

Improving the long-term decision-making in a customer support centre

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<p>The objective of this thesis was to improve the long-term decision-making in the case organization, a customer support centre in a global retail company in Finland. The target group was the management team of the customer support centre.</p> <p>The primary expected outcome for this research was to provide development suggestions to improve the decision-making. Other expected outcomes were identifying decision criteria and criteria prioritization, identified obstacles, and proposals to reduce the impact of cognitive biases if identified during the research.</p> <p>The main part of the theoretical framework of this research focuses on decision-making in organizations, with supporting literature from knowledge management and service management areas.</p> <p>The research strategy for this research was action research, and the primary data collection methods were semi-structured interviews, with observation and secondary company data as supporting methods. A current state analysis was made based on the collected data. Workshops were the chosen method for the development phase of this research.</p> <p>This research showed that the case organization's long-term decision-making could be improved by introducing a structured way of working and increasing the awareness of cognitive biases. The results also showed that the case company's values should be embedded in the decision-making. These findings were used in formulating the suggested new way of working with long-term decisions. In addition, the case organization was provided with recommendations for further development.</p>	
Keywords Decision-making, organizational decision-making, improving decision-making	

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1 Introduction

The inspiration for this thesis came from the researcher's interest in organizational decision-making and practical decision-making experiences in the workplace. Some of the long-term decisions made in the case organization had more complex and unexpected effects than initially estimated. Long-term decisions have a significant impact on the organization and its future; thus, it is essential to minimize the unpredictable and potentially negative consequences.

This thesis research aims to improve the long-term decision-making by current state analysis and collaborative development activities. If the research succeeds in developing the long-term decision-making in the case organization, the benefits can be long-term and reach many areas.

The case company is a global retail company operating several physical stores and e-commerce in Finland. The case organization of this thesis research is the customer support centre of the case company, and the target group is the management team of the customer support centre. The company's customers are both consumers and businesses, and they can contact via different contact channels (phone, chat, email, and social media). There were approximately 100 employees in the customer support centre during this thesis research.

This thesis report consists of seven chapters. Chapter 1 introduces the research, and chapter 2 presents the objective, research questions, and research scope. Chapter 3 contains the literature review for this research and divides it into decision-making, knowledge management, and service management.

The research strategy, data collection, and development methods of this research are presented in chapter 4. Chapter 5 presents the current state analysis, including how the primary research data was processed. Chapter 6 contains the analysis of company secondary data and observation, continuing with the results from the research workshops. Also in chapter 6 are the development suggestions for the case organization. The final chapter 7 presents the conclusions, the feedback from the target group, and the recommendations for further development.

This thesis project was started in October 2020 and finalized in May 2021. Appendix 1 presents the project plan for this thesis.

2 Objective and scope

The case organization had identified development needs concerning the long-term decisions, which today sometimes had unpredicted outcomes. The long-term decisions can have significant positive effects on the organization, and on the other hand, if not successful, broad negative effects. Developing long-term decision-making can benefit many areas in the organization, such as job satisfaction, finances, and operations. The fast-changing business environment has set new challenges to the decision-making in the case organization, and even critical decisions sometimes have only a short time frame. Planning the correct actions for improvement requires that the starting point is known; therefore, a current state analysis was a part of this thesis research.

This thesis research aimed to improve the long-term decision-making in the case organization, the customer support centre. The expected outcome was to provide development suggestions to improve the current decision-making, with identified decision criteria and prioritization if relevant. Also, to identify obstacles in the current decision-making and propose development suggestions.

One primary and three secondary research questions were formulated for this thesis. The research aimed to achieve its objective by finding answers to the research questions. The primary research question (RQ) is: How can long-term decision-making be improved in the case organization?

The secondary research questions are:

RQ1. What are the main obstacles in the decision-making process today?

RQ2. Which are the main decision criteria, and should some criteria be prioritized?

RQ3. If cognitive biases are identified in the decision-making process, how can the effect be reduced?

In the scope of this thesis research is the long-term decision-making in the case organization (the customer support centre). The target group is limited to the management team, consisting of four people. The results of this thesis are in the form of development suggestions and recommendations for further development. Outside of the scope of this thesis are other types of decisions, other development suggestions than those related to long-term decision-making, current decision-making in other parts of the organization, employee competence evaluation or competence development, development of customer experience, and digital tools.

The researcher works as a manager in the case organization and, during the research period, was a member of the customer support centre's management team. The research plan considered the researcher's role by choosing suitable methods for research and development.

Table 1 presents the connectivity of this thesis research questions, the areas of literature, the research data, and the research results. During the research project, this table helped to confirm that the research provided data for answers to the research questions and ensured the relevance of the areas of literature.

Table 1. Connectivity of research questions, literature, research data, and research results for this research

Research Question	Literature area (chapter name)	Research data	Research Results (chapter name)
RQ. How can the long-term decision-making be improved in the case organization?			
RQ1. What are the main obstacles in the decision-making process today?	Obstacles of decision-making, cognitive bias, and heuristics	Interview questions 4, 4a Observation 2	Current state analysis
RQ2. What are the main decision criteria and should some criteria be prioritized?	Decision-making process Improving the decision-making in organizations	Secondary company data Interview questions 2, 2b Workshop results	Current state analysis
RQ3. If cognitive biases are identified in the decision-making process, how can the effect be reduced?	Obstacles of decision-making, cognitive biases, and heuristics	Interview questions 4, 4a Observation 2	Current state analysis

3 Decision-making in organizations

Chapter 3 first describes organizational decision-making from the perspectives of different decision types, decision-making processes, the decision-making obstacles, cognitive biases and heuristics, and improvement of decision-making in organizations. Chapter 3.5. concentrates on knowledge management activities and the role of knowledge management in organizational decision-making, followed by chapter 3.6, which introduces service management and views to decision-making in a service management environment.

3.1 Types of decisions

The decisions occurring in organizations often connect to other decisions, activities, and different cause-and-effect relationships. The fast-changing business environment makes it challenging to anticipate the future; however, preparing and a structured approach provides the frames for good decision-making. (Heikinheimo 2021, 20-23.)

Strategic decisions concern the organization's direction on a longer time frame, and they can occur in different areas, such as information technology, human resources, and customer relations, with typically higher risk, complexity, and impacts. Sometimes, there is time to carefully evaluate the options through intuition, analysis, and experience; on other occasions, there is only a short time frame. Capabilities for successful strategic decision-making include working in a collaborative, flexible, and unprejudiced manner with large amounts of data and understanding the company's internal and external relationships. (Jones 2014, chapters 2, 10)

Typical for *tactical decisions* is that they are not as complex as strategic ones, and they are executing the strategic decisions in the everyday work. In organizations, tactical decisions are often the responsibility of middle management. Within the tactical decisions, it also lies many opportunities to increase employee engagement (through allocating tasks to employees) and operational performance (through developing teamwork). (Jones 2014, chapters 2, 14.)

The operational and frontline decisions usually are of lower risk and more routine. These decisions occur daily, and there are often company-specific guidelines supporting the employees in the decision-making. It is typical for operational decisions to execute them almost immediately after deciding. (Jones 2014, chapters 2, 10.)

De Smet, Lackey and Weiss (2017) categorize decisions by four types: Big-Bet decisions, Cross-cutting-decisions, Delegated decisions, and Ad hoc decisions presented with their

essential characteristics in figure 1. The categorization can apply to different levels of the organization by scaling the decision to match with the home organization. (De Smet & al. 2017.)

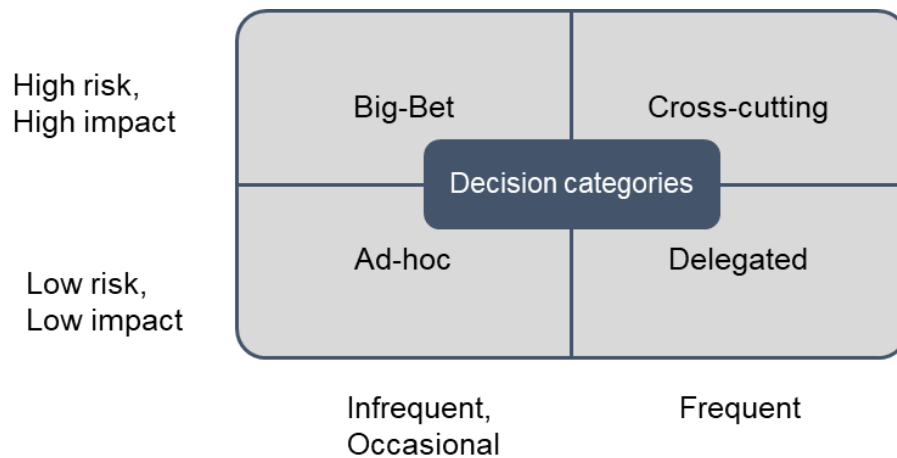


Figure 1. Decision categories by risk level and frequency (adapted from De Smet & al. 2017)

Big-bet decisions are decisions with the highest risk, which do not often happen. Their impact on the organization is high, as is the risk for cognitive biases affecting the decision. Phases for making a high-quality decision can include appointing an executive sponsor, breaking the decision into smaller parts, and deciding on each decision separately. Other steps are not forgetting to connect the parts back together, using a standard decision-making approach, aiming for efficient decision-making while ensuring the commitment to implementation from all parties, and identifying the communication responsibilities. Also recommended is to evaluate the success of the decisions regularly. (De Smet & al. 2017.)

Cross-cutting decisions are decisions with high risk and impact and which are needed more often than the Big-Bet decisions. They typically consist of series of decisions and involve different groups. Collaboration between the involved groups is required to prevent a delay and increased bureaucracy. The approach for this decision category includes mapping the decision-making process and building understanding within the group of stakeholders; defining the roles, practices, and mandates and encourage flexibility; defining the objectives and how the process is measured. (De Smet & al. 2017.)

Delegated decisions take place often and are usually taken by those whose responsibility area they belong to (individuals or groups). These decisions are common, but they do not carry a high risk, increasing their influence on the organization. An approach to delegated decisions can be increased delegation (by this, the transparency increases), defining clear

responsibilities and steps for escalation, and making sure that people live up to their decision-making responsibilities. (De Smet & al. 2017.)

Ad hoc decisions occur infrequently and occasionally; they have low risk and impact on the organization. In the four-step category, the ad hoc decisions do not have a specific approach due to their low-risk nature. (De Smet & al. 2017.)

According to Steinhouse (2014, chapter 1), there are six decision types: Big, long-term decisions with enough time, Big, long-term decisions with little time, Snap decisions of all levels of importance, Decisions about immediate gratification, Decisions where fear of loss weighs heavily, and Decisions where you have too much time and do too much thinking.

Type 1 - Big, long-term decisions with enough time. The Type 1 decisions require focus from the decision-makers. (Steinhouse 2014, chapter 1.)

Type 2 - Big, long-term decisions with little time. A preferred starting point is negotiating more time to make this type of decision. (Steinhouse 2014, chapter 1.)

Type 3 - Snap decisions, of all levels of importance. There are both familiar and unfamiliar decisions in this decision type. Familiar decisions can be solved by intuition or so-called gut feeling; for new decisions, it is preferred to have even a brief moment to evaluate the available options. (Steinhouse 2014, chapter 1.)

Type 4 - Decisions about immediate gratification. These decisions are quick to make with the support of the mechanical thinking system. (Steinhouse 2014, chapter 1.)

Type 5 - Decisions where fear of loss weighs heavily. It is typical to automatically avoid high risks, leading to not achieving the wins. It is preferred to have a rational approach to this type of decision. (Steinhouse 2014, chapter 1.)

Type 6 - Decisions where you have too much time and do too much thinking. Having too much time may lead to a state where it is impossible to decide. It is beneficial to set a deadline and then follow the decision-making process. (Steinhouse 2014, chapter 1.)

In addition to the above six decision types, Steinhouse (2014, chapter 1) suggests paying attention to the differences between reactive and proactive decisions. Reactive decisions set expectations from, for example, management; proactive decisions originate from development ideas without setting expectations. (Steinhouse 2014, chapter 1.)

3.2 Decision-making process

Matti Alahuhta, a Finnish business executive, highlights that leadership always involves decision-making and that it is essential to involve the relevant participants, have the proper knowledge acquired and have enough time for consideration. Involving people with diverse thinking skills enables many views; choosing the first appearing option should be avoided. After the decision, it is good to prepare for re-evaluation if the operating environment changes. (Alahuhta, Häikiö & Seppänen, 2015, chapter 4.) The decision-making described by Alahuhta (Alahuhta & al. 2015, chapter 4) has similarities with Steinhouse's (2014, chapter 1) three phases of decision-making (figure 2).

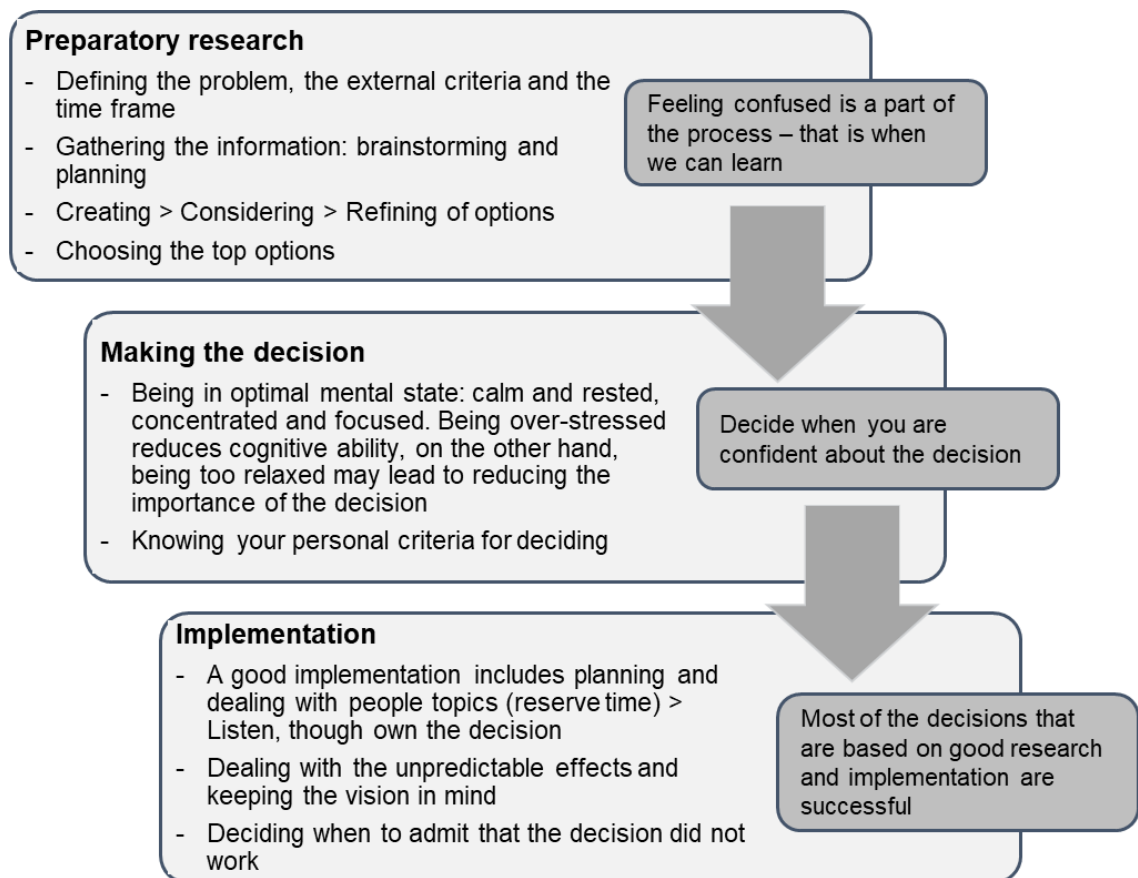


Figure 2. Phases of decision-making (adapted from Steinhouse 2014, chapter 1)

According to Steinhouse (2014, chapter 1), the three phases of decision-making are preparatory research, making the decision, and implementation.

Phase 1 - Preparatory research. It is essential to define what the decision is and what are the expectations and impacts. The time frame sets fixed frames; sometimes, trying to arrange more time is beneficial. When collecting the information required, there are often two types of data, the facts, and people's reactions, including topics that cause resistance. (Steinhouse 2014, chapter 1.)

The Preparatory research phase includes creating, considering, and refining the options. Refining the options can be executed analysis-based or using a creative technique. In the first phase, it is typical to be confused and out of the comfort zone; tolerating the confused state allows learning to occur. Any signals rising from intuition should not be ignored; it is critical to identify the cause if they appear. (Steinhouse 2014, chapter 1.)

Phase 2 - Making the decision. Decisions are best to make when the decision-maker has the appropriate mindset of calmness and focus. Being stressed reduces the cognitive ability while being too relaxed minimizes the seriousness of the matter. When the time and state of mind are suitable, the personal criteria set the proceeding of the decision. The choice can be between options or whether to act or not to act. The individual criteria that tell when the choice is clear can be very different; it may be taking a walk to someone and an appearing moment of clarity to someone else. To wait for a while after deciding and before taking actions makes it allows possible doubts to emerge; this allows re-evaluation if required. (Steinhouse 2014, chapter 1.)

Phase 3 – Implementation. The third phase of Steinhouse's (2014, chapter 1) decision-making model points out that even though the decision is made, more decisions and adapting are needed. In an exemplary decision implementation, a precise plan is made, with details and a schedule. The approach with people-related issues can be influencing or insisting, based on their role and attitude. When presenting future changes to people affected by the change, a gentle approach is a good practice that gives people time to adjust. It is essential to listen and respect others. However, that is not always enough, and sometimes insisting is needed; then, a firm though respectful manner is often the best way. (Steinhouse 2014, chapter 1.)

Buyer's remorse may appear after the decision, and the feeling should be treated with sufficient attention to clarify if it surfaces from insecurity or if something important is left unnoticed. If the decision provides the expected results or results that exceed the expectations, it can be considered successful. However, there can be unexpected difficulties, especially with complex decisions, and they should be treated appropriately. Also important is to understand that sometimes the decisions lead to an unwanted direction and need to be reversed. If a reversal is necessary, there are learnings gained from also these cases. (Steinhouse 2014, chapter 1.)

Figure 3 presents *The Decision Simulator* technique, consisting of eight questions. The questions of the Decision Simulator help to identify the potentially hidden feelings that surface during the questions and allow testing of the different available options. The

Decision Simulator can be embedded in the decision-making model, presented earlier in this chapter and figure 2, or independently. (Steinhouse 2014, chapter 1.)

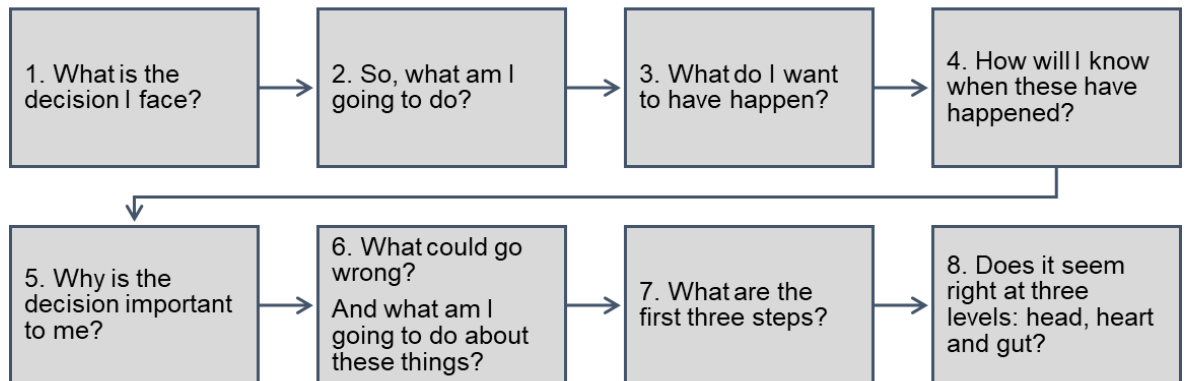


Figure 3. The Decision Simulator questions (adapted from Steinhouse 2014, chapter 1)

Mediating Assessments Protocol (MAP). Kahneman, Lovillo and Sibony (2019) present the structured approach of Mediating Assessments Protocol (MAP). The method consists of three elements shown in figure 4: defining the assessment criteria before actions, using assessments by independent, fact-based parties, and not completing the evaluation until all assessments are finalized. (Kahneman & al. 2019, chapter 1.)

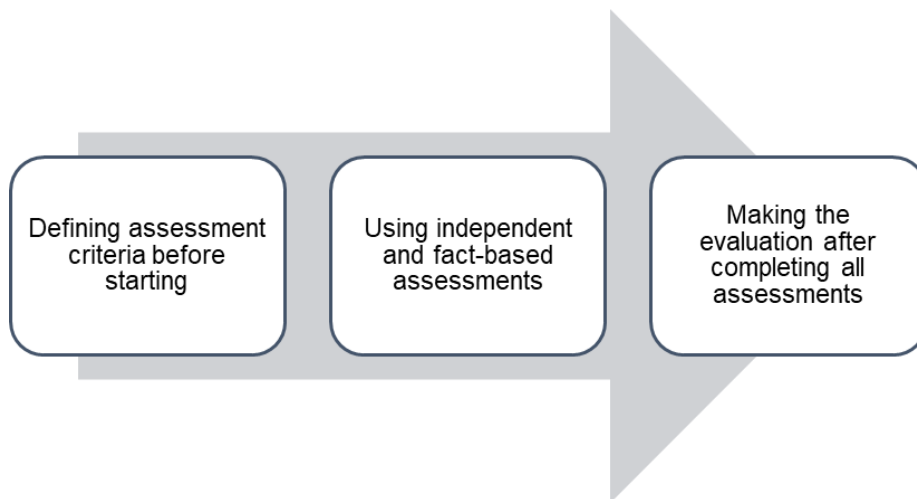


Figure 4. Elements of Mediating Assessments Protocol, MAP (adapted from Kahneman & al. 2019, chapter 1)

Kahneman & al. (2019, chapter 1) suggest that the MAP approach brings benefits to high-impact one-off decisions and recurring decisions; the approach is easy to learn and does not increase the workload significantly, and leaves room for intuitive judgment.

Structured interviewing is a method used in recruiting, and it also applies to decision-making. Structured interviewing increases decision accuracy, as the process utilizes a rating of various elements that are the base for the decision. Other experienced benefits of the technique include reducing cognitive biases and thinking errors. The method of structured interviewing is criticized for being mechanical by nature and not allowing gut feeling-based decisions. (Kahneman & al. 2019.)

Decision criteria. Identifying and setting the decision criteria is an essential part of the decision-making process. However, there can be many criteria that can also contradict each other, which is when compromising is needed. The decision criteria prioritizing matrix, presented in table 2, can be used to define the main criteria for the decision at hand. The matrix consists of columns named by either generic or case-by-case defined criteria and rows named by the prioritization order. It is essential to understand that the decision is seldom perfect, and criteria prioritization is needed for proceeding with the decision. (Heikinheimo 2021, 113-117.)

Table 2. Decision criteria prioritizing matrix with example prioritization (adapted from Heikinheimo 2021, 117)

	Scope	Time	Costs	Quality
Top 1 criteria		X		
Top 2 and 3 criteria	X			X
Accept the reality for the last criteria			X	

The 2 x 2 Thinking model is an approach designed for problem-solving and decision-making. The 2 x 2 Thinking model is based on a 2 x 2 matrix that can be utilized in multiple ways when choosing suitable options for each problem or decision. The thinking model emphasizes usability and practicality. (Lowy & Hood 2004.) Table 3 presents an example where the 2 x 2 matrix is populated with options to decide on team structure. (Lowy & Hood 2004, chapter 7.)

Table 3. Team structure matrix (adapted from Lowy & Hood 2004, chapter 7)

Duration Ongoing teams Temporary teams	Natural work	Cross-functional
	Small Project	Special-Purpose
	Single operation teams	Multiple operation teams

Scope

The benefits of using a 2 x 2 matrix in problem-solving and decision-making include intensifying and deepening the issue at hand and bringing all aspects of the choice visible. (Lowy & Hood 2004.)

3.3 Obstacles of decision-making, cognitive biases, and heuristics

Heuristics and cognitive biases are typical for human thinking, and they also occur in decision-making. Heuristics provide sufficient answers to tricky questions; however, the answers can be incomplete (Kahneman 2011, 98). Heuristics can lead to better results due to human decision-making qualities (Altman 2012, chapter 1). Conscious decision-making is an energy-consuming process for the human brain, and most decisions are made routinely. The decision-making is prone to different errors and biases, which makes it helpful to have pre-determined supporting models or customs for those situations. (Pihlaja 2021, chapter 2.)

Frankl (2015, 1) describes rules of thumb, heuristics, not certainly trustworthy processes for solving problems. The *business rules of thumb* are guidelines or methods for solving problems, which can provide a result that is not reliable or follow logic. However, having defined rules of thumb does not mean that they apply in every situation; the responsible decision-maker (individual or group) takes the final decision. Experience and gained practice of heuristics' utilization are some of the benefits. If a rule of thumb, for example, concerns guidelines for customer service, the rules of thumb can be too high-level and leave room for interpretation. (Frankl 2015, 4-6.)

Altman (2012, chapter 1) describes behavioral economics formulating the economic models into a more applicable and precise. According to the literature, the decision-making capabilities of management are among the essential functions in organizations.

Studies of behavioural economics (e.g., Halko & Hytönen 2011) have shown that many factors influence the decision-makers, starting from their emotional status. People are not as rational in their decision-making as previously thought, which probably is due to the decision-making environment changing faster than the decision-making capabilities of people (Halko & Hytönen 2011, 399).

Cognitive biases are shortcuts of the mind; however, they can lead to errors (Thomas 2020, chapter 1). People prefer to *choose a standard (default) option* if there are many options available. If a non-standard option fails, disappointment that follows may lead to selecting the standard option in the future. (Azar 2014, 1744-1745.) In new or complex situations, the organization is tempted to wait before deciding. It is also a decision to wait, and it must be made consciously and followed up. It is universal behavior to avoid and postpone making the choices though it is often against the individual's goals. *Decision avoidance* is a phenomenon with potentially high costs on a personal and societal level; the phenomenon also becomes more common under stress. (Anderson 2003, 139.)

Daniel Kahneman has studied human decision-making, and in his book *Thinking, fast and slow* (2011), he refers to two different systems of human thinking: System 1 and System 2. System 1 works automatically, fast, and without effort, while System 2 works consciously and allocating the needed effort to mental activities such as calculating. (Kahneman 2011, 20-21.) The fast System 1 is automatically on, and intuitive errors in thinking are difficult to prevent as the slow (effortful) System 2 does not notice them. Not every routine decision requires full attention; however, it is essential to be aware of the two systems and the autopilot mode (System 1) as then it is possible to notice the most likely occurrences of thinking errors. (Kahneman 2011, 28-29.) Approaches to reduce the effect of cognitive biases are investigating the facts and leading with data. (Jana 2018, chapter 3.)

One of the biases affecting decision-making is *confirmation bias*, which means human thinking is looking for evidence to confirm the existing idea or assumption. (Thomas 2020, chapter 1.)

Availability bias occurs when the option appearing first to mind is preferred over latter options (Kahneman & al. 2019, chapter 1).

The anchoring effect takes place when the thinking and decision-making are influenced by a specific value that the mind is *anchored* to, and this value is decided before estimating the value in question. (Kahneman 2011, 119; Thomas 2020, chapter 1.)

Signs of *optimism bias* are, for example, if a mutual agreement is reached without discussion; decisions are made in a short timeframe; risk assessment is not considering intangible risks; due diligence process is hurried. Steps to reduce the impact of optimism bias include thinking that the thinking may not be correct, choosing to look for evidence that the decision might not be right, recognizing an overenthusiastic attitude that overlooks the risks. (Thuraisingham & Lehmacher 2013, 81-82.)

Overestimating the importance of *experience* may influence the behaviour and decision when choosing an option based on past actions, decisions, or choices; looking for alternatives from only one field of expertise or perspective; seeing only one possible option. Techniques to reduce the experience bias include framing the decision or question differently; consciously reflecting if there more than one option is considered; questioning own or the group's expertise, asking deep and reflective questions to evaluate the decision. (Thuraisingham & Lehmacher 2013, 64-66.)

Negativity bias draws human attention to negative issues instead of positive and identifies threats instead of opportunities. Focusing on challenges and potential negative development consumes energy. All these imagined threats will not appear, and therefore it is beneficial to prepare for challenges constructively. (Pihlaja 2021, chapter 1.)

In addition to cognitive biases, there are also other decision-making obstacles; figure 5 presents the common obstacles. (Heikinheimo 2021, 260.)

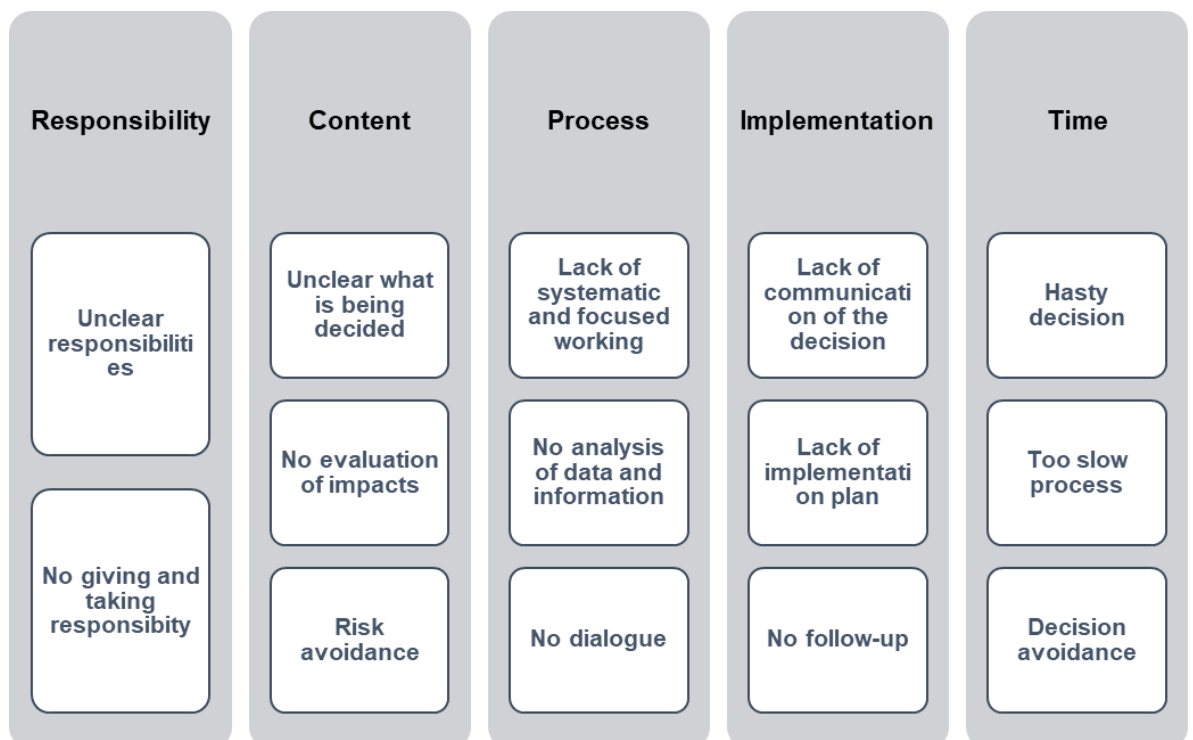


Figure 5. Common decision-making obstacles in organizations (adapted from Heikinheimo 2021, 260)

Of the common obstacles described in figure 5, the challenges linked to responsibilities are the most common. Removing the responsibility-related obstacles is required to achieve efficiency within the organization; setting clear expectations and mandates can be a way forward. Utilization of a role and responsibility matrix (RACI) by applying it for each decision or decision area level is suggested to clarify the priorities. The RACI matrix helps to define the responsibilities based on the definitions of responsible, accountable, consulted, and informed. (Heikinheimo 2021, 172-174, 260.)

Many of the typical decision-making obstacles in organizations originate from the lack of a structured decision-making process, including missing focus, inconsistent use of decision criteria, knowledge, analysis, and collaboration. (Heikinheimo 2021, 260.)

Thuraisingham and Lehmacher (2013, 183-188) describe common decision-making obstacles (blind spots) and suggestions on identifying and reducing them. The presented obstacles are overconfidence, hasty judgment, framing trap, groupthink, and use of excessive emotion. (Thuraisingham & Lehmacher 2013, 183-188.)

Table 4 introduces each of the blind spots, how they can be recognized or anticipated, and how their impact can be reduced or mitigated. A general method for learning to handle the presented blind spots can include consciously thinking the opposite of what first comes to mind or appears as the obvious choice; this can lead to increased judgment accuracy. (Thuraisingham & Lehmacher 2013, 183-188.)

Table 4. Managing decision-making blind spots (adapted from Thuraisingham & Lehmacher 2013, 183-188)

Blind Spot	How to recognize	How to reduce the impact
Overconfidence about own decision-making ability or trust to an expert's advice.	We do not question or challenge our own or an expert's advice, especially with high impact decisions.	Consider the reasons why the chosen decision can be wrong. Have a second opinion from an expert who is not impacted by the decision.
Hasty judgment and snap opinions are accepted.	We use phrases that stop ideas from generating, e.g.: Yes, but.. We've tried this before.. We do not have the time..	Encourage curiosity and diverse views, then build on them, by using phrases e.g.: Tell me more.. Help me to understand.. What would a customer experience?
The framing trap	The frame of the decision prevents from seeing the details, the alternatives, or the bigger picture.	Break routine thinking models in strategic conversations with questions e.g.: What do we really mean? What are we assuming? Where else can this lead to? Reverse typical roles.
Groupthink.	Consider that groupthink exists, especially if the team has worked together for a long time.	As a leader, be neutral when assigning the decision-making tasks. Accept criticism. Invite and spar with experts outside the group.
The use of excessive emotions.	Strong emotions occur, which may override the cognitive processes and lead to problems with deciding.	Take back control of emotions e.g., by asking: Am I motivated to see this a certain way? Would I see it differently without those expectations and motives? Have I consulted others, who are not sharing my expectation and motives?

3.4 Improving the decision-making in organizations

Heikinheimo (2021, 14-19, 20-23) presents models for leadership and leading of the decision-making. Figure 6 describes the elements of leading the decision-making. The model builds on the leadership model, and the elements are leading the people, leading the content, and leading the process. The idea of the model is that all existing managerial tasks include the three integrated elements which act as a base for decision-making. A structured decision-making approach minimizes human errors and leads to better decisions. (Heikinheimo 2021, 14-23.)

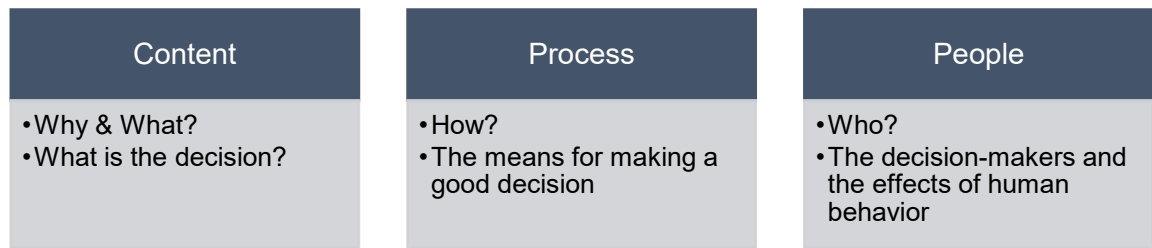


Figure 6. Model for leading the decision-making (adapted from Heikinheimo 2021, 23)

The topics that support answering to questions *Why & What* in the *Content* element (Heikinheimo 2021, 104):

1. Identify why the decision is made
2. Align decisions with strategy
3. Identify the decision type
4. Define the added value to the customer
5. Secure that decision is made to serve the common purpose and not based on individual preference
6. Evaluate the decision impacts
7. Act according to values
8. Act according to sustainability and responsibility principles
9. Follow legal requirements and other regulations
10. Identify trends and other external factors
11. Create several alternatives to start with
12. Understand that decisions are a network
13. Assess and accept risks.

The *Process* element focuses on the question *How*. The guiding topics that help to answer that question are (Heikinheimo 2021, 161):

1. Progress in phases
2. Define selection criteria
3. Prioritize selection criteria
4. Acquire and analyze data
5. Utilize automation
6. Choose suitable methods
7. Avoid slowing down the process
8. Define project decision points
9. Communicate
10. Plan and follow-up on the implementation.

People are the third element of the model. This element aims to answer the question *Who* (Heikinheimo 2021, 254):

1. Identify the decision-maker
2. Agree on responsibilities
3. Listen to stakeholders
4. Build a transparent and inclusive organizational culture
5. Identify your decision-making style
6. Dare to make the decision
7. Develop your logical thinking
8. Develop the ability to utilize intuition
9. Develop recognizing of feelings

10. Avoid leading with fear
11. Give and receive feedback.

The decision-making in organizations consists of individual decision-makers and the meaning these individuals provide to it; the outcome comes clear only in the future. The topics of different elements presented in this chapter can be the basis for developing the decision-making in the own organization. (Heikinheimo 2021, 267-270.)

Decision-making and organizational culture. The company's culture is essential for its success and results, and the culture also influences the decision-makers within the company. The recommendation is to observe if the rewards system encourages, e.g., customer-focused ideas, if the organization sees mistakes as a learning opportunity, and to be alert if the decision-making bases on assumptions and patterns. (Jones 2014, chapter 3.)

Heikinheimo (2011, 188) emphasizes the importance of involving people and building an inclusive culture. Involving and activating people can be successful only if the participation of people leads to real changes and results. Other components for an excellent organizational culture are fellowship, independence, clear expectations. (Heikinheimo 2021, 189-193.) Steinhouse (2014, chapter 1) points out that some organizations strive to avoid decision-making to avoid further responsibility if the result is not successful; other organizations expect decisions only from top management.

Barabba (2011, 157-158) presents an organizational decision-making approach and a learning process: *The Decision Loom*. The organization can modify the approach to fit its purposes. Signs for existing obstacles and decision-making development need include the separation of decision-making and information-handling functions; the utilization of external knowledge only; the development needs in the current information systems; a culture that presents biased information that fits only one purpose. (Barabba 2011, 154-158.)

The Decision Loom aims by design to utilize the already achieved results and gather learnings from the past. It is beneficial to point out critical assumptions *before deciding*; this includes identifying the stakeholders and understanding the underlying assumptions. The Decision Loom approach emphasizes learning from the previous decisions and encourages increasing interactivity and sharing of knowledge. The model includes a learning component, a Data Bank, or a Data Warehouse, which is not related to technological solutions (though it can be) but more than a solution that fits the organization. Using a *decision record* allows coming back to previous decisions and

checking the information used at the time. The contents of the Decision Record can include all relevant features for the organization for it to match the decision-making process. (Barabba 2011, 157-165.) Figure 7 presents The Decision Record.

Decision record	
Date Time ID number Person prepared Person checked Keywords Description of issues	Information used in the decision Who participated in making the decision
Is the issue seen as an opportunity or a threat Outcome: No decision / Decision to do nothing / Decision to do something	The decision-making process Who is responsible for the implementation (if anyone)
Arguments pro / con Expected consequences or effects and expected timing	Implementation plan
Assumptions for the expectations	Observations and comments

Figure 7. An example of Decision Record (adapted from Barabba 2011, 165)

Barabba (2011, 165) describes that the primary purposes and features of the Decision Record are:

- To serve as the memory helping with follow-up
- To provide a way to compare the assumptions and expected results with the actual situation
- To provide a view to past decisions for future decision-makers.

The Decision Record is to be prepared and agreed upon within the group that is responsible for the decision: what was the decision, why it was made, and who participated (Barabba 2011, 165).

According to Thuraisingham and Lehmacher (2013, 178), the process and conversation leading to the decision are as important as the decision itself. Open and participative organizational and decision-making culture allows different views and honest conversation leading to a good solution. Second order thinking means thinking about your thinking; it is a conscious method to decrease bias impact and evaluate one's decision-making, especially with high-impact decisions. (Thuraisingham & Lehmacher 2013, 179-180.)

Thuraisingham and Lehmacher (2013, 181-183) suggest organizations implement a best practice process for high-impact decisions.

Allocate a sufficient amount of time to the thinking process, separate facts from assumptions, and allow the decision-makers to understand and possible disagreement before making the final decision. (Thuraisingham & Lehmacher 2013, 181-183.)

Appreciate uncertainty by improving to tolerate uncertainty, questioning plans and decisions for assumptions, encouraging others to challenge and asking difficult questions, and developing the skill for being confidently uncertain. (Thuraisingham & Lehmacher 2013, 181-183.)

Breaking the routines by identifying and preventing unconscious patterns or rules of thumb, bringing together people with diverse principles and positions, and by choosing not to follow routines concerning all tasks. (Thuraisingham & Lehmacher 2013, 181-183.)

Expanding the box by engaging people who are known to think differently and in a disruptive way, by collecting diverse opinions and being open to new ideas, and by learning to accept other than the black or white type of thinking. (Thuraisingham & Lehmacher 2013, 181-183.)

Understanding agendas by identifying possible personal interests and silent beliefs, challenge win or lose type of thinking, and accepting that differences of opinions are not disloyalty. (Thuraisingham & Lehmacher 2013, 181-183.)

Exercise choice when leading the meeting to reach a greater good perspective and encourage generating multiple options instead of settling to the first acceptable option. (Thuraisingham & Lehmacher 2013, 181-183.)

Finally, the suggested best practices include having some distance to the decision by re-assessing, acting as the devil's advocate to yourself, having an internal dialogue, and sparring the ideas with someone. (Thuraisingham & Lehmacher 2013, 181-183.)

3.5 Knowledge Management

Finto (2021) defines knowledge management as "Management that promotes an organization's ability to create value with information, knowledge, and expertise." According to Easterby-Smith and Lyles (2011, 105-106), organizational knowledge management has several dimensions, including socio-cultural, behavioral, and technical; for example, concepts of a learning organization, information-related practices, and knowledge storage.

3.5.1 Knowledge management activities

Figure 8 presents the five knowledge management activities: knowledge acquisition or collection, knowledge storage, knowledge transfer, knowledge application, and creation of new knowledge (Ben Chouikha 2016, 30).

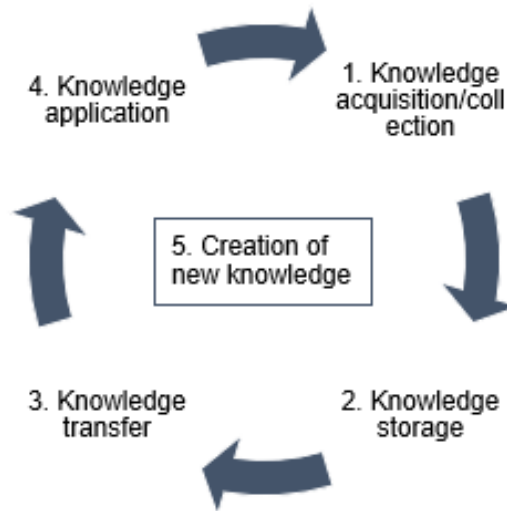


Figure 8. The cycle of knowledge management (adopted from Ben Chouikha 2016, 26-31)

Knowledge acquisition. Knowledge acquisition refers to developing new or updated knowledge from the knowledge that already exists in the organization. This activity includes identifying potential knowledge sources and evaluating if they are relevant. (Ben Chouikha 2016, 26-31.)

Knowledge storage. The knowledge acquired in the previous phase must be stored in a defined location, and the second activity in the cycle is knowledge storage. The two phases of this activity are gathering and preserving, followed by preventing the knowledge from getting lost. (Ben Chouikha 2016, 26-31.)

Knowledge transfer. The third activity of knowledge management is knowledge transfer. This activity is about transferring knowledge between different parties, between people, groups, organizations, or any mix of these parties. A variety of channels may be used for transferring the knowledge: conversations, meetings, or electronic channels. (Ben Chouikha 2016, 26-31.)

Knowledge application. Knowledge application, the fourth activity in the cycle, means that the organization acts based on knowledge. If the knowledge from different sources is not integrated, there is a risk that the knowledge is not used or acted on: for example, due to

lack of time, old knowledge is used instead of searching for the latest knowledge. (Ben Chouikha 2016, 26-31.)

Creation of new knowledge. The fifth activity in the cycle is the creation of new knowledge. This activity increases innovation and supports the organization in keeping up with the competition. (Ben Chouikha 2016, 26-31.)

3.5.2 Knowledge management and decision-making

According to McKenzie, van Winkelen and Grewal (2011, 403), having the correct knowledge is a requirement for rational decisions. McKenzie & al. (2011, 416) conclude that though decisions are considered an essential part of the daily work, the organizations could do more for improving the decision-making capability by knowledge management practices. Baba and Hakemzadeh (2012, 832) emphasize decision-making as an essential task for managers; however, it is not common that they utilize all needed information when deciding.

Decisions based on wrong information can have long-term impacts on the organization. Different decision types (tactical, operational, strategic) require a different kind of knowledge, from descriptive information and rules of thumb to pattern detection and recognition and integrative thinking. In operational and tactical decisions, the decision can be based on explicit knowledge in databases, while in strategic decisions, the best knowledge may originate from expert knowledge. However, also expert knowledge can be biased. The higher the decision impacts, the more beneficial it is to develop knowledge management practices and reduce biases. (McKenzie & al. 2011, 403-407.)

Based on their study, McKenzie & al. (2011) suggest a framework for developing the knowledge management capability. The framework includes guidance for using the process and a table with perspectives of decision-making maturity level (aware, ad hoc, applied, accepted, ambient), using experts, technology, and collaborating internally and externally (figure 9). The maturity description also includes the level of learning and decision-making and the organization's approach to developing people as decision-makers. (McKenzie & al. 2011, 411-415.)

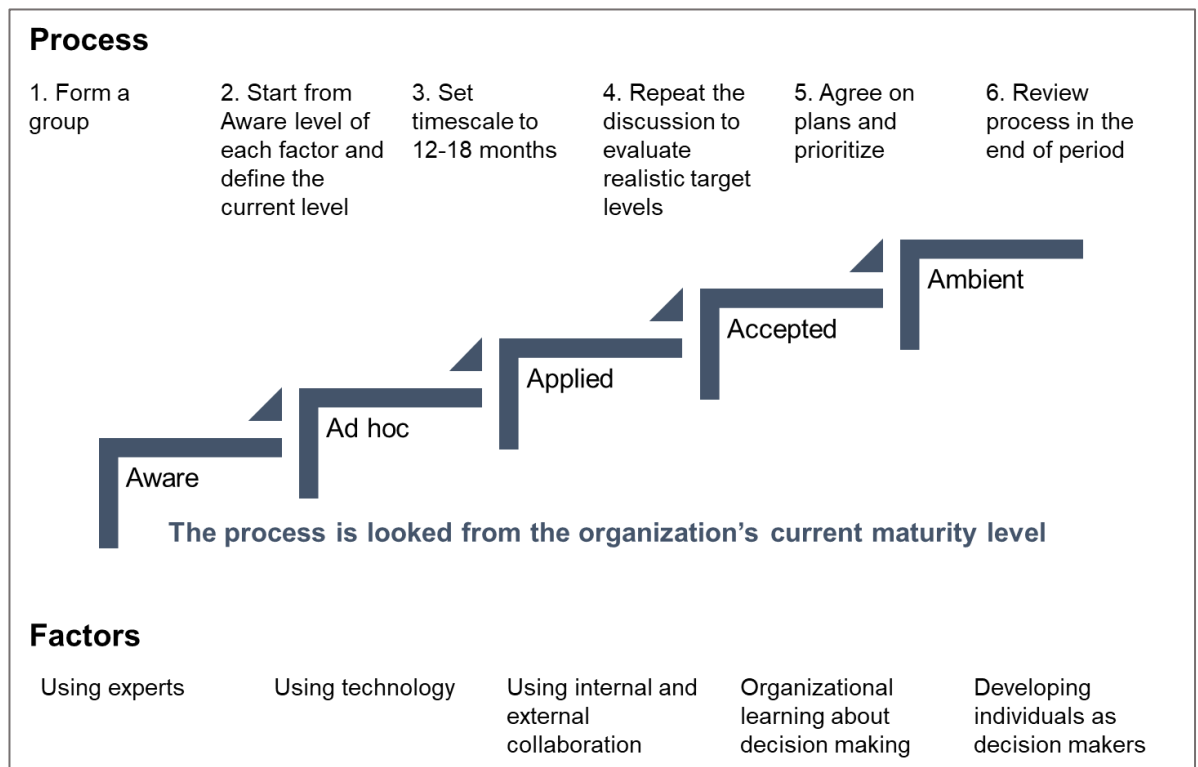


Figure 9. Knowledge management perspectives for developing the decision-making capability (adapted from McKenzie & al. 2011, 413-415)

3.6 Service Management

Service management is about leading the business with a service perspective as a strategic approach. The service perspective means that the components of customer relationships have strategic importance. The business operations can base on physical products, but the services offered are brought together as a combination of offerings: a total value-adding service package. (Grönroos 2007, 6.)

Hurwitz, Bloor, Kaufman and Halper (2019, chapter 2) describe the service as an activity with a purpose executed to achieve an identified target, illustrated in figure 10. In the illustration (figure 10), the inputs stand for the request for service, and the outputs are the result, meaning products or services (or both) the company offers. The skilled participants of the figure are employees; assets and tools are used to provide the service required. The same employees can provide the customer with the requested product or service, or other employees can finalize the task. The process followed to provide the service is the standardized business model in figure 10; these processes can be complex or straightforward. (Hurwitz & al. 2019, chapter 2.)

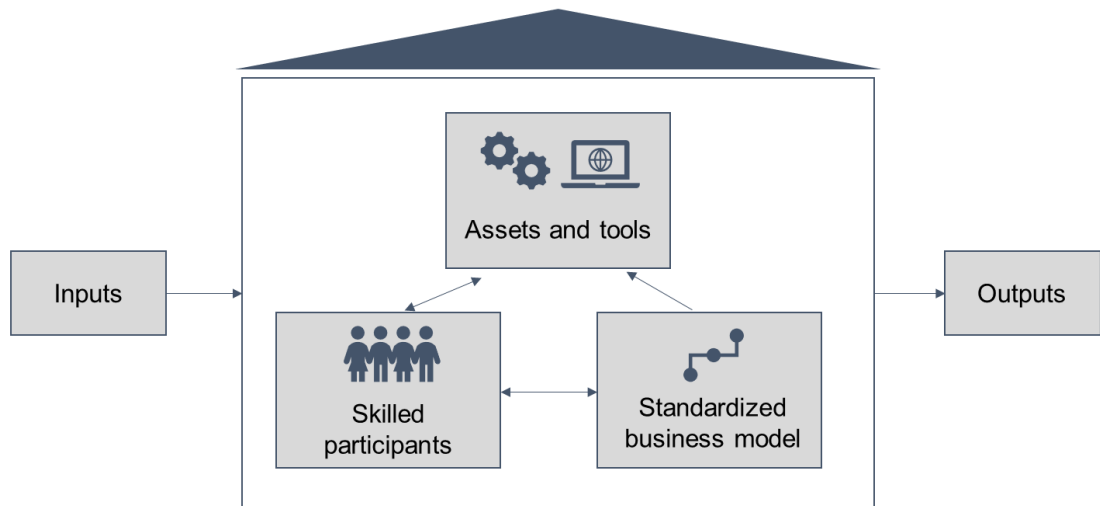


Figure 10. Internal view to a service (adapted from Hurwitz & al. 2019, chapter 2)

The focus areas of service management are customer service and business expectations, and it divides into parts where the other is visible to the customer while the other part takes place within the organization. The customer commits to the service contract, and the organization commits to deliver based on its side of the contract. The processes within the organization are not something the customer would need to know about; however, there should be a balance of the service given and the business result to avoid too high costs generated from high customer satisfaction. Measuring the current status and the development on a longer time frame is recommended from both operational and wished outcomes perspectives, costs, duration of the interaction, employee workload, and quality. (Hurwitz & al. 2019, chapters 1, 3, 25.)

Decisions that improve the perceived quality of the services usually also increase customer satisfaction. The company is not likely to succeed without knowledgeable, competent, motivated employees committed to providing. Increased customer satisfaction is likely to affect the atmosphere in the workplace positively. Decisions that focus on internal efficiency often negatively impact the service quality from the customer's perspective. For example, increasing self-service that replaces personal service can, in a rational sense, be a benefit for the customer; however, they may also weaken the experienced quality as the customer does not necessarily accept the idea of self-service. (Grönroos 2007, 8, 218-219.)

When leading services, the operational decisions should take place close to the customer, and the strategic decisions, for example, regarding general strategies or service principles, should be made centrally. However, if allowed, the knowledge of employees working close to the customers can significantly contribute to also strategic decisions. (Grönroos 2007, 225-227.)

According to Grönroos (2007, 467), one of the barriers for the organization to achieve results in service management concerns decision-making. The other obstacles to succeeding in achieving results are related to organizational structure, systems, and regulations, management, and strategy. The management needs to be decisive and bold in their decisions and implementation; otherwise, the organization cannot utilize the preceding preparation phase, including all analysis and planning. (Grönroos 2007, 467-468.)

3.7 Conceptual framework of the thesis

This chapter introduces decision-making-related practices in the case organization and the conceptual framework for this thesis.

Compared to other decision types, tactical and operational and frontline, strategic decisions concern the longer term and direct the company (Jones 2014, chapter 2). In the case company, the management teams or area-specific steering groups make the strategic and long-term decisions. In the customer support centre, the management team is responsible for the long-term decisions.

The group of team leads of the customer support centre is often responsible for the tactical decisions which concern areas such as resource planning, scheduling, and competence development. The most frequent decisions in the organization are the operational decisions, which concern daily staffing and other daily business topics. It is typical for the customer support centre that employees working in other than manager positions can decide on operational topics.

The case organization is a business unit of the case company with customer service and sales-related goals. For this operating environment, it is essential to identify the balance between working efficiently and providing the service that meets or exceeds the customers' expectations. Well-functioning IT solutions and efficient working processes are crucial to customer support centres (often called contact centres), and many of the long-term decisions concern them. Other long-term decisions can involve, for example, how the unit is organized.

The long-term decisions made in the management team often have effects on all of these areas, and the plans and decisions consider both retail (sales) and service perspectives. Many long-term decisions include anticipating the future of customer behaviour and business environment, development of competence and resources, and other topics such as organizational structure, technology, and investments. The time perspective for these decisions has historically been 2-3 years but is today even shorter (1-3 years) due to fast-

changing customer behavior and changing retail business environment. The changes started to accelerate before the coronavirus pandemic began in 2020; however, the impacts of the pandemic speeded up many changes in the case company (for example, digital development and working from home practices).

The decisions that direct the whole company and have the longest-term impacts are made in other parts of the organization, not in the customer support centre. The time frame defined as long-term for this research is one year or longer. The minimum time frame for the decisions concerned in this research was those having their effects reaching out to the next fiscal year. The definitions were introduced to the target group at the beginning of the research interviews and workshops.

Figure 11 presents the conceptual framework for this thesis. The literature in the conceptual framework was used to find answers to research questions and to achieve the research objective. The research questions are presented in chapter 2.

Improving long-term decision-making was the objective of this research. The majority of the conceptual framework focuses on organizational decision-making: Types of decisions, Decision-making process, Obstacles of decision-making, cognitive biases, and heuristics, and Improving organizational decision-making. Service Management and Knowledge Management areas were part of the conceptual framework in minor roles. Decision-making as a concept touches all business areas, and these areas (Service Management and Knowledge Management) provide additional perspectives for this research.

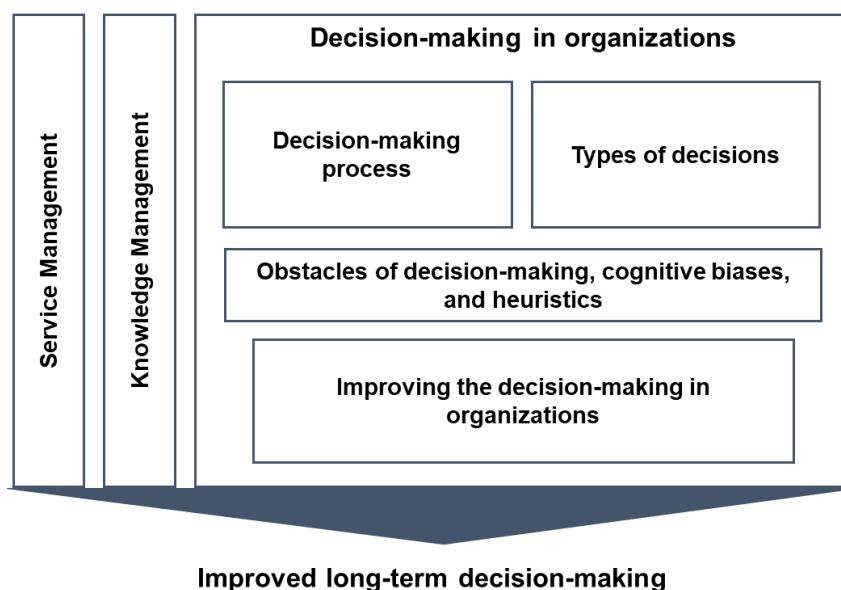


Figure 11. Conceptual framework of this thesis research

4 Methods

This chapter describes the research strategy and methods for data collection and development for this thesis. The research schedule and process are also presented.

4.1 Research strategy

The research strategies considered for this research were case research and action research, and the chosen strategy was action research.

Case research. The *case* in case research concern a single organization, a single location, a person, or a single event. Case study differs from other research strategies by focusing on a restricted situation, such as a workplace. (Bryman & Bell 2011, 59-60.) In case research, the researcher does not participate in the development but is an outside observer. The purpose of the case research strategy is to form an understanding and explanation of the issue. (Kananen 2014, 28.)

Action research. The action research definition by Reason and Bradbury (2008, 4) includes the aim for combining action and reflection, theory and practice, and finding solutions to problems that have a meaning for the participants and their environment. According to Ojasalo, Moilanen and Ritalahti (2015, 40), action research is participatory and aims to resolve everyday practical problems and organizational changes; it often fits well for development projects. Action research aims to achieve a change, and the requirement is to know about the phenomenon and the factor. The researcher is a part of the studied phenomenon and an essential actor initiating the change. (Kananen 2014, 12, 28.) The division between the researcher's role and the working role may not be entirely unproblematic - however, the researcher's involvement in the process and the target group may lead to richer insights. (Bryman & Bell 2014, 415-416.)

The main justifications for choosing action research for this research's strategy were the researcher's role and the purpose of action research to achieve a change. The researcher was a part of the organization, and the thesis objective was to improve the long-term decision-making.

The action research process consists of cycles with phases of planning, acting, observing, and reflecting; this process aims to develop and achieve change. (Kananen 2014, 12-13.)

Figure 12 introduces the cyclic form of action research.

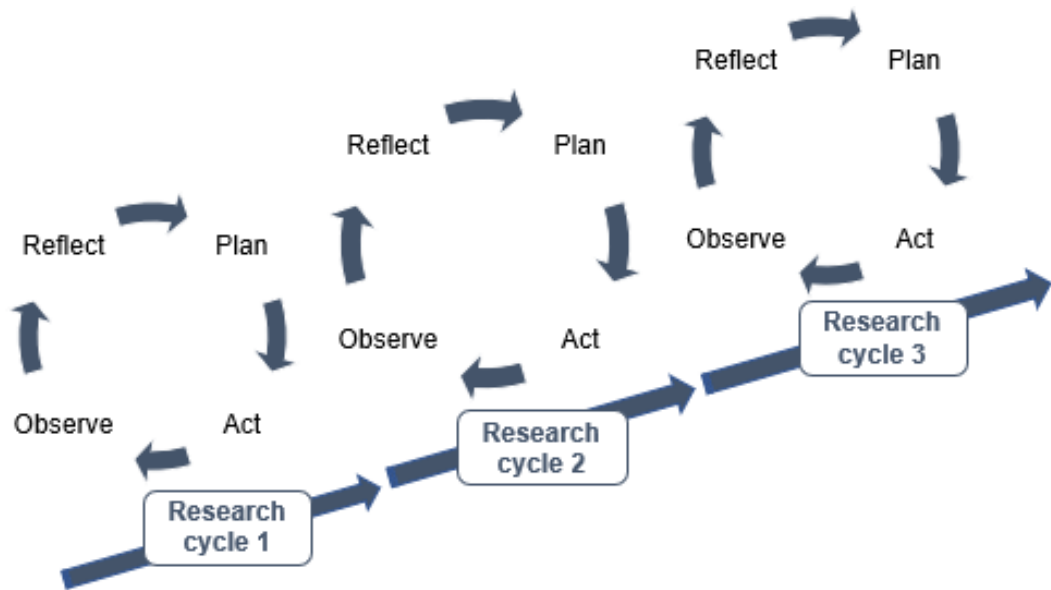


Figure 12. The cyclic process of action research (adapted from Kananen 2014, 13)

4.2 Data collection methods

This thesis research aimed to improve long-term decision-making, a phenomenon taking place in the case organization. It was required to understand the current state of the long-term decision-making, and the chosen methods were qualitative.

Qualitative research aims to achieve its findings without using statistics and quantitative methods, and it focuses on processes too complex for statistical analysis. (2014, 21-22.)

The main qualitative research methods are ethnography and participant observation, qualitative interviewing, focus groups, language-based approaches, e.g., conversation analysis, text and document analysis. Examples of data collection methods in action research are diary-keeping, a collection of documents, observation notes, surveys, recordings of meetings, and meeting descriptions. (Bryman & Bell 2011, 389, 415.)

The research data can be secondary, such as reports, or primary, such as interview transcripts. Primary data is data straight from the source, such as surveys or interviews, and secondary data is data collected from an already existing source, such as internal company material. (Collis & Hussey 2009, 163, 338-340.) If the research data is collected using more than one type of data collection method, the type is a multi-method study (Saunders, Lewis & Thornhill 2016, 167). This research used multiple methods to achieve a comprehensive analysis, and the research data was collected from primary and secondary sources.

Secondary data. The advantages of using secondary data for research include saving research project resources and that the data is comparable with the collected primary data. The disadvantages include the potential mismatch with the researcher's need, not being able to assess the data quality sufficiently, and that the original purpose impacts how the data appears. (Saunders & al. 2016, 330-335.)

The materials used as secondary data in this research included material in the case company's intranet site, and a training video in digital training portal also accessed through the intranet. Both materials are for company internal use, and the researcher had access to them through existing employee credentials. The purpose of the materials as research data was to outline the current decision-making practices, with the best effort to ensure that data is valid. The materials were analyzed by reading through the material and watching the video. Chapter 6.1. presents the analysis for secondary company data.

Observation. Observation is a data collection method used during different phases of action research, and it is one of its most important data collection methods. A potential obstacle for successful observation is that the researcher is an actor in the situation. (Kananen 2014, 79-80.) Participant observation is when the researcher attempts to participate in the activities of the target group. The types of participant observation are complete participant, complete observer, observer-as-participant, and participant-as-observer. (Saunders & al. 2016, 356-358.) Figure 13 presents the types of participant observation roles.



Figure 13. Types of participant observation roles (adapted from Saunders & al. 2016, 358)

Observation can also be the primary data collection method; however, it is common to utilize it as a supporting, secondary method to the primary data collection methods. Having a plan ready is essential to secure reliable data collection. (Puusa, Juuti & Aaltio 2020, chapter 8.) For this research, the researcher was known in the case organization and operated with an openly communicated plan. From the roles presented in figure 13, the researcher's role was a complete participant.

The documentation of observed events supports confirming the scientific validity of the research. The options are unstructured documenting, structured documenting, and evaluative observation. The documenting is unstructured (narrative) when everything is documented, while structured documenting that the researcher knows where to focus. A template or diary format fits with the structured observation type. In an evaluative observation, the real-life event compares with a pre-prepared template, and the focus areas are known. (Kananen 2015, 139.) The method for this thesis research was a structured observation because the topic was known (long-term decision-making), and the format of documentation was a template (appendix 6).

Two management team meetings were observed for this research. The meetings were regular meetings chosen for observation based on their occurrence (fitting the research schedule) and the participants (the management team). A third meeting was selected as an alternate date if the previous meetings were cancelled or if it would be impossible to observe them. The observation's purpose was to follow live decision-making; the aim was introduced to the target group beforehand, and the members were asked for consent to the research and recording of the meeting. Chapter 6.2. describes the results and analysis from the observed meetings.

The researcher used the template presented in appendix 6 for documenting during the meetings. During the meeting, the researcher first evaluated the relevance to the: is the decision a long-term decision or some other type of decision? If the answer was yes, the following categories were used:

- The decision-making process: are the phases identified
- Knowledge and data: are they used and how
- People involved: are the right people involved, are there other people engaged from outside the group
- Obstacles of decision-making: were the obstacles identified
- Other: for relevant observations outside the below categories

The observation template was the base for the analysis. The observation data were processed the same way as this research's interview data: identifying the key points and

evaluating to which category or column they belong in the Research data analysis table. The interview analysis process is presented in chapter 5.1.

Interviews. Research interviews were the primary data source for this research. The different interview types are the most used methods of data collection in qualitative research (Puusa & al. 2020, chapter 6). As a data collection method, interviews consist of asking questions from the chosen interviewees (Collis & Hussey 2009, 144). Interviews in research can be described as a conversation with a set goal (Puusa & al. 2020, chapter 6). For this research, the goal was to collect data for the analysis and development phases of the project.

The main difference between the different research interview types is the level of structuring, how freely the interview proceeds: in a structured interview, the questions and the answer options are defined in advance and presented in the same order. In a semi-structured interview, there are no pre-formulated answer options. A semi-structured interview format potentially allows the appearance of such topics that the researcher may not have thought of when creating the answer options. (Puusa & al. 2020, chapter 6.) In the semi-structured interview, the interviewer can also ask further questions (Bryman & Bell 2014, 205).

For this research, the target group was known, and it was not required to use sampling techniques. Table 5 introduces participants for this research's interviews and research activities. The long-term decisions made in the case organization are this group's responsibility which defined them as the target group.

Table 5. The interviewees selected for this research

Research interviewees	Selection criteria	Responsibility area in the case organization
Research interviewee 1	Management team member	Business Unit Manager
Research interviewee 2	Management team member	Business insights and knowledge management
Research interviewee 3	Management team member	Human Resources
Research interviewee 4	Management team member	Operations

The interviews of this research were individual, and they took place remotely using Microsoft Teams software. The planned duration for each interview was 1 hour 15 minutes, and they were recorded using the software's recording feature. Eriksson and Kovalainen (2008, 200) note that informed consent is required from all research participants. The interviewees should always be asked consent for the recording and note-taking for research purposes (Collis & Hussey 2009, 145). This research's target group was asked for consent when introducing the project and reminded at the start of each activity. The interviews and other research activities were carried out in Finnish, and the research data, including the transcribed interviews, was translated to English by the researcher. The original transcribes were saved though not published in this report.

Providing the interview's themes to the participants beforehand can increase both credibility of the researcher and the validity of the answers. (Saunders & al. 2016, 402.) The target group of this research received the interview themes beforehand in the invitation email.

The interview plan. It is beneficial to prepare an interview plan as insufficient planning can lead to unsuccessful interviews, and even the whole research can fail. (Kananen 2015, 153.) An interview plan, presented in appendix 2, was prepared for this research. The plan included both research and practical topics:

- The research questions and linked literature to help to confirm that the questions will provide data that helps to answer the questions
- The communication and practices; including research and development project communication and practical information about the interviews
- The practices during the interview, for example, reminder for the researcher to inform about the recording and notes
- The practices after the interview, including, for example, preparing the individual interviews to a format they can share with the interviewee if asked.

The research problem and research questions are the guidelines for formulating the interview questions (Kananen 2014, 94). Table 1 in chapter 2 of this report presents the connectivity of the thesis conceptual framework, the research questions, and the introduction to the linked literature areas for each research question.

The interview questions. The interview questions were designed to provide data for the current state analysis. At the beginning of the interview, there was a so-called warm-up question asking to give examples of long-term decisions in the customer support centre. Identifying what kinds of long-term decisions were previously made was not in the scope of this research; however, the general question provided a good starting point to the interview. There were seven questions in total, some of which had sub-questions. Appendix 3 presents all interview questions. The main interview questions were:

1. Describe the long-term decisions made in the customer support centre (this question is out of the scope of this research)
2. Are there criteria defined in purpose to guide the decision-making?
3. Are measurements used to monitor the results or impact of decisions?
4. Are there obstacles or complicating factors in the current decision-making?
5. How would you describe the use of knowledge in current decision-making?
6. How would you describe the use of experts from different fields in current decision-making?
7. Could a framework or model describing e.g., decision-making criteria and prioritization, help to improve the decision-making?

The questions concerning the knowledge utilization and experts were designed to provide information on the current decision-making practices and obstacles. The last of the main questions asked whether the respondent would see it beneficial to have a model with decision criteria and suggested prioritization; this question referred to the development phase of this thesis project.

The interviews took place in a virtual meeting where the researcher shared a PowerPoint presentation showing the questions to the interviewees. The purpose of the presentation was to show the questions in writing and increase engagement. Figure 14 presents a caption of one example slide from the presentation.

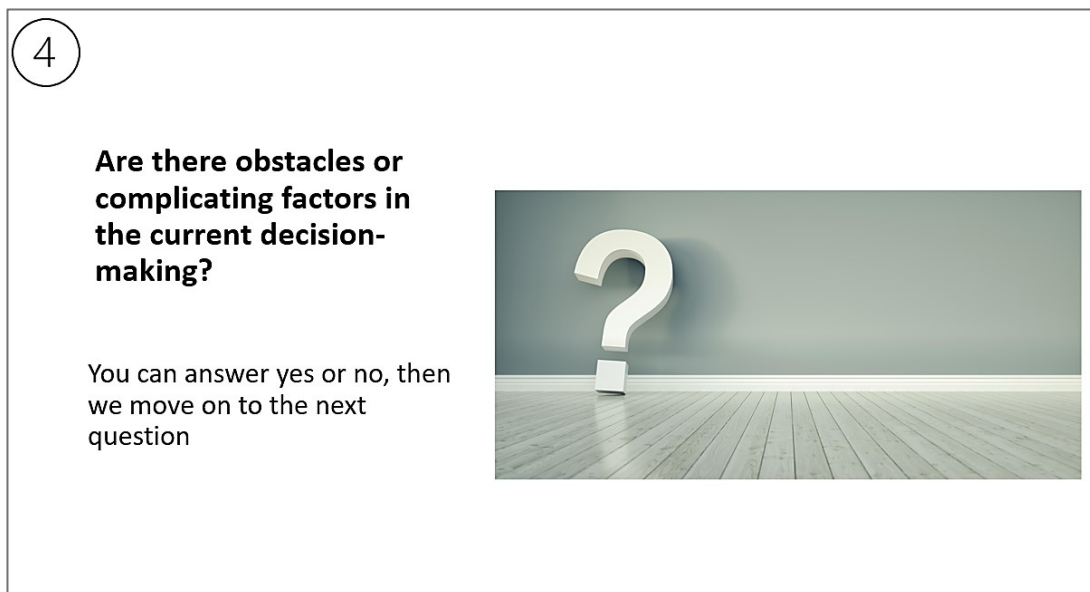


Figure 14. Caption from the PowerPoint presentation designed for the research interviews

The data collected through the interviews provided qualitative data. There are many methods for analyzing qualitative data; figure 15 presents the steps for qualitative content analysis by Schreier (2014, 6-7).

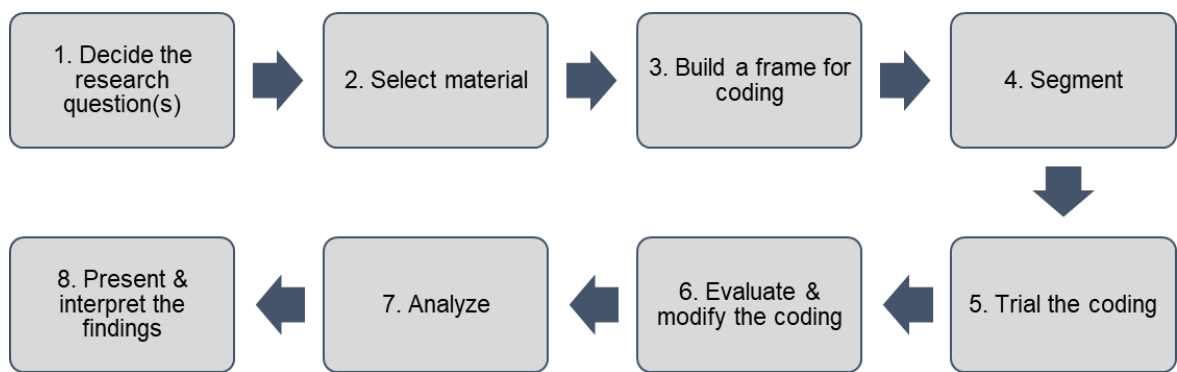


Figure 15. Steps of content analysis (adapted from Schreier 2014, 6-7)

The researcher aimed to solve the research problem through the collected data. For a qualitative study, this meant gaining an understanding and formulating an explanation of the phenomenon. The research data is read through several times to understand; this can be sufficient for the analysis. With a large amount of qualitative data, further processing through condensing of text is required to identify the relevant topics from the text mass. (Kananen 2015, 161-163.)

Data sampling is one method of transcribing recorded material. Data sampling means transcribing relevant sections of the recording instead of all the material. When using data sampling, the recording is listened to at least twice not to miss anything important. (Saunders & al. 2016, 573.)

Classification of the observations is characteristic for qualitative study. The classification always consists of the interpretation of the researcher. Classification means grouping the data based on defined categories or, for example, based on identified common features. (Puusa & al. 2020, chapter 9.)

For this thesis research, the data collected from the interviews was relatively small. There were four interviews planned and conducted, with a maximum duration of one hour (fifteen minutes extra reserved for the introduction). The interviews were transcribed using data sampling, first each interview separately, then by combining all answers from each question to the same document. For this research, the data sampling meant in practice that the interview's introduction phase, as well as topics outside the research scope, were not transcribed. Due to a relatively small amount of data, a complete content analysis process was not used.

The key points from the transcribed interviews were placed in the Research data analysis table and categorized. Chapter 5.1. introduces The Research data analysis table and the research data processing and appendix 5 The Research data analysis table.

4.3 Development methods

Workshops were the development method chosen for this research; the target group members were the participants, and the researcher was the facilitator. The criteria for selecting workshops for this research's development phase were their participatory nature and the change management perspective; the development project for improving the long-term decision-making is also a change to the research participants.

According to Biech (2016, chapter 1), the role of managers is even more critical than before, as today's changes are constant and complicated, while the organizational change programs target more straightforward issues. When planning adult learning activities, Biech (2016, chapter 6) suggests, for example, the following:

- Use self-directed learning activities
- Use interactive methods
- Adjust the content and materials to fit the target group need
- Allow time to process on learning activities, such as case studies and role play
- Identify learning needs before and during the training.

According to Tuomi and Sarajärvi (2018, chapter 3.2), in participative activities, the role of the researcher is to learn and not to teach the participants. The researcher is the facilitator and coordinates the presented ideas. In participative activity, the emphasis is on the participants' learning as this is expected to lead to development actions. (Tuomi & Sarajärvi 2018, chapter 3.2.)

Workshop 1: How to achieve high quality in the decision-making?

The purpose of the research workshops was to develop long-term decision-making as group work. The task of the first workshop was to collect ideas and suggestions on how to ensure high-quality decision-making.

The Research data analysis table was the tool for analyzing data and planning the development activities, including the first workshop. The description of The Research data analysis table is in chapter 5.1. and the table is presented in appendix 5.

The key points from the interviews were linked to a high-level category in The Research data analysis table; For example: *not having all stakeholders identified* is connected to a category named *Lacking agreement, who are the stakeholders for each decision type*.

The creation of categories aimed at finding common features among the answers and designing the task for the workshop.

The theme of the development activities was *Let's develop the decision-making together*. The FLINGA wallboard, an interactive tool, was used to complete the task in the workshop. All participants accessed and edited the wallboard in real-time; this also encouraged conversation. The researcher's role was to facilitate and support the group in the task without participating in the task. Chapter 6.3. presents the results of the workshop.

The ideas and suggestions from the first workshop were used to plan the next workshop (Workshop 2: Testing the decision-framing questions); the second workshop focused on testing the first draft of a suggested structured approach to long-term decision-making.

Workshop 2: Testing the decision-framing questions

The main objective of the second workshop was to evaluate the scope, requirements, and expectations the target group had concerning long-term decision-making. A test decision was invented to help determine if the model worked in real-life decisions. Though the decision was imaginary, it aimed to match the thesis research scope and the long-term decision-making in the case organization. The presentation material for this workshop is presented in appendix 9.

A list of decision-framing questions was prepared for the workshop. Table 6 presents a caption from the document. The complete document is presented in appendix 10. The questions were formulated based on the secondary data, the research interview results, and the first workshop's results; they were also designed to follow the three phases of decision-making by Steinhouse (2014, chapter 1). The three-step model was chosen based on the researcher's evaluation that it fitted the organization with its clearly presented phases. One additional step, definition, was added with the aim to ensure the clarity of the starting point. Also, with the phases and questions, the decision-framing question document included tips to practically support the decision-making.

The purpose of decision-framing questions was to evaluate:

- Decision-making model by Steinhouse (2014, chapter 1) against the case organization's needs
- What is the sufficient scope for the case organization; the improved process should fit different kinds of long-term decisions – not being too detailed and not too simple
- Preparations before the decision
- Decision impact evaluation
- Decision criteria and prioritizing of the decision criteria
- Steps to reduce the obstacles of decision-making

Table 6. A partial caption from decision-framing questions

Phase	Question	Tips
Definition		
	Who provides the frame for the decision? (Definition, budget, goals)	<i>Consider sharing the information in advance to people who will be the most involved.</i>
	What is the timeframe for the decision and the actions that follow?	
	Is the deadline negotiable?	
Preparation		
Who & resources	Who is needed to involve in the decision (in any phase of it)?	<i>Concerning stakeholders or experts outside the group, agree what information can be shared.</i>
	Is there a need for any resource allocation during the preparation phase?	<i>If resources allocation is needed (any impact to operational work), agree who is responsible for the actions.</i>
	Does an external party need to be consulted, if yes, is there a cost?	

At the end of the workshop, the participants were encouraged to give feedback. A feedback request was also sent to participants by email after the workshop, providing a possibility to share feedback privately. The received feedback was analyzed and used for the next phase of the research, developing the improvement suggestions. The results of the second workshop are presented in chapter 6.4. and the feedback in appendix 11.

Presenting the development suggestions and collecting feedback

According to Kananen (2014, 137), the organizational development project needs to be evaluated by comparing the results with the project's goals. The action research cycle is successful if the problem is removed or if the unwanted impacts are reduced. The participants of the action research process evaluate the result and provide feedback. (Kananen 2014, 137.) A meeting was booked to complete the final phase of this research, which included presenting the proposed development actions and gathering feedback and evaluation from the target group. The target group members gave their final feedback through a questionnaire. Chapter 7.1. presents the feedback.

4.4 Reliability and validity of the research

Often, the qualitative research methods are tailored to fit the research purpose, and the research process description is a practical description of the activities. However, general

principles for evaluating the reliability of the research exist. In qualitative research, reliability is assessed by the research frame and the methods used. (Puusa & al. 2020, chapter 11.)

The definition of reliability is that the researcher can credibly show and justify the choice and use of approaches and methods for solving the research problem. The reader needs to be convinced that the report follows the progress of the research in reality. (Puusa & al. 2020, chapter 11.) According to Kananen (2014, 134), the reliability evaluation bases on careful documentation of the results, methods, and data collection. This thesis report includes the progress description, and the documents of the research activities are attached. Also, in this report, the results and analysis are separated, as is the planned activity schedule with the few schedule adjustments visible.

The workplace sponsor of this thesis confirmed the validity of the target group. The researcher evaluated the validity of the secondary company data by the date (that it was not significantly old). The training video, which originated in the year 2018, was promoted in 2021 during an employee event, among other recommended trainings; this confirms that the case company sees the training as relevant.

Saunders & al. (2016, 202-203) present the different threats to reliability and validity: participant error (something influencing a participant's performance), participant bias (behavior leading to a participant's false answer), researcher error (something that leads to the researcher's incorrect or insufficient interpretation), and researcher bias (allowing biases to influence research data). According to Puusa & al. (2020, chapter 11), in organizational research, the researcher can have assumptions of the organization that impact the existing perception and be positive due to being familiar with the context.

In this research, best effort is used to prevent any participant and researcher errors and biases from materializing. For example, the research activities together with the target group started with a summary of the research's purpose, and the anonymity of the answers was emphasized to reduce participant biases.

4.5 Research schedule and process

The data collection and development activities took place between December 2020 and April 2021; the thesis report was finalized in May 2021. Appendix 4 presents the Data collection and Development & Feedback plan for this research, including the schedule.

The prepared plan required only minor adjusting during the activities: one workshop was rescheduled by one day, and the backup date reserved for observation was not used. The

second meeting planned to observe was rescheduled and took place one day earlier than initially planned. The activities followed the action research model. Figure 16 presents this research's timeline with the development activities and the action research cycles.

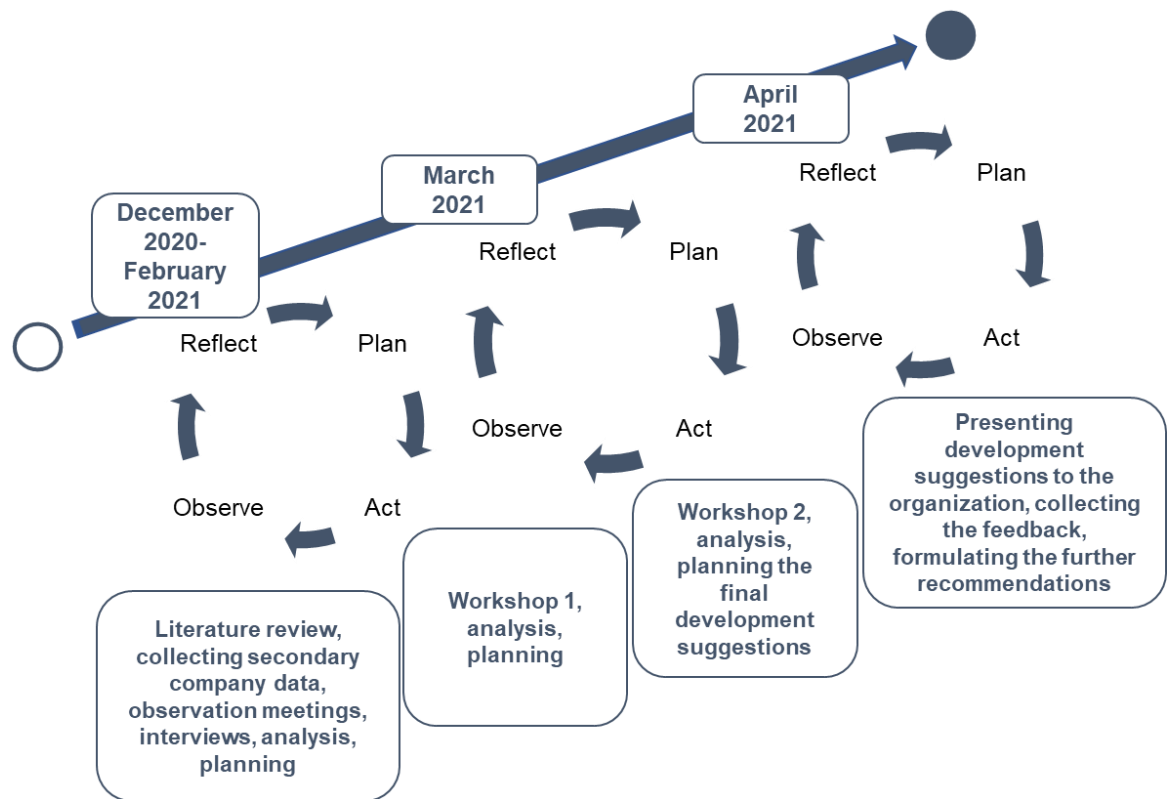


Figure 16. This research's timeline with the development activities and the action research cycles (the action research cycles adapted from Kananen 2014, 13)

5 Current state analysis

This chapter first describes the data processing, then presents the analysis in chapters 5.2.-5.6. and the key findings in chapter 5.7. The interviews were the main method for collecting the primary data, and their purpose was to provide data for analyzing the current state of long-term decision-making. The data collected from the interviews were used to find answers to research questions and planning the development workshops.

5.1 Processing the research data

The process described in this chapter concerns data collected by observation and interviews. Chapter 6.2. presents the analysis from observed meetings. The interview analysis was made using themes decision criteria and prioritizing, having the right people involved, measuring the decision impacts and follow-up, current obstacles of decision-making, and views on developing the decision-making. Chapter 4.2. and appendix 2 present the interview plan, and appendix 3 describes the interview questions.

The Research data analysis table was created to process the answers. Table 7 presents the column names of the Research data analysis table, and appendix 5 shows the complete table.

Table 7. The column names of the Research data analysis table

Research Interview 1 (RI1)	Research Interview 2 (RI2)	Research Interview 3 (RI3)	Research Interview 4 (RI4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be reduced?	Other	Decision-making elements for workshop 1	Linked literature area
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The interviews were transcribed from the recordings, and they were referred to as Research Interviews 1-4 or with short versions RI1-4. The Research data analysis table included a column for each interview, a column for the key points from the interviews and observed meetings, a column for research questions 1-3, and a column for topics not fitting to any other columns but seen relevant from the research perspective.

The purpose of the column *Decision-making elements for workshop 1* was to support the planning of Workshop 1 (How to achieve high quality in the decision-making?). Chapter 4.3. describes the workshop, and chapter 6.3. presents the results. A column for the linked literature area of this report was also included in The Research data analysis table to support formulating of the development suggestions.

In the planning phase of Workshop 1 (Developing the quality of long-term decision-making), the key points were formulated to a high-level category. For example: *not having all stakeholders identified* was placed to the category *Lacking agreement who are the stakeholders for each decision type*.

First, the key points from the interviews were listed in the table. X marks which research interview provided the data. Next, the key points were linked to columns named by the research questions or a column "Other" reserved for topics not belonging to the research question categories. The categories used in the current state analysis are presented in chapters 5.2.-5.6. The key points were also evaluated individually to avoid missing something significant due to the high-level categorization.

5.2 Decision criteria and prioritizing

One area of the current state analysis was the decision criteria and if they currently are used in the decision-making. The other perspective regarded the possible prioritization of the decision criteria. The answers varied on whether there were existing criteria to support the decision-making. One respondent stated that the criteria do not exist, while the other three respondents named certain elements, for example, the company values and people-centric approach:

"The values are defining greatly what kind of decisions we make, for example, what it comes to profitability and cost-consciousness and how we take people into account, meaning the wellbeing of people, in our decision-making. So that the same time it would be efficient and cost-conscious and well-operating, but also people-oriented" (R14).

One of the respondents pointed out that though the company values were not defined as decision criteria, they always exist in the background, and the decisions were determined through the values. Another respondent emphasized striving for cost-conscious and people-centric decisions but having the final emphasis on people perspectives.

The decision's cost was named a critical element by one other respondent. Other elements mentioned guiding the decision-making were customer satisfaction, being available to the customer, and affordable prices. One respondent experienced that sustainability is a guiding element.

The respondents were asked if it would be useful to have specified decision criteria. Also, the interviewee who experienced that the criteria were currently lacking noted their benefits.

“I think it would be beneficial, definitely, that the decision-making would be more structured, and maybe there would also be a tool for that. And those criteria, when we make decisions, we would have a big picture on the impacts, now we make also decisions based on previous assumptions and gut feeling” (R11).

One respondent saw that all future decisions should not go through an identical process despite defining the decision criteria and prioritization.

“Decision-making cannot be placed into the same format considering all decisions, but I think that the main factor here is that you can stand behind all decisions” (R12).

Customer satisfaction refers to the primary purpose of the customer support centre. The long-term decisions made within the case organization affect the employees and the operations either directly or indirectly: the decision can concern, for example, the long-term employee competence development, the way employees and teams are organized, or the technical solutions used in the customer service.

Motivated and competent employees are the key to a company's success (Grönroos 2007, 8). Decisions that improve the quality of the service usually increase customer satisfaction, while decisions focusing on internal efficiency negatively impact the quality of service experienced by the customer and further the workplace atmosphere. (Grönroos 2007, 218-219.) The case organization does not typically decide on the services offered; they are decided elsewhere in the organization; however, it is a stakeholder and involved in the process. The decisions which potentially impact both customers and employees are beneficial to evaluate from an impact mitigation perspective.

The decision criteria identification and definition are required for high-quality decision-making and should be recognized separately in the process. The choice of an option should be possible to justify, and a systematic method in the decision-making helps to reduce the impacts of the cognitive biases. (Heikinheimo 2020, 109-113.) The decision criteria prioritizing matrix (table 2) can be used to define the criteria (Heikinheimo 2021, 113-117).

The costs and cost-consciousness were named as one criterion. Being cost-conscious has roots in the case company's history and based on the researcher's working experience from the case company, it has a strong position in the organizational culture. In practice, this means being cost-effective rather than preferring the lowest-priced option. One interviewee mentioned that low retail prices should be considered; however, the decisions made in the case organization do not concern the retail prices.

Sustainability, which was mentioned as a guiding element by one of the respondents, is also included in one company's values. Sustainability is one of the focus areas of the case company: the impacts on the environment and social responsibility should weight in the decisions. The customer support centre's long-term decisions are often immaterial; considering sustainability in those decisions could perhaps be defined separately.

There were some criteria and prioritization identified in the interviews; however, there was an indication that the identified criteria were not specifically aimed to support the decision-making; they were also some of the values or focus areas of the company. All of the respondents stated that decision criteria are essential when making long-term decisions though currently, they were not defined on each decision. The literature confirms the importance of setting the decision criteria and their systematic use; this would include defining which decision types would require improved processing. Thuraisingham and Lehmacher (2013, 181-183) suggest that a best practice process is used for high-impact decisions.

In the interviews, the company values were referred to as decision criteria. The researcher can confirm from the working experience that the case company links the values to all operations, such as value-based recruiting. The internal training material concerning value-based decision-making is summarized in chapter 6.1. The complete training was not evaluated for this research because the training also includes additional facilitated modules which were not available for the researcher. The views from the interviews, the practical experience, and the secondary data support the idea of linking the company values to all tasks, including long-term decision-making. The company values can guide the whole company in the wished direction (Alahuhta & al. 2015, chapter 4). Systematic work to build the organizational culture on values can also act as a base for decision-making that is based on values. (Heikinheimo 2021, 58.)

The current state analysis concerning the decision criteria showed that there were not any concrete criteria specifically set for decision-making. In the interviews, this was not brought up as something that would complicate the decision-making in large proportion. The researcher's evaluation of why it was not seen as an issue is that the case company has both hierarchical (e.g., the target group can only decide on topics concerning the customer support centre) and technical frames (monetary authorization levels and other processes) in place. The decision criteria and their prioritization are among the suggestions for improving the current way of working.

5.3 Having the right people involved

Having the right people involved or the stakeholders identified was a topic brought up by all respondents. The matter was also mentioned during other questions in addition to the question about the cooperation with experts. One of the respondents named having experts involved as the primary development area. Identifying the stakeholders and having them engaged in the decision was seen to improve the current decision-making.

“So that we would have all stakeholders involved when we make the decision” (R13).

“It is valuable to have interaction with the expert, that can bring a new point of view or a new interpretation” (R12).

Involving the right people was also considered as providing insights and perspectives before the decision though these people would not necessarily be involved with the actual decision-making. It was emphasized being a part of the current practices, though not as often as possible. One respondent experienced that the information is often hard to find despite the company's data and information practices and sources.

Two respondents pondered that the knowledge utilized in the decisions was usually gathered from internal company sources; in some decisions concerning general topics or industry knowledge, the case organization might benefit from benchmarking or other external knowledge.

“External views and experiences are something I would like to have, and benchmarking within the industry so we could utilize that what others already have invented” (R14).

One respondent felt an excess of stakeholders wanting to get involved, which prolonged the decision-making; the topic was linked to the company's size and operating model.

All respondents answered that involving the right people in the decisions is essential. In addition to the group responsible for making the decision, sometimes other participants contribute to the decision though they are not involved in the final decision. The contribution can include providing data or sharing views on the planned changes. Involving more people to the decision-making in different phases increases the effort required for the whole process; this is something to consider if the organization would commit to having more people involved.

Involving the relevant individuals and groups is recognized in the literature to have positive results on decisions. Grönroos (2007, 227) emphasizes that in strategic decisions, it is beneficial to utilize the knowledge of employees working with customers.

Involving relevant people can also be looked at from the diversity perspective. For high-impact decisions, Thuraisingham and Lehmacher (2013, 181-183) suggest engaging people who are skilled with disruptive thinking, collecting diverse opinions, being open to new ideas, and avoiding thinking that there are only black and white options.

5.4 Measuring of the decision impacts, and follow-up

The topic of measuring the decision impacts, their follow-up and (if measurements are used) whether the measurements are set individually for each decision in advance provided a variety of perspectives.

All participants experienced that measurements are used, but not always.

“Yes and no. Sometimes we make decisions where no measurements are used” (R13).

Three of the respondents saw that it would be beneficial to work in a more structured way when setting the measurements for each decision. Two of the respondents suggested this as a focus area for development. One of the respondents said that there are always measurements defined when making long-term decisions in the customer support centre.

“We make decisions, but we do not monitor the impacts and effectiveness. We also don’t have set checkpoints, if you could call them that, in which we should react to. They too could be set in advance” (R11).

“It might be a good idea to think just those few really important things that are followed up and measured” (R14).

The respondents brought up several factors that sometimes cause the missing follow-up on decision impacts. The complexity of defining the correct measurements was mentioned by two respondents, referring to the large amount of available data, which is not in analyzed or processed format. It was also experienced challenging to identify the relations between different measurements. One respondent saw that the lack of a systematic way of working appears as starting efficiently but later losing the focus, and the follow-up is not continued.

“It is just assumed that the decision is correct and that’s that. Either the fact that we are satisfied that the decision has been made or believe that it is right without processing. And when the decision is made, it just is thinking forward and not wanting to go back - that’s maybe one thought” (R12).

Two respondents highlighted the importance of evaluating the decision's impact or effectiveness. Another element suggested was the setting of checkpoints as a part of a systematic approach.

In the three-phased decision-making model, Steinhouse (2014, chapter 1) suggests having a precise implementation plan with details and schedule and preparing for any difficulties and *buyer's remorse* effect after deciding. Predefined measurements and checkpoints suggested during the research interviews and a structured way of working would help to evaluate how the decision-making impacts the plan. In a case of uncertainty, set measures would help assess whether the decision was correct.

Concerning the theme of decision impact evaluation, setting of measurements, and follow-up, the respondents had a common view that the measures and follow-up plan were often in place, at least at the start. However, the respondents also saw a lack of a structured and persistent way of working. The literature supports the respondents' thinking. According to Heikinheimo (2021, 14-23), a structured decision-making approach minimizes human errors and will lead to better decisions. Heikinheimo (2021, 50) also recommends setting goals for each decision to achieve the wished results and less of the unwanted.

A clearly stated decision impact evaluation with follow-up measurements, and an implementation plan with agreed checkpoints, summarize this phase of the current state analysis. These features were provided by the target group and were considered in the development suggestions.

5.5 Current obstacles of decision-making

One of the research questions concerned identifying the obstacles of current decision-making; the possible obstacles were one of the research interview's themes. The answers varied between the respondents. Three of the respondents experienced obstacles, while one respondent did not.

"In my opinion, when you have those facts and measurements it is easy to make the decision. Then you don't have any suspicion whether the right decision is made" (R13).

One respondent mentioned the characteristics of a matrix organization impacting the decision time frame, referring to the many stakeholders involved in the decision, which increased the effort to finalize the decision.

"Another obstacle which makes it difficult is that we have to do it on a very fast pace, which I also think is an obstacle to quality decision-making. That if they were not done in a reactive mode or in an ad-hoc situation, then they could be more thoughtful, and the implementation of the decision would be of better quality" (R11).

An obstacle named by two respondents was the short time frame for deciding. Two respondents experienced that not having the same level of understanding or knowledge about the decision at hand is one of the current obstacles.

“It is very challenging to decide when you do not have enough information” (R12).

Two respondents mentioned that people's opinions and personal characteristics sometimes made the decision-making situation challenging. It was seen that persistency was required in this kind of situation for formulating opinions based on knowledge and facts. The respondents also stated that a common conclusion was reached despite the possible strong opinions.

The respondents identified obstacles in the areas of knowledge, information, and data visualization. Two respondents experienced that the needed information is not often found or the information is not in a processed format (e.g., raw data instead of a processed table). Three of the respondents felt it is possible to interpret the information selectively and promote preferred options when deciding. In practice, this means presenting the data to support one's personal view or agenda. Leading with data and knowledge was brought up as an area the case company has emphasized; at the same time, there was uncertainty regarding the data quality. It was noted that the area would benefit from a more structured approach.

“You maybe need to make your own research when looking for the information. Though the company is quite well organized and there are people collecting data and analyzing. There is more and more data available but where to find it?” (R13).

“Often, we are suspicious, does the knowledge really measure the metric it should. That is sometimes quite surprising if we want to lead with knowledge” (R14).

The current state analysis on the obstacles of the decision-making area showed the broad scope of factors that influence the decision-making. In the answers concerning the obstacles, the responses varied. One respondent did not experience any challenges, though all participants identified development areas in other parts of the interview.

Knowledge, information, and data analysis as the base for decision-making were linked to obstacles: for example, data not being available, not trusting the data, and having too much data that it is difficult to find what is needed. The case organization was responsible for some data sources; these sources were related to the operations of the customer support centre (for example, performance data). Some of the other data sources used are country-specific, while others were used globally in all countries of operation. There are

fewer possibilities to impact the sources used in all countries of operation. There are some resources allocated to data analysis in the case organization, though these resources mainly focus on supporting the daily operations and recurring information needs.

From a development need perspective, the case organization can directly impact the quality and content of specific data sources but not all of them. In conclusion, challenges and development ideas were identified in the areas of data sources and data presentation; however, changing them requires cooperation.

In their study, McKenzie & al. (2011, 403-407) state that decisions based on wrong information can have long-term impacts on the company. When it is about a long-term decision, involving an expert can be recommended (2011, 403-407). A helpful step to take more often is turning to experts within the company. Following the process using six activities of knowledge management, as presented by Ben Chouikha (2016, 26-31) could help to identify the obstacles. This research did not focus on leading with knowledge, knowledge management, or business analytics; however, the results showed that the area has development needs.

The long-term decisions can have unexpected impacts, of which some can be identified and mitigated by a structured approach. However, not all environmental changes (within the organization or external) cannot be predicted, as the coronavirus pandemic showed during 2020 and 2021. It is also essential to re-evaluate the decision or the implementation plan in case of internal or external changes.

One of the thesis research questions concerned cognitive biases and their potential effect on decision-making. The interview results showed that sometimes the decisions were based on assumptions. However, it was not the case for all decisions, as the results also showed that information was collected and analyzed before deciding. Some decision-making obstacles that are also recognized by the literature were seen to impact the working as a group. Thuraisingham and Lehmacher (2013, 183-188) name overconfidence in one's decision-making abilities, hasty judgment, and groupthink as common blind spots of decision-making: first accepting their existence and then continue with a structured and conscious approach is the key to reducing these blind spots or biases.

Pihlaja (2021, chapter 2) explains the features of fast human thinking: the almost automated system does not consume energy; it also does not take contradictions into account – the thinking ignores potential missing information. The current state analysis of this research did not find cognitive biases as a significant obstacle for long-term decision-

making. The generality of the biases indicates that it would be beneficial to raise awareness of their impact, e.g., through book recommendations or training.

5.6 Views on developing the decision-making

One interview question concerned the target group's views on developing long-term decision-making by implementing a structured model. All respondents saw the idea as beneficial and likely to increase the currently missing structure.

“The process would in my opinion help getting higher quality and also that would increase the facts that need to be the base for the decision” (R11).

The estimated benefits of working in a more structured way with decisions included using the currently often missing criteria (two respondents). Three respondents estimated that the quality of the decisions would increase. A structured way of working was considered to help when there is a short time frame to decide, for being able to trust the decision, to ensure that the decisions are based on facts, and to secure that all relevant phases (one respondent each).

“That would support the decision-making so that it is secured that all phases are done” (R12).

There were also some threats seen in implementing a structured process. One respondent saw it as a potential threat if a too complicated and time-consuming model would be implemented, leading to getting stuck or proceeding slowly. Two respondents said that it might not be possible to treat all types of decisions equally and by the same process.

Missing structure, which was one of the challenges seen affecting the decision-making currently, was seen to improve the quality of the decisions. Seeing the need for a structured way of working by using a model or framework indicates that the participants perceive the decision-making as a key managerial task. This idea is supported by literature, where decision-making is seen as an essential and continuous part of managerial work. (Heikinheimo 2021, 21-23; Alahuhta & al. 2015, chapter 4.) This attitude and understanding can positively impact the planned development, which requires commitment and effort from the target group.

The threats or disadvantages of implementing a new model were justified by slowing down or complicating the decision-making; these factors were also considered essential and impacting whether this research's development proposals will be implemented and seen as beneficial. Resistance to change is a common complication in organizational development projects; however, this research did not indicate that. According to

Steinhouse (2014, chapter 1), it is important to trust the vision that is defined the decision but to understand that sometimes the decision made was not the right one and it needs to be reversed; taking learnings to future decisions is vital if this happens.

5.7 Key findings from the interviews

The key findings from the research interviews are presented in table 8. The findings are categorized by themes of the interviews. The positive attitude towards starting to work with decisions in a more structured way reflected the overall positive attitude of the target group for the development project in general. It can also be seen as a sign of a trustful atmosphere that the respondent also shared critical views, for example, concerning the model's scope to be implemented.

The preceding process and conversation are as important as the decision itself (Thuraisingham & Lehmacher 2013, 178). The feedback from the target group indicates that the thinking process and conversation initiated from this research was beneficial (referring to the feedback from research interviews and workshops).

Table 8. Key findings from this thesis research interviews

Decision criteria and prioritizing	Having the right people involved	Measuring the decision impacts, and follow-up	Current obstacles of decision-making	Views on developing the decision-making
The target group perceives that no specified criteria are defined for the decision-making	Identifying and involving the right people for each decision	Decision impact evaluation	Identifying of relevant measurements for follow-up and goal-setting	Positive attitude towards change and development within the target group
Other company principles are used as criteria (company values)	Identifying and involving people who can contribute though are not the decision-makers	Defining the measurements or goals	Unstructured way of working	Seeing a structured process as a benefit
No criteria defined for each decision	Working with many stakeholders in different parts of the organization	Defining checkpoints for evaluation of progress	Having the correct data as the base for the decision	Too complex process decreases efficiency and increases bureaucracy
			Many data sources but difficult to find relevant data in a processed format	
			Decisions based on assumptions or old decisions	

6 Developing the long-term decision-making

This chapter presents the secondary company data and analysis, followed by the data from observed meetings and analysis. The chapter continues with the results and analysis of the research workshops. Lastly, the chapter presents this research's development suggestions for the case organization.

6.1 Secondary company data

The secondary company data consisted of materials available in the case company intranet and a training video in the company's digital training environment.

The case company values. This part of the secondary company data introduced the company values and explanations. The material emphasized that the values should be considered in all operations and functions in the case company. The values covered many areas, including the people, the main economic principles, and sustainability. The researcher can confirm from working experience that the values are present in everyday work. For example, the communication of change topics is usually linked to a specific company value.

The name of the training video was *Value-based decision-making*, and its duration was 48 minutes. The training dated in 2018, and its key themes were:

- Operating in a VUCA environment has impacted the decision-making (VUCA stands for volatility, uncertainty, complexity, and ambiguity)
- The two systems model by Daniel Kahneman (also presented in this report in chapter 3.3.) followed by practical examples of them
- The common decision biases
- The obstacles of decision-making
- Utilizing the company values balances obstacles to make better and faster decisions.

The analysis concerned any general guidelines applicable to the case organization, and the other perspective was to evaluate if the training's themes match with this thesis literature review. Similar themes would show that this thesis's themes and the training are not in contradiction. It was found that there were similar themes in the training and chapter 3 of this report; in training, they were in summarized form.

However, the training video gave only a high-level introduction to the themes. At the end of the training, the facilitator referred to separate training workshops. The researcher assumes that these workshops take place in a facilitated format. The training did not introduce, for example, the different types of decisions or the concept of the decision-making process.

6.2 Observed meetings

Two meetings were observed for this research. Both observed meetings were virtual, and they were recorded. A template was used to make notes of research-related observations. Appendix 6 introduces the template used in the documentation.

The first observed meeting did not provide research data; the topics on the agenda focused on other areas than long-term decision-making. The second meeting provided data belonging to the research scope. Presented next is the data collected by categories.

The decision-making process: are there phases identified. During the second event, there was a decision-making situation. The topic was on the agenda, meaning that it was a planned decision. From a process perspective, the proceeding was not very structured; a couple of times, the conversation drifted away from the decision.

Knowledge and data: are they used and how. Some of the needed information was prepared, not all of it, though. During the meeting, additional information was retrieved from electronic sources. All required data was not found during the meeting.

People involved: are the right people involved, are there other people engaged from outside the group. All people needed to make the decision were present in the meeting.

Obstacles of decision-making: were there obstacles identified. The issue was time-sensitive, and the decision was needed to complete during the meeting; a tight schedule is one obstacle. All participants did not have the same level of knowledge about the topic, which appeared as many questions. The short time frame led to the fact that not all data was at hand. There were no indications of cognitive biases during the meeting

Other: for relevant observations outside the below categories. The researcher estimated that the meeting represented a typical meeting; the researcher evaluated that the observation did not significantly impact or restrict the conversation.

The key findings from the meeting are that the process was relatively unstructured, the expected outcome was not clear to all participants, and the data needed was quickly retrieved. Due to the tight schedule, it was agreed that the decision would be made with fewer background data than initially planned. There is a risk that information is not correct because of urgency. However, the number of observed meetings was only two; only the other one involved decision-making applicable for this research. The material from observation was used as supporting material for the main primary data (interviews) for current state analysis.

6.3 Workshop 1: How to achieve high quality in the decision-making?

This chapter presents the results from the first development workshop; the second workshop is presented in chapter 6.4, and the plans for both workshops in chapter 4.3.

The task defined for the first workshop was named *Characteristics of high-quality decision-making - How to ensure that it is achieved?* Figure 17 introduces a caption of the workshop material, showing how the task was presented to the participants. Appendix 7 presents the complete material, including the task for the workshop. Template

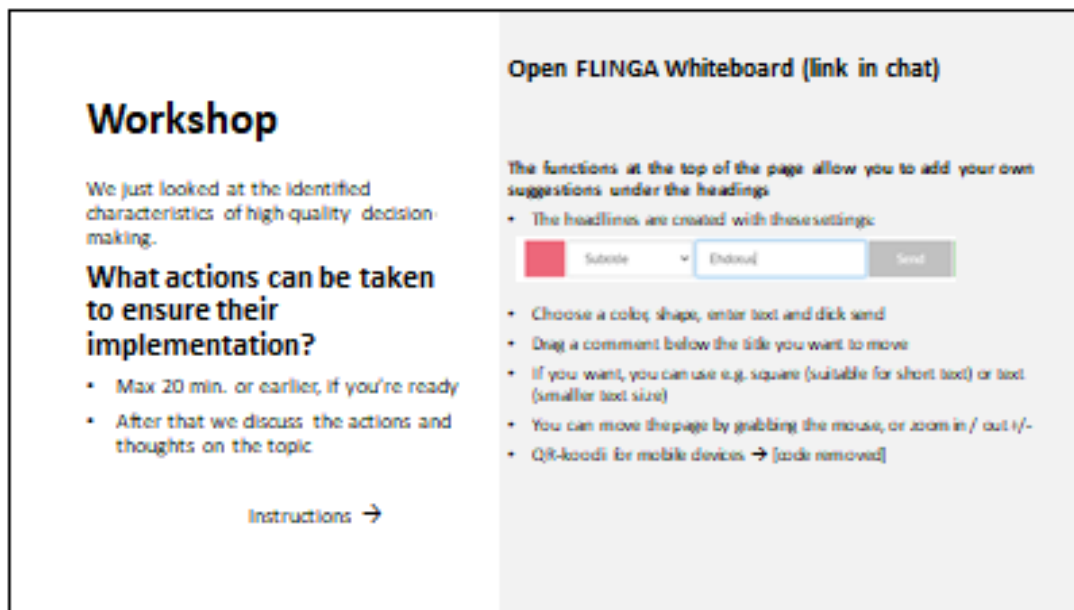


Figure 17. A caption from presentation materials for Workshop 1

The researcher placed six pre-defined subjects beforehand on the interactive wallboard in the FLINGA tool (Nordtouch 2020). The task for the participants was to create ideas and suggestions that would secure that high quality in long-term decision-making is achieved. The researcher facilitated the workshop and did not participate in the task.

The pre-defined subjects were collected from the interviews:

- Secure that decision follow-up takes place
- Secure the decision implementation actions
- Decision-making is based on knowledge and facts
- Involving the right participants
- Participants have sufficient information
- The information is in a clear format and is interpreted according to agreed principles

The participants gave positive feedback concerning the general execution of the workshop. Figure 18 presents a partial caption from the FLINGA tool, and appendix 7 shows the complete view of the results.

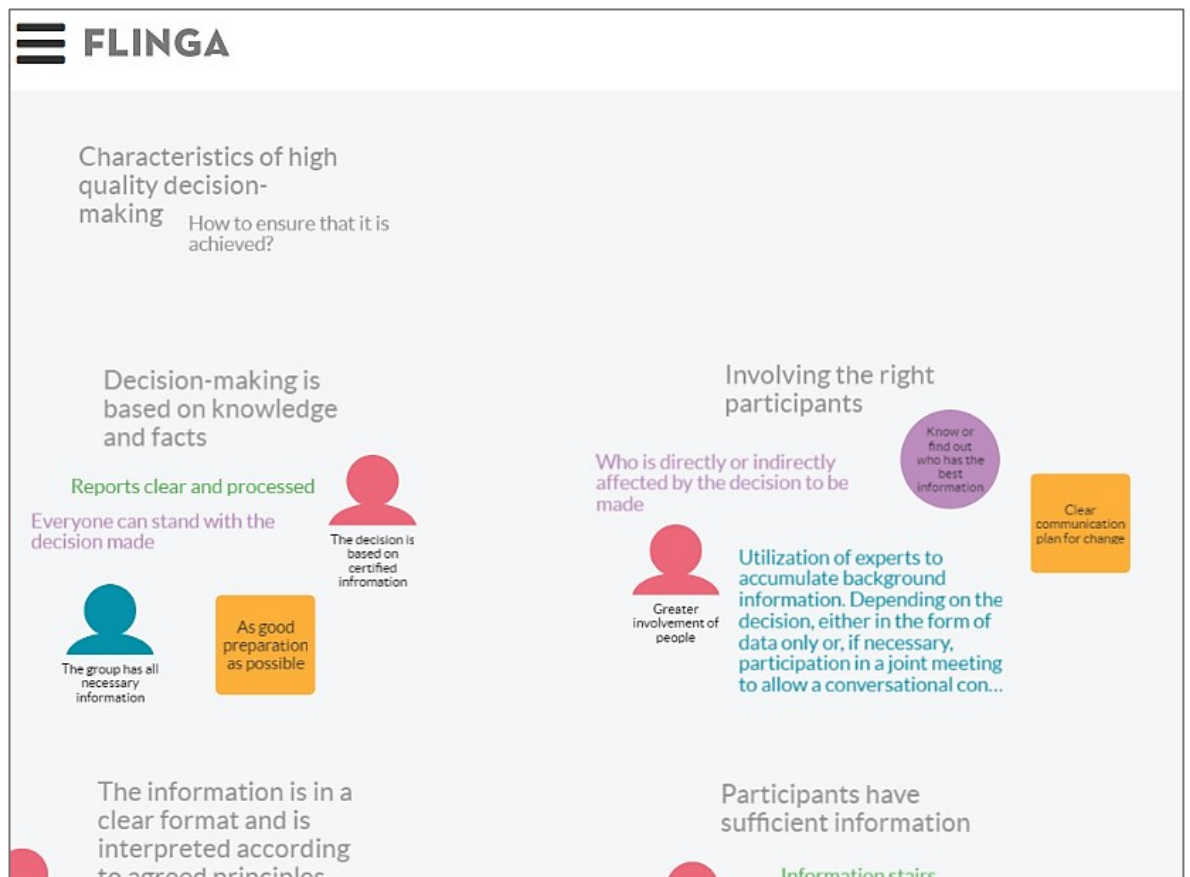


Figure 18. A partial caption from the workshop task in the FLINGA tool

The participants found several ideas concerning the connection between teamwork and decision-making. Having the same knowledge and understanding of the decision’s topic was seen as important.

“The group must have a common goal and have the same level knowledge on the subject.”

“Stand together after deciding.”

“An open discussion on the topic as well as the courage to ask as well as question – the trust of the group.”

There were also other factors identified in the area of information and reporting, concerning, for example, the clarity, processing, and availability of the information.

“Reports are clear and processed.”

Communication was also seen as a part of high-quality decision-making.

“Clear communication plan for change.”

Information stairs (management team, experts, stakeholders”.

All ideas and suggestions produced in the workshop were collected from the tool for analysis and utilized in formulating the decision-framing questions for the next workshop.

6.4 Workshop 2: Testing the decision-framing questions

The second workshop with the theme of Testing decision-framing questions took place one week after the first workshop. Between the workshops, the results from the first workshop were analyzed and, with support of this report's conceptual framework, formulated into a list of questions. The purpose of the processing was to develop a practical combination of questions to support the decision-making test to be done during the workshop. The questions are presented in appendix 10 and the plan for the workshop in chapter 4.3.

The participants were asked to share their feedback during the workshop, and they were also requested to give feedback by email. The short questionnaire sent in the email included four topics: relevance to the organization, design and practicality of the questions, the level of the questions (too detailed/too high-level), and application (are the questions suitable for different kinds of long-term decisions). Two of the four participants responded to the email feedback request. The key feedback received during the workshop, and the feedback from the questionnaire, are presented in appendix 11.

Based on the discussion and the feedback from the questionnaire, the participants found the suggested questions relevant for the organization. The questions were also seen as encouraging to evaluate the decisions from several perspectives. Two development areas were identified: the level of detail and the extent of the question list. The questions were considered too detailed and extensive for easy and efficient use; there was also a suspicion of increasing complexity. Based on the feedback, the extent and the level of detail are revised for the next phase of development (formulating the final development suggestions of this research). From the positive feedback, the relevance, practicality, and applicability will be included in the revised plan. The decision-framing questions produced for the workshop are not the final development suggestion of this research; however, they are ready to be applied as they are, for the case organization or its members, if found beneficial.

6.5 The development suggestions for the case organization

The development proposals were based on the thesis conceptual framework and findings from the research data. The development suggestions included a new way of working with long-term decisions and how to reduce the impact of cognitive biases.

New way of working with long-term decisions

The proposal was named *a way of working* instead of a “process” because the previous feedback brought up some concerns about implementing a too complex approach. At the same time, it is to be noted that the research data did not show the feedback as change resistance, rather than constructive feedback. Appendix 12 introduces captions of the presentation of the *new way of working with long-term decisions*.

The contents of the suggested new way of working included the decision criteria and impact analysis, preparation, deciding, and follow-up. The first phase was to set the decision criteria and their prioritization. This phase introduced the decision criteria and prioritization matrix. For this phase, the two matrix models presented in tables 2 and 3 (chapter 3.2.) were compared and evaluated for the case organization's use. The researcher assessed that the decision criteria prioritizing matrix is easier to approach and understand and is more fitting to the case organization's use.

The suggested matrix was presented with example categories suggested by Heikinheimo (2021, 116-117): scope, time, costs, and quality. Kahneman & al. (2019, chapter 1) present this original idea of assessing decision options like job candidates. It was suggested to evaluate the criteria for each decision. The prioritization of the criteria can be decided as a group, or they can be agreed upon in advance to fit most long-term decisions. The next phase in the proposal was the impact analysis. Based on the research results, the company values should be considered. The suggested impact analysis is based on definitions High, Medium and Low, which are familiar to company managers from the risk assessment tasks. The company values were placed next to the impact analysis field to be conveniently available in the presentation.

The suggestion proposed to choose three values as a group. The case company values are quite many and choosing three of them was seen to encourage careful consideration instead of choosing just one. On the other hand, the researcher anticipated that evaluating all the values would be seen as too time-consuming. The suggestion of two different approaches for the values was presented; the first option was to choose the most impacted values, and the second option to choose the values that are the change drivers. The preferred option can be agreed upon as a group, and it can also be decided for each decision. The approach was connected to the nature of the decision, topics with potential negative impacts, or issues that originally are designed as improvements. The suggestion was to rate each of the chosen values by High, Medium, or Low impact; ideally, this phase would be completed as a group and document. If the rating of the

chosen values was Medium or High, it was suggested to complete all steps of the model. If the impact levels are estimated Low, the group decides if all phases are required.

The evaluated impacts were suggested to be documented for follow-up and further use. The Decision Record introduced by Barabba (2011, 165), presented in figure 7, was the base for the suggestion to the organization. The format can be chosen freely (Microsoft PowerPoint, Word, etc.), and the documents then stored in an agreed location. The proposal was to call this document a *Decision template*. The suggested contents of the decision template are listed below. The preparation phase was proposed to be done by a named person or persons, and it consists of

- Decision name and description
- Person(s) responsible for preparing
- Decision frame: deadline, budget, etc.
- Expected outcomes and goals
- Expected impacts.

The next phase consists of

- Information used
- What was decided (also, if decided not to decide), arguments, date
- The decision-makers and other people contributing
- Implementation plan (incl. communication) and responsibilities (RACI).

RACI refers to a responsibility assignment matrix that includes levels of responsible, accountable, consulted, and informed (Wikipedia 2021). Heikinheimo (2021, 172-174) suggests utilizing the RACI matrix when defining the responsibilities for decisions. The RACI matrix is already used in the case organization and is familiar to the target group. In the development suggestion, it was suggested to agree on each decision's implementation plan after the decision was finalized. The next phase proposed was the follow-up of the implementation and the agreed measurements or goals. The follow-up was recommended to be done using, e.g., Microsoft Excel. This phase concluded the proposed new way of working with long-term decisions.

The target group received the final evaluation and feedback questionnaire after the presentation. The group was asked to evaluate whether the contents of the way of working is relevant for the organization, how they estimate the ease of use and the increased structure of decision-making and the applicability to different kinds of long-term decisions. There was also a request for open comments concerning the development project. All members of the target group answered the survey. Chapter 7.1 presents the final evaluation and feedback. By the end of the presentation, the target group decided to implement the suggested new way of working, and it was also agreed that the researcher prepares the decision template.

Suggested implementation plan

Appendix 13 introduces the suggested implementation plan for the new way of working in detail. The implementation plan included a proposal on how the new way of working is implemented the first time, with a suggested length of the training and the detailed actions for the facilitator. The author offered to be available as the facilitator when the new way of working is first introduced and, if agreed, to onboard the next facilitator.

Reducing the impact of cognitive biases

This research and development project has introduced cognitive biases to the target group on an awareness level. The researcher knows from working experience that biases have been earlier introduced to managers of the case company during recruitment training. The first suggestion is to look for bias-related training in the company training library and the management team to attend. The researcher can recommend the digital training (value-based decision-making) used as part of the secondary company data in this research. The second proposal is literature, which is a way to increase awareness of cognitive biases. The suggestion is to familiarize, e.g., with Daniel Kahneman's (2011) book *Thinking, Fast and Slow*.

Potential use outside the case organization

This research produced two suggestions for a structured way of working with long-term decisions. The first suggestion was the *Decision-framing questions* presented in appendix 10. Despite being the first draft and developed further based on the feedback, it is ready to be used. The Decision-framing question list is a combination of a process and questions with practical tips. The suggested *new way of working with long-term decisions* (appendix 12) was designed based on this thesis research for the customer support centre; however, the model does not restrict using it in other organizations. Implementing the way of working to another organization can include evaluating the relevant principles of the impact analysis (if company values are not applicable).

7 Conclusions

This chapter first introduces the final feedback from the target group and evaluates the benefits to the case organization (chapter 7.1.). Chapter 7.2. presents the answers to the research questions and how the research objective and the expected outcomes compare to the final outcomes. The suitability of the chosen research strategy and development methods are also discussed. The final chapter 7.3. presents the researcher's recommendations for further development.

7.1 Final feedback and evaluating the benefits

After the target group was presented with the new way of working with long-term decisions, they received a link to an anonymized survey. All participants answered the survey, and this chapter presents the feedback.

The survey first asked whether the respondents find the suggestion's elements relevant for the organization. All four respondents found them relevant; two answered "Yes."

"The way of working considers the decision-making from many perspectives, including the preparation, impact assessment and monitoring. At the same time, decision-making is linked to the company's values, in which case it also notices the value-based decision-making."

"I think the perspectives are well highlighted and the presented model helps to remember them in all decision making."

The second question asked the respondents to evaluate the ease of using the suggested way of working.

"An easy-to-use tool, "template," encourages to use and streamlines it."

"The model clarifies the medium and long-term decision-making and introduces a strategic approach to the management team's use. The ease of use can be assessed through the preparation, monitoring and impact of higher quality decision-making."

"I believe that this will be a good tool"

"I consider it making the process easier, as the way of working presented reminds of the different perspectives and helps to outline the focus area."

The third question concerned whether the respondents see that implementing the new way of working would increase structure in the long-term decision-making.

"Only positive effects."

"Directs to a clear and systematic decision-making and in a way, also forces a decision to be made."

“The proposed model provides a clear structure to follow, and which sets clear expectations to each member of the management team.”

“Positive impact.”

In the fourth question, the respondents were asked whether they see that the suggestion is applicable to different kinds of long-term decisions.

“The proposal is definitely suitable for use and I therefore recommend that the management team will implement the model to support the support decision-making.”

“Yes, definitely”

“Yes, it is suitable, especially for making strategic, longer-term decisions.”

“Yes. The working model unifies the decision-making regardless of the topic.”

The last question of the survey asked for any open comments concerning the development project in general. The development project had appeared to respondents systematically and clearly executed.

“An interesting and necessary topic. We make so many decisions every day, so it’s really good to stop for a while and think about the practices around the decision-making.”

“An excellently executed project that is sure to benefit our unit!”

Based on the feedback from the target group, it can be concluded that both the research and development suggestions are considered beneficial for the case organization, in terms of bringing a structured and systematic approach as well as bringing clarity to the long-term decision-making. The target group members also evaluated the suggestion being applicable for different kinds of long-term decisions.

7.2 Evaluating the research outcomes

This thesis research's main objective was to improve the long-term decision-making in the case organization. The primary research question was: How can long-term decision-making be improved in the case organization? The research approached this main question through the three secondary research questions.

The first secondary research question (RQ1) concerned the main decision obstacles of the decision-making. As a higher-level finding, the research’s results showed one of the main obstacles: the lack of a structured way of working with long-term decisions. Many of the detailed-level obstacles (such as *not involving the right people*) identified by this

research were found in the literature review as a part of a structured decision-making process. For example, the Preparatory research phase in the three-step decision-making model includes preparational actions that this research found missing from the case organization (Steinhouse 2014, chapter 1). According to these findings, adding structure to the decision-making of the case organization can also improve these more detailed level obstacles.

The obstacles identified in this research concerned several areas and phases of the decision-making. The interviews included one specific question about obstacles; however, the respondents mentioned them also when discussing other questions. For the analysis phase, this meant that any of the answers could contain information of current obstacles. The target group was relatively small, making it possible to analyze the interview data without a detailed categorization. This method enabled connecting the answer to the relevant research area (e.g., obstacles) rather than only a specific interview question.

In addition to the missing structure in decision-making, the more detailed obstacles were linked to decision criteria. There were different views about the criteria, knowledge, and information (difficulty to find, not in the correct format, not up to date data), and the people involved (all relevant people are not involved, and all internal and external sources and contacts are not utilized). Also, evaluating the decision impact, choosing the measurements for goal setting and follow-up, and then the actual follow-up phase was currently pointed out as an obstacle.

The literature also introduces obstacles not identified by this research, such as decision avoidance or avoiding decision-making responsibility. Other common obstacles named by Heikinheimo (2021, 259) are presented in figure 5 in chapter 3.3.

The second secondary research question (RQ2) was about identifying of the decision criteria and their possible prioritization. The literature emphasizes setting the decision criteria or the assessment criteria in advance. According to the literature, it is also essential to prioritize the decision criteria. (Kahneman & al. 2019, chapter 1; Heikinheimo 2021, 113-117.) The research data did not clearly identify the decision criteria. However, the data showed that the decision-making should consider the company values. From the decision criteria perspective, the findings from the literature compliment the development suggestions (chapter 6.5.). The secondary company data supported the embedding of values (referring to the concept of *value-based decision-making*), and also, the target group perceived the values as strong guidelines in their work.

The third secondary research question (RQ3) concerned cognitive biases and reduction of their impact if identified. The research results did not clearly show cognitive biases impacting the current decision-making. A few indications of the infrequent impact of biases were noted in the research data; for example, decisions were sometimes based on assumptions. However, to confirm that long-term decisions would have been made based on assumptions only was out of the scope of this research. This research evaluated the cognitive biases as *potentially impacting* but not confirmed.

According to Kahneman (2011, 417), the errors and biases that originate in the fast human thinking can be reduced by learning to identify the situations where they most likely occur and then stop and let slow, rational thinking assist. According to the literature, cognitive biases are automatic features; thus, they are likely to also impact the case organization. Based on the literature review, the effect of biases can be reduced by understanding the basics of the biases and being aware of them when making decisions. This thesis research's development suggestions included how to increase the awareness of the bias. The development suggestions are presented in chapter 6.5.

The main research question (RQ) of this thesis research asked *how to improve the long-term decision-making in the case organization*. The research data showed that the main finding is the lack of a structured way of working. Therefore, the primary development suggestion proposed was to implement a structured way of working with long-term decisions. This proposal included a resolution to the more detail-level obstacles and suggested setting and prioritizing the decision criteria. The proposal also included phases and features identified important from the research data, secondary company data, and the literature.

The results from this research provide answers to the research questions. The second secondary research question (RQ2) regarding the decision criteria and their prioritization was only partly answered through the research data. However, both the current state analysis and the literature showed that there should be defined criteria. Thus, the proposed development concerning RQ2 included a combination of research data (company values identified to be embedded in the suggestion) and literature (decision criteria and prioritization matrix included in the proposal). The feedback and evaluation from the case organization (presented in chapter 7.1.) described that the target group found the suggested way of working beneficial and relevant. The conceptual framework was utilized during the planning phase and in the forming of the development proposals.

The expected outcomes for this thesis included providing of development suggestions to improve the current decision-making, with identified decision criteria and prioritization if

relevant, and to identify obstacles in the current decision-making and propose development suggestions. With the current state analysis and provided development suggestions this research was able to meet these expectations.

This research's activities were completed almost according to the plan, and only minor adjustments to the schedule were required. The adjustments did not have broader effects on the research's schedule, activities, or scope.

7.3 Recommendations for further development

This chapter introduces the researcher's recommendations for further development. Some of the topics originated in the research interviews and others from the literature. The first recommendation is to investigate *implementing a digital tool to support the decision-making*. During the research, an interviewee suggested that a digital tool could help process and store information about the decisions. The researcher believes that a digital tool would help the organization evaluate the options and assist in the information storage.

Develop the ways of working with knowledge and information. The current state analysis showed many challenges in working with data. Many of the data sources are used globally within the case company, meaning that they are outside the case organization's responsibility area. A simple approach would be to evaluate each case for realistic development opportunities and proceed accordingly. This method would bring up the details of the obstacles in knowledge management or other information-related areas. Decisions based on wrong information can have long-lasting impacts. Ben Chouikha (2016, 28) emphasizes applying knowledge; however, to avoid the risk that the knowledge is not used, the sources need to be integrated. For a structured evaluation and development of knowledge management capabilities, the researcher evaluates beneficial to investigate further the framework by McKenzie & al. (2011, 413-415), presented in figure 9.

Utilize both internal and external expertise. One interviewee said during the interview: no need to re-invent the wheel in all cases. When preparing for a long-term decision, the researcher believes that it can be helpful to more often benchmark or connect with colleagues within the company or with industry experts.

Investigate agile principles. One interviewee mentioned agile decision-making during the research. The researcher sees that a potential topic for further development could be to investigate the potential benefits of applying an agile mindset in decision-making.

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Attachments

Appendix 1. Project plan for this thesis research

Month	Oct	November	December 2020	January 2021	February	March	April	May
Thesis work plan: Improving the long-term decision-making in a customer support centre								
Research Project plan draft	█	█						
Define topic and scope		█						
Project introduction and timeline		█						
Kick-off meeting		█						
Project plan final version		█						
Break								
Draft of theoretical framework			█					
Draft research methods			█					
Planning the research practices			█					
Finalising the theoretical framework			█					
Collection of secondary company data					█			
Finalized research methods					█			
Primary data collection (observation, interviews)								
Analysis of primary data								
1st workshop: development								
Plan 1st draft of development suggestion								
2nd workshop: testing								
Feedback and analysis								
Final development suggestions								
Conclusions, summary and further recommendations								
Finalising of the reporting								

Appendix 2. Interview plan

Interview plan	
Research questions	Areas of literature
RQ1. What are the main obstacles in the decision-making process today?	Obstacles of decision-making, cognitive biases, and heuristics Improving the decision-making in organizations
RQ2. What are the main decision criteria, and should some criteria be prioritized?	Decision-making process Improving the decision-making in organizations
RQ3. If cognitive biases are identified in the decision-making, how can their effect be reduced?	Obstacles of decision-making, cognitive biases, and heuristics
Communication & practices	
Introducing the research and the development project	Introduction in Management team meeting 2 February 2021
Consent & Confidentiality	Consent, confidentiality, and anonymity topics introduced 2 February 2021
Before the interview	Invitation with interview themes and practices
Interview practices (location, timing)	Microsoft Teams virtual meeting, 75 min Interviews booked for weeks 7-8/2021
Adjust the interview to fit the virtual format	Questions presented in Power Point template
During the interview	Remind of the recording and notes Remind that in the final version the names and the case company is anonymized but for the review the school has access.
After the interview	Share the personal interview notes if asked NB. The interview recording is automatically stored and available for each interviewee in Microsoft Teams Present the research results to the interviewees in the presentation meeting 20 April 2021

Appendix 3. Interview questions

Interview questions	
Question 1	Describe the long-term decisions made in the customer support centre. Give examples of decisions or areas affected by decisions.
Question 2	Are there criteria defined in purpose to guide the decision-making? You can answer yes or no, then we move on to the next question
Question 2a	Yes. Criteria for the decision-making have been defined What are they?
Question 2b	Yes. Criteria for the decision-making have been defined Is there an order or prioritization defined for the criteria?
Question 2c	No. No criteria have been defined to guide decision-making Would it be beneficial to define the criteria? If so, what kind?
Question 3	Are measurements used to monitor the results or impact of decisions? You can answer yes or no, then we move on to the next question
Question 3a	Yes. Measurements are used to monitor the results and impacts. Are the measurements agreed in advance on each decision?
Question 3b	No. No measurements are used to monitor the results and impacts. What do you think this is due to?
Question 4	Are there obstacles or complicating factors in the current decision-making? You can answer yes or no, then we move on to the next question
Question 4a	Yes. There are obstacles or complicating factors in decision-making Describe what the obstacles or complicating factors are.
Question 4b	No. There are no obstacles or complicating factors in decision-making What factors affect that the decision-making is working well?
Question 5	How would you describe the use of knowledge in current decision-making?
Question 6	How would you describe the use of experts from different fields in current decision-making?
Question 7	Could a framework or model describing e.g., decision-making criteria and prioritization help to improve the decision-making? You can answer yes or no, then we move on to the next question
Question 7a	Yes. How could that help?
Question 7b	No. What obstacles do you see?
	Would you like to go back to a question or add something?

Appendix 4. Data collection and development activity plan

Data collection plan		
Activity	Date	Week
Collection of secondary company data	8 February - 21 February 2021	6-7
Collection of primary data: Observation		
Meeting 1	16 February 2021	7
Meeting 2	17 February 2021 16 February 2021	7
Meeting 3 (backup date) <i>Not observed</i>	23 February 2021	8
Collection of primary data: Interviews (1h 15min each)		
Research Interview 1 (RI1)	18 February 2021	7
Research Interview 2 (RI2)	18 February 2021	7
Research Interview 3 (RI3)	19 February 2021	8
Research Interview 4 (RI4)	22 February 2021	8

Development & feedback collection plan		
Activity	Date	Week
1 Workshop (45 min)	1 March 2021 2 March 2021	9
2 Workshop (1h)	8 March 2021	10
3 Presentation (50 min), evaluation & feedback collection	20 April 2021 – 25 April 2021	16

Appendix 5. Research data analysis table

Research interview 1 (R1)	Research interview 2 (R2)	Research interview 3 (R3)	Research interview 4 (R4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be reduced?	Other	Decision-making elements for workshop 1	Linked literature area
x				No. When we make decisions, we make them on the basis of reaching certain goals. No criteria.		No criteria to guide the decision-making				Improving decision-making in organizations
	x			Customer satisfaction, costs are those which always have big emphasis.	Customer satisfaction, costs					
		x		Yes [there are criteria]. The customer is the main focus. Also that we are available to the customer always, low prices and sustainability.	Customer, low prices, sustainability					
			x	The values are defining greatly what kind of decisions we make, for example, what it comes to profitability and cost-consciousness and how we take people into account, meaning the wellbeing of people, in our decision-making. So that the same time it would be efficient and cost-conscious and well-operating, but also people-oriented.	Company values					
			x	My thinking is that the emphasis is in the common good, though the same time we have to be profitable. That cannot be forgotten but if these can exist the same time, we will do that.				Balancing with hard and soft goals		Service Management
			x	They are not written on the wall or anything, but they are there to be defined through our values, those criteria.	Company values					
x				The case organization has also authority for the decision-making which is an indication of a healthy organizational culture.				Organizational culture		Improving decision-making in organizations
x				I think it would be beneficial, definitely. That the decision-making would be more structured and maybe there would also be a tool for that. And those criteria, when we make decisions we would be able to have a big picture about the impacts.		Missing structure and defined criteria				Developing the decision-making, decision-making process
x				Decision-making is fragmented, especially when we make ad hoc decisions and they just appear in different situations.		Fragmented decision-making				Improving decision-making in organizations

Research Interview 1 (R1)	Research Interview 2 (R2)	Research Interview 3 (R3)	Research Interview 4 (R4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be reduced?	Other	Decision-making elements for workshop 1	Linked literature area
x				Decision-making cannot be placed into same format considering all decisions, but I think that the main factor here is that you can stand behind all decisions.		Differences of the decisions			Participants have sufficient information	Improving decision-making in organizations
x				It is very challenging to decide when you do not have the enough information.		Lacking same level of knowledge for all participants			Participants have sufficient information	Decision-making process
		x		One thing is that are all participants having the same background knowledge might be something to think about or improve.		Lacking same level of knowledge for all participants			Participants have sufficient information	Obstacles of decision-making
x				Also, if a certain option is pushed by a stronger individual, you have to be very certain that your decision is set, for it not to impact.				Organizational culture		Improving decision-making in organizations
			x	There might be strong opinions, but we get through those and I don't see that as a problem. We will get to the common conclusion.				Organizational culture		Improving decision-making in organizations
x				We make decisions based on previous assumptions and gut feeling.		Decision is not based on knowledge and facts	Cognitive bias (potential)		Decision making is based on knowledge and facts	Obstacles of decision-making
x				We make decisions but we don't follow-up on their impacts. That may be the problem. We make decisions but we do not monitor the impacts and effectiveness. We also don't have set checkpoints, if you could call them that, we should react to. They too could be set in advance.		Lacking follow-up of implementation			Secure that the decision follow-up takes place	Obstacles of decision-making
x				The indicators and measurement are not always defined in advance for each decision.		Lacking agreement of follow-up and measurements before the implementation			Secure that the decision follow-up takes place	Obstacles of decision-making
		x		That could be more focused [the usage of measurements], and the follow-up too, though they usually are there.		Lacking agreement of follow-up and measurements before the implementation (potential)			Secure that the decision follow-up takes place	Decision-making process
	x			Yes and no. We sometimes make decisions where there are no measurements used.		Lacking follow-up of implementation			Secure that the decision follow-up takes place	Decision-making process

Research Interview 1 (R1)	Research Interview 2 (R2)	Research Interview 3 (R3)	Research Interview 4 (R4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be reduced?	Other	Decision-making elements for workshop 1	Linked literature area
			x	This could be more structured with setting of the metrics and then how to monitor the proceeding.		Lacking follow-up of implementation			Secure that the decision follow-up takes place	Decision-making process
		x		In our unit we have agreed that we are not starting with a change without measurements, this means often a survey or an analysis as a base.			No obstacles in current decision-making process			
		x		In my opinion, when you have those facts and measurements it is easy to do the decision. Then you don't have any suspicion whether the right decision is made.			No obstacles in current decision-making process			
	x			It may not be possible to treat all decisions equally and use the same process for all decisions. But it will be possible to trust all decisions.		Lacking equal quality / common process for the decisions				Improving decision-making in organizations
	x			Often the measurements are decided only after the decision is made. Naturally there are exceptions also. This is one area to focus, in my opinion, so it would be clear how to follow up on what we want to achieve.		Lacking agreement of follow-up and measurements before the implementation			Secure that the decision follow-up takes place	Decision-making process
x				We also do not have checkpoints, so that in the beginning we already would agree that in this certain point we will do some actions.		Lacking follow-up of implementation			Secure the decision implementation actions	Decision-making process
x				Difficulty to define exactly what measurement is affecting this other measurement after you have done a certain decision.		Lacking agreement of follow-up and measurements before the implementation			The information is in a clear format and is interpreted according to common principles	Knowledge management
x				There are some many different reports that you are just have an overload with all the data.		Lacking agreement of follow-up and measurements before the implementation			The information is in a clear format and is interpreted according to common principles	Knowledge Management, Decision-making process
	x			It is just assumed that the decision is correct and that's that. Either the fact that we are satisfied that the decision has been made, and believe that it is right without processing. And when the decision is made, it just is thinking forward and not wanting to go back - that's maybe one thought.		Lacking follow-up of implementation			Secure that the decision follow-up takes place	Decision-making process

Research Interview 1 (R1)	Research Interview 2 (R2)	Research Interview 3 (R3)	Research Interview 4 (R4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be	Other	Decision-making elements for workshop 1	Linked literature area
			x	You may need to make your own research when looking for the information. Though the company is quite well organized and there are people collecting data and analysing. There is more and more data available but where to find it?		Lacking agreement of follow-up and measurements before the implementation			The information is in a clear format and is interpreted according to common principles	Knowledge Management, Decision-making process
			x	It is about something which do not have a set measurement ready, that can be one reason. Or if they would be defined and decided, it may happen that people just get tired on the way and we just don't get back to the topic. So we are decisive when the decision is made but then it just gets forgotten on the way and the analysis are not done.		Lacking common process for the whole decision life-cycle			Secure the decision implementation actions	Decision-making process
			x	It might be a good idea to think just those few really important things that are followed up and measured.		Lacking agreement of follow-up and measurements before the implementation			Secure that the decision follow-up takes place	Decision-making process
	x			A long-term approach is missing with the practices with data. Often we are just in a hurry to find the information, and then we notice that it is difficult. Definitely a more structured approach with the data.		Lacking agreement of follow-up and measurements before the implementation			The information is in a clear format and is interpreted according to common principles	Knowledge Management, Decision-making process
x				They should be defined in advance what will be followed up.		Lacking agreement of follow-up and measurements before the implementation			Secure that the decision follow-up takes place	Decision-making process
x				There are many stakeholders who want to take part in the decision. It can take time before you can make the decision as you have to get everyone onboard.		Lacking agreement who are the stakeholders for each decision type			Involving the right participants	Improving decision-making in organizations
x				There is a huge amount of data and insight in the organization. But it is not processed or visualised which would bring benefits.		Lacking agreement on data appearance and visualization			The information is in a clear format and is interpreted according to common principles	Knowledge Management
x				Another obstacle which makes it difficult is that we have to do it on a very fast pace, which I also think is an obstacle to quality decision-making. That if they were not done in a reactive mode or in an ad-hoc situation, then they could be more thoughtful, and the implementation of the decision would be of better quality.		Short time frame for decisions, ad hoc decisions, missing structure				Obstacles of decision-making, decision types

Research Interview 1 (R1)	Research Interview 2 (R2)	Research Interview 3 (R3)	Research Interview 4 (R4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be minimized?	Other	Decision-making elements for workshop 1	Linked literature area
			x	When thinking long-term decisions, we have many reporting tools but are they really beneficial and are we getting the correct data of them, that's something I'm not sure of. Often we are suspicious, does the knowledge really measure the metric it should. That is sometimes quite surprising if we want to lead with knowledge.		Lacking agreement on data appearance and visualization	The information is in a clear format and is interpreted according to common principles			Knowledge Management
x				The current knowledge and information may be in a form that depending who is looking at it and what row it is looked, you can bring different conclusions.		Lacking agreement who are the stakeholders for each decision type	The information is in a clear format and is interpreted according to common principles			Knowledge Management
	x			This [using expert knowledge] maybe just the big development point for us. That we don't always use those that we could use. Someone could have a new view point from their expertise area perspective.		Lacking agreement who are the stakeholders for each decision type	Involving the right participants			Decision-making process
			x	So that we would have all stakeholders involved when we make the decision.		Lacking agreement who are the stakeholders for each decision type	Involving the right participants			Decision-making process
			x	My first reaction is that we are quite self-serving in this area, we feel that the knowledge that we have [in the organization] is enough. Maybe there are experts used in the background, but I feel that they could be used even more. Naturally there is research made with external as well [in other parts of the organization].		Lacking agreement who are the stakeholders for each decision type	Involving the right participants			Decision-making process
			x	Now when I'm thinking we could invite visitors and other parties from inside the organization as there are those experts. External views and experiences are something I would like to have, and benchmarking within the industry so we could utilise that what others already have invented. As this business we are in there are leads of them [external parties] and all wheels are invented, so we could utilise more the competitor and market knowledge.		Lacking agreement who are the stakeholders for each decision type	Decision making is based on knowledge and facts			Decision-making process
x				There are indicators that we are moving towards using experts in the decision making in the definition phase.			Involving the right participants	Indication of development		
	x			It is valuable to have interaction with the expert, that can bring a new point of view or a new interpretation.		Lacking agreement who are the stakeholders for each decision type	Involving the right participants			Decision-making process
		x		When thinking of the management teamwork, we could clarify the agenda, because now when we are discussing the topic you do don't always know did we make the decision or not?		Lacking structured way to work with recording (storing) the decisions	Secure the decision implementation actions			Obstacles of decision-making

Research Interview 1 (R1)	Research Interview 2 (R2)	Research Interview 3 (R3)	Research Interview 4 (R4)	Key points from research interviews and observation	RQ1: What are the main decision criteria and should some criteria be prioritized?	RQ2: What are the main obstacles in the decision-making process today?	RQ3: If cognitive biases are identified in the decision-making process, how can the effect be reduced?	Other	Decision-making elements for workshop 1	Linked literature area
x				It would be beneficial to record the decisions made in a smart way, so that it would include the impact follow-up.		Lacking structured way of working with recording (storing) the decisions			Secure the decision implementation actions	Improving decision-making in organizations
		x		To achieve a high quality decisions, not that I'm saying we don't have that now, but the equal quality might be ensured by that model. Yes, definitely see that it could be useful. Those criteria and how to ensure equal quality for all decisions might be there in that model.				Structured process is a benefit		Improving decision-making in organizations
x				The process would in my opinion help getting higher quality and also that would increase the facts that need to be the base for the decision.				Structured process is a benefit	Decision making is based on knowledge and facts	Improving decision-making in organizations
	x			That would support the decision-making so that it is secured that all phases are done.				Structured process is a benefit		Decision-making process, improving decision-making in organizations
	x			There is the danger to get stuck with the process. If following the model slows the process down there has to be good justifications of the benefits.		Threat of complicated and inefficient process				Types of decisions, improving decision-making in organizations
		x		Yes I would think so, no harm cannot be done by implementing that. It is the same if you think about a project or communication plan, having that helps to take care of everything better.				Structured process is a benefit		Improving decision-making in organizations
Key points from the observed meeting										
				Observation: unstructured process and unclear expected outcome		Lacking structured way to work with recording (storing) the decisions			Secure the decision implementation actions	Improving decision-making in organizations
				Observation: all participants did not have same level or sufficient understanding and knowledge		Lacking same level of knowledge for all participants			Participants have sufficient information	Decision-making process
				Observation: Due to hasty data retrieval of which some was not found there is a risk of the decision made not based on correct and sufficient data.		Decision is not based on knowledge and facts			The information is in a clear format and is interpreted according to common principles	Obstacles of decision-making

Appendix 6. Template for meetings observed

Research Observation Template

Observed event: Management team meeting

Date: DD/MM/YYYY

Time: 00:00-00:00

Location: Virtual (Microsoft Teams)

Participants: XX

Category	Description
The decision-making process: are there phases identified	
Knowledge and data: are they used and how	
People involved: are the right people involved, are there other people engaged from outside the group	
Obstacles of decision-making: were there obstacles identified	
Other comments	

Appendix 7. Materials for Workshop 1

Let's develop the decision-making together!

Workshop: developing

March 2021

1

About the research

This research is a part of my Master thesis at Haaga-Helia UAS. I have presented the topic in meeting 2.2.2021.

The collected information is published only in anonymized format and no individuals cannot be identified. The company name is not published in the public version of the report.

The company sponsor for the thesis is X.X.

Thank you for your participation!

Purpose of the development

Decision-making with longer-term impacts. Decisions are often complex by nature.

In this study, long-term means the effects extend to the next fiscal year or about a year.

The management team of the customer support center was selected as the target group, because the long-term decisions, that are the subject of the study, are made within the management team.

2

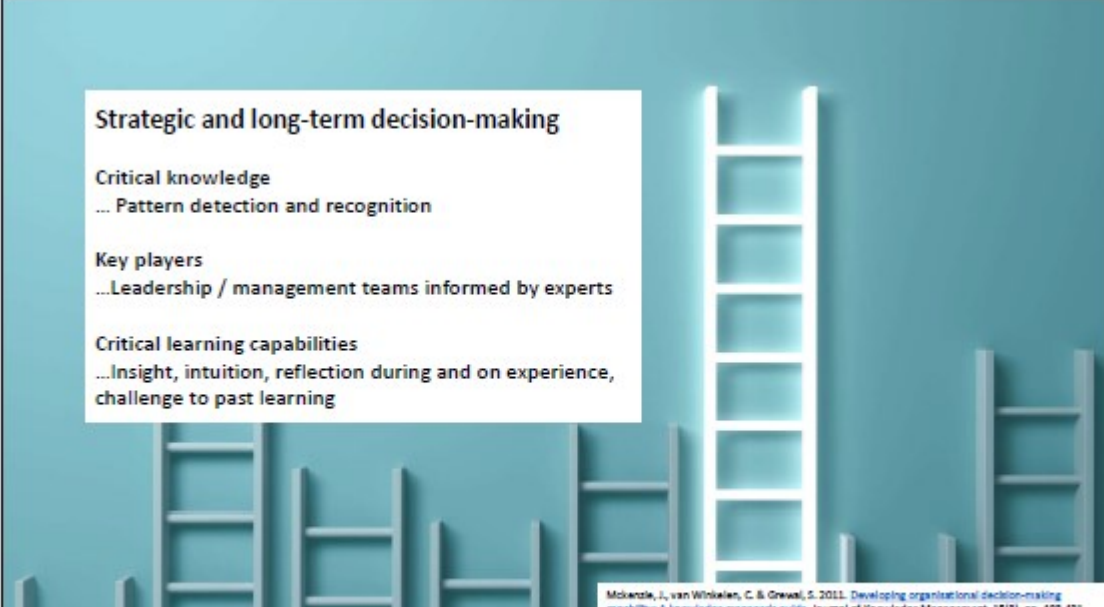
Strategic and long-term decision-making

Critical knowledge
... Pattern detection and recognition

Key players
...Leadership / management teams informed by experts

Critical learning capabilities
...Insight, intuition, reflection during and on experience, challenge to past learning

Mokkenste, J., van Winkelen, C. & Grewal, S. 2011. Developing organisational decision-making capability: A knowledge manager's guide. *Journal of Knowledge Management*, 15(3), pp. 400-421.



3

Characteristics of high-quality decision-making

- Based on knowledge and facts
- Systematic way of working
- Consistency in quality
- Right participants with adequate information
- Documentation, monitoring and agreement on follow-up
- Consider the internal and external operating environment and anticipate changes

Research interviews in February 2021



4

Workshop

We just looked at the identified characteristics of high-quality decision-making.

What actions can be taken to ensure their implementation?

- Max 20 min. or earlier, if you're ready
- After that we discuss the actions and thoughts on the topic

[Instructions →](#)

Open FLINGA Whiteboard (link in chat)

The functions at the top of the page allow you to add your own suggestions under the headings

- The headlines are created with these settings:



The screenshot shows a user interface for creating a headline. It features a red square on the left, a dropdown menu with 'Subtitle' selected, a text input field containing 'Ehdokus', and a 'Send' button on the right.

- Choose a color, shape, enter text and click send
- Drag a comment below the title you want to move
- If you want, you can use e.g. square (suitable for short text) or text (smaller text size)
- You can move the page by grabbing the mouse, or zoom in / out +/-
- QR-koodi for mobile devices → [code removed]

5

Thank you for your participation!

We will continue developing the decision-making next week in workshop 2



6

Appendix 8. Results from Workshop 1

Person

Message

Send

+

-

✕

Characteristics of high quality decision-making

How to ensure that it is achieved?

Secure that decision follow-up takes place

- It is possible to measure the decisions/ results
- The decision has been recorded and can be returned
- Leave the option open for changes
- The group must have a common goal and the same level of knowledge on the subject
- Goals are set in advance for everything that is implemented

Decision-making is based on knowledge and facts

- Reports clear and processed decision made
- Everyone can stand with the decision
- The decision is based on sufficient information
- As good preparation as possible
- The group has all necessary information

Involving the right participants

- Who is directly or indirectly affected by the decision to be made
- Utilization of experts to accumulate background information. Depending on the information, either in the form of data only or, if necessary, participation in a joint meeting to allow a conversational con...
- Clear communication plan for change

Secure the decision implementation actions

- Decision making is agile
- Stand together after deciding
- Who has the responsibility for monitoring, what is the monitoring interval, when is the need to re-evaluate the decision? Depends on the subject, otherwise the whole group
- Follow-up is the key

The information is in a clear format and is interpreted according to agreed principles

- Worked reporting and careful analysis before and after the decision-making
- Reports made on the basis of insight is available decision-making

Participants have sufficient information

- Information stairs (management team, managers, experts, stakeholders)
- An open discussion on the topic as well as the courage to ask as well as question - the trust of the group
- The group has the same level about the topic

Appendix 9. Materials for Workshop 2

Let's develop the decision-making together!

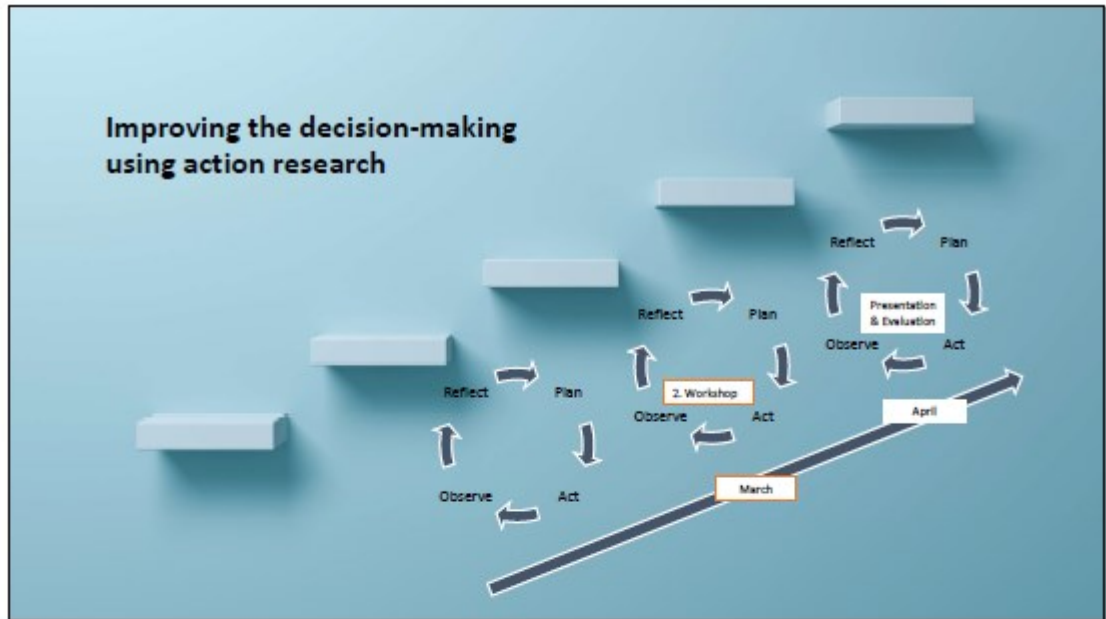
2. Workshop: testing

March 2021

1

<p>About the research</p> <p>This research is a part of my Master thesis at Haaga-Helia UAS. I have presented the topic in meeting 2.2.2021.</p> <p>The collected information is published only in anonymized format and no individuals cannot be identified. The company name is not published in the public version of the report.</p> <p>The company sponsor for the thesis is X.X.</p> <p>Thank you for your participation!</p>	<p>Purpose of the development</p> <p>Decision-making with longer-term impacts. Decisions are often complex by nature.</p> <p>In this study, long-term means the effects extend at least to the next fiscal year or about a year.</p> <p>The management team of the customer support center was selected as the target group, because the long-term decisions, that are the subject of the study, are made within the management team.</p>
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2



3

Workshop

- In this workshop, we use an imaginary case to test the decision-framing questions
- The decision-framing questions were prepared as a basis for the next phase of the development work
- You are welcomed to share your feedback during the workshop. After the workshop you will receive a feedback request in email
- All feedback is treated anonymously

A magnifying glass with a black handle and a silver frame is positioned on a solid yellow background. The lens of the magnifying glass is focused on a small, indistinct object, symbolizing investigation, focus, or a detailed look at a specific issue.

4

Case

The country organization offers an extra budget of 10K EUR to build a gym in the lobby area with the goal to increase well-being at work long-term.

The options are either to implement this or not receiving the budget, it is not available for any other use.

A decision is made with the help of decision guidance questions

- Consider both options: yes and no
- Duration about 30 min.



5

Thank you for participating!

Next time we will meet in April, and look at the a further developed proposal



6

Appendix 10. Decision-framing questions

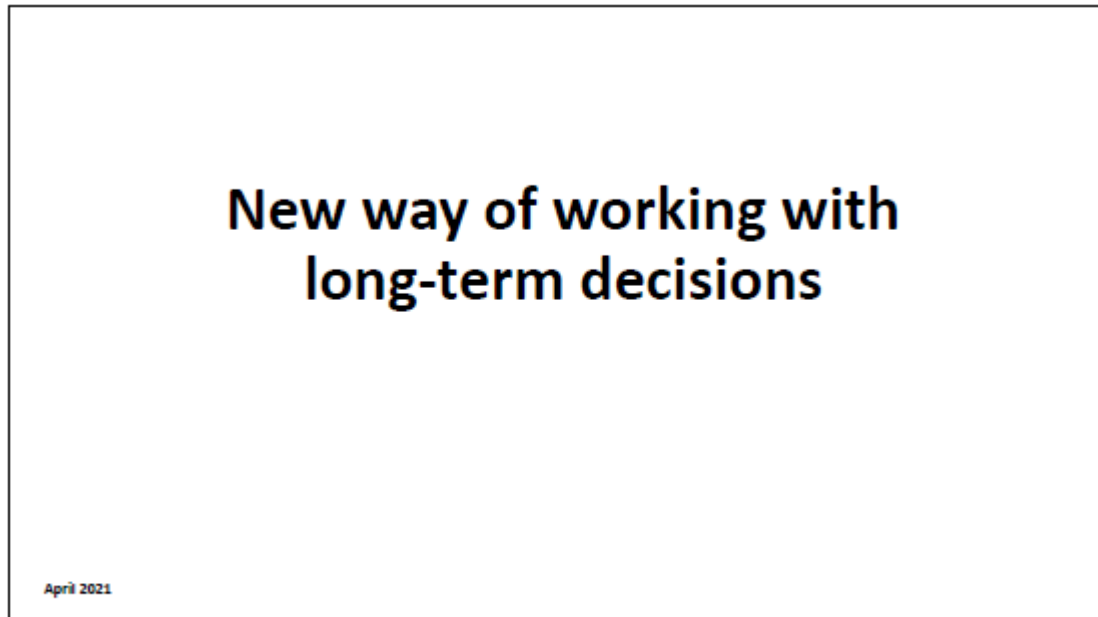
Phase	Question	Tips	Page 1/2
Definition			
	Who provides the frame for the decision? (Definition, budget, goals)	<i>Consider sharing the information in advance to people who will be the most involved.</i>	
	What is the timeframe for the decision and the actions that follow?		
	Is the deadline negotiable?		
Preparation			
Who & resources	Who is needed to involve in the decision (in any phase of it)?	<i>Concerning stakeholders or experts outside the group, agree what information can be shared.</i>	
	Is there a need for any resource allocation during the preparation phase?	<i>If resource allocation is needed (any impact to operational work), agree who is responsible for the actions.</i>	
	Does an external party need to be consulted, if yes, is there a cost?		
Knowledge, insights & information	What information is needed?	<i>Prioritize existing data, which already is familiar to the people involved.</i>	
	Is the information or data existing and already in visual / analyzed format?		
	If no, who will gather the information?		
	Who will provide insight & analysis, if that does not exist?		<i>If the data does not exist, think carefully how to collect the new data.</i>
Impact evaluation	Who does the decision impact?	What are the key values that drive the decision? Think about top 3 values. [List of case company values]	
	Are these individuals or groups of people?		
	Does the decision impact something other than people, for example unit performance?		
	Does the change bring added value? If yes, what kind?		
	In addition to budget frame, does the decision have other financial impacts?	How does the decision impact the main focus areas [list of current focus areas of the case company]?	
	If yes, is this a one-time impact or recurring? Consider also the non-direct costs.	<i>What do [the current main focus areas] mean in the context of this decision? Discuss the topic together for alignment and understanding.</i>	

Phase	Question	Tips Page 2/2
Impact evaluation (Cont.)		<p>Think (individually or in a group):</p> <ul style="list-style-type: none"> - Future wished state after implementation? - Worst-case scenario if things go wrong? - What happens if no decision is made? <p><i>Use brainstorming, mind mapping or spar with a colleague to identify potential hidden connections and to see the big picture.</i></p> <p>Do a risk assessment, if needed. Use the risk assessment process used in the company (intranet)</p> <p><i>If you have estimated high negative impacts/risks to [current focus areas] take a time-out to think if there are other ways to proceed.</i></p>
Implementation		
Follow-up & Responsibilities	Who are responsible of all actions concerning the decision implementation?	<i>If all people involved are not present, agree how the plan is shared.</i>
Communication & Change management	What kind of communication is needed? What are the target groups?	<p><i>Think how to evaluate success of communication and change management.</i></p> <p><i>Think if there are more people who can be already now be introduced to the decision.</i></p>
	Are there change management actions to be planned? If yes, who is responsible and what is the timing?	

Appendix 11. Feedback from Workshop 2

Feedback, during the Testing workshop	
Positive	Development areas
The question list is extensive and provides structure and process.	They could be more in summarized form to avoid complexity.
The suggested way of working with questions would challenge to think more broadly about the decision-making.	Avoiding bureaucracy is something to think about.
Probably agreeing on follow-up would be taken care of in a better way.	The way of working should support a quick evaluation of decision impacts and scope.
It is beneficial to have the timing and follow-up embedded in the process.	
Feedback, from the email questionnaire	
Category	Answers (1 for respondent 1, 2 for respondent 2)
Relevance to the organization: Did the questions and tips present relevant elements for the organization? Please specify if you felt that something relevant was missing.	1: Yes, I think bringing perspectives here supports a strong commitment of the whole process to issues that are important to us. 2: Yes, they were relevant.
Design and practicality of the questions: Did you experience that the questions and tips were practical?	1: Yes, I think practical tips can be applied to many different decision-making situations. 2: Yes.
Level of detail: How did you experience the level of detail of the questions? Please specify if you felt that they were too detailed or too high-level.	1: Raising the values was very good - it helps to strengthen our message when we communicate consistently through our values. 2: They could be narrowed down at certain extent?
Applicability of the questions: Do you see that the questions are applicable to different kind of long-term decisions?	1: Yes, they make it possible to consider a number of different perspectives to support decision-making. 2: Yes.
Open comments	1: All in all, I think the guiding questions and tips will help support decision-making, providing reassurance that all aspects have been carefully considered. 2: Questions / Tips is a very useful and good tool for a checklist.

Appendix 12. New way of working with long-term decisions



1

Decision criteria & impact analysis

The decision criteria and prioritization, and impact analysis

Criteria to be evaluated for each decision

	Scope	Time	Costs	Quality
Top 1 criteria		X		
Top 2 and 3 criteria	X			X
Accept the reality for the last criteria			X	

Decision criteria & prioritization matrix

3 values which are most impacted by the decision, or 3 values which are the change drivers

Value 1	Value 3	Value 5
High	Low	Medium

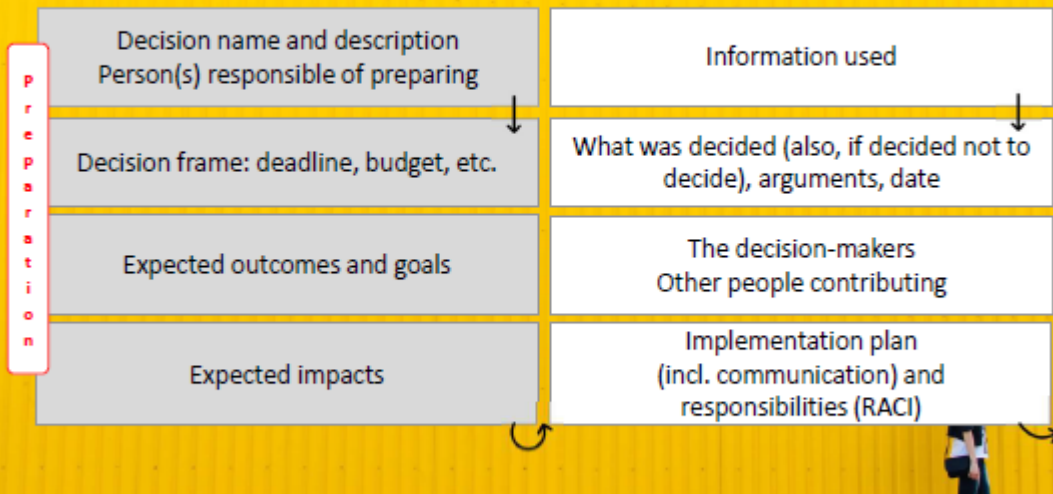
Top 3 Values | High, medium, low

List of company values | Value 1 | Value 2 | Value 3 | Value 4 | Value 5 |

Katharina et al. 2016 (redesign 2021)

2

Decision template



3

Decision follow-up

Storing practices will be agreed together

Decision implementation	Target date	Responsible	Expected outcome
Step 1	DD.MM.YYYY	NN	XX has proceeded..

Goal, KPI, measurement	Checkpoint date	Responsible	Other follow-up actions
75%	DD.MM.YYYY	TT	XX will be re-evaluated..

4

Feedback request (will be sent via e-survey)



1. Relevant elements for the case company are considered
2. Estimated ease of use
3. Estimated increased structure
4. Applicability to different kind of decisions (long-term)

I will send the presentation and a link to the feedback survey. In the survey there are four areas of the suggestion assessed. Please connect with me in any questions!

5

References

- Barabbs, Vincent. *Decision Loom : A Design for Interactive Decision-Making in Organizations*, Triarchy Press, 2011. ProQuest Ebook Central. URL: <https://ebookcentral.proquest.com/lib/haaga/detail.action?docID=3411412>. Accessed: 13 March 2021.
- Heikinheimo, P. 2021. *Päätöksen juoni: Miten johdan parempiin päätöksiin*. Helsinki: Alma Talent. URL: <http://esproxy.haaga-helia.fi:2048/login?url=https://verkkokirjajhlyt.almatalent.fi/teos/21jo443619>. Accessed: 9 March 2021.
- Kahneman, D., Lovello, D. & Sibony, O. 2019. *A Structured Approach to Strategic Decisions*. MIT Sloan Management Review. URL: <https://learning.oreilly.com/library/view/a-structured-approach/33863MIT60314/>. Accessed: 28 January 2021.

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Appendix 13. Implementation plan

New decision-making process Implementation plan	
Activity	Duration (h:mm)
Agreeing on participants and schedule with the responsible manager	0:30
Send invitation to the training	0:10
Prepare feedback survey - Later, the same survey can be used	0:20
Prepare two (2) test cases and prepare training material	0:45
Other preparations by training type, e.g., room booking or preparing	0:15
Facilitating the training - Can be combined with other events and trainings	0:45
Send out feedback survey and invitation	0:10
Together with Human Resources, reviewing the feedback survey results for further development	0:20
Total hours for implementation	3:15

Training plan after the first implementation

Training model & Resources	
Facilitator	Duration (h:mm)
Training planning - Writing the cases to fit the target group reality - Choosing the templates for face-to-face or virtual training - Sending out invitations	0:45
Facilitating the training - 10 min break is included in the duration - A Feedback survey is sent out immediately after the training	0:45
Together with Human Resources, reviewing the feedback for further development	0:30
Total facilitator hours	2:00
Participants	
Participant	Duration (h:mm)
Duration for each training participant	0:45
Fill in feedback survey	0:05
Total hours for participants	0:50