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Measuring customer satisfaction at the operational level

Company X



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Measuring customer satisfaction at the operational level

- Company X

Main purpose of this thesis is to find out the best possible ways to measure customer satisfaction from operational level. The company wants to collect direct customer feedback from the end user. Research questions that help achieve the goal of the thesis are 'why to measure customer satisfaction', 'What is the significance of end user' and 'How to choose most effective measuring platforms to reach right target group.' Based on that Company X can find best ways to measure customer satisfaction from operational level.

The thesis will explain the theory of customer satisfaction, reasons to measure it and the methods how It can be measured .In end of the thesis there will be results which include most efficient measuring platforms to maximize reachability in operational level. In addition, suitable service providers and ready-made solutions for measurement have been presented.

Keywords:

Customer satisfaction, Customer Experience, Customer-oriented, Customer-centric, End customer, End user.

Opinnäytetyö AMK | Tiivistelmä

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Tuotantotalouden insinööri

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Taija Elomaa

Asiakastyytyväisyyden mittaaminen operatiiviselta tasolta

- Company X

Tämän opinnäytetyön tarkoituksena on etsiä parhaat mahdolliset keinot mitata asiakastyytyväisyyttä operatiiviselta tasolta. Yritys haluaa kerätä tietoa asiakastyytyväisyydestä suoraan loppukäyttäjältä. Tutkimuskysymyksiksi, joiden avulla oikeat tavat mitata asiakastyytyväisyyttä halutulla tasolla, muodostui miksi asiakastyytyväisyyttä mitataan, mikä on loppuasiakkaan merkitys ja miten valita kaikkein tehokkain mittaustapa tavoitettavuuden maksimoimiseksi. Työssä tullaan kertomaan asiakastyytyväisyyden teoriaa, asiakastyytyväisyyden mittaamistapoja sekä mittareita sekä loppuasiakkaan merkityksestä. Opinnäytetyön lopussa määritellään mitkä ovat case yrityksen tavoittelemalle kohderyhmälle sopivimmat keinot, jotta tavoitettavuus maksimoitaisiin. Lisäksi sopivia palveluntarjoajia ja valmiita ratkaisuja mittaukseen on esitelty.

Asiasanat:

Asiakastyytyväisyys, Asiakaskokemus, Asiakaskeskeinen, Asiakaslähtöinen, Loppuasiakas, Loppukäyttäjä.

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List of abbreviations (or) symbols

Abbreviation Explanation of abbreviation

B2B Business to business

CX Customer experience

CSAT Customer satisfaction score

NPS Net promoter score

CES Customer effort score

CRR Customer retention rate

VCM Vehicle control and management

1 Introduction

Understanding of financial matters is not enough to run the business in today's competitive world. Companies have found that the customer satisfaction leads to long-term productivity and new business opportunities. A forward-looking company understands the importance of a happy customer. Satisfied customers are usually loyal, buy more and often and they are even ready to pay more. (Lele & Sheth 1991, 1.)

The main purpose of the thesis is to find out the best possible ways to improve measuring process of customer satisfaction in Company X. Objective is to become more and more customer centric organization that can offer industry leading customer experience. Company wants to develop the measuring process and make it efficient for its own industry. Company X wants to become more and more aware of customer satisfaction at different levels in their customer companies. Measurement have been too focused on management level and company wants to get direct feedback from the end user in operational level. One of the most important concepts in this thesis is to understand who the end customers are and why company should focus to it. Main target is to get closer to the operational level to examine the satisfaction of the actual end customer. There are many different platforms, methods and service providers available to measuring customer satisfaction, but main task is looking for most suitable ones for Company X's business environment. The following research questions helping to achieve the desired goal of the thesis.

- -What is customer satisfaction and why it is so important?
- -What is the significance of end user?
- How to choose most effective measuring platforms to reach right target group?

Thesis starts with the theory part of customer satisfaction. This second chapter describes what customer satisfaction is and why it is so important for companies. This chapter examines the factors that affect to customer satisfaction and deals with formation of the customer experience. Second chapter also includes theory about how to measure customer satisfaction and reasons why every company should do it.

After the theory framework third chapter deals closer with the research problem that company have. Research problem and research methodology will be defined closer and most relevant factors will be explained. This chapter also includes the information about different measuring platforms.

Fourth chapter answers to the main objective of the thesis. Based on previous chapters, there will be evaluated the most appropriate measuring platforms to maximize the reachability of operational level. Also, most suitable service providers will be introduced.

Last chapter summarises the thesis.

2 Customer satisfaction

Companies main target is making profit. Satisfied customers play key role in considering a company's profitability. (Armstrong, Kotler, Harker, Brennan 2012, 10.) Customer satisfaction is both a goal and marketing tool for customeroriented companies. Customer orientation is defined as company's ability to predict customer's changing needs, learn of these needs and react with the necessary development activities. (Saarijärvi & Puustinen 2020 ,13.) Nowadays companies should be extremely aware of customer satisfaction because internet is a tool for customers to spread good and bad feedbacks about companies to all around the world (Kotler 2016, 130). In the worst-case scenario, a single failed customer experience can swell hugely in internet and negatively damage the company's image. The number of satisfied customers but also management of the dissatisfied ones support to grow the profits and company's competitiveness in market (Armstrong et al, 2012 ,10).

2.1 What is customer satisfaction

Customer satisfaction is defined as measurement that determines how happy customers are with company's products, services and capabilities. Information of customer satisfaction helps company to improve their products and services. (Asq.org, 2022.)

Customer satisfaction is the customer's perception that the expectations have been met. If customer's ecpectations have been met or exceed, customers are satisfied. If expectations are not covered, customer is dissatisfied and might take business elsewhere. When customer buys something, it expects the product to work properly without any defects. It is simple if product meet the customer expectation, he or she is satisfied. (Lele et al, 1991, 1.)

High quality or customer service should not be the main goal. Companies main goal should be satisfied customers and retent them in long run. High quality and service are important factors to support your main goal. Main goal can be

achieved by providing the high quality and excellent customer service. (Gerson, 1993,6.)

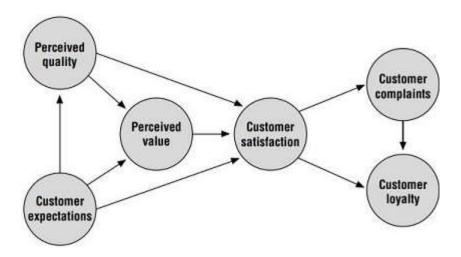


Figure 1 Model of customer satisfaction (Asq.org ,2022)

Customer satisfaction have a big effect on long-term profitability. When company keeps customers satisfied, they can earn many competitive advantages. They learn to know customers better and know how to avoid wastage. Company can predict the customer needs and thus operate efficiently. Also, customer satisfaction brings price advantage to company because satisfied customer are ready to pay more. Also satisfied customers are more loyal to the brand than dissatisfied. That also brings lower selling costs because selling to loyal customers is cheaper than acquiring new customers. Lastly company can have savings in marketing costs because satisfied customer acts like a voluntary seller .Satisfied customers are importantest protection against competitors. (Lele et al., 1991, 25-26.)

2.2 Factors that affect customer satisfaction

Customer satisfaction is part of company's intangible asset. Product's quality and pricing have a big effect to customer satisfaction. It is important that customer feels that they are getting enough value for money. Understanding the

customer's expectations makes it easier to meet them. Nowadays also customer experience has become important when thinking about customer satisfaction. Fast, friendly and competent customer service and proper handling problem situations are really big factors. Business that is transparent and of high integrity creates trust in the customer which affects positively the customer's loyalty. (Suomi.fi 2022.)

It is important that company identify the factors that produce satisfaction but also the factors that cause dissatisfaction. Dissatisfaction factors are for example failure of schedule or missing or unnecessary product features, surprising billing surcharges, unexpected price increases and activity to respond customer requests. Elimination of these factors lead to neutral state, not directly to satisfaction. When company wants to exceed customer expectations, they have to complete several satisfaction factors. Examples of satisfaction factors are exceptionally good personal customer service, exemplary and fast handling of problem situations, handling complaints exceptionally well (Rope 2005,188-189). Once the dissatisfaction factors are eliminated and the satisfaction factors met, customer satisfaction is at a good level.

2.3 Customer experience (CX)

CX is abbreviation for customer experience. Customer experience is strategic focus of company. It is established concept in company's strategy, visions and missions. Customer experience is the customer's holistic subjective experience. (Saarijärvi et al,2020, 13-14.) Customer journey is the set of interactions that a customer has with company in buying process of product or service Interactions in every part of customer journey can be defined as touch points. (Questionpro.com, 2022.) All touch points with company affect the customer experience. Customer experience is a tool to concretize the company's customer orientation. It is way to work customer oriented in practice. Implemented correctly, the customer experience is a managing method. Customer experience as managing method guides the company to look critically at the most centric touching points. (Saarijärvi et al,2020, 13-14.)

Customer experience can be divided to three stages that are action, emotion and significance. Action stage means company's possibility to meet customer needs. Emotion stage includes feelings and experiences of customer. Highest stage is significance that includes images, meanings, storied, promises, personality, insights and so on. (Trustmary 2022.)

2.4 Customer satisfaction measuring

"Whenever you measure something, it gets performed, completed and usually, improved upon" (Gerson,1993,6). That makes measuring so important factor in companies. Measuring of customer satisfaction is a great opportunity for improving of product and service. Measuring of customer satisfaction should be done because 90% of unsatisfied customers change supplier. Acquiring a new customer requires five times more resources so it is especially important to invest in measuring of customer satisfaction. Measurement is important because it allows company to focus and develop these features that your customers prefer most. Regular measurement also ensures that customer needs can be responded to quickly enough. (Suomen Laatuyhdistys 1995, 2.)

Customer satisfaction is one of companies' key performance indicators.

Companies should make measuring customer satisfaction a top priority.

Regularly measuring is one of the key factors to retent customers. There are many different kinds of metrics that companies can use to measuring customer satisfaction. Usually, it is good to use and mix many of these metrics because different metrics answer different questions and together offers the wider picture. (Kotler et al, 2016, 128.)

2.5 Reasons to measure customer satisfaction

Reason one is to learn about customer perceptions. It is important to identify example what customers expect from your company, why they do business in your industry, what quality criteria they have for being minimally satisfied, what

quality criteria they have for being exceptionally satisfied and what are they criteria for retention and repurchase. (Gerson, 1993, 25.)

Second reason is to determine customer needs, requirements and expectations. You must know what customer feels about the product or service, but it is more important to identify their current and future needs. (Gerson,1993, 26.)

Third reason is to close the gaps between customers and producer companies and only measuring can close them. Below are examples of these gaps that should be closed. (Gerson,1993, 26,27.)

what business thinks customer wants and what the customer actually wants what a business thinks a customer has bought and what a customer perceives has been received Service quality the business believes it is providing and what the customer perceives is being provided

customers' expectations of service quality and actual performance The gap between marketing promises and actual delivery

Figure 2 Examples of gaps between customer and provider (Source: Gerson 1993, 25-26)

Fourth reason is to inspect what you expect in order to customer satisfaction. Companies should set goals based on customer requirements and expectations and then publicly measure performance toward those goals. (Gerson 1993, 29.)

Fifth reason is because improved performance leads to increased profits. Sixth reason is to learn about your customer satisfaction at currently and understand what you must do in the future to keep the customer satisfied. Seventh reason is to apply the process for continuous improvement. If company don't try

continuously improve products and services and competitor do so, the customer may change supplier. (Gerson 1993,30.)

2.6 Customer satisfaction measuring metrics

Several different indicators have been developed to measure customer satisfaction. The most common indicators of customer satisfaction are customer satisfaction score (CSAT), net promoters score (NPS), customer effort score (CES) and customer retention rate (CRR) (Questionpro 2022). The unifying factor with all metrics is repeated measurement. Example it is important to know what your CSAT score is, but it more important to notice how your the score changes between measurement times. If you notice that your score increases, you are doing something right. If the score decreases, it is necessary to find out things that have affected to it. Repeated measurement is an excellent opportunity to react to possible changes and develop product and service to needed way. All of these mentioned indicators have been defined detailed in below.

CSAT is abbreviation for customer satisfaction score. It is key performance indicator for product and service quality. CSAT is measured through customer feedback. Example via question "How would you rate your satisfaction with the goods or service you received. Typical answer options are on a scale of 1 to 5. 1 is very unsatisfied and 5 is very satisfied. CSAT is calculated by following formula: Number of satisfied customers (options 4 and 5) divided by number of survey respondents and then multiplied by 100. CSAT is usually related to a specific experience than an ongoing relationship. In some situations, you can ask almost immediately customer's feedback, example after customer service via phone or store. However bigger purchases need a longer experience period before asking the customer's feedback. (Qualtrics 2022.)

NPS is abbreviation for Net Promoter Score. It is globally most used customer loyalty metric. It is based on question "How likely you recommend this company

to colleague or friend". (Trustmary 2022.) On the basis of question's answers, company can easily find out how many of the customers recommend brand, not recommend brand and also customers that don't care much about the brand (Freed 2013, 15).

Respondents can be divided in three groups promoters, passives and detractors. Based on these three groups of respondents; the company can calculate a Net promoter score for itself. (Freed 2013,15.)

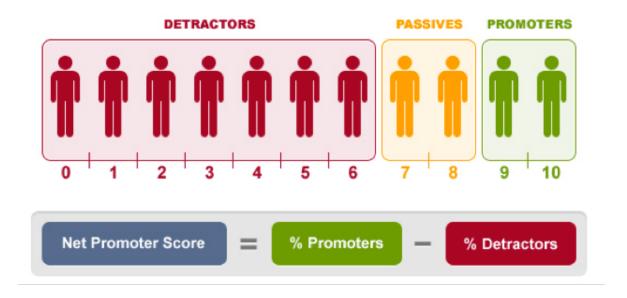


Figure 3 Net promoter score (Source: Reviewpro)

Respondents that answer 9 or 10 in scale 0-10 are promoters. Promoters are customers that every business should strive to get. They are loyal customers that usually making repeated purchases. They also most likely recommend your brand for the friends and colleagues. (Freed 2013, 16.)

Respondents that answer 7 or 8 are passives. The most descriptive phrase for passives is "got what they paid for, nothing more". Customer's that are passives are usually satisfied but they are not loyal. Passively satisfied customers are more likely to switch to a competitor due to offers or advertising. Company's goal is making some of the passives to promoters. (Freed 2013,16.)

All respondents that answer with lower number than 7 are detractors. Detractors are dissatisfied customers that also most likely share bad feedback about the company to friends, colleagues and the internet. If company have detractors, it is more than recommended to find out the root cause of their disappointment, apologize and solve problems. (Freed 2013,17.)

The biggest benefit of the NPS meter is that it measures the customer's experience of the entire brand instead of a single encounter. High NPS should be one of company's importantest goals because it gauges customer loyalty, leads to faster insight, turn responses to revenue and it is common goal for business growth. (Trustmary 2022.)

CES is abbreviation for Customer Effort Score. CES surveys answers to question "how easy or difficult it is to perform a certain action with company". Typical answer options are on a scale of 1 to 5. It measures easiness of service experience with the company. It deals with amount of time and energy that customer have to put to interact with the company. Option 1 is High effort and option 5 low effort. Effort can be seen as a cost for customer. Customer effort score have been seen as predictor of customer's future purchases behaviour. If most answers are positive (low effort) business with company is easy for customer, they are most likely to promote you. If the answers are negative (high effort) business with company is difficult and it needs lot of time and energy investment from customer, they are more likely speak negatively about the company. (Retently 2022.)

CRR is abbreviation for Customer retention rate. It measures the number of customers a company retains over a period of time. CRR is important because keeping your old customers is lot cheaper than trying to win new ones. Loyal customers contribute your business many ways. Example providing referrals, promoting your brand and giving feedback to improve product and service. These are main reasons why companies should keep eye on customer retention rate. (Zendesk 2022.) Determining of customer retention rate needs number of customers at the start of given period, customers at the end of period

and number of new customers acquired during that period. Proactively communicate is a key factor in customer retention. (Salesforce 2022.)

All of these metrics are mainly numerical metrics, but it might be useful to add the open qualitative question along with main question. Example "What is the primary reason for your score. (Trustmary.) A possible bad assessment does not tell the company why the customer has experienced the product or service as bad, so it is important to find out the root cause in order to be able to develop the business. All the mentioned measuring metrics are united by the fact that they should be measured regularly to get highest benefit from the results.

3 Research

3.1 . Background

Company X is global company that working on heavy machine industry. They have customers around the world in every continent. Company's customers are other companies so company's selling model is B2B. Company X wants to improve customer satisfaction measurement from end customer. This refers to persons who operate machines manufactured by the company.

Measuring of customer satisfaction is already familiar thing for Company X. Company have been focused to measure customer satisfaction from management level and now focus is to measure customer satisfaction from end user. Company wants to develop the customer satisfaction measuring process closer to the operational level. The final result of this thesis is to find the most suitable measurement methods to provide efficient and transparent customer satisfaction measuring from the end customer. Also, most suitable service providers will be suggested.

The research problem in this thesis is targeting customer satisfaction measurement to right target group, end customer. Company is aware of customer satisfaction in management level, but company wants to develop measuring and get feedback also straight from the operational level, end user itself. The company sees feedback from the operational level as even more important and wants to find ways to collect feedback straight from the end customer. It has been found that example email surveys don't reach the persons in operational level. E-mail surveys do reach the persons in management level, but the reach of the operational level remains limited. To maximize reachability, measuring of customer satisfaction requires different measuring ways from the operational level than from the management level.

Measuring from the management level is important as well but it also needs measurement from the operational level to get wider perspective to develop the products and service to be better.

The need is to find a suitable customer satisfaction measurement platform for the target group in operational level. Also need is to find service provider that offers measuring of customer satisfaction and develop the measurement deeper into the customer company.

3.2 End user

When talking about the customer, it usually means the person or company who buys the product or service. End user or customer means the person who consumes or uses products or services produced by company. When selling business to consumer, the end user is often the same as the buyer. When selling business to business the end user is rarely the one who buys the product. End customer experience and support are crucial for the success of customer-centric products and services. (Hayes 2022.)

In this thesis end user means the operating person in Company X's customer company. Operating person is the person who uses the machine physically in everyday work. Person from the management level in customer company buys the machine, but person in operational level is the actual end customer.

Measuring of customer satisfaction from the end user itself is important tool to develop even better customer-oriented products. The importance of feedback from the end user is that it can provide infinitely valuable information to develop the machines. End user's feedback helps to get better understanding of machine features that they appreciated, features that they may need more or features that they don't need. The end user works with the machine on a daily basis so the feedback from them is invaluable to the company.

The goal is to get both positive and negative end customer feedback directly to the company. Based on the feedback from the end customer company have possibility to react immediately to feedback. The way a company handles dissatisfied customer feedback is huge importance for customer returning or not. Prompt response to feedback contributes positively to the customer experience. Even if the feedback has been negative, quick response and customer support can make customer stay. End customer feedback gives also great support for product development. Company can find out the things that have been successful and things that need improvement.

3.3 Research implementation

The research is carried out by researching and evaluating different measuring platforms. Purpose is to find measuring ways that are most effective for customer satisfaction measuring from end customer in selected industry. Possible measuring platforms have been defined and evaluated most suitable ones to reach the operational level.

Research started with searching with different keywords related to measuring of customer satisfaction. The case company's wish was to find easy and reachable way to collect end user's feedback. Case company also wishes to find service providers from Finland, so this excluded foreign service providers. Despite this, several service providers were found. Most suitable ones were selected and will be examined later.

3.4 Customer satisfaction measuring platforms

Customer feedback to determine customer satisfaction can be collected with different ways. Example surveys via email, text message, qr code, company's website and surveys in paper. Possible collection method could also be phone application or application in machine's VCM system where, among other features, there would be the possibility of collect customer feedback. Customer satisfaction information can also be collected through various interview methods.

The choice of platform is important decision for company because it determines what kind of customer information and how wide it can be collected. Example surveys sent by email and text message can be sent to big number of customers at once. While one interviewer can implement the interview in one place at the same time. However, the interview provides much more in-depth customer information than the surveys via any other platforms.

3.5 Measuring process based on ISO 9001 standard

Company X is certified with quality standard ISO 9001. One of the goals of ISO 9001 certification is to increase customer satisfaction. Increase of customer satisfaction needs continuous monitoring of how your product or services meet the requirement or expectations that your customer has. ISO 9001 customer satisfaction clause determines three steps that companies should do. Second one is identify your customer satisfaction indicators. Third one is obtain your customer feedback. (Imsm 2022.)



Figure 4 Strategy for obtaining customer feedback (Source: Imsm)

First step is to determine a strategy for obtaining customer feedback (Imsm 2022). In this case the desired target group is persons in operational level. The whole strategy should therefore be based on how operational persons should be approached. Before the deciding the measurement tools company have to

decide criteria of choosing suitable measuring too. Example the criteria to compare can be reachability, price, scopes and customizability. Once a company is able to define what kind of customer information it wants to collect, it is possible to choose the tools to use to achieve it. Decision of suitable measurement tools should be decided to be the most efficient tools which reach most respondents. Different tools are suitable for different target groups, so it is important the appropriate tools are decided accordingly. Company can collect data by itself or by sales companies around the world or by service provider. It depends a lot on the measurement method how data should be collected. However, even if the company collects the data itself, it would be a good idea to use a service provider to provide in-depth analysis of the results. Service providers can help company to get a better grip on things that affect each other. Once the data has been analysed, things that need to be improved will be responded to as quickly as possible.

Second step is identify your customer satisfaction indicators. Factors depend on a lot of industry and target group. Example things that can be customer satisfaction indicators are example quality of product, delivery time, pricing, customer service and handling the customer complaints. (Imsm 2022.)

Third step is obtain your customer feedback. Customer feedback is generated throught different sources that are defined below. (Imsm 2022.)



Figure 5 Obtain your customer feedback (Source: Imsm)

Most important thing is to schedule time for analysis for feedbacks. Negative feedbacks are essential for continuous improving

4 Results

The company is looking for a way that would reach the best desired target group. The company X goal is to get closer to the operational level and find out customer satisfaction from there. Problem with customer surveys via email is that they do not reach the end customers. Operative persons may not have the email addresses or limited access to use them. It is not useful to send customer surveys via email because the reachability is so poor. This chapter describes the measuring platforms and service providers that are most effective and suitable for measuring customer satisfaction of desired target group.

Selection criteria that are compared are reachability, price, scope and customizability. Most appropriate selection criteria are reachability. Based on interviews, literature sources, and online sources, the following three measuring platforms have been selected as a proposal for measuring customer satisfaction from the end user.

4.1 Application

First proposal for measuring platform is application that is integrated in the machine's VCM system. Machines are already so intelligently equipped so adding the application which example makes possible to give direct feedback and answer to customer surveys. Also, the feature of reporting possible faults directly from the machine system itself would increase customer satisfaction.

Giving customer feedback directly from the machine would reach the user of the machine. Giving the feedback would be also easy for the user and it doesn't need much effort from them. This would be likely to get bigger amount of answers because of the easiness for end customer. Also, possibly solution can be a phone app that could give direct feedback to the company as well. It needs little bit more effort from user because they have to download that app to their phone. Otherwise, the feedback would be collected by the phone application in the same way as by the integrated application

Pros with application are the reachability, easiness of answering, electronic data and possible reminders for answering. Company already has application so the adding the feature where is possible to give customer feedback and answer customer surveys would be easy to add. Application that is integrated in machine's VCM system would reach the desired target group. End user working in daily basis with machine so the easiness of answering to surveys and giving feedback increase the reachability.

Application	
PROS	CONS
	Updates needs more
Reach the end user	financial effort from
directly	company
Easy to answer survey and	
give feedback directly to	
the company	Design need IT skills
Data directly in electoric	
form	Mostly numerical data
Reminds the user to	
answer always after a	
certain period of time	

Figure 6 Application pros and cons

Updates to application requires more financial effort from Company X than example an emailed survey. However, the reachability of persons in operational level will be much higher than in traditional surveys via email. Application could better reach the desired target group as it is aimed directly at their use. Application could also be an effective way of measuring because it could have reminders at appropriate intervals to provide regularly feedback. The application in infotainment system is not suitable for open questions so the questions should be mainly multiple-choice questions. Application could also include the ability to report possible defects directly to Company X. Defective reports directly to Company X would have significant impact on customer satisfaction, as they could react immediately for example sending a service technician to

repair. It also provides possible to find solutions for the common faults. The data collected from the machines would help product development and also have positive effect on customer satisfaction

4.2 QR code

Second proposal for measuring platform is QR code. QR code sticker can be glued to the machine's cabin. It should be glued to a visible place so every user will see it. All users can open the qr code easily with the phone's camera. Creating QR code would be easy and inexpensive. The QR code would be directly accessible to operatives and easy to unlock on a mobile device. The problem may be how to motivate respondents to reopen the same qr code.

QR code	
PROS	CONS
Reach the end	Getting answers may
user directly	uncertain
Easy and cheap to	
implement	Mostly numerical data
Easy to answer	
survey and give	
feedback directly	Not possible to add
to the company	reminders
Reminds the user	
to answer always	
after a certain	
period of time	

Figure 7 QR code pros and cons

4.3 Paper survey

Third proposal in paper survey. Best way to implement paper survey would be the physical feedback session. It would reach the desired target group and responding the survey would be easy. The impact on the number of respondents would be positive, as the respondents have agreed on a time and place to participate in the survey

Paper survey	
PROS	CONS
	Needs effort from
Reach the end user	customer company's
directly	management side
Easy to answer survey and give feedback directly to the company	Needs financial effort from Sandvik
number of respondents	Mostly numerical data
	Data in paper form

Figure 8 Paper survey pros and cons

4.4 Observing

Third proposal is observing and interviews. Company X have business around the world, so very wide interviews at every customer's site would be difficult to implement. Good way to get feedback from end users can be example observing and interviewing end user. Observing can be started first with closest customer sites example in Finland and then proceed to elsewhere in Europe. After the observing with closest customers the observing can be expanded to other sales areas. Observation can be used to find good product development ideas. Observing provide qualitative information and could be used to support other ways.

Observing	
PROS	CONS
	Expensive to implent in
Reach the end user directly	around the world
Comprehensive and high	
quality information is	Difficult to implement for
obtained	every customer
Great way to see	
development ideas	

Figure 9 Observing pros and cons

4.5 Service providers

Company X looking for service providers that offers ready-made solutions to measure customer satisfaction. Below will be defined service providers that offers especially solutions that would be possible options for measuring end customer satisfaction in Company X.

Service provider 1 offers easy survey tool that can be integrated to applications.Based on the answers, the app creates the results as real-time graphs and metrics. Possibility of real-time alerts for bad feedbacks so that they can be responded to as quickly as possible. When feedback is noticed quickly, it can have a positive impact on the customer experience

Service provider 2 offers easy technical tool to create customer satisfaction surveys. Survey is easy and fast to create, and it offers lot of different question types. A wide range of question types allows to create very comprehensive survey. Survey tool is possible to integrate in company's CRM system. Surveys is possible to share with email, in company's websites, QR codes and text messages.

Service provider 3 is newer company but they have experience of customer surveys over a longer period of time. Based on the conversation with them, the

traditional paper survey emerged as an opportunity for operational level. It might be a good idea to organize physical feedback sessions for operational persons. Traditional paper surveys are a bit old-fashioned but organized feedback sessions could have a positive effect on the amount and quality of responses. Company X have customers around the world so measuring in this way needs support from the customer company's management level. Company X could send the customer satisfaction surveys to customer companies' example via courier. Customer company should have a person to organize feedback session which all operational persons would be invited to respond. When the customer company also understands the benefits that can be obtained from the operational level, this would be possible. Once the feedback session has been organized, the forms would be sent to the service provider for in-depth analysis. Another possible option was a QR code. QR code can be attached to machine's cabin. The QR code could include a similar survey that can be opened on a mobile device. Service provider 3 doesn't offer technical solutions but focuses on analysing the information generated from the surveys. Based on the analyses, factors related to each other can be found.

Service provider 4 offers mainly the qualitative measuring methods. Possible measuring way from them could be observing. Observing can be started with nearest customers and then might expand the observing to more distant customers. However, even by observing the closest customers, one could notice things that are experienced at other customers as well.

5 Summary

This thesis was done for Company X in order to get better understanding of customer experience, their needs and expectations in operational level. Suitable measuring platforms were sought in order to make reachability as high as possible. After comparing different platforms, four most suitable measurement platforms were found and suggested for company's use. I think company should think about using the mixing several ways, to get the best and widest result.

Another goal was identify existing service providers for measuring customer satisfaction and find the ready-made solutions to measure customer satisfaction. The range of service providers was wide. Evaluating service providers was not easy because many of them offered similar services. I contacted several different service providers, but unfortunately I only had meetings with two of these. I had meetings with two service providers that was both very useful and gave a very good perspective about the suitable measuring ways.

The challenges at the beginning of writing the thesis were to write the thesis entirely in English. However, once the topic and professional vocabulary became more familiar then writing came easier after the initial difficulties.

Most of time in doing this thesis was spent to researching different source materials related to customer satisfaction. The topic was interesting and important because customer satisfaction is huge competitive advantage for company. Every company that especially sell Business to business should think about whether they know about customer satisfaction at different levels of their customer company. In heavy machine industry the management satisfaction is related to how much they produce on machine X. While more technical detailed information is available from the operational level to support product

development. Both levels are important and therefore it should be noted that customer satisfaction should be measured at both levels.

The thesis was successful and suitable in many ways and service providers for the company's desired target group were found. Based on the thesis, the company can find possible suitable measurement ways for the target group. The company can also contact the service providers that sound most suitable.

References

Armstrong G., Kotler P., Harker M. & Brennan R. 2012 Marketing: An introduction

Asq , 2022 https://asq.org/quality-resources/customer-satisfaction Referred 31th May 2022

Freed L., 2013, Innovating Analytics

Gerson R.,1993, Measuring of customer satisfaction

Goldstein, S. D., 2009. Superior Customer Satisfaction and Loyalty: Engaging Customers to Drive Performance.

Hayes A., 2021. End user https://www.investopedia.com/terms/e/end-user.asp Referred on 25th April 2022

Imsm ,2019 https://www.imsm.com/gb/news/what-is-the-customer-satisfaction-clause-for-iso-9001/ Referred 15th May 2022

Kotler P, Keller K. L., Goodman M., Hansen T., Brady M. 2016. Marketing Management

Lele M, Sheth J. N. ,1991 The Customer is Key: Gaining an Unbeatable Advantage Through Customer Satisfaction

Qualttrics, What is CSAT and how do you measure it?
https://www.qualtrics.com/experience-management/customer/what-is-csat/,
Referred 18th February 2022

Questionpro , Customer Journey: What is it, How to use and Examples, https://www.questionpro.com/blog/customer-journey-map/ Referred 31th May 2022

Retently 2022, NPS, CSAT and CES - Customer Satisfaction Metrics to Track in 2022 https://www.retently.com/blog/customer-satisfaction-metrics/, Referred 18th February 2022

Rope T., 2005, Markkinoinnilla menestykseen

Saarijärvi H., Puustinen P., 2020, Strategiana asiakaskokemus

Salesforce 2021, How to Calculate and Improve Your Customer Retention Rate https://www.salesforce.com/resources/articles/customer-retention-rate/ Referred 14th May 2022

Suomi.fi, Asiakastyytyväisyys ja laatu https://www.suomi.fi/yritykselle/liiketoiminnan- kehittaminen/laadunhallinta/opas/tuotteen-laatu/asiakastyytyvaisyys-ja-laatu , Referred 18th February

Suomen Laatuyhdistys, 1995, Miten mitataan asiakastyytyväisyyttä: Ohjeita ja kokemuksia yrityskäytännöistä

Tracx 2021, How Any Business Can Improve Customer Satisfaction [2021] https://www.tracx.com/guides/how-any-business-can-improve-customer-satisfaction/ Referred 10th February 2022

Trustmary 2022, Definition of customer experience,

https://trustmary.com/customer-experience-definition-of-customer-experience-what-is-the-customer-experience-how-it-is-built-and-how-is-it-managed/
Referred 25th April 2022

Trustmary 2022, What is NPS and how do you measure it?

https://trustmary.com/nps-net-promoter-score/what-is-nps-and-how-do-you-measure-it/ Referred 7th May

Zendesk 2020 , Customer retention rate: How to calculate and improve it, https://www.zendesk.com/blog/calculate-customer-retention-rate/, Referred 06th May 2022

Service providers

Service provider 1 Roidu https://roidu.com/

Service provider 2 Trustmary https://trustmary.com/fi/

Service provider 3 Promenade insight https://www.promenade.fi/

Service provider 4 Kulmia Insight https://kulmiainsight.fi/