructure Library, is a set of practices & guidelines that supports organizations & individuals in practicing Information Technology Service Management (shortened ITSM) and gain value from IT and digital services. ITIL guides how to use IT as a tool to aid business change, growth & transformation, and supports that IT & digital services are aligned to business needs, objectives & goals in the organization. (Axelos, n.d.)

The fourth iteration of ITIL practices, ITIL 4, was published in February 2019 to support individuals & organizations in digital transformation, process improvement, collaborative team-working, building transparency between IT & development teams, automation enablement, and integration of new or existing technologies & practices. The major change between ITILv3 and ITIL 4 is changing promoting of traditional process-led delivery to supporting rapid & value-driven delivery for individuals & organizations. (PeopleCert, 2020.)

The initial proposal utilizes one of ITIL 4's practices, change enablement, which is described in the following sub-section.

5.2.1 Change Enablement

ITIL 4 divides its practices in three categories: general management, service management, and technical management (Beyond20, 2020). Change Enablement is a service management practice that ensures that risks are well appraised, authorizing changes to proceed, and managing a change schedule to maximize the number of

successful service & product changes (Flora, 2020). Change Enablement usually focuses on changes in products & services (Mathenge and Hall, 2020).

ITIL 4 practices identify three types of change that are managed in different ways, described by Mathenge and Hall (2020) in following details:

- Standard change: a low-risk, pre-authorized change that is well known & documented, and can be implemented without further authorization. The change is often initiated as a service request but can also be an operational change. Full risk assessment & authorization is only required during creation, or adjustment due to business change or emergence of an incident.
- Normal change: a schedulable, assessable, and authorized change following a standard process. The change involves change models based on the type of roles for assessment & authorization and is initiated by the creation of a manual or automated change request.
- Emergency change: an immediately implementable change that does not follow a standard process to be resolved. Scheduling & documentation is not a priority, as the process for authorization & assessment require rapid implementation. The change authority can vary from standard or normal practices. (Mathenge and Hall, 2020.)

This study focuses on developing two change processes: standard change and normal change. The IT Production Director recommended that any critical changes would not be focused on in the framework, leaving the emergency change process out of the development process.

A change is often initiated in two ways: change proposal or request for change (shortened RFC). First, change proposal is a detailed description that includes a business case & proposed schedule of the requested change, with possible financial consequences listed. Second, request for change is a formal request that all employees in an organization can initiate if the requested change is not an emergency. (Mulders, 2020.)

To initiate a change proposal or RFC, the organization should have a standardized change request form or process to follow. Mulders (2020) visualizes an Agile-supportive ITIL 4 change request process as shown in Figure 8:

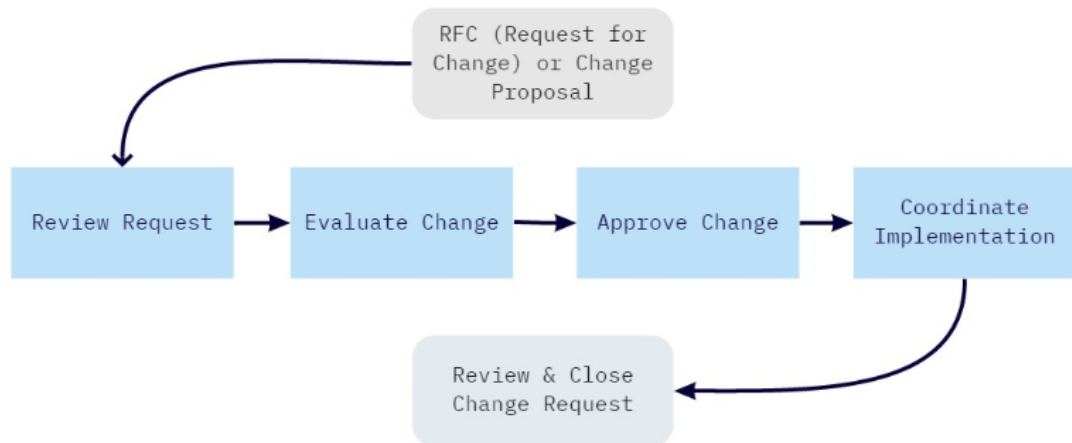


Figure 8. A standardized ITIL 4 change request process (Mulders, 2020).

The change enablement framework proposal in this study is built on the change request process visualized in Figure 8. Selected findings from the conceptual framework and selected strengths & weaknesses from the current state analysis are implemented & analyzed as a standard & normal change process. The development of these processes is described in the following two sub-sections.

5.3 Standard Change Process

The standard change is a low-risk, pre-authorized change that is well known & documented, and can be implemented without further authorization in the IT unit. The purpose of the process is to use it for any changes or additions in the IT unit's business environment. According to the IT Production Director, the process should be easy to use & streamline in the ITIL 4 change request process implementation, as it is to be used as often as daily.

The IT Production Director suggested selected strengths & weaknesses from the current state analysis to promote & improve in the standard change process. The suggestions construct Data 2 of this study, and Table 9 below summarizes the suggestions in relation to the conceptual framework.

Table 9. Data 2: Selected S&Ws from the CSA for the standard change process in relation to the CF, suggested by the IT Production Director.

KEY FOCUS AREA FROM CSA	SUGGESTIONS FROM THE IT PRODUCTION DIRECTOR	DESCRIPTION OF SUGGESTIONS	INPUT FROM LITERATURE (CF)
<ul style="list-style-type: none"> Employees are capable to be self-directed 	<ul style="list-style-type: none"> No established rules & regulations are necessary for using standard change process 	<ul style="list-style-type: none"> As all employees in the IT unit identify being self-directed, the IT Production director does not see rules & regulations as a priority to focus on 	<ul style="list-style-type: none"> With self-motivation, individual goal setting & self-knowledge identified, clear requirements are already identified & established
<ul style="list-style-type: none"> Agile organization practices supported 	<ul style="list-style-type: none"> Utilize ITIL 4 framework & guidance for Change Enablement practices to verify that practicing agility is handled correctly 	<ul style="list-style-type: none"> As the case company aims to utilize ITIL 4 practices in business environment incrementally, and 50% of IT unit members have the ITIL 4 Foundation Certification, an agile change management framework is timely 	<ul style="list-style-type: none"> Develop the framework using the socio-technical approach
<ul style="list-style-type: none"> High autonomy in performing own work Can affect own work & how to perform it 	<ul style="list-style-type: none"> Promote voluntary responsibility in practicing the change process 	<ul style="list-style-type: none"> As the case company allows the IT unit employee to perform daily work autonomously, make the change process voluntary for use, but pinpoint that practicing responsible change management helps colleagues to work more self-directed 	<ul style="list-style-type: none"> Follow self-direction supportive, co-organized organization structure: The employees can affect the content of the work and how it will be done, but operational development is everyone's common responsibility
<ul style="list-style-type: none"> No unnecessary hierarchies & roles 	<ul style="list-style-type: none"> Promote voluntary responsibility in practicing the change process 	<ul style="list-style-type: none"> As the case company allows the IT unit employee to perform daily work autonomously & creatively, pinpoint that practicing responsible change management removes unnecessary hierarchies & roles to clean up others' messes 	<ul style="list-style-type: none"> Follow self-direction supportive, co-organized organization structure: The personnel are self-motivated, and the management and hierarchies are almost completely absent

<ul style="list-style-type: none"> ▪ Many undefined or shared roles ▪ Lacking responsibility matrix ▪ Only one expert in specific area ▪ Unclear workflows 	<ul style="list-style-type: none"> ▪ Ensure that a change has a responsible person or area, and that workflows become more visible 	<ul style="list-style-type: none"> ▪ Whether changing something existing or requesting new change, the change must have an assigned and/or consulted person or area, and this must be documented in CRM or knowledge base. This ensures that responsibility role exists for a person or unit, responsibility is visible in documentation for all IT unit employees, and that the right person or unit is contacted for advice or teamwork 	<ul style="list-style-type: none"> ▪ Follow self-direction supportive leadership model: Producing leadership through interactions. Leadership is united in what employees do, practices, co-operation, communication, and power & influence relations. Leadership here is not a person, role, or individual, but a plural realized through interactions and structures of many employees in the organization
<ul style="list-style-type: none"> ▪ No documentation responsibilities 	<ul style="list-style-type: none"> ▪ Ensure that all changes are documented responsibly, and that workflows become more visible 	<ul style="list-style-type: none"> ▪ Whether changing something existing or requesting new change, the change must be documented in CRM or knowledge base. This ensures that responsibility role exists equally for all IT unit employees, and responsibility is visible in documentation for all IT unit employees. Responsible documentation allows the employee to work more self-directed, because advice & help is not needed if documentation exists in specific circumstances 	<ul style="list-style-type: none"> ▪ Follow self-direction supportive leadership model: Producing leadership through interactions. Leadership is united in what employees do, practices, co-operation, communication, and power & influence relations. Leadership here is not a person, role, or individual, but a plural realized through interactions and structures of many employees in the organization
<ul style="list-style-type: none"> ▪ Obsolete documentation platform ▪ Lacking transparency in CRM 	<ul style="list-style-type: none"> ▪ Ensure that all changes are documented responsibly, creating a cohesive & transparent documentation platform 	<ul style="list-style-type: none"> ▪ Whether changing something existing or requesting new change, the change must be documented in CRM or knowledge base. This ensures that the documentation platform becomes cohesive and easier to handle & navigate. A functioning documentation platform allows the employee to work more self-directed, because advice & help is not needed if documentation exists in specific circumstances. Also, functioning documentation creates transparency in the IT unit, because visible documentation changes keeps every employee up to date 	<ul style="list-style-type: none"> ▪ Follow self-direction supportive leadership model: Producing leadership through interactions. Leadership is united in what employees do, practices, co-operation, communication, and power & influence relations. Leadership here is not a person, role, or individual, but a plural realized through interactions and structures of many employees in the organization

As seen from Table 9, developing the standard change process implementation in the ITIL 4 change request process has seven (7) main criteria areas suggested by the IT Production Director, and these are summarized in the following key points:

- As the IT unit employees identify themselves to be self-directed, there are no necessities to establish rules & regulations to the change process. These could prevent enthusiasm to begin practicing change enablement.
- The change process should be developed following the socio-technical approach: follow ITIL 4 framework & guidelines in the form of Change Enablement practices to ensure that the process follows agile organization practices, because the IT unit's business environment is planned to become incrementally supportive of ITIL 4 guideline utilizations. In addition, the change process should be dependent on creative expertise & independent decision-making by not having limits for use. Finally, the process could provide decentralized structures in change enablement if it does not need continuous involvement from management.
- As the IT unit employees already have high autonomy & personal allowance to affect how own work is performed, the change process should be promoted as voluntary to use. This further promotes the process as a possibility rather than a necessity. However, the change process should be encouraged for usage: it might limit self-directed working if obligatory to use, but completing a change process allows colleagues to work more self-directed because a visible change keeps their work environment up to date. This decision promotes a self-direction supportive, co-organized organization structure, and the IT unit should follow it.
- Although voluntary, the change process should have established requirements in reviewing, evaluating, approving, and coordinating a change. Using these makes a change have ownership & thoroughness that delimits having to revisit the change process for gathering information. The requirements remove unnecessary hierarchies & roles in change enablement in the future if used correctly. This decision promotes a self-direction supportive, co-organized organization structure, and the IT unit should follow it.

- Whether changing something new or existing, every change should have an established responsible person or service area in the change process. This establishes defined roles and specific area experts in the IT unit, while creating clearer workflows in repeated process initiations. All responsibility should be documented after unanimous agreement in the CRM or knowledge base to establish a clear responsibility matrix. Establishing responsibilities among colleagues promotes shared & interactive leadership. This decision promotes a self-direction supportive leadership model, and the IT unit should follow it.

- Whether changing something new or existing, every change should be documented responsibly in the CRM or knowledge base. All IT unit employees should share this responsibility to ensure that no change goes undocumented, and that the changes are visible for all. Responsible documentation allows the IT unit employees to work more self-directed, because advice & help is not needed constantly if documentation exists. Establishing responsibilities & co-operation among colleagues promotes shared & interactive leadership. This decision promotes a self-direction supportive leadership model, and the IT unit should follow it.

- In addition to shared documentation responsibilities, changing something new or existing should be documented responsibly in the CRM or knowledge base for the CRM & knowledge base platforms to become more cohesive & transparent. The platforms could become easier to handle & navigate. This allows the IT unit employees to work more self-directed, because functioning documentation creates transparency in change enablement, allowing the employees to be up to date in business environment changes. Establishing transparency in practices among colleagues promotes shared & interactive leadership. This decision promotes a self-direction supportive leadership model, and the IT unit should follow it. (IT Production Director.)

The suggestions for the standard change process are further expanded & implemented upon with the normal change process, which is developed in the following sub-section.

5.4 Normal Change Process

The normal change is a schedulable & assessable change following a standard process and cannot be implemented without further authorization in the IT unit. The purpose of the process is to use it for changes or additions that can cause effects in the IT unit, case company, or customer's business environment. Compared to the standard change process, the normal change process should have selected regulations for usage in the ITIL 4 change request process implementation, as it is to be used in business-critical circumstances (IT Production Director).

The normal change process is an expansion on the standard change process, and implements all suggestions listed in Table 9. The IT Production Director suggested additional selected strengths & weaknesses from the current state analysis to promote & improve in the normal change process. The suggestions construct Data 2 of this study, and Table 10 below summarizes the additional suggestions in relation to the conceptual framework.

Table 10. Data 2: Selected additional S&Ws from the CSA for the normal change process in relation to the CF, suggested by the IT Production Director.

KEY FOCUS AREA FROM CSA	SUGGESTIONS FROM THE IT PRODUCTION DIRECTOR	DESCRIPTION OF SUGGESTIONS	INPUT FROM LITERATURE (CF)
<ul style="list-style-type: none"> ▪ Employees' opinions listened to ▪ Creative thinking & independent decision-making supported 	<ul style="list-style-type: none"> ▪ Promote that management is involved in the process 	<ul style="list-style-type: none"> ▪ To continue promoting creative thinking & independent decision-making in the IT unit, using the change process can be used in every occasion & for every change purpose. In the end, supervisor & management will review the change request 	<ul style="list-style-type: none"> ▪ Follow self-direction supportive, co-organized organization structure: Management & personnel work together to define the common direction, and management takes a serving position to ensure that everyone involved have the best circumstances to reach the common goal
<ul style="list-style-type: none"> ▪ Voluntary business responsibility supported ▪ No framework in practicing business responsibility 	<ul style="list-style-type: none"> ▪ Promote voluntary business responsibility in practicing the process, and create guidelines for the employee to think how change affects business 	<ul style="list-style-type: none"> ▪ As the case company allows the IT unit employee to have partial business responsibility, pinpoint that using responsible change management might require to think how the change affects business by having to answer questions to pass the change request. Apply tailored version of 3x2-thought if possible 	<ul style="list-style-type: none"> ▪ Apply 3x2-thought to have employees thinking about how a business decision affects colleagues, customers, and corporate finance
<ul style="list-style-type: none"> ▪ Partial cultural experimenting supported ▪ No framework in practicing cultural experimenting 	<ul style="list-style-type: none"> ▪ Promote voluntary cultural experimenting in practicing the process, and create guidelines for the employee to think outside own comfort zones up until the final decision 	<ul style="list-style-type: none"> ▪ As the case company allows the IT unit employee to practice partial cultural experimenting, pinpoint that using responsible change management allows to think how the change affects business by having possibilities in ballparking ideas with experts of area to pass the change request. Apply tailored version of Advice-process if possible 	<ul style="list-style-type: none"> ▪ Apply the Advice-process, where the employee can make any decision after asking advice from everyone the decision will affect, and those who have previous expertise & knowledge on the matter to be decided

As seen from Table 10, developing the normal change process implementation in the ITIL 4 change request process has three (3) additional main criteria areas suggested by the IT Production Director, and these are summarized in the following key points:

- The aim of the normal change process is that changes or additions initiated by the employee that can cause effects in the IT unit, case company, or customer's business environment, should be as supported as possible for self-directed working to be possible. However, the business-altering outcome is for the

management to decide. The normal change process should involve management for approval, but the process initiator could suggest anything to improve the result and have guarantee that the suggestion is a valued opinion. Creative thinking & independent decision-making should be supported by promoting that the change process can be used on any occasion & for every change purpose. Teamwork between management & personnel to define a common direction promotes a self-direction supportive, co-organized organization structure, and the IT unit should follow it.

- To further promote the employee's self-direction, creative thinking & decision-making, the normal change process should include guidelines for the employee to think how the initiated change could affect the IT unit, case company, or customer's business environment. Voluntary, partial business responsibility should be supported by applying a tailored version of the 3x2-thought in the normal change process evaluation, if possible.
- To further promote the employee's self-direction, creative thinking & decision-making, the normal change process should include guidelines for the employee to think outside own comfort zones how the initiated change could affect the IT unit, case company, or customer's business environment. Voluntary, partial cultural experimenting should be supported by applying guidelines in ball parking ideas with experts in specific areas in the normal change process evaluation, approval, and coordination. Specific or tailored guidelines from the Advice-process can be applied, if possible. (IT Production Director.)

The standard & normal change processes are implemented in the ITIL 4 change request process visualized in Figure 8 with suggestions requested in Table 9 & 10 and visualized in a change enablement framework in the following sub-section.

5.5 Initial Proposal

The initial proposal of this thesis is visualized in Figure 9, highlighting the standard change process with grey color & added normal change process implementations with yellow color.

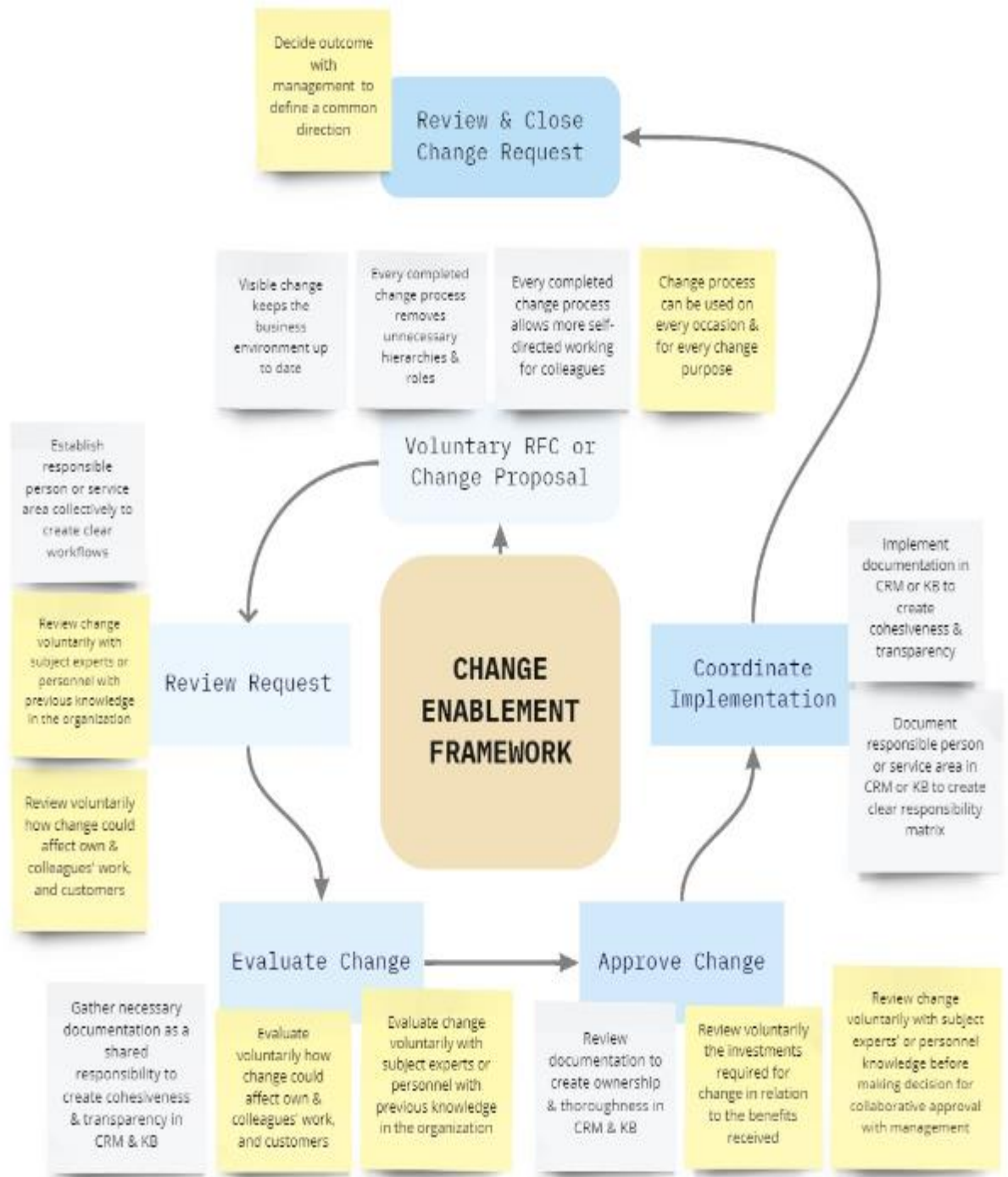


Figure 9. The initial proposal of this thesis, highlighting the standard change process with grey color & added normal change process implementations with yellow color.

As seen from Figure 9, the self-direction supportive change enablement framework is categorized in six (6) steps. The first step of the framework is to voluntarily initiate a request for change or change proposal, depending on the change purpose & detailed description of the requested change. Because of voluntariness, the framework here lists benefits in using the change process: it keeps the business environment up to date when

completed, it removes unnecessary hierarchies & roles, and it allows more self-directed working for colleagues. Additionally, creative thinking & independent decision-making in the normal change process is supported by promoting that the change process can be used on every occasion & for every purpose.

The second step of the framework is to review the change request. In this step, a responsible person or service area for the change must be established collectively between colleagues to have a common understanding of who administrates the change subject, which creates clear workflows in the unit or organization. Additionally, business responsibility & cultural experimenting in the normal change process is supported by guiding voluntary actions: following the 3x2-thought, review how the change could affect own & colleagues' work and customers, and following the Advice-process, review the change with subject experts or personnel with previous knowledge in the organization. These voluntary actions allow more thorough reviewing of a change, which might affect the evaluation step.

The third step of the framework is to evaluate the change request. In this step, necessary documentation must be gathered for the change to be conducted, and this should be a shared responsibility to create cohesiveness & transparency in the CRM & knowledge base. Additionally, business responsibility & cultural experimenting in the normal change process is supported by guiding voluntary actions: following the 3x2-thought, evaluate how the change could affect own & colleagues' work and customers, and following the Advice-process, evaluate the change with subject experts or personnel with previous knowledge in the organization. These voluntary actions allow more thorough evaluation of a change, which might affect the approval step.

The fourth step of the framework is to approve the change request. In this step, the evaluated documentation must be reviewed & approved to create ownership & thoroughness in the CRM & knowledge base. Additionally, business responsibility & cultural experimenting in the normal change process is supported by guiding voluntary actions: following the 3x2-thought, review the investments required for change in relation to the benefits received, and following the Advice-process, review the change with subject experts or personnel with previous knowledge before making the decision for collaborative approval with management. These voluntary actions allow more thorough approval & motivation for a change, which might affect coordinating the implementation & final review of the change.

The fifth step of the framework is to coordinate the implementation of the change request. In this step, all previous review, evaluation & approval documentation are implemented in the CRM or knowledge base. Documenting necessary steps & details creates cohesiveness & transparency in the CRM, knowledge base, and overall business environment. Additionally, documenting the responsible person or service area for the change establishes a clear responsibility matrix.

The sixth & final step of the framework is to review & close the change request. In a low-risk, pre-authorized change like the standard change, the request can be closed if steps 2-5 are established & documented. The normal process change request needs to be reviewed with management to decide the outcome & common direction for the change. Here, having steps 2-5 clearly established & documented is beneficial for the change initiator to motivate the necessity of the change, while proving that research of the change subject has been conducted.

The evaluation & improvement on the initial proposal is implemented with a validation & final proposal in Section 6 of this study.

6 Validation of the Proposal

This section focuses on validating the initial proposal for a change enablement framework for the case company IT unit, which supports self-direction practices. The section begins with an overview of how the validation stage was planned, conducted, and implemented. The overview is followed by the managerial evaluation of the change enablement framework. The section ends with the final proposal for a change enablement framework for the case company's IT unit, followed with the author's recommendations for implementing the final proposal in the case company IT unit.

6.1 Overview of the Validation Stage

The goal of the validation stage was to evaluate the change enablement framework for the case company IT unit visualized in Figure 9 by identifying its strengths, while improving on possible identified weaknesses.

Validation of the proposal began with a 50-minute discussion between the case company's Chief Executive Officer & IT Production Director in the company premises, who had read Section 5 of this study. The aim of their discussion was to concentrate on establishing strengths & weaknesses of the initial proposal, while identifying possible improvement or development areas. The author of this study did not participate in the discussion, as the final proposal was agreed to be reviewed on a managerial level because it is not considered tangible enough for instant implementation & testing with IT unit employees. The IT Production Director's knowledge of ITIL 4 frameworks & guidelines, having the responsibility of change management in the IT unit, and participation in the current state analysis, help keeping the validation reliable. Additionally, the Chief Executive Officer's knowledge of case company capabilities in implementation & strategy prove valuable resources in keeping the validation relevant.

The validation stage ended with a 70-minute discussion, where the Chief Executive Officer, IT Production Director & Author participated. The goal of the discussion was to evaluate all the steps of the change enablement framework & their logic in relation to the selected practices from the conceptual framework, and the selected strengths & weaknesses from the current state analysis.

The discussion results construct Data 3 of this study and are described in the following sub-section.

6.2 Evaluation of the Proposal

Overall, both the Chief Executive Officer & IT Production Director think that the change enablement framework is clearly visualized: the six category areas are clearly established with arrows guiding the process, and the standard change process & normal change process are clearly differentiated with colour categories, while still accompanying each other's information. All the sub-information visualized in sticky notes follow a clear process with a beginning & end, initiating chronologically from the first area (IT Production Director). Overall, the framework supports agile working.

The first step of the framework, voluntarily initiation of a request for change or change proposal, clearly establishes the whole framework's purpose: it motivates keeping the business environment up to date, and supports more self-directed working for colleagues (IT Production Director). Additionally, promoting creative thinking & independent decision-making in the normal change process is seen beneficial for employee morale. Promoting voluntary usage of the change processes might not give awaited results in a visual, but it is the case company management's responsibility to ensure that voluntariness is understood by all (Chief Executive Officer).

The second step of the framework, reviewing the change request, clearly establishes a main reason for the framework's purpose based on the CSA results, defining responsibility & clarifying roles, by establishing a responsible person or service area for the change to have a common understanding of who administrates the change while clarifying workflows (IT Production Director). Additionally, business responsibility & cultural experimenting in the normal change process is supported by actions following the 3x2-thought & Advice-process reviewed in the conceptual framework. These voluntary actions can be kept in the final proposal, as their existence are clearly motivated to be beneficial in self-directed working (Chief Executive Officer).

The third step of the framework, evaluating the change request, clearly establishes a main reason for the framework's purpose based on the CSA results, responsible documentation, by agreeing that necessary documentation must be gathered for the change to be conducted as a shared responsibility to create cohesiveness &

transparency in the CRM & knowledge base (IT Production Director). Additionally, business responsibility & cultural experimenting in the normal change process is supported by actions following the 3x2-thought & Advice-process reviewed in the conceptual framework. These voluntary actions can be kept in the final proposal, as their existence are clearly motivated to be beneficial in self-directed working (Chief Executive Officer).

The fourth step of the framework, approving the change request, clearly establishes a main reason for the framework's purpose based on the CSA results, responsible documentation, by suggesting that the evaluated documentation should be reviewed & approved to create ownership & thoroughness in the CRM & knowledge base (IT Production Director). Additionally, business responsibility & cultural experimenting in the normal change process is supported by actions following the 3x2-thought & Advice-process reviewed in the conceptual framework. These voluntary actions can be kept in the final proposal, as their existence are clearly motivated to be beneficial in self-directed working (Chief Executive Officer).

The fifth step of the framework, coordinating the implementation of the change request, clearly establishes a main reason for the framework's purpose based on the CSA results, CRM transparency & clear responsibility matrix, by recommending that all previous review, evaluation & approval documentation be implemented in the CRM or knowledge base (IT Production Director).

The sixth & final step of the framework, reviewing & closing the change request, is clearly established: the pre-authorized standard process change & authorizable normal process change were enough for the change enablement framework because of their similarity. Developing an emergency change process might have required a separate framework, diminishing the possibilities for a cohesive overall change enablement framework. In addition, choosing the ITIL 4 approach was proven successful because of the clarity of the overall picture. (IT Production Director & Chief Executive Officer.)

The validated final proposal based on Data 3 is visualized in the following sub-section.

6.3 Final Proposal

The final proposal of this thesis is visualized in Figure 10, highlighting the standard change process with grey color & added normal change process implementations with yellow color.

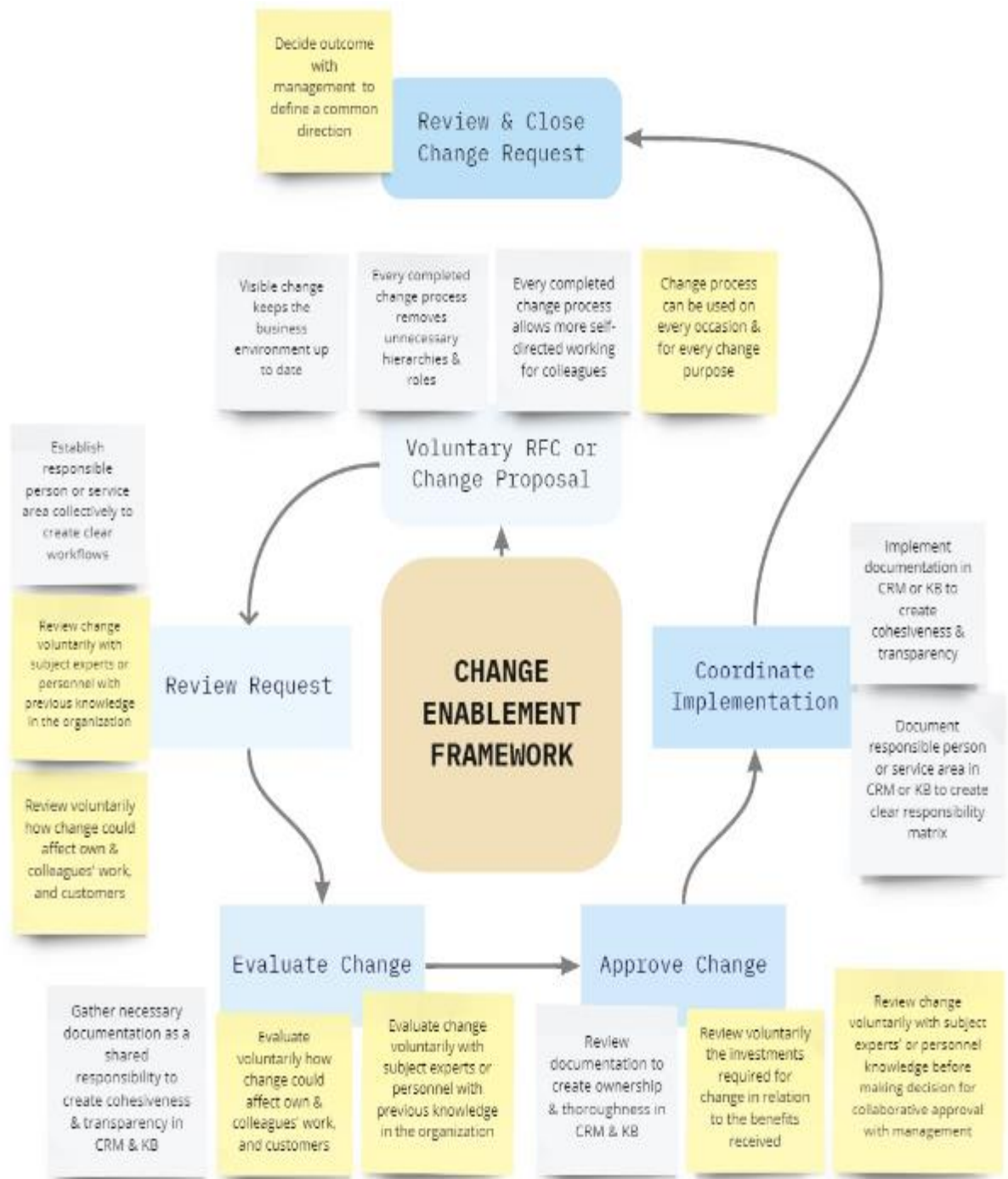


Figure 10. The final proposal of this thesis, highlighting the standard change process with grey color & added normal change process implementations with yellow color.

As seen from Figure 10, the final proposal is the same as the initial proposal visualized in Figure 9. The validation discussion with the Chief Executive Officer & IT Production Director led to the conclusion that nothing needed to be developed or further implemented in the final proposal, because it follows a clear logic that can be implemented in the IT unit. Concerns regarding voluntariness, autonomy, and overall organizational thinking is behavioral action that a framework cannot fully ensure to execute, but the case company management needs to create awareness of these subjects (Chief Executive Officer).

The author of this study has recommendations for implementing the change enablement framework in the case company IT unit, and these are discussed in the following subsection.

6.4 Recommendations for Implementation

Implementation of the change enablement framework could be initiated with collaborative innovating in the case company. First, as with the past workshops about self-direction & its possibilities conducted in the case company, similar workshops could be organized to discuss the change enablement framework & all its metrics in the IT unit. All team members could gather in a room to discuss how the framework works, and what parts are required to focus on to ensure that both the standard change & normal change process have a continuous flow. The workshops could raise awareness in what self-direction means in the case company today, how agile change processes & autonomous working can be used innovatively to affect own working, what & how possible hierarchies & roles could be streamlined, how responsible documentation could affect workflows & established responsibilities, and how voluntary business responsibility & cultural experimenting could be implemented in own daily work.

Second, the case company management could find ways to make the employee want to react to added voluntary responsibilities. Practicing the change enablement framework would be part of daily work without compensation but added responsibility in a normal change process could be motivated with additional compensation.

Third, the case company management could gather all possible processes & scenarios encountered in daily work in the IT unit and differentiate what can be defined as pre-

authorized standard changes or authorizable normal changes. IT unit members could be involved in the process to create a cohesive list & common understanding in what can & should be done when a specific case will surface. This could help clarifying the existing practices, while developing new ways of working in the IT unit.

Finally, the IT Production Director & IT unit members could review all existing, shared & non-established roles, and responsibilities to evaluate where resources need to be allocated, and if necessary education or certification is necessary to establish a new responsibility area for an employee role. From these outcomes, a responsibility matrix could be developed for continuous visibility in change enablement.

The thesis is summarized & evaluated by the author in Section 7 of this study.

7 Conclusion

This section summarizes & evaluates the thesis. The section begins with an executive summary of the whole thesis process. This is followed by the author's evaluation of the thesis and ends with the research quality criteria review in relation to objective vs. outcome.

7.1 Executive Summary

The objective of this thesis was to develop a framework that supports the individual employee's self-direction in the case company Information Technology unit to analyze the employee's attitude towards own work and what possible consequences might occur; the lack of knowledge about self-direction could affect negatively on organizational strategies if not taken into account during re-evaluation of these. To know what information affects individual work performance, meaningfulness & evaluation is valuable when improving strategies, or when creating new ones. The information can lead to employees performing their jobs more self-directed and successfully.

The data collection for the study was conducted in three steps. The methods used were surveys & interviews with seven (7) selected IT unit employees, and two (2) selected management personnel.

The study was conducted in five steps. The first step was to set the thesis objective. The second step examined the existing knowledge on self-direction by analyzing the definition of the concept, existing best practices, and existing technical solutions. The information was gathered from academic & business literature on self-direction as a concept, as well as the reviews of best practices and technical solutions. The outcome of the literature review is a conceptual framework that was utilized to establish the scope, themes, & utilization capabilities for the framework, and to create survey & interview questions for the current state analysis section.

The third step of the study was to conduct the current state analysis in the IT unit, where the goal was to establish strengths & weaknesses in current individual & organizational values, self-direction supportive best practices, and self-direction supportive solutions. The results showed that self-direction, autonomy, creative thinking, and independent

decision-making in daily work in the IT unit is highly supported in the case company, while self-directed working is hindered by an overall lack of responsibility, documentation, workflows, and CRM transparency. In addition, guidelines for practicing additional voluntary self-direction supportive organizational thinking is missing. Self-direction supportive technical solutions are not in use & or in demand and was decided not to be an extended focus area in this study.

The fourth step of this study was to develop the initial proposal in form of a framework. The management agreed that the focus areas should be existing promotion of self-direction, autonomy, creative thinking, and independent decision-making in daily work in the IT unit, while weaknesses in lack of responsibility, documentation, workflows, and CRM transparency should be improved. Additionally, guidelines for practicing additional voluntary self-direction supportive organizational thinking were allowed for implementation.

The outcome was agreed with the management to be a self-direction supportive change enablement framework, which was built on a Request for Change/Change Proposal process based on agile-supportive ITIL 4 guidelines & practices. The framework consists of a pre-authorized standard change process & authorizable normal change process. The standard change is voluntary & promotes self-directed working & autonomy, and clarifies daily pain areas in work by clarifying roles & responsibilities, having shared documentation responsibilities, and ensuring that the change is evaluated & documented to create transparency in the CRM, knowledge base, and overall business environment. The normal change is an extension on standard change and includes additional guidelines to practice business responsibility & cultural experimenting in the IT unit to support self-directed working.

The fifth & final step of this study was to validate the initial proposal. Validation was conducted as a closed-door discussion between managers, which was followed by a feedback discussion with the author. The discussion tested the overall logic of the change enablement framework, which led to development of the final proposal. No additional changes were needed to implement in the framework during the validation process.

If implemented, the change enablement framework could improve the daily work quality & business environment in the case company's IT unit. Scattered practices have always

existed in roles & responsibilities, documentation, workflows, and internal & customer business environment transparency. The framework could help in creating a cohesive & professional working environment in the IT unit, which leads to more self-directed capabilities in own working. The case company could re-evaluate organizational strategies with visible outcomes of the implemented framework and utilize the information for company success by evaluating how & what information visibility could help & motivate the employee to perform own job more self-directed and successfully.

7.2 Thesis Evaluation

The initial objective of the thesis was to research the following questions: What business and individual based information is essential for enabling self-direction in a company? Are individual or company performance used as the model for organizational operation? Is individual information relevant for the company, and will it have effect between company chains? What practices support self-direction? What tools are required to support self-direction? What information affects individual work performance, meaningfulness & evaluation?

Although not all questions have definite solutions in this study, majority of the thoughts were assessed. First, self-direction enabling individual based information was established in the Definitions-section of the conceptual framework not as tangible information, but as requirements & self-assessment to identify the capability to be self-directed personally. The behavioral identifying was further assessed in the current state analysis surveys & interviews. Because self-direction is a non-tangible, abstract concept, the management decided that the study would not focus on what business information enables self-direction in a company due to lack of resources & basic guidelines.

Second, the study focused on whether individual or company performance is used as a model for organization operation by analyzing what organization structure the IT unit employee identifies to follow, and more specifically what leadership model the IT unit employee identifies to follow. As the answers in the CSA were not unanimous, the outcome is that both are used for organization operation. As was agreed with the IT Production Director, the change enablement framework was decided to be developed on both self-direction supportive organization structure & leadership model to create a common understanding.

Third, the study focused on the individual employee's information relevance and its possible effect on company chains. From the perspective of tangible, measurable information, the subject was removed as a result from leaving the technical solutions development out of the initial proposal development. From the perspective of the employee's input & produced information, the relevance was noticed in lack of shared documentation responsibilities. While perhaps not having effects on company chains, making the individual's produced information relevant was a driving choice in developing the change enablement framework: by making information visible, the colleague has better opportunities to work self-directed.

Fourth, the whole study was built around the question of what practices & tools are required support self-direction. While the tools utilization was removed as a research subject in the initial proposal development, practices utilization guided the whole research. Practices were analyzed in the conceptual framework, current utilization analyzed in the current state analysis, and implemented as voluntarily guidelines & practices in the change enablement framework.

Finally, the study answered the question to what information affects individual work performance, meaningfulness & evaluation in the outcome of the current state analysis. The answers became the main concentration subject in the final proposal, and after the validation of the framework, may have proven a solution to remove negative effects of the affected information.

As a research subject, self-direction was not easy to be initiated as in a study purpose. Because of the abstractive concept, creating a tangible result felt improbable during the proposal building stage. The research design changed four times during the project, because of brainstorming sessions with the case assigner. This led to difficulties in deciding whether to begin with the CF or CSA. However, eventually the idea to build a self-direction supportive framework was suggested & chosen, allowing beginning researching existing literature.

Building the conceptual framework was the most difficult section of this study, as there were no existing guidelines to follow in the subject matter. The framework was built as individual steps in three months' time, eventually forming a cohesive whole with established scopes, themes, and utilization capabilities. The result allowed forming 35 questions to use in the current state analysis section.

Conducting the current state analysis in the case company's IT unit was the most time-consuming section of this study, mostly because the whole analysis was performed during company hours. The IT unit employees had busy daily schedules, and were not enthusiastic of the research subject, thus made it difficult to have voluntary survey & interview sessions. However, the interviews led to interesting discussions about how the case company works today in good & bad perspectives and were given positive feedback.

Developing the initial proposal was the easiest section of this study. Developing a change enablement framework was a logic step when wanting to improve the weaknesses listed in the CSA, and utilizing the ITIL 4 guidelines in building the framework felt like a timely solution due to recent ITIL certifications in the IT unit. The validation of the proposal was conducted with enthusiasm by the management, and the whole section was problem-free.

7.2.1 Research Quality Criteria

This study followed three research quality criteria. Validity of the research was established by implementing the criterion on surveys and interviews. With *construct validity*, the study ensured that survey results associate behavior to create a cohesive outcome, and with *statistical conclusion validity*, the study determined if survey results are legitimate to establish statistical tests and measurement procedures. Validity allowed establishing the right survey questions, and that they assessed the important and relevant metrics.

Reliability of the research was established by implementing the *internal consistency* criterion on surveys and interviews. The study ensured this by creating consistent questionnaire surveys and interviews that assessed the same subject.

Relevance of the research was established on all the study content. The study ensured this by referring all content to existing sources and facts, and kept all analyses, questionnaires, surveys, interviews, and perspectives verifiable and concentrated on the study's primary goal.

7.3 Closing Words

This study was a 13-month project that had multiple beginnings but one definitive end. Getting to the result was not an easy task, but the journey was the more satisfying to end because of continuous learning. Even after an uneven beginning, the study was developed with high momentum & active additional involvement from the study coordinator & case company assignment giver.

Self-direction is a concept that has long existed in the business landscape, and its effect in teams has been a research subject for a long time. Hopefully, this study will be one of many research subjects about the concept's effect from an individual's perspective in a team.

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Interview Questions for the Current State Analysis Section

1. In what context have you heard talking about self-direction as a concept before this study?
2. How are organizational practices that promote rapid decision-making, better productivity, and performance that is more agile supported in your employer's practices? Please elaborate your answer.
3. Are your employer's chains of command, hierarchies, fixed roles, or specific supervisors clearly established?
4. In continuation of question three, do you find any of the establishments unnecessary? If yes, which role(s)?
5. How would increase of autonomy make your job easier? Please elaborate your answer.
6. Would affecting the content of your work and how to perform it make your job easier? If yes, please elaborate.
7. What are currently the biggest recurring challenges when performing daily work? Please give 1-3 examples.
8. There are three key reasons to why self-direction is emerging in the work industry. The first is associated with the operating environment: the business environment has become more complex and rapidly changing due to globalization, acceleration of information currency, and automation. This forces organizations to become more adaptive and agile to survive in the business environment.

How has your employer reacted to this, and how has this changed your working practices during the past three years?
9. There are three key reasons to why self-direction is emerging in the work industry. The second reason is associated with the nature of work: daily work tasks are becoming more dependent on creative expertise and independent decision-making, replacing routine work and orders from higher management.

How has your employer reacted to this, and how has this changed your working practices during the past three years?

- 10.** There are three key reasons to why self-direction is emerging in the work industry. The third reason is associated with technology: current technology solutions cannot provide decentralized structures provided by modern information technology.

How has your employer reacted to this, and how has this changed your working practices during the past three years?

- 11.** Does your employer allow shared leadership instead of having leaders? If yes, does having shared leadership make your job easier?

- 12.** Business responsibility forces employees to look at things from various perspectives and balance often-conflicting needs. Balancing requires awareness and understanding of a broader vision. Employees can have much freedom, if it is used towards a shared vision of organization values and culture in an appropriate way.

How does your employer support business responsibility? Please elaborate your answer.

- 13.** Cultural experiment means that anyone in an organization can act as the initiator of an experiment, where the initiator has freedom to do and develop things where the person finds to be useful, regardless of job title and assigned area of expertise. The Advice-process utilizing this can improve an organization's ability to seize opportunities and launch more experiments.

Does your employer support cultural experiment in the form of the Advice-process? If yes, please elaborate how this affects your work. If no, would having enabled cultural experiment make your job easier?

- 14.** What challenges does technical solutions in your daily work create when trying to perform independently?

- 15.** Does your employer gather your personal productivity data during work and explore your way of working to learn smarter ways to work? If yes, how does this affect your individual work performance?

Survey Questions for the Current State Analysis Section

1. Self-direction means that a person can perform without external guidance & control, and needs to be self-motivated to perform daily work without external coercion, to have a goal to understand what target self-direction is aimed at, and to have necessary expertise to reach the goal.

Do you consider yourself a self-directed employee?

- A. Yes
- B. No
- C. Partially, elaborate

2. The central element in self-direction is the employee's opportunity to affect one's own work: to assert goals individually, define where and how the work will be performed, agree of the division of labor with colleagues, and make individual decisions without approval from higher management.

Do you consider yourself capable in performing these actions?

- A. Yes
- B. No
- C. Partially, elaborate

3. Do you support affecting your own work according to the actions in question 2?

- A. Yes
- B. No, why not?
- C. Partially, elaborate

4. Self-direction is based on a person's knowledge of own self, strengths, and areas of improvement.

Do you recognize these factors about yourself?

- A. Yes
- B. No
- C. Partially, elaborate

5. Which of the following four organization structures do you identify that you are currently following? Read thoroughly & select ONE:

- A. *Traditional hierarchical structure*: higher management organizes work and co-ordinates the whole, commands & information are communicated down from above, employees do what they are told & do not break from the path without managerial approval
- B. *Result-controlled structure*: no middle management or other hierarchies in the organization, employees' motivations are external and work activities are assisted, the personnel can organize how they want & without hierarchies or

predetermined roles, but are not considered self-directed

- C. *Inclusive structure*: traditional structures organized by senior management & heavily self-directed personnel, employees are self-motivated and have small enough limitations to perform daily work how they want to, employees have supervisors to report to but management personnel work as mentors & encouragement instead of having a traditionally controlling position
- D. *Co-organized structure*: self-organized & has self-directed personnel, personnel are self-motivated & the management and hierarchies are almost completely absent, senior management and personnel work together to define the common direction to aim for & takes a serving position to ensure the best possible circumstances to reach the common goal, work is done in small teams or independently, employees can affect the content of the work and how it will be done, operational development is everyone's common responsibility, decisions & improvements are handled independently without chains of approval, rules & structures exist but are looked at as experiments that can be modified in the future in case there are more rational ways to act
6. Do you support an organizational structure without chains of command, hierarchies, fixed roles, or specific supervisors in exchange for freedom & as minimal limitations as possible to organize your work without having autocracy?
- A. Yes
B. No, why not?
C. Partially, elaborate
7. Do you support that chain of command is not forced on you but is used as an incentive to tailor hierarchies as seen fit to different situations?
- A. Yes
B. No, why not?
C. Partially, elaborate
8. Have any of the following challenges affected your work during past organizational structure changes? Select ONE or SEVERAL:
- A. The change is unfinished: not enough changes in customs
B. The change is unfinished: all necessary customs not changed
C. The change is done too fast, ignoring your time requirement to change own work behavior
D. A power vacuum is formed: someone abuses undefined power & responsibilities
E. Unnecessary risks: new decision power leads to taking too big risks
F. Negligence: lack of management pressure leads to not getting anything done
G. Personnel size increases working difficulty
H. The purpose is lost: organization's external objectives conflict with the organization's own identity and purpose, leading to value conflicts within employees who do not share the common goal

- I. Other, elaborate
- J. None of the above

9. Has individual leadership affected your daily work?

- A. Yes
- B. No
- C. Partially, elaborate

10. Which of the following four leadership models do you identify that you are currently following? Read thoroughly & select ONE:

- A. *Sharing leadership for team effectiveness*: tasks are divided among team members; team members guide teamwork and each other
- B. *Pooling leadership at the top to lead others*: a pair, trio etc. are at the top of the hierarchy
- C. *Spreading leadership across levels over time*: leadership varies from employee to employee to perform a task
- D. *Producing leadership through interactions*: leadership is formed through relationships (what employees do, practices, co-operation, communication, and power & influence relations)

11. Are you encouraged to use common thinking & understanding in business responsibility in your daily work?

- A. Yes
- B. No
- C. Partially, elaborate

12. Are you allowed to make business decisions individually in your daily work?

- A. Yes
- B. No
- C. Partially, elaborate

13. Considering your current job description, would more business decision authority make your work easier? (Skip this question in case the answer to question 12 was Yes)

- A. Yes
- B. No
- C. Partially, elaborate

14. Does your employer have criteria to pass for the business decision to be allowed to be made? (Skip this question in case the answer to question 12 was No)

A. Yes
B. No
C. Partially, elaborate

15. Cultural experimenting means that anyone in the organization can act as the initiator of an experiment, where the initiator has freedom to do and develop things where the person finds to be useful, regardless of job title and assigned area of expertise.

Does your employer allow cultural experimenting?

A. Yes
B. No
C. Partially, elaborate

16. Using the Advice-process, the employee can make any decision after asking advice from everyone the decision will affect, and those who have previous expertise & knowledge on the matter to be decided.

Does your employer allow using the Advice-process?

A. Yes
B. No
C. Partially, elaborate

17. Considering your current job description, would using the Advice-process make your work easier? (Skip this question in case the answer to question 16 was Yes)

A. Yes
B. No
C. Partially, elaborate

18. Do you use self-direction supportive technical solutions (web-based platforms or software) when working?

A. Yes
B. No
C. I don't know

- 19.** Leadership as a Service (LaaS) is a management service model platform that gives you opportunities to have management services that suits your own needs, instead of offering similar management solutions to all employees. Services are divided into five different headings: well-being & occupational health, organization & management, competence & development opportunities, daily work sheet, and work community & atmosphere. The purpose of the platform is to support your well-being, skills, and career advancement: you make your own work-related decisions, and move towards them based on your individual situation.

Considering your current job description, would tools utilizing management service model platforms make your work environment better?

- A. Yes
- B. No, why not?
- C. Partially, elaborate

- 20.** MyAnalytics is a self-direction supportive platform that gathers your personal productivity data during work and creates personalized artificial intelligence-based suggestions to help set aside concentration time: the purpose is to explore your way of working and learn smarter ways to work by improving focus, well-being, network, and collaboration. This is done by reporting how & with whom collaboration is done with, and how working time is used weekly, and the platform helps to outline the course of the working day and prioritize tasks.

Considering your current job description, would tools utilizing artificial intelligence based practices & suggestions make your work easier?

- A. Yes
- B. No, why not?
- C. Partially, elaborate