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# Designing a Customer Satisfaction and Experience Survey for an IT Service Company

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## Abstract

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The purpose of the thesis was to improve the company's understanding of its customers and to find concrete ways to measure and improve customer satisfaction. Due to the rapid growth of the business, the importance of customer insight became even more critical, as understanding customer needs is essential for developing customer-centric operations.

The primary method used in the research was qualitative, as the current state analysis and the stakeholder suggestions were based on interviews. The current state analysis revealed that the company has barely any existing standardized processes in terms of customer experience or customer satisfaction. The literature study focused on best practices to address the challenges identified.

Based on the current state analysis and the literature review, a proposal for a solution was developed to reliably measure customer satisfaction and use the received feedback to improve the company's operations and services. The solution was piloted with customers and internal stakeholders to ensure that it meets the business challenges and needs of the company and includes relevant questions related to all areas of the continuous services to identify possible points for improvement in service delivery.

The outcome of the thesis was a validated customer satisfaction survey, next steps towards wider implementation, and development proposals for utilizing the results, which are designed to bring value across all operations, especially service management and product management.

Keywords: Measuring Customer Satisfaction, Customer Experience, Customer Insight, ITSM

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Insinööriyön tarkoituksena oli kehittää yrityksen asiakasymmärrystä ja löytää konkreettisia keinoja asiakastyytyväisyyden mittaamiseksi ja parantamiseksi. Liiketoiminnan nopean kasvun myötä asiakasymmärryksen merkitys korostuu entisestään, sillä asiakkaiden tarpeiden ymmärtäminen on välttämätöntä asiakaskeskeisen toiminnan kehittämiseksi.

Tutkimustyössä käytettiin ensisijaisesti laadullisia menetelmiä, sillä nykytila-analyysi ja sidosryhmiltä saadut ehdotukset perustuivat haastatteluihin. Nykytila-analyysissä havaittiin, että yrityksellä ei juuri ole olemassa olevia standardoituja prosesseja asiakaskokemuksen tai asiakastyytyväisyyden osalta. Kirjallisuustutkimuksessa keskityttiin nykytila-analyysissä havaittuihin haasteisiin ja parhaisiin käytäntöihin niiden ratkaisemiseksi.

Nykytila-analyysin ja kirjallisuustutkimuksen perusteella laadittiin ratkaisuehdotus, jonka avulla asiakastyytyväisyyttä voidaan mitata luotettavasti ja hyödyntää saatua palautetta toimintojen ja palveluiden kehittämiseksi. Ratkaisu pilotoitiin asiakkaiden ja sisäisten sidosryhmien kanssa sen varmistamiseksi, että ratkaisu vastaa yrityksen liiketoiminnallisiin haasteisiin ja tarpeisiin, sekä sisältää olennaiset kysymykset jatkuvien palveluiden osa-alueisiin liittyen, jotta voidaan tunnistaa mahdollisia kehityskohteita palveluiden toimittamisessa.

Insinööriyön tuloksena oli validoitu asiakastyytyväisyyskysely, seuraavat askeleet kohti laajempaa käyttöönottoa sekä kehitysehdotuksia tulosten hyödyntämiseen, joiden tarkoituksena on tuoda lisäarvoa kaikkiin toimintoihin, erityisesti palvelunhallintaan sekä tuotehallintaan.

Avainsanat: Asiakastyytyväisyyden mittaaminen, asiakaskokemus, asiakastuntemus, ITSM

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## List of Abbreviations

- CSAT: Customer Satisfaction Score. A measure of how products and services supplied by a company meet or surpass customer expectations.
- DevOps: Development and operations. A set of practices that combines software development and IT operations.
- ITIL: Information Technology Infrastructure Library.
- JSM: Jira Service Management. Jira is a proprietary issue tracking product developed by Atlassian that allows bug tracking and agile project management. Jira Service Management is intended for IT operations or business service desks users.
- NPS: Net Promoter Score. A widely used customer satisfaction metric. NPS is usually a single survey question asking the likelihood that they would recommend a company to their friend or colleague.
- R&D: Research and Development.
- SLA: Service level agreement. Agreement between a service provider and a client.

# 1 Introduction

Customer satisfaction and close customer relationships are vital for continuing business success in every service company. Identifying customer needs enables continuous value creation for the customer and the development of deeper customer relationships. Understanding the factors that shape the customer experience will contribute to better decision-making in business management.

Companies need to be more interested in their customers' perspectives than ever before. Global companies are investing in customer-centric operations and business development, which means customers demand the same level of service from others. Companies must be prepared to change their business models to survive the competition. Agile change of business models in the face of continuously changing customer requirements enables them to gain a competitive advantage over other providers (Hänti, 2021).

This study aims to support the case company with concrete observations and usable tools and methods for measuring customer satisfaction and to better understand customers' needs making it possible to identify improvement areas.

## 1.1 Business Context

The study was carried out for a Finnish software company named Eficode, whose business and service offerings are based on continuous customer relationships. The company, as a whole, has approximately 500 employees and offices in several different countries. The department this thesis was conducted for, Eficode ROOT, offers continuous services to their customers, consisting of development and operations (DevOps) tools and toolchains from project management systems to automated testing and deployments. The offering also includes maintenance and on-demand support based on customer needs. The services are tailored to customers' varying needs, enabling them to focus on their project work instead of labor-intensive maintenance tasks. The goal of their DevOps services is to

automate software development processes to improve the quality of the development and make it more transparent.

The department consists of over 50 employees, including, for instance, team leads, system specialists, consultants, and service managers, with a wide range of expertise on different tools and platforms. The author of this study is one of the service managers.

## 1.2 Business Challenge, Objective, and Outcome

Recently, the case company's business and the number of customers has increased drastically. Customer relationships are essential, and the company aims to improve its services to better meet the customers' needs. Measures have already been taken to improve the services and communication with the customers, for instance, by hiring service managers. However, customer satisfaction is not measured in a standardized manner. While there is a high-level understanding of customer needs, it is not currently used for continuous improvement in a relevant way. There needs to be a deeper understanding of customer needs to find possible improvement areas within service delivery.

The objective of this study was to design and pilot a customer satisfaction survey to improve customer understanding in the case company and thus improve customer satisfaction. The outcome is a piloted customer satisfaction survey for improving customer satisfaction in the case company and other recommendations to better understand customers' needs and improve the customer-centric way of operating.

This study applies to the continuous services department and specifically to Eficode ROOT.



### 1.3 Thesis Outline

The study consists of four sections to address the business challenge described in section 1.2. As interviews and workshops are required to obtain relevant information about customer relationships and the current state of the processes, a qualitative method was chosen. The study's outcome is a piloted customer satisfaction survey and a suggestion for next steps toward implementation. Additionally, recommendations for improvements are provided for the service managerial aspects and processes for further development.

The first stage of the study was to gather information about the current situation through current state analysis (CSA). The current state analysis was conducted through interviews and workshops to gain a comprehensive overview of the current state of the company's processes, practices, and customer relationships. Second, relevant literature was studied to form a basis for the proposal utilizing the results and findings from the current state analysis. Third, recommendations were formulated based on the findings from the current state analysis, using existing knowledge studied in section 4. Lastly, the recommendations and the piloted survey were validated through stakeholder interviews, and the final recommendations were formed based on the feedback from those interviews.

The first section of this thesis introduces the study. The second section describes the methods and the data collection at different stages of the study. The third section contains the current state analysis, explaining the process and the results. The fourth section outlines the relevant theory for the study based on the findings from the current state analysis. The fifth section contains the initial recommendations and a first draft of the customer satisfaction survey. The sixth section details the validation phase, where the survey was piloted with customers and feedback was collected from relevant internal stakeholders. Based on the input and other findings, improvements were made to form the final proposal and recommendations for the next steps. The seventh and last section of the study contains the research summary and a thesis self-evaluation.

## 2 Method and Material

The previous section introduced the business challenge, objective, and outcome of this study. This section describes the research approach and the research design, along with the data collection process and the project plan for this study.

### 2.1 Research Approach

When choosing the research method, it is essential to select a method that serves the study's goals the best. Two methods can often be used simultaneously instead of just one way (Adams, Khan and Raeside, 2014).

The two most often used research methods are quantitative and qualitative research. Quantitative research measures quantity or amount, while qualitative research aims to understand the underlying motives and desires through interviews and participant observation. Qualitative research is particularly important in understanding human behavior and the reasons behind it (Kothari, 2004).

A qualitative approach was selected as the primary approach for this study. Customer and employee interviews were used to map the current state of the company's customer experience practices. Additionally, the validation phase consisted of interviews and piloting the survey with selected customers for validating the proposal and gathering suggestions for the final proposal and recommendations.

### 2.2 Research Design

This thesis has four stages to reach the desired outcome. The business problem described in section 1 is the initial motive for the study, and the objective steers the project in the right direction. Figure 1 shows the research design for this study.

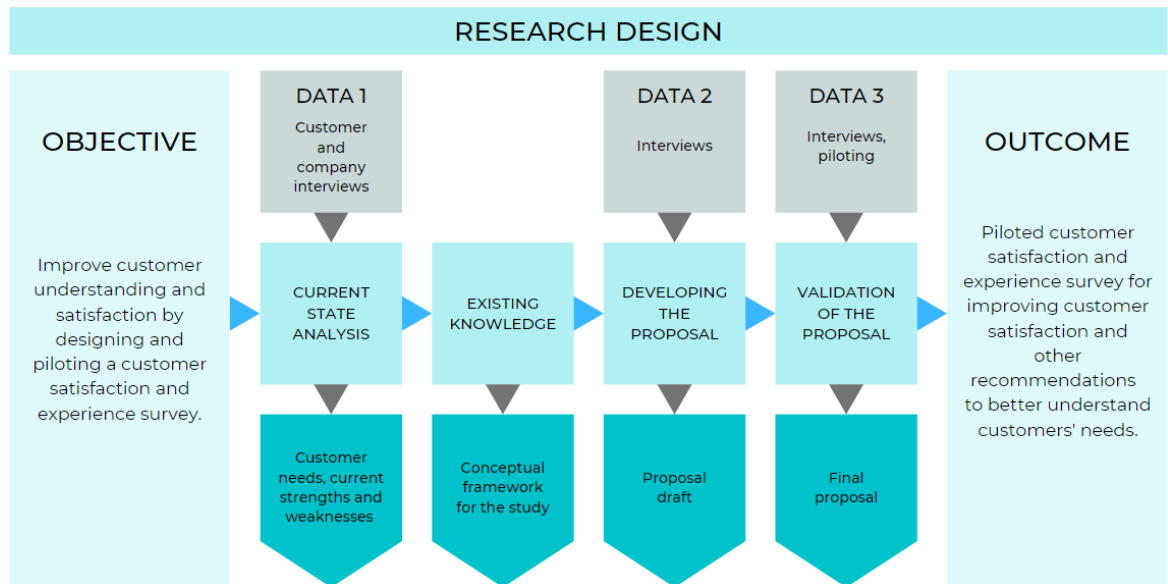


Figure 1. The research design for the study.

The first phase was the current state analysis, which provided an understanding of the company's processes, practices, and customer relationships. Data was collected through customer and company interviews in several meetings and discussions. The participants were selected for the interviews based on their role in the customers' organizations or the case company. The outcome of this phase was the identification of customer needs and the case company's current strengths and weaknesses.

The second phase was the literature study, where existing knowledge was studied based on the findings of the current state analysis. The outcome of the second phase was the conceptual framework for the study.

The third phase contained the development of the proposal, the customer satisfaction survey. The proposal was constructed based on the current state analysis and existing knowledge. Additional interviews were held in this phase to get more diverse suggestions for the proposal. The outcome of the third phase was a proposal draft.

The fourth and last phase of this study was validating the proposal. The customer satisfaction survey was piloted with existing customers, and the suggestions were validated by the customers and the case company's relevant employees. Based on the received feedback, the final proposal was formed.

### 2.3 Data Collection and Analysis

Research data for this thesis was collected from various data sources at Eficode and their customers in several collection rounds. Figure 2 shows the data collection for the current state analysis.

DATA 1 - CURRENT STATE ANALYSIS (SECTION 3)					
#	SOURCE	DATA TYPE	TOPIC	DATE, LENGTH	DOCUMENTED AS
1	Managed Services Team Lead	Google Meet Interview	Company strategy, processes and customer satisfaction	June 24th, 2021, 45min	Field notes, confidential
2	Chief Marketing Officer	Google Meet Interview	Previous company-wide customer satisfaction surveys	June 29th, 2021, 30min	Field notes, confidential
3	Service Manager	Google Meet Interview	Company strategy, processes and customer satisfaction	June 29th, 2021, 30min	Field notes, confidential
4	Consultant	Google Meet Interview	Service desk processes and customer satisfaction	June 30th, 2021, 30min	Field notes, confidential
5	Customer representative	Google Meet Interview	Customer satisfaction and processes	July 5th, 2021, 60min	Field notes, confidential
6	Customer representative	Google Meet Interview	Service desk processes and customer satisfaction	July 5th, 2021, 60min	Field notes, confidential
7	CSAT survey results from 2020-2021	Internal Documents (PowerPoint and Excel)	Company-wide customer satisfaction survey results	Accessed July 6th, 2021	Internal documents, confidential
8	Customer interview document	Internal document (5 pages)	Customer's needs and their views on buying services from Eficode	Accessed July 6th, 2021	Internal documents, confidential

Figure 2. Data collection for the current state analysis.

The purpose of Data 1 collection was to gather the required information to perform a current state analysis. The data was primarily collected through interviews with Eficode's employees and customers. Existing documentation about previous customer satisfaction surveys was also utilized in this phase to map the current state comprehensively. Figure 3 describes the data gathered for creating the initial recommendations.

DATA 2 - CREATING THE INITIAL PROPOSAL (SECTION 5)					
#	SOURCE	DATA TYPE	TOPIC	DATE, LENGTH	DOCUMENTED AS
1	Service Managers, Product Manager	Google Meet Interview	Collecting customer feedback, improving customer understanding	December 8th, 2021, 45min	Field notes, confidential
2	Product Manager	Google Meet Interview	Goals for the survey, proposal suggestions	December 27th, 2021, 30min	Field notes, confidential
3	Sales Coordinator	Google Meet Interview	Review of survey questions, survey functionality	January 26th, 2022, 30min	Field notes, confidential

Figure 3. Data collection for initial proposal and recommendations.

For the second data collection round, data was collected from interviews and discussions to gather ideas and proposals for process improvements. Several people from the case company's organization were interviewed to get a comprehensive picture of the company's needs within different operations. Figure 4 contains the data received from the validation phase.

DATA 3 - VALIDATION OF THE PROPOSAL (SECTION 3)					
#	SOURCE	DATA TYPE	TOPIC	DATE, LENGTH	DOCUMENTED AS
1	Customer #1	Google Meet Interview	Piloting the survey during a steering meeting, validation	February 8th, 2021, 60min	Field notes, confidential
2	Customer #2	Google Meet Interview	Piloting the survey during a steering meeting, validation	February 16th, 2021, 30min	Field notes, confidential
3	Customer #3	Google Meet Interview	Piloting the survey during a steering meeting, validation	February 23rd, 2021, 30min	Field notes, confidential
4	Customer #4	Email discussion	Piloting the survey via email after a steering meeting, validation	March 9th, 2021	Email
5	Product Manager	Slack discussion	Reviewing the survey	March 22nd, 2021	Field notes, confidential
6	Product Manager, Sales Coordinator	Google Meet Interview	Reviewing the survey, modifications based on feedback	March 28th, 2021, 60min	Field notes, confidential

Figure 4. Data collection during the validation phase.

The last data collection round contained interviews with selected customers during steering meetings, where the survey draft was piloted, and a meeting with the product manager and the sales coordinator. Based on the information gathered from these interviews, changes were made to the initial proposal to better meet the customer's and the case company's needs.

## 2.4 Project Plan and Schedule

The project started in June 2021, and the final results were presented in April 2022. As the project was carried out alongside full-time work, it was impossible to set a precise schedule. The initial plan was to finalize the study in 2021, but due to more pressing day-to-day tasks and changes within the department, the completion was delayed until 2022.

The project started with an initial discussion and setting an objective with the team lead of the continuous services department. The first three stages, including the current state analysis, were shorter in duration since the focus was on the proposal itself. The fourth step was to analyze existing knowledge to form a theoretical basis for the proposal. The fifth step was to design a survey based on the findings of the current state analysis and existing knowledge. The sixth step was validating the survey by piloting it with customers, making changes based on the received feedback, and propose recommendations for the next steps. The last step was to summarize the results.

The following section contains the results from the current state analysis.

### **3 Current State Analysis**

The previous section described the data collection for the current state analysis and proposal building phases. This section describes the current state of the case company's processes, focusing on customer satisfaction and customer experience.

#### **3.1 Overview of Current State Analysis**

The current state analysis is based on interviews and a previous customer satisfaction survey to formulate a comprehensive view of the existing processes and practices regarding customer service processes. The people chosen for the discussions from the case company were from several different roles to analyze every point of contact the customer has during continuous services, excluding the sales perspective. Two customer representatives were interviewed to get direct feedback from the customers, and old customer satisfaction material was used to study how customer feedback has been collected previously.

First, customer contact points were examined to identify where and how the customers are in contact with the personnel in the case company. Second, processes and practices were investigated to understand how the company is communicating with its customers and to find out if there were standard practices or guidelines in place. Third, the methods and techniques currently in place for collecting customer feedback and measuring customer satisfaction were studied to establish a view of the current procedures. Fourth, customer satisfaction was analyzed based on customer interviews and previous Customer Satisfaction Score (CSAT) results to map the state of current customer satisfaction. The last step was to summarize the results and key findings and document the found strengths and weaknesses.



## 3.2 Customer Contact Points

The customer journey begins with the sales process. As this thesis focuses on Eficode ROOT and its operations during continuous services, the sales process is not investigated in detail. After both parties have signed the contracts, and sometimes even prior to signing the contracts, the setup process begins. The first kick-off meeting initiates the process and generally includes technical personnel from both sides, and an account manager, a service manager, and a project manager from the case company. While setting up the customer environments and tools, weekly follow-up meetings have been standard practice to keep track of the progress and provide transparency for the customers.

After the setup is completed and the continuous service begins, most of the customer interaction occurs at the service desk, where customers can create different types of requests, typically referred to as tickets. Usually, the requests are related development work or standard service requests. Depending on the customer organization, the end users might or might not have direct access to the service portal. If not, which is most often the case, the end-users send the tickets through the customer's contact person or persons. Depending on what has been agreed with the customer, some customers might also have dedicated Slack channels, where incidents can be escalated quickly.

Service managers act as the first point of contact for the customer, ensuring the quality of the services. Service managers are also responsible for the contractual obligations, such as service level agreements (SLAs). Sometimes the customers might want to call or arrange appointments on short notice, for instance, about new services they are considering or a larger project. Depending on the customer, email communication can also be used frequently to discuss any issues, questions, or the service status. Service managers communicate with their dedicated customers in periodically in steering meetings, that are arranged every quarter, where the progress of projects and the status of the services is discussed. There can also be weekly or monthly meetings depending on the customer.

### 3.3 Processes and Practices

The case company has some standard operational practices in place for different processes. However, some procedures or guidelines are not clearly documented, such as communication guidelines at the service desk. The employees receive guidance for customer communication during onboarding, but the practices can vary significantly among the employees after the onboarding is done.

The tickets are handled efficiently and promptly according to SLAs defined in the customer contracts. However, as mentioned previously, the practices vary regarding how communication about the ticket process is handled. Some consultants routinely communicate with the customer at every step of the process, notifying the customer when the ticket is being handled, asking further questions if needed, informing if there are any delays in the process, and letting the customer know when the issue is resolved including any additional information that might provide additional value. However, some other employees might only notify the customer when the request is resolved.

Service managers are responsible for the service delivery and communicating with the customers when it is not related to basic requests. The goal is to improve customer relationships, keep the customers informed about the services, and find solutions to meet the customers' needs. Steering groups and other meetings are also organized and led by them. The role is relatively new within the department, which means that the working methods, processes, and practices are still taking shape and being developed.

### 3.4 Collecting Feedback

Currently, feedback is not collected in a standardized way, and there are no means to measure customer satisfaction. The customers do not have a defined route through which feedback should be given. Regardless, feedback is received through different channels, primarily in ticket comments and meetings with the customers. Service managers have recently started to ask for open feedback in

every steering meeting from customer representatives, and the feedback is documented in steering notes. When feedback is received, it is generally straightforward, whether negative or positive, but there are cultural differences that can affect how willing the customer is to give direct feedback.

The received feedback is nearly always shared amongst the team. Negative feedback is often discussed with the crew working with a specific customer or personally with the people involved. Negative feedback always leads to concrete steps on moving forward, and measures are considered to prevent it from happening in the future. If the feedback is personal and not constructive, it is usually not passed on to the person because they cannot learn from it. Instead, managers will consider corrective measures and what actions need to be taken.

Positive feedback is widely shared throughout the organization, through a dedicated instant messaging channel, often highlighting specific employees. The interviewed employees felt that receiving organization-wide feedback was very frequent compared to their previous experiences, and they thought it was a good practice.

As mentioned previously, some customers are more reserved about giving feedback. Eficode's employees felt that the company would benefit from receiving feedback more frequently, no matter how minor the issue, annoyance, or success was. The respondents noted that due to sparsely given feedback, feedback could not be used for continuous improvement properly.

### 3.5 Customer Satisfaction

Currently, there are no official means for measuring customer satisfaction comprehensively within the department. Long-term customer loyalty, the occasional feedback received in steering meetings, and low levels of complaints are considered the most relevant indicators of customer satisfaction. Jira Service Management (JSM), the software the company uses for its service desk, has

functionality for customer satisfaction surveys, but it has not been officially implemented and is rarely used.

Eficode conducts customer satisfaction surveys yearly on an organizational level, but the response rate has been generally low, and the results are not relevant for this study. Only seven respondents had answered a question related to the continuous services department, and it is not possible to draw conclusions from such a small sample.

### 3.5.1 Practices Regarding Customer Experience

Interestingly, there were slightly different views among the interviewees from the case company on whether their business was currently more customer-centric or product-centric. However, both agreed their primary goal is to deliver the best possible customer experience. There are guidelines for providing a good customer experience, but they are currently not documented. Common sense is generally used as the main guideline for communicating with the customers. Service design methods, for instance, have not been utilized previously at the case company.

The employees always try to fulfill customers' requests or suggest a better solution if one exists. Solutions outside their product portfolio are also considered case-by-case if requested by the customer and if they are viable. The aim is also to improve customer operations and agility holistically, not just in terms of tools. According to the employees, the company is genuinely interested in the customer's well-being and aspires to be a trusted advisor, and wants to develop deeper customer relationships and be an enabler for the customer. Some relationships are already strong, and the frequency of interaction with them is at a reasonable level. However, some customers do not demand much in terms of communication and are satisfied when the services are working. The challenge with less deep customer relationships currently is that it's challenging to offer additional services or solutions if the customer does not include the company in these discussions but instead discusses their needs internally.

### 3.5.2 Customer Interviews

Two current customer representatives from different roles were interviewed from the same organization to understand the customer experience from different perspectives and find improvement points. Additionally, notes from a previous interview of a recently onboarded customer were utilized in addition to comments from an earlier company-wide customer satisfaction survey.

Generally, what triggers the customers to seek an external provider is the lack of proper in-house knowledge within the organization after a DevOps transformation. Customers needed a partner and an advisor who had the resources and know-how to manage the tools and guide them. For the interviewees, the expertise of the salespeople and the convincing sales process were the main reasons they chose the case company as their service provider.

The most significant value the customers feel they get is the expertise the case company provides and the optimization of the tools to help them meet their business objectives. From a management perspective, while the sales process created high expectations for the service, some customers were somewhat disappointed by the lack of proactivity and suggestions for improvement after the launch of the services. The customers were also sometimes uncertain about the progress and what was being worked on during the setup process. Another topic mentioned was that keeping promises and managing project timelines could be improved.

The end-users are generally very satisfied with the services and give good feedback to the customer representatives. On standard requests, the response time from the service desk was considered good, and the service quality was praised since there had not been significant service interruptions during the year-long customer relationship.

### 3.6 Key Findings from the Current State Analysis

Based on the findings, it can be concluded that the current state of the customer experience is on a good level. Based on the interviews, several strengths and weaknesses were identified. Figure 5 details the findings.

STRENGTHS	WEAKNESSES
Long-term customer relationships	There is no standardized way of collecting customer feedback
End users are satisfied with the services	No means to measure customer satisfaction
Customer-centric way of operating	Lack of standardized processes regarding customer experience
Feedback is shared throughout the organization	Some customers think that communication could be improved
Willingness to continuously improve services and practices	Lack of a proactive way of proposing solutions
Leading DevOps expertise	Deep understanding of customer needs could be improved

Figure 5. Identified strengths and weaknesses.

The primary indicator of reasonable customer satisfaction is the longevity of customer relationships. There is a consensus among the employees that customer-centricity should be pursued in everything that is done. However, communication and the lack of proactivity in proposing new solutions lowered

customer satisfaction amongst some interviewees; therefore, they are considered weaknesses.

In line with the principles of continuous improvement, the company aims to continuously improve the customer experience, although this cannot be done adequately without customer feedback. The lack of a standardized way of gathering customer feedback is one of the most significant weaknesses as it also affects how well the company understands the customer's needs. However, when feedback is received, it is openly shared throughout the organization.

This study focuses on the weaknesses related to measuring and collecting customer feedback and customer understanding. The following section focuses on the theory based on the weaknesses found.

## 4 Existing Knowledge

The previous section detailed the current state analysis and the strengths and weaknesses identified. This section focuses on existing knowledge around measuring and collecting customer feedback on service and customer relationship levels.

First, customer insight and customer experience were researched to get an overview of best practices in that area. Second, literature about measuring customer satisfaction and experience, as well as best practices regarding customer satisfaction surveys was explored in greater detail. Third, the ways to utilize survey feedback were studied. Finally, the results were summarized in the conceptual framework and explained in further detail in the summary section.

### 4.1 Customer Insight and Customer Experience

Customer experience is the sum of the encounters, impressions, and feelings a customer has about a company. The experience is influenced by emotions and interpretations, making the customer experience subjective. (Koivisto and Säynäjäkangas, 2011).

Today, customers expect a service that delivers value and benefits they are willing to pay for and service solutions that meet their needs before they are even aware of them. Business-to-business cooperation requires individuals, and the people who work in companies also have both stated and silent needs that require a deep customer focus to be met. Companies should proactively identify underlying customer needs and renew their operations in an agile way, which requires confidence to challenge current practices and robust change management. (Koivisto, Säynäjäkangas, and Forsberg, 2019). According to ITIL 4 practices, companies should inspect social, functional, and emotional dimensions to understand stakeholder value and why they need particular services and products. (Axios, 2020).



According to Korhonen and Gerdt (2016), the best-performing companies in terms of customer experience can have a significantly higher return than those with lagging customer experience. The leading companies prioritize solving critical customer experience problems and are constantly looking for new ways to improve their customer experience to gain a competitive advantage. Achieving this requires a commitment to finance, process, and strategy. Moreover, each contact point should be designed carefully to be consistent and deliver the best possible experience (Watermark, 2021).

Korhonen and Gerdt (2016) suggest that to benefit from measuring customer experience, clear business objectives must be set for developing the customer experience. These could be, for example, additional sales or savings. Customer experience metrics can be linked to business metrics, such as sales or product metrics, providing clear business objectives for customer experience development from the beginning.

#### 4.1.1 Service Design

Service design provides a development approach for a company that enables it to succeed in a changing competitive environment by putting the customer first in its decision-making and operations. In addition to strengthening customer orientation, service design can be used to develop internal operations and support processes for service production. In traditional organizational or expert-oriented development, customer orientation is often weak, even if the aim is to develop solutions to meet customer needs. Service design can improve the customer experience by developing a company's service culture, internal structures, and operational models that might directly or indirectly impact the customer. (Koivisto, Säynäjäkangas, and Forsberg, 2019).

#### 4.2 Measuring Customer Satisfaction and Experience

Watts (2020) states that customer satisfaction is one of the most important metrics to measure in a service desk or a service business in general. Customer

feedback surveys are also one of the best ways to understand the customer experience better. Additionally, understanding the customers' current state is a prerequisite for developing the customer experience. Surveys can be conducted at contact points or utilizing customer experience management software (Axios, 2020).

CSAT measures customer satisfaction by asking customers to rate a product or service (Wiedenhoefer, 2021). The most common metrics used in CSAT surveys related to the service desk are, for instance, availability, the professionalism of the staff, how quickly and accurately the requests were solved, and communication. A five-point scale is generally used in CSAT surveys from 'very dissatisfied' to 'extremely satisfied' (Nair, 2020). CSAT scores are only a simple measure and should be complemented by qualitative research to understand better the possible factors that might influence the scores to improve critical areas (Qualtrics, 2018).

Net Promoter Score (NPS) remains the most popular metric because it provides the best benchmark data related to the industry. The question is answered by a rating between 0 and 10 (Korkiakoski, 2019). However, it is not easy to utilize the results because the holistic question "how likely is it that you would recommend us to a friend or colleague" does not provide information about why the customer responded in the way they did (Villani, 2018).

The company must show that it both listens to and values its customers and the feedback they provide. Companies that provide the best customer experience are passionate about measuring it, and they use the feedback they receive to improve their operations. It is worth being straightforward and open about asking customers for ideas and suggestions about what they want from the company; this sends a message that the company values their opinion (Korkiakoski and Gerdt, 2016). Measuring should be based on selected key performance indicators, but there should always be room for change and refinement (Korkiakoski, 2019).

#### 4.2.1 Transactional Surveys

Transactional surveys focus on interactions at a specific point in time with a customer, for instance, service delivery or support interaction. For example, the customer may be asked to rate their support experience or how satisfied they were with their buying experience. These surveys provide feedback quickly about specific interactions, making it easy to take action. (Sinkkonen, 2020).

Transactional surveys cannot be used to measure the health of the customer relationship, although every interaction affects the overall relationship. The most common methods used for transactional surveys are CSAT and Customer Effort Score (CET). (Sinkkonen, 2020).

The timing of the survey should be considered carefully. To get the most accurate results, transactional surveys should be sent immediately after a service encounter, for instance, after closing a support ticket. This way, the experience is still fresh in the customer's memory, and they can provide accurate feedback and might be more inclined to do so. (Willott, 2019, a).

#### 4.2.2 Customer Relationship Level Surveys

Relationship surveys measure the health of the company's relationship with its customers. Generally, the goal for these surveys is to get a higher response rate than transactional surveys (Sinkkonen, 2020). However, there is no single way of measuring customer satisfaction at the customer relationship level that could handle the entire spectrum. It is a multi-dimensional process that requires understanding the customers' contact points, roles, and objectives (Korkiakoski, 2019). The most common questions in customer relationship level surveys relate to customer loyalty or referral likelihood. NPS is an example of a commonly used method (Sinkkonen, 2020). NPS alone does not provide much insight, and it should be paired with open-ended questions to get holistic feedback about the customer experience (Chung, 2019). Alongside NPS, other commonly used questions that can be used in most industries to better understand customer

loyalty are product quality, technical support, service quality, and communication quality (Hayes, 2015).

Relationship level surveys should be sent sometime after the customer has had the opportunity to experience the product or the service (Chung, 2019). The frequency of relationship surveys should be lower than transactional surveys. Customer experience surveys are generally done periodically, for example, quarterly or yearly (Luck, 2022). The benefit of relationship surveys is that it makes it possible to see, for instance, how changes in the service have affected the company's brand. Unlike transactional surveys, relationship surveys are typically distributed to the entire customer base (Sinkkonen, 2020).

#### 4.2.3 Designing the Survey and Collecting Feedback

While planning on measuring customer experience, the following questions should be addressed: who to ask, what to ask, when to ask, and where to ask (Korkiakoski and Gerdt, 2016). The measurement should provide information that enables the company to make decisions and take action to improve the customer experience (Korkiakoski, 2019).

Surveys should be tailored based on the company's objectives. Either quantitative or qualitative methods can be used, depending on what the company wants to achieve (Villani, 2018). When surveys are performed regularly, the company can monitor the results over time to see the changes in customer experience (Chung, 2019).

Several factors affect the response rate, such as clarity of instructions, ease of taking the survey, survey length, wording, brand visibility, and question types (Qualtrics, 2020, a). The ideal length of a survey is less than 5 minutes long, meaning that there should be less than 15 questions. Multiple-choice questions are approximately three times faster to answer than open-ended text response questions (Qualtrics, 2020, b). Open questions can be used to gather additional information about the customer experience, but there should not be more than

two of them, and they should always be optional. Otherwise, it might negatively impact the response rate (Korhonen et al., 2021). To get as accurate data as possible, there should be a possibility to answer, “I do not know” (Korhonen et al., 2021).

The visual appeal impacts the way people react to surveys. It can make the user interface seem easier to use, even though the usability is similar to a less appealing survey (Vaughn, 2021). When doing a longer survey, it is recommended to tell the respondent immediately how long the survey will take. A good practice is to include a progress bar to keep track of the progress (Raimondi, 2010). Previous benchmarking results suggest that brand visibility and simplicity were found to increase the pleasantness of a survey. Additionally, visually pleasing surveys increased the survey's credibility and enhanced the brand's image (Korhonen et al., 2021). For instance, a brand color palette and including the logo in the survey title can be used to represent the company brand (Raimondi, 2010).

Several different customer experience management (CEM) tools can be utilized for creating surveys. CEM tools help track feedback to identify the main improvement areas and take action. Some of the most popular tools are, for instance, Survey Monkey, Happy-or-Not, and Qualtrics. The tool must be adapted to the company's needs, technology, and processes. (Korkiakoski, 2019).

There are several different ways to conduct a survey, such as SMS surveys, online surveys, and in-person interviews. Both SMS surveys and online surveys are fast and easy to complete. Online surveys can trigger additional questions based on previous answers, and the visual look can be optimized for better response rates. In-person interviews tend to be more time-consuming because they require human interaction. However, the response rates are generally higher, and it is possible to observe the respondent's tone of voice and facial expressions. (Willott, 2019, b).

### 4.3 Utilizing Feedback

Measurement by itself does not provide any value; the company must be ready to use the information to make their business more customer-centric and to achieve the desired business goals. Transparency is essential in strategic development, and results and changes should be communicated internally and externally. (Korkiakoski and Gerdt, 2016).

The entire organization needs to understand why customer experience is being measured and how the data is used. Sharing information by going through it briefly is not enough; it is necessary to ensure the information is used to develop the operations. To do this, it is required to encourage, train, motivate and monitor the staff. (Korkiakoski and Gerdt, 2016).

The information obtained can be easily monitored over time and used to make recommendations for improvements and actions. Based on the feedback, the companies have a clear list of the main improvement areas and factors that affect NPS rating, for instance. Customer service employees and those responsible for product development and sales should be involved in the dialogue with the customers. (Korkiakoski and Gerdt, 2016).

If the business is actively developed based on customer feedback, the experience will inevitably improve in some areas. The measurement model should be actively monitored as the operations evolve and develop. The priorities and resources should be shifted to where corrections are needed and where most of the problems occur at any current time (Korkiakoski and Gerdt, 2016).

### 4.4 Conceptual Framework

The theory selected for this study is based on the findings from the current state analysis and the author's experience as a service manager within the case company. Figure 6 details the findings from the current state analysis, the related

literature studied for the project, and the purpose for choosing the mentioned theory.

FINDINGS	RELATED LITERATURE	PURPOSE
Customer feedback is not collected nor customer satisfaction measured in a standardized way	<ul style="list-style-type: none"> <li>• <b>Measuring Customer Satisfaction and Experience</b> (Axios, 2020; Korhikoski, 2019; Korhikoski and Gerdt, 2016; Qualtrics, 2018; Watts, 2020; Wiedenhofer, 2021)</li> <li>• <b>Transactional Surveys</b> (Sinkkonen, 2020; Willott, 2019)</li> <li>• <b>Customer Relationship Level Surveys</b> (Chung, 2019; Hayes, 2015; Korhikoski, 2015; Luck, 2022; Sinkkonen, 2020)</li> <li>• <b>Designing the Survey and Collecting Feedback</b> (Chung, 2019; Korhonen et al., 2021; Korhikoski, 2019; Korhikoski and Gerdt, 2016; Qualtrics, 2020; Raimondi, 2010; Vaughn, 2021; Willott, 2019) <ul style="list-style-type: none"> <li>◦ Questions</li> <li>◦ Visuality</li> <li>◦ Tools e.g. Qualtrics</li> <li>◦ Methods for conducting a survey</li> </ul> </li> </ul>	To investigate existing knowledge regarding collecting customer feedback and best practices for customer satisfaction and experience surveys
Lack of deep understanding of customer needs	<ul style="list-style-type: none"> <li>• <b>Customer Insight and Customer Experience</b> (Axios, 2020; Korhikoski and Gerdt, 2016; Koivisto and Säynäjäkangas, 2011; Koivisto, Säynäjäkangas and Forsberg, 2019; Watermark, 2021)</li> <li>• <b>Service Design</b> (Korhikoski, Säynäjäkangas and Forsberg, 2019)</li> <li>• <b>Utilizing Feedback</b> (Korhikoski and Gerdt, 2016)</li> </ul>	To investigate existing knowledge regarding customer experience and how to utilize feedback
Existing knowledge regarding customer experience and customer satisfaction surveys and their utilization		

Figure 6. The conceptual framework of the study.

Two key findings emerged from the current state analysis: the lack of a systematic way of collecting customer feedback and the lack of a more profound understanding of customer needs. These two themes are closely intertwined, so most of the examined literature relates to both. First, literature related to different types of surveys and best practices for measuring customer satisfaction and experience was studied. Second, the customer experience was examined more broadly, and how service design and feedback from surveys can be used to improve customer understanding.

## 4.5 Summary

Customer experience is an essential part of the services that can bring a competitive advantage to companies. Identifying customer needs proactively and improving the services in an agile way are critical factors in meeting customers' needs.

Measuring customer satisfaction is one of the most critical metrics in a service business and helps companies better understand customer needs. Transactional surveys can be used to measure customers' satisfaction with a specific service encounter. Even though these encounters affect the overall relationship, transactional surveys cannot be used to measure the health of the customer relationship. Customer relationship surveys, on the other hand, provide holistic insight into the customer experience.

Various methods and tools can be used for collecting feedback. When designing a survey, it is essential to tailor the questions based on the company's objectives. Other factors, such as the visual look and the ease of responding, should also be considered, as these can affect the response rate. The survey itself does not provide value; the information should be used to improve the operations. To be able to utilize the results, surveys should be conducted periodically. The data should be easily comparable to see how changes in service might affect the customer experience. The results should also be shared throughout the organization to improve customer-centricity within the company.

The following section details the initial proposal created for Eficode based on the findings from this section and the current state analysis.



## 5 Initial proposal

This section describes the proposal built based on the current state analysis, conceptual framework, and the interviews conducted for Data 2.

### 5.1 Overview of the Proposal Building Stage

This section details the first survey draft and the proposal building process. Stakeholder suggestions, essential findings during the current state analysis, and existing knowledge were used for the basis of the proposal.

Based on the current state analysis, the main weakness was the lack of collecting customer feedback. This was reflected in other weaknesses, such as a lack of deep customer understanding and a lack of proactivity in proposing new solutions. For the company to be able to steer its relationships towards strategic partnerships and be more proactive in offering solutions, it is essential to have a deep understanding of customer needs and monitor customer experience periodically.

Based on the current state analysis findings, existing knowledge was researched to find the best methods to collect customer feedback on a higher level and how to use the data to improve customer insight and experience. The literature studied was directly used to form the proposal when applicable. This was to ensure the proposal was based on best practices, and it would be possible to reuse the survey basis for other service areas in the future.

The primary solution revolves around creating a draft for a relationship-level survey and how to utilize the data gathered from the survey. The survey was designed iteratively with other main stakeholders at the case company, such as the product manager, team lead, and other service managers.

## 5.2 Stakeholder Suggestions

Suggestions were collected from the case company's product manager, service managers, and team leads. Figure 7 details the suggestions brought up in the interviews.

#	KEY AREAS BASED ON CSA AND CONCEPTUAL FRAMEWORK	SUGGESTIONS FROM STAKEHOLDERS	DESCRIPTION
1	Customer feedback is not collected nor measured	<p>A) A survey should be used with all current customers</p> <p>B) The survey should encompass all service areas (during continuous services)</p> <p>C) The survey should have a question related to the company's own tools</p>	<p>The product manager from the company suggested that a good point to start measuring customer satisfaction would be from the existing customers. There could also be a question related to the company's own user management tool to get feedback about the functionality and desired new features.</p> <p>The service managers and the team lead suggested that the questions should be related to the services on a broad scale.</p>
2	Lack of deep understanding of customer needs	<p>A) A survey can be used to map customer needs</p> <p>B) Feedback can be used to improve operations</p>	<p>The results from the survey should be reviewed periodically and changes made based on the received feedback. This will help R&amp;D in creating products that meet the customer's needs better.</p>

Figure 7. Stakeholder suggestions for building the proposal.

Key areas identified in the current state analysis were the lack of collecting customer feedback and the lack of a deeper understanding of customer needs. The feedback collection should start with existing customers to get an overview of the current state of customer experience. The questions should be related to the services on a broad scale to find possible improvement areas, and in order to support product management, there should be a question related to the company's own user management tool.

The results from the survey should be reviewed periodically within the service management and product management streams, and actions should be taken accordingly. The survey results can also be utilized for Research and

Development (R&D) to provide products and tools that customers hope for to proactively meet the customers' needs.

### 5.3 Proposal for Collecting Feedback

In general, the primary feedback point for companies providing support services would be the service desk. In this case, however, it became clear that the company itself and customers perceived the improvement areas to lie elsewhere. Additionally, the product management requires feedback on the services to improve the service offering, which cannot be achieved through a regular service desk feedback survey. The company wants to deepen its relationships towards strategic partnerships and aims to holistically improve its service management layer and requires tools to support these changes. As a result, customer feedback should, at this stage, be collected on a higher level. A less frequent relationship survey to already existing customers combined with service-related questions was found to be the best way to identify customer needs and measure customer satisfaction comprehensively.

#### 5.3.1 Collecting Relationship Level Feedback

The survey was designed to be used both in steering meetings and sent directly to the customer by email. Conducting the survey during a steering meeting allows further observations and enables the interviewer to observe the respondent's tone of voice and facial expressions. The survey can also be sent to the customer after the steering meeting along with the steering notes if there was not enough time during the meeting to conduct the survey there. Surveys can be longer and more time-consuming when measuring overall satisfaction or the state of the customer relationship, as these surveys are not performed as often. In the beginning, if active action is taken based on the survey results, it would be beneficial to conduct surveys quarterly.

The questions were formed iteratively in the planning phase. As customer satisfaction feedback has never been collected similarly within the case

company, the range of the topics is more extensive. Later, once a baseline has been established and the main areas for improvement identified, it will be possible to narrow down the survey and make additional alterations if needed. Figure 8 shows the initial draft for the first page of the survey.

INTRODUCTION		
Welcome to the Eficode ROOT satisfaction survey!		
Your organisation has been using the Eficode ROOT DevOps platform and this survey is intended to gather feedback on the service. We will actively use your feedback to improve our operations and to provide you with the best possible service.		
The survey consists of 10 questions and the possibility to provide open feedback. If you leave your contact details at the end of the questionnaire, we will be happy to contact you for further discussion.		
It will take approximately 5-7 minutes to complete the survey. Thank you for your time!		
QUESTION	ANSWERING OPTION	FOLLOW-UP QUESTION
Your company name	Free text field	
What is your role in the company?	1. Management 2. Operative 3. Other, please specify	
(If management) How well have our services supported your strategy and business goals?	1. Very poorly 2. Poorly 3. Neutral 4. Well 5. Extremely well	How could we improve our operations to better support your business goals?

Figure 8. The first page of the customer satisfaction survey.

It is essential to highlight the importance of the survey immediately to keep the respondents interested and let the respondents know their feedback is meaningful and used to improve the operations. The length of the survey is announced in the introduction, and the respondents are thanked for their time.

First, the customer fills in what company they work in. This is an important question because the platform tools and services vary significantly between

different customers. It also allows further development of specific customer relationships when the responses are not fully anonymous.

The role of the respondent also affects what questions they should be asked. If the respondent works in management, a follow-up question is prompted to get more information about how the services have supported their strategy and business goals. If the response is neutral or lower, there is an open question about how Eficode ROOT could improve in this area. Figure 9 details the second page of the survey, where service-related questions were grouped together.

QUESTION	ANSWERING OPTION	FOLLOW-UP QUESTION
How satisfied are you with Eficode ROOT service overall?	1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied nor dissatisfied 4. Satisfied 5. Very satisfied	How can we improve our services?
How satisfied are you with how support tickets have been handled?	1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied nor dissatisfied 4. Satisfied 5. Very satisfied	How can we improve our support services?
How satisfied are you with the support and service received from the service manager?	1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied nor dissatisfied 4. Satisfied 5. Very satisfied	How can the service manager improve in the future?
How satisfied are you with the performance of Eficode ROOT and its applications?	1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied nor dissatisfied 4. Satisfied 5. Very satisfied	How can we improve our services?
How satisfied are you with the communication about the services?	1. Very dissatisfied 2. Dissatisfied 3. Neither satisfied nor dissatisfied 4. Satisfied 5. Very satisfied	How and in which areas can we improve our communication?

Figure 9. The second page of the survey.

It was essential to get feedback from different service areas to identify possible improvement areas, which is why they are covered extensively. The questions are related to the support service, service managers, service performance, and communication about the services. Similar to the first page of the survey, a follow-

up question is prompted if the respondent gives a rating between 1 and 3 (“very dissatisfied” to “neither satisfied nor dissatisfied”) to get further feedback about the improvement areas. Figure 10 describes the next survey questions. Because people tend to perceive questions differently, the questions and the word choices must be clear enough to ensure the respondents understand the questions correctly.

QUESTION	ANSWERING OPTION
Are you using Eficode ROOT Team Management?	1.Yes 2.No
<u>(If Yes)</u> How satisfied are you with Eficode ROOT Team Management?	1.Very dissatisfied 2.Dissatisfied 3.Neither satisfied nor dissatisfied 4.Satisfied 5.Very satisfied
What would you hope to see improved or changed in Eficode ROOT Team Management in the future?	Free text field
What features would you like to see included in Eficode ROOT Team Management in the future?	Free text field

Figure 10. The third page of the survey.

The questions on the third page are created to support product management in developing the tools to support the customer’s current and future needs better. If the customer responds “no” to the first question, the following questions are skipped, and the customer can move to the next page immediately. But if the

customer responds “yes”, they are asked additional questions about the possible improvement areas within the tool and if there were any additional features they would have liked to see. Figure 11 shows the last page of the survey.

QUESTION	ANSWERING OPTION
Is there anything else you would like to give us feedback on or would like us to develop or add to our services in the future?	Open text field
If you want us to contact you later on, please give your contact details (your name, email address and/or phone number).	Open text field

Figure 11. The last page of the survey.

There is one open question on the last page to provide additional insight, in case the customer wants to give feedback on something that was not asked on the previous pages, or if they have an idea for a service improvement. Lastly, the customer can leave their contact details if they want Eficode to contact them regarding the survey.

All open questions within the survey are optional, as some people might leave the survey unfinished if they were mandatory. Multiple-choice questions on a scale of one to five are used, when possible, to make the survey faster to fill out. The scale and their definitions were defined carefully so the results would be as accurate as possible.

### 5.3.2 Utilizing the Survey Data

Two types of questions are used in the survey: questions on a numeric scale and open questions. Both types of questions serve a different purpose and support each other. Numeric data is easier to analyze and monitor over time, and it allows comparing the results with each other. Numeric data is also easier to present to the management, as results can be visualized easily. Open questions, however, allow making further observations and provide insight into why the customer gave a rating they did. They are slower to analyze and require manual work, but they provide information that can be easily used to develop the services.

As visibility to the whole organization is important, the survey results should be presented to the whole department periodically, and improvement areas and actions discussed.

### 5.3.3 Visual Look of the Survey and Usability

To adapt to the existing tools and processes the company already has in place, the survey was created with Qualtrics, since it is already used elsewhere. Qualtrics also had the desired functionality and good reporting options.

Existing knowledge highlighted the importance of visuality, especially brand visibility and the usage of brand colors. A visually interesting survey keeps the respondent engaged and it makes the survey seem easier to use. The top bar is yellow, in line with the company brand, with the company logo in the middle. Grey, white, and black are also used accordingly for a simplistic and clean look. When the respondent has selected an option in a multiple-choice question, the answer is highlighted yellow. The final survey can be seen in section 6.

Similar questions are grouped to improve the survey structure to make it more pleasant to look at. It is also possible to go back between pages using the “next” and “back” buttons and edit the answers. There is a progress bar at the bottom



so the respondent can easily see the survey's progress. At the end of the survey, the customer is thanked for their time.

#### 5.3.4 Summary

The information gathered in the previous section was used to build a proposal so that the solution would be based on best practices and researched knowledge. Stakeholder suggestions were also taken into account to maximize the added value for the case company.

Customer feedback should be collected at a higher level at this stage, and a less frequent survey was found to be the best option for the company's and their customers' needs. The survey should be conducted with the customer during regular steering meetings, and as less frequent surveys can be slightly longer, the questions can be more comprehensive. This allows a baseline to be established for the holistic state of the customer experience.

Feedback on different service areas is vital for identifying areas for service development, so most of the questions were aimed directly at these areas. Additionally, feedback on products developed by Eficode helps product management and R&D provide solutions targeted to specific customer needs.

Open questions were included to provide additional insight when applicable. In addition, multiple-choice questions on a numeric scale were used to make the survey faster to answer to and to get measurable and comparable data. The visual look of the survey and brand visibility was also considered carefully, as visually pleasing surveys are often perceived easier to answer to.

The next section describes the validation process for the proposal, and the final solution which is based on the received feedback.

## 6 Validation

This section describes the validation phase of the proposal. The proposal was validated with relevant stakeholders from Eficode and selected customer representatives.

### 6.1 Overview of the Validation Stage

The purpose of the validation phase was to collect feedback in order to improve the suggestion to be as relevant as possible for the case company to improve its services. The survey was piloted in four customer steering meetings and discussed with relevant employees from the case company.

The first stage was to discuss the survey internally. The areas covered were the visuality, the structure, and the questions themselves. The second phase was to pilot the survey with selected customers. The customers were asked if the questions were clear and understandable, and whether something was missing from their point of view.

With the additions and alterations based on the received feedback, the final proposal is detailed at the end of this section.

### 6.2 Validating the Proposal

The validation was first performed internally within the case company in the service management stream, which is a biweekly meeting used for improving processes within the service management layer. Additionally, feedback was collected from other service managers. The fully functional survey was first shown to the participants and then they could also try the survey themselves.

The survey was found to be visually pleasing and well-constructed. The questions were considered relevant and easy to understand. It was thought that it was enough to prompt a follow-up question only if the respondent gave an answer on

a scale of 1-3, neutral or lower, otherwise the survey would appear too long and the results too difficult to analyze.

Some bugs were found while the participants tried the survey out themselves, such as the last button being mislabeled as “next”. The participant accidentally ended the survey even though they wanted to review and edit their answers before sending it. Another improvement suggestion was to add Net Promoter Score as a metric, as it would be beneficial to use such a simple metric to present the results to the management.

The second validation phase was the piloting stage, where the survey was piloted with four selected customers. Three of them were done during a regular steering meeting, and one survey was sent via email after the steering meeting alongside the steering notes. The questionnaire was shared with the customer via screen sharing, and to lower the threshold for answering, they did not have to write down their answers themselves. The customers were asked for feedback about the survey itself after the surveys were finished.

The customers thought the questions were easy to interpret and felt the questions covered the relevant areas. However, one customer was not familiar enough with a service area to answer accurately, which is why there should be an option for “I do not know.” The open questions were considered good, and the customers answered them if they wanted to provide additional feedback about a specific question. In the past, the customers have generally been honest about improvement areas, and they were not discouraged by the lack of anonymity of the survey pilot.

### 6.3 Developments to the Proposal Based on Interview Findings

Some changes were made to the survey based on the feedback. Figure 12 details the received feedback and the changes made based on it.

FEEDBACK	CHANGES
The respondent did not know the survey would end and could not edit their answer, as the last button is labeled as "Next."	The last button was renamed to "Complete survey."
A simple metric to present to the management would be useful.	Net Promoter Score question was added.
Some customers might not have experience from every service area.	"I do not know" option was added to every service or tool related question.
It might be good to ask for customer reference cases.	Customer reference case question was added.
"Neither dissatisfied nor satisfied" could be considered wordy.	Changed to "Neutral".

Figure 12. Changes made based on the received feedback.

A “finish” button was added to make it clear when the survey is about to end. Net Promoter Score was also added to the end to provide a simple metric that can be easily monitored over time and presented to the management quarterly. As some customers might not have experience in all service areas, the “I do not know” option was added to the service-related questions to avoid skewed results. Customer reference cases are helpful for sales to showcase the services, and therefore, a question related to that was added. One of the answering options was considered slightly wordy, and it was changed to a shorter alternative to make the survey more visually pleasing.

## 6.4 Final Proposal

The final proposal was formulated based on the findings from the validation phase. The changes were made based on the feedback from the piloting. The survey is shared with the customers during steering meetings or the direct link to the survey is sent after the steering meeting. Figures 13-17 show the final design of the survey.

eficode

English ▾

Welcome to the Eficode ROOT satisfaction survey!

Your organisation has been using the Eficode ROOT DevOps platform and this survey is intended to gather feedback on the service. We will actively use your feedback to improve our operations and to provide you with the best possible service.

The survey consists of 12 questions and the possibility to provide open feedback. If you leave your contact details at the end of the questionnaire, we will be happy to contact you for further discussion.

It will take approximately 6-8 minutes to complete the survey. Thank you for your time!

1. Your company name

2. What is your role in the company?

Management

Operative

Other, please specify

Next

0%  100%

Figure 13. The first page of the customer satisfaction survey.

The company logo and the brand colors are displayed in the top bar throughout the survey. A progress bar is also visible, making it possible to track the progress as the survey progresses. The questions on the first page were not modified since the initial proposal. Figure 14 shows the follow-up questions if the respondent works in a managerial role.

2. What is your role in the company?

Management

Operative

Other, please specify

2.1 How well have our services supported your strategy and business goals?

Very poorly      Poorly      Neutral      Well      Extremely well

2.2 How could we improve our operations to better support your business goals?

Figure 14. The follow-up questions for customers working in management roles.

The yellow color highlights the selected answers. As the company seeks a closer strategic partnership with its customers, if the customer answers that they are working in a managerial role, they are asked how well the services have supported their strategy and business goals. If they respond “neutral” or lower, they get a follow-up question on improvement areas to understand where the company can better support its customers in terms of their strategy and business goals. All open-ended questions within the survey are optional. If the customer does not work in management, they do not see questions 2.1 and 2.2 and are

taken to the NPS question directly. Figure 15 displays the second page of the survey.

The image shows a survey interface with a language dropdown set to 'English'. It contains seven questions, each with a six-point Likert scale response option: 'Very dissatisfied', 'Dissatisfied', 'Neutral', 'Satisfied', 'Very satisfied', and 'I don't know'. The questions are:

- 3. How satisfied are you with Eficode ROOT service overall?
- 4. How satisfied are you with how support tickets have been handled?
- 5. How satisfied are you with the support and service received from the service manager?
- 6. How satisfied are you with the performance of Eficode ROOT and its applications?
- 7. How satisfied are you with the communication about the services?

At the bottom, there are 'Previous' and 'Next' navigation buttons, and a progress bar showing 0% completion.

Figure 15. The second page of the survey and service-related questions.

The questions on the second page of the survey are related to different areas of the service. As explained in the previous section, if the respondent chooses “very dissatisfied,” “dissatisfied,” or “neutral,” they are given an open-ended follow-up question to gather additional details. The answering option “I do not know” has been added based on the received feedback in case the respondent is not familiar with the particular service area. Figure 16 pictures the third page of the survey, which contains a question related to Eficode’s access management product.

English ▾

8. Are you using Eficode ROOT Team Management?

Yes

No

8.1. How satisfied are you with Eficode ROOT Team Management?

Very dissatisfied   Dissatisfied   Neutral   Satisfied   Very satisfied   I don't know

8.2. What would you hope to see improved or changed in Eficode ROOT Team Management in the future?

8.3. What new features would you like to see included in Eficode ROOT Team Management in the future?

Previous   Next

0%   100%

Figure 16. The third page of the survey.



As described in the previous section, if the respondent has the tool in use and answers “yes” to the first question on the third page, they will be asked follow-up questions to find out more about their satisfaction with the product and ideas for further development. Otherwise, the respondent cannot see the follow-up questions. Figure 17 illustrates the last page of the survey.

9. How likely are you to recommend Eficode to a friend or colleague?

Not at all likely Extremely likely

0 1 2 3 4 5 6 7 8 9 10

10. Is there anything else you would like to give us feedback on or would like us to develop or add to our services in the future?

11. Can we contact you for making a client reference case with your company? If yes, please leave your email below.

Yes

No

12. If you want us to contact you later on, please give your contact details (your name, email address or/and phone number):

Eficode needs the contact information you provide to us to contact you about our products and services. You may unsubscribe from these communications at any time. For information on how to unsubscribe, as well as our privacy practices and commitment to protecting your privacy, please review our [Privacy Policy](#).

Previous Complete survey

0%  100%

Figure 17. The last page of the survey.

The NPS question was added to the last page based on the received feedback to provide a single metric that is easy to present to top management, making it possible to compare different customers quickly. Data from a simple numeric question can also be easily monitored over time. Next, there is an open question if the respondent wishes to leave feedback on other matters or if they have additional suggestions for service improvements. As reference cases are important for the company especially from the sales perspective, a question related to that was added.

It is also important to give the opportunity to discuss the feedback, which is why there is an option to leave their contact details for further discussion. Based on the feedback, the text of the last button was changed from “next” to “complete survey” to make it clear this is the end of the survey. When the respondent presses the button, they are thanked again for spending their time with the survey and it is made clear that their response was recorded.

## 6.5 Recommendations

In addition to the proposal, there are other factors that should be considered. Piloting of the survey was conducted with a small number of customers; the next step would be to take it to broader use. The survey should be used with the whole customer pool to get a comprehensive picture of the current state of customer relationships and customer satisfaction. The survey should be conducted quarterly with each customer during regular steering meetings. In the future, results from previous surveys and the actions taken should be discussed openly with the customers. Hence, the customer knows their feedback is actively used to improve the services.

The survey results can be visualized, for instance, using different types of dashboards. Qualtrics has a reporting functionality that can be used to make easy-to-read reports. The data is recommended to be collected and analyzed per quarter and compared to the previous quarters to see how the results evolve over

time. The dashboards should be customized to fit the service management and product management needs.

After each quarter, the service manager lead should go through the results with the product manager and define what actions should be taken based on the results. These action points should then be distributed within the service management and product management streams for further development. As transparency within organizations is essential, the results and action points should be presented to the whole department every quarter to increase transparency and improve customer-centricity. Additionally, service design methodologies should be used to develop the company's service culture and operational models, which will further increase customer-centricity and enhance customer experience. Service management processes should also be clearly defined as they have a direct impact on customers.

Similar surveys should later be developed on other phases of the service, for instance, onboarding and exiting, to get actionable feedback to improve the whole service layer comprehensively. In addition, Application Management, another department within Managed Services, would also benefit from a similar survey to map customer satisfaction from their current customers. The questions should be targeted to their services and needs, as they vary significantly. It is also recommended to use the built-in feedback functionality in JSM, the service desk the company uses, to get feedback from each ticket interaction. This will allow the development of the service desk to further meet customer needs. The feedback received can also be shared during the company's internal monthly meetings to increase visibility.

The next and the last section of the study focuses on the conclusions and the evaluation of the study.

## 7 Conclusions

This section concludes the thesis and summarizes the previous sections, and the thesis is evaluated against the set goals.

### 7.1 Executive Summary

The objective of this study was to design and pilot a customer satisfaction survey to improve customer understanding in the case company and thus improve customer satisfaction. The outcome is a piloted customer satisfaction survey for improving customer satisfaction in the case company and other recommendations to better understand customers' needs. The case company's business and the number of customers have increased rapidly within the past year. The service management layer is relatively new within the department, and the processes are not yet clearly defined. The author of this study works as a service manager and therefore is responsible for developing these processes, and one goal of this thesis was to make clear processes for collecting customer feedback.

The current state analysis was conducted by stakeholder interviews and examining a previous customer satisfaction survey. Different customer contact points and processes regarding customer experience and collecting feedback were examined to find strengths and weaknesses. The current state analysis revealed that the company's relationship with its customers is good, but there is room for improvement regarding understanding customer needs. Additionally, processes regarding customer experience are not yet well defined, and there are no standard ways for measuring customer satisfaction. As the focus had to be narrowed down, these key weaknesses were selected for further investigation, and literature around these areas was studied in detail.

Related literature was studied to understand the weaknesses found and possible solutions exhaustively. The researched topics were customer insight and

experience, service design, measuring customer satisfaction and experience, and literature related to customer satisfaction surveys.

The initial recommendations were formed based on existing knowledge and stakeholder suggestions. Based on the findings from the current state analysis, a relationship level survey was found to be the best solution for the main weaknesses identified. The satisfaction survey was developed iteratively with the relevant internal stakeholders to ensure it met the company's needs in terms of service management, R&D and product management.

The survey was discussed internally and piloted with four selected customers during the validation phase. Several different stakeholders reviewed the survey within Eficode, and the response was generally good. Minor adjustments were made to make the survey easier to fill out and to provide additional value for the top management. The customers were pleased to respond to the survey during the piloting, and only minor improvement areas were noticed. The feedback from the validation phase was used to form the final proposal shown in section 6.4, and only three areas needed modification based on the input.

The final proposal and recommendations comprise a piloted customer satisfaction survey for Eficode ROOT and recommendations for next steps and further actions to improve the processes. Implementing the survey provides value across all functions, especially service management, product management, and R&D, as it offers additional insight into customers' needs and service improvement areas. Furthermore, it allows Eficode to serve its customers better and steer towards strategic partnerships to gain a competitive advantage.

## 7.2 Thesis and Self-Evaluation

The author of the study was given the freedom to choose any improvement area on behalf of the company, which was somehow related to the author's position as a service manager. This initially posed some challenges, as service management was a reasonably new layer within the department, and there were

hardly any well-defined processes in place regarding it. However, the author has previous experience in researching customer experience and customer satisfaction, which made it a natural place to start from.

The objective of this study was to improve customer understanding and to explore ways of measuring customer satisfaction. The outcome of the study was a piloted customer satisfaction survey and recommendations for further improving the processes around customer understanding. The study stayed within the scope and the results fulfilled the objective. To achieve a reliable and valid outcome, the research design was carefully followed at every step, and the decisions made and actions taken were based on data collected at several stages and existing knowledge on the subject. Since the survey was only piloted with a few selected customers and not yet implemented on a broader scale, its long-term effects or benefits cannot be fully assessed at this stage.

As the author is a member of the service management team, it provided an advantage since it was possible to witness these processes first-hand instead of entirely relying on stakeholder interviews. Nonetheless, there were some challenges as the whole organizational structure changed in the middle of the project and there were other day-to-day processes that needed to be prioritized, causing delays in the progress. This could have potentially been prevented by accelerating the project at an early stage, however, the end result might have then been rushed. In addition, further interviews could have been conducted during the validation stage to get a broader perspective for the final proposal.

The project was conducted in cooperation with several stakeholders within Eficode. This allowed differing views to be taken into consideration and closer cooperation between the different operations to be developed. The case company receives a considerable advantage from the survey and other recommendations that can have a direct positive impact on several areas of the business if the results are utilized properly and the processes developed further. Additionally, the best-performing companies regarding customer experience

have a competitive advantage that might result in a higher return than those with lagging customer experience.

### 7.3 Closing words

Customer needs change rapidly in today's world, especially within the IT industry, making it vital to understand customers' evolving requirements and how they can be fulfilled proactively. Customer-centricity can bring a significant competitive advantage and should be the driving force for every service company's operations. The processes for customer experience, as well as other service management processes, should be reviewed regularly in an agile way, allowing for continuous improvement and refinement. The piloted survey was considered successful at the case company and is taken into wider use.

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