



Towards Customer Centricity

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Strateginen asiakaskeskeisyys on tällä hetkellä yksi tärkeimmistä kasvun vektoreista, ja sen merkitys on kasvussa tulevaisuudessa. Keskittyminen asiakaskokemukseen on usein taloudellisesti menestyvien yritysten vahvin kilpailuetu.

Tässä opinnäytetyössä asiakaskeskeisyyttä tutkittiin tapaustutkimuksella Polar Ignite -kuntoilukellon käyttäjistä. Tämä tehtiin luotaimen, kyselyn, netnografian sekä kirjallisuuskatsauksen avulla. Tapaustutkimus muodosti tutkielman ensimmäisen osan ja vastasi myös työn tilaajan, Polar Electron tarpeisiin tarjoamalla tietoa siitä, miten asiakkaat kokevat Ignite-tuotteen käytön. Käyttäjiltä kerätyt mielipiteet ja kokemukset antoivat myös näkemyksiä siihen, miten yrityksen sisäiset prosessit kulminoituvat markkinoille tuotuun tuotteeseen. Tämä johti laadullisen selvitystyön toiseen osaan, joka keskittyi toimiin, joita tarvitaan asiakaslähtöisyyden toteuttamiseksi organisaatiossa ja osana sen prosesseja. Tässä vaiheessa tutkimuksen painopiste oli Polarin työntekijöiden kokemuksessa tuotekehityksen nykytilasta yrityksessä.

Opinnäytetyön tarkoituksena oli etsiä tietoa siitä, mikä vaikuttaa Polar Ignite -kuntoilukellon käyttäjien asiakaskokemukseen. Toinen tavoite oli selvittää mitä toimenpiteitä tarvitaan organisaatiossa, kuten Polar Electro, jotta asiakaslähtöisyys voidaan ottaa osaksi liiketoimintaa.

Teoreettinen viitekehys koostuu kolmesta pääkomponentista: muotoiluajattelusta, palvelumuotoilusta ja asiakaskokemuksesta sekä kolmesta alikomponentista: työntekijöiden ja käyttäjien kokemuksista sekä niiden muotoilusta.

Tutkimuksen ensisijainen tulos oli, että edelleen keskittyminen asiakaslähtöisyyteen olisi hyödyllistä toimeksiantajayritykselle sekä laajemmin nykyaikaisille yrityksille, jotka pyrkivät kaupalliseen menestykseen ja asiakastyytyväisyyden parantamiseen. Tämän havainnon perusteella luotiin konsepti asiakaskeskeisyyden toteuttamiseksi tuotteen tai palvelun kehittämisen lähestymistapana yrityksen tai organisaation kanssa. Edellä mainitun lisäksi ensimmäiseen tutkimuskysymykseen annettiin vastaus asiakaspolkukartan, persoonien ja toimeksiantajalle suunnattujen kehitysehdotusten muodossa.

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Strategic customer focus is currently one of the most important drivers of growth, and its importance will only grow in the future. Focusing on the customer experience is often the most vital feature of financially successful companies.

In this thesis, customer-centricity was studied through a case study of users of the Polar Ignite fitness watch. This was done utilising a probe, survey, netnography and literature. The case study formed the first part of the thesis and answered the commissioner Polar Electro's need by providing information about how the customers perceive the Ignite product. As the opinions and insights collected from the users also gave insights on how the internal processes of the company culminate to a product that is brought to the market, it led the way to the second part, which focused on the actions needed to deploy customer-centricity to an organisation and its processes. In this stage, the focus of the study was the insights of the product development process perceived by Polar employees.

The thesis study aimed to seek information about what affects the customer experience of Polar Ignite fitness watch users. Secondly, it explored the actions needed within an organisation, such as Polar Electro, to implement customer-centricity as part of business operations.

The theoretical framework consists of three main components: design thinking, service design and customer experience, and three sub-components: employee and user experience and design leadership.

The primary result of the study was that further concentration on customer centricity would be beneficial to the commissioning company and, more generally, in modern companies aiming for commercial success and increased customer satisfaction. Based on this finding, a concept for implementing customer-centricity as an approach of product and service development within a company or organisation was created. In addition, an answer to the first research question was delivered in the form of a customer journey map, personas and development suggestions for the commissioner.

Keywords: Design Thinking, Service Design, Customer Experience

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1 Introduction

Digitalisation proposes new challenges and opportunities for developing customer experience and shaping the experience of a particular service. The term "customer experience" was first introduced to literature by two pioneers in the subject Joseph Pine II and James H. Gilmore, in their book published in 1999 (Kortesuo, Löytänä 2011). Customer experience is a term encompassing all aspect of a company's or organisations offering. It covers an individual customer's entire journey and their experience of the product or service: the perceived quality of customer care, advertising, packaging, features, to ease of use. Customer experience is often controlled and created by separate discussions and decisions within an organisation. To this day, an assigned individual or group of individuals is expected to be responsible for customer experience in organisations. Still, it is formed by often very different ideas and actions (Meyer, Schwager 2007). In this thesis, digitalization is the central theme as it describing a digital product development product.

Customer experience, also referenced as "CX", is the title of a process where design teams follow specific methods to optimize customer experiences. Customer experience covers all steps during a customer journey, from before using the service to after. The work of developing customer experiences includes customer-centered strategies aiming to produce a positive experience of a service. Customer experience also focuses on converting consumers into customers and nurturing and strengthening customer and brand relationships (IDF). In this report, customer experience is approached from the viewpoint of the case company, end-users of the case product and from a more general angle defining how customer experience could be lead in a more customer-centric manner.

A key term in the modern development of services, both digital and physical, is customer-centricity. Bringing customers and their needs into the spotlight can be considered a trait of a successful company as it can create more meaning for the brand for the consumers (Lockwood 2010, 426). In this thesis, customer-centricity is a guiding thought. It is approached both from the viewpoint of the end-customer and internal customers, employees of the case company.

One of the principal challenges of combining management and design within organisations is the presence of models regarding the mental side of innovation processes. They are different among designers and managers. Design management aims towards bringing together the stakeholders of management processes (Costa, Scaletsky 2019, 31). In this thesis and its report, design management is treated as an instrument of success for a company.

Today ecosystems, networks, technologies and services are more connected considerably more convoluted than ever. Organisations and commercial corporations need to be

increasingly agile to keep up with ever developing technologies and industry environments to enable success in competition and keep up their competitive edge. Dynamic capabilities are needed to accomplish usage of existing opportunities in mature technologies and also markets. Concurrently, there is a need to explore and compete in environments where flexibility and experimenting with utilising new ideas and innovations are critical success factors. Additionally, the society at large and society at large are confronted with interconnected challenges of a shifting landscape where lucrative innovations and new ideas need collaboration across disciplinary and organizational boundaries. This concludes that both private and public organisations face the need of turning toward design in their efforts. (Björklund et al. 2021, 12)

1.1 Development Study Goal and Methods

This subtitle describes the goals and methods applied during the thesis process which was divided onto two primary parts:

1. Gathering information and insights to answer the questions related to the commissioning company's assignment given to the study. Presenting the findings to the commissioner. This part covers answering development study question one (1).
2. Gathering information and insights to answer development study question two (2). Utilising finding from the previous part of the study to form wider level conclusions and an answer question one (1).

The thesis focuses to answer to two development questions. The first one was formed based on the preliminary research questions from the commissioner (as seen in Attachment 1). The second one was chosen to answer a broader topic regarding the student's own personal interest towards leadership of change by applying design methodology. The second question also aims to utilize the findings and information gathered to answer the first research topic. It aims to extend the answers to question one to a more general level. This will make it possible to use the information obtained as a tool in any organization interested in implementing customer-centricity within their development and change processes.

Abductive reasoning

In this master's thesis, abductive reasoning was utilised in the study process. It is based on a best reasonable guess made about the gathered material, for example, based on the collected material gained in the information search process during the study process. Abductive reasoning is interpretative and theory-creative (Mäkelä 2020, 20). As seen in Figure 1 below, the different types of reasoning differ most significantly on how existing choices are handled: are they generalized, excluded or are they treated both ways to create a best possible prediction. Deductive reasoning utilizes theory-based analysis. An analysis framework is based on the knowledge base guides and the processing and analysis of information (Eskola & Suoranta 2002, 21).

A classic example of abductive inference is:

1. It rained last night.
2. The grass is wet.

The fact (2) that the grass is wet makes the hypothesis (1) worthy of commendation. Other hypotheses still exist, but are, depending on circumstances less likely and actionable (Friesendal 2012, 17).

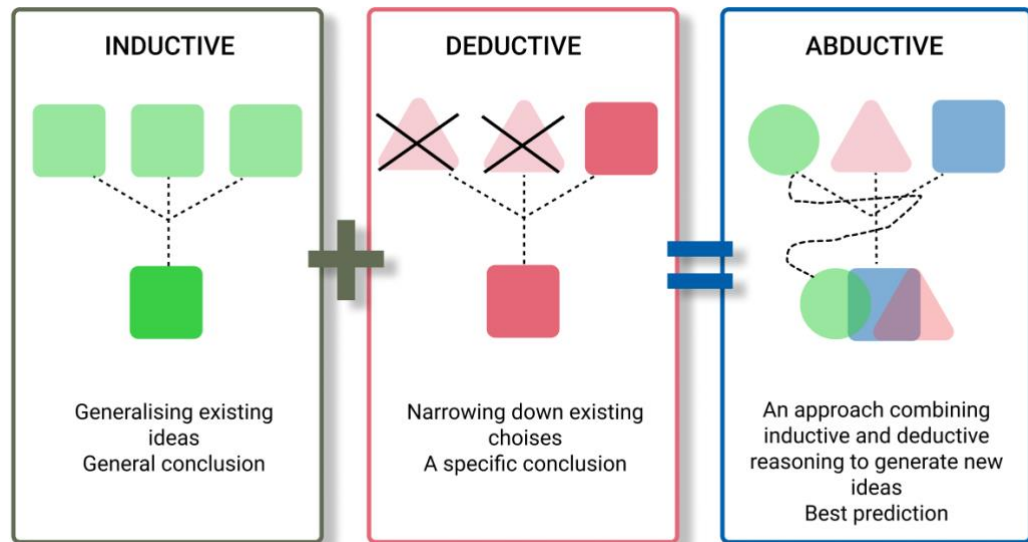


Figure 1. Different types of reasoning

As the study used many tools to seek out information and insights regarding the research questions using abductive reasoning as an approach was appropriate.

Via abduction it can be concluded that it must have rained during the previous night. The aim of abductive thinking is to identify the most trustworthy of the conclusions which could be made. The best explanation should be based on what makes the most sense (Friesendal 2012, 17). In the previous example a conclusion could have made that the grass is wet due to the grass sprinklers being on during the night but if the location of grass does not have sprinkler system, the conclusion hardly makes any sense.

Qualitative Research

It is impossible to give a single definition of qualitative research because there are many different approaches and analyzes. However, it is possible to list some of the characteristics that are usually present in qualitative research. The common characteristics for qualitative research mentioned by Kirsi Juhila in 2018 are:

- Doubt about what is obvious
- Favoring qualitative material
- Favoring unstructured and natural material
- Commitment to close scrutiny
- Focus on activities
- Appreciation of subjectivity
- Emphasis on the parties' own meanings and interpretations
- Reflection of the researcher's place
- Complexity tolerance
- Emphasis on what and how questions
- Analytical tonnage

In qualitative research the aim focus is typically in the attempt to understand the phenomena from the viewpoint of the people experiencing it. This means that the interest is directed towards the people and their experiences, thoughts, feelings and the meaning behind them. The research is addressed from the perspective of how the people themselves feel and what is meaningful for them. As a researcher is external to individuals thoughts and feelings it may be difficult to make the right conclusions. To cross this obstacle tools are developed to assist in conducting the research. In qualitative research the tools used are described as collection of means to approach the topic and answer the research questions. The research was conducted utilising qualitative methods including a questionnaire, a probe, interviews with experts and observations mainly in the digital domain, including social media at websites, appropriate in describing topics and themes suitable for the research's progression (Juuti et.al 2020).

The tools variety of tools within qualitative research is vast and also complicated as the tools are very different when compared and could even be described as a mess (Pihlaja 2004,49). Keeping the mentioned in mind and as the following methods: design thinking and service design are highly people-centric, qualitative research can be described as method that is suitable for solving difficult and complex challenges. Preferring qualitative material means, firstly, simply using empirical material as research material, which can be texts, discussions, interviews, observation diaries, images, or spaces in which an activity takes place. Sometimes numerical data, such as various statistics, can also be of interest for qualitative research. In this case, however, the data are interpreted qualitatively and, for example, it is considered

what the homelessness groupings used in homelessness statistics exclude, what is excluded, what the classification method means in relation to the resulting number of homeless, etc. (Juhila 2018)

Questions guiding development assignment

Questions chosen for the development study were the following:

- What affects the customer experience of Polar Ignite Users?
- What are the actions needed for an organisation to implement a customer-centric approach to product development?

The development assignment questions were chosen based on the thesis commissioner's needs as the Polar Ignite customer experience was a topic the company needed more extensive knowledge on. As Polar is driven to design customer-centric products, the second question was chosen to gather information to support this approach even further. To answer the first question Polar Ignite users were asked to participate in a survey and a probe. Also netnography was made to gain more user insights through following them in social media channels. The second question was tackled through Polar employee interviews. Reviewing industry literature, journals and online resources was used to answer both of the questions.

1.2 Frame of reference

A frame of reference is a structure of concepts, customs, values and views. This structure is formed by the means of which the individual or a group distinguishes and evaluates the information available and how they communicate the ideas and regulate behavior (dictionary.com).

As seen in Figure 2 below, the main theme in the frame of reference in this thesis is design thinking. As many of the tools used in the study are known from service design it forms the second layer of the topics. The core of the frame of reference consists of customer experience, user experience, employee experience and lastly, design leadership.

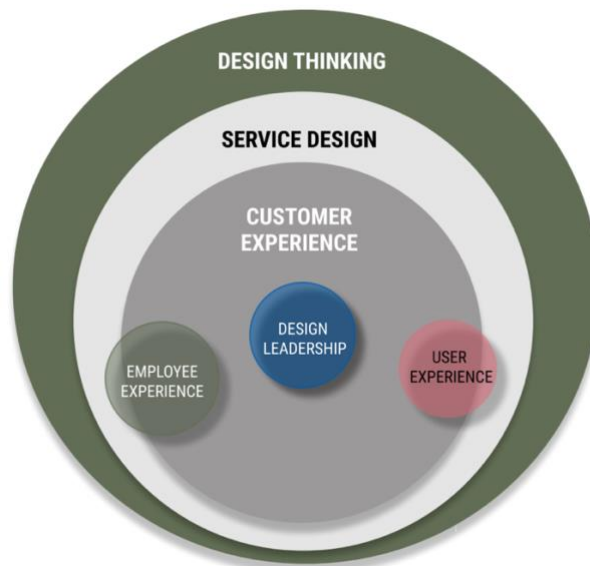


Figure 2. Thesis frame of reference

1.3 Thesis Process and Structure

The thesis project has begun at the end of 2019, e has seen in the Process Chart (Figure 3). The process was extensive time-wise, spanning over three calendar years. This was caused by challenging circumstances, both global and at an individual level. At the beginning of 2020, a global pandemic appeared, hindering organisations worldwide, impacting the daily lives of most of the world's population. Likely, the individuals who were requested to participate in the research method probe were not as committed to it as they would have been in different circumstances as in February-March of 2020. This resulted in a less-than-expected number of returned probes. The commissioning company experienced lay-offs during summer 2020, and during that time, work could not be progressed in cooperation with them.

The thesis process formed of two different phases of gathering information and insights, as seen in Figure 3. This is due to the nature of the study: in phases one and two the focus was on customer and user experience and collecting their insights and in phase three the focus was more on how product design process is at Polar and what would be the approaches to implement customer centricity.

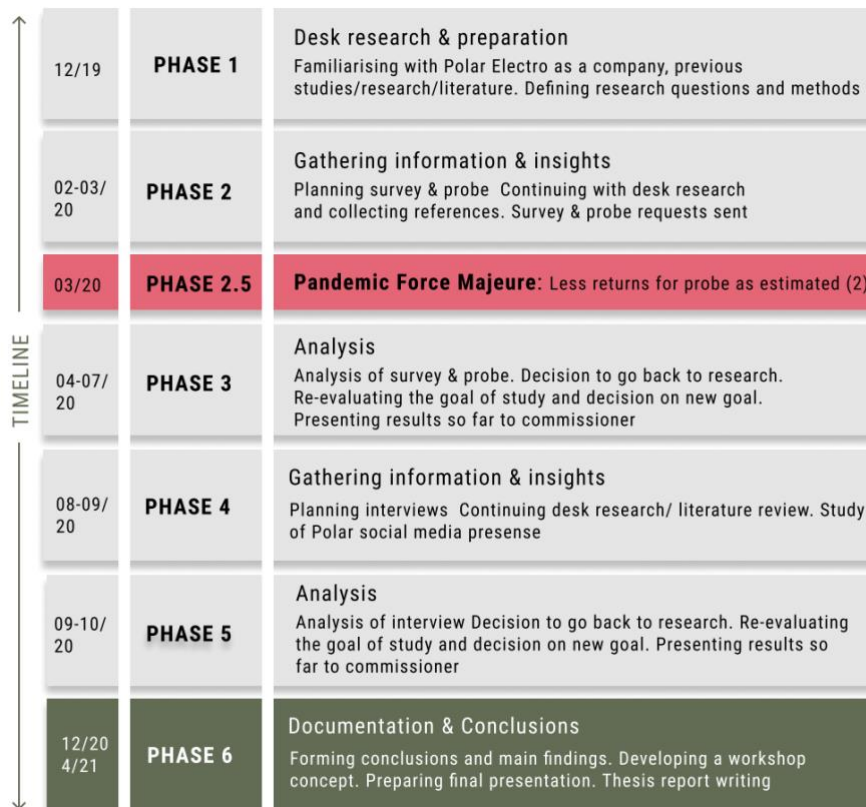


Figure 3. Thesis process

Phase 1 Desk research and preparation

In the first (1) phase, as seen in Figure 3, the thesis processes the work begun by meeting the representatives of the commissioner and familiarising them with their needs concerning the study. Initially, the research work was shared between two master's students from two different study programs: Innovative Digital Services of the Future and Service Design and Innovation (Suomeksi: Tulevaisuuden innovatiiviset digitaaliset palvelut). Unfortunately, the latter outsourced themselves from the thesis process at the beginning of the journey, and the work progressed as a solo project for the firstly mentioned student. As initially, the second thesis researcher was an English speaker and a student of an English language master's program, the report was chosen proceeded to be written in English. Written work proceeded to be done in English as the commissioner is a global company and English being the official working language of the organisation.

Research methods were suggested and discussed with the commissioner. In the first stage of the thesis process, a thesis research proposal was created, as seen in attachment 1. It included, for example, the research questions from the commissioner, the re-formulated preliminary research questions to be used in the thesis, suggestions of research methods and a description of the goals and derided outcomes for a master's thesis as well as the proposals for effects of the research that could be considered beneficial for the commissioner. At the

end of the first phase, a decision was made concerning the research methods, and the timeline was agreed upon with all stakeholders of the master's thesis project.

Phase 2 Gathering information and insights

As seen in figure 3, During part two (2), the focus was on the research methods. Firstly, the suggested research methods were cut down to two: a survey and a probe. A survey was chosen to collect basic information about the users of Polar Ignite watch and also to recruit participants to the probe. Channels to distribute the link to the survey were in social media: Facebook groups focusing on the Polar Ignite watch, Polar products in general and groups where users of sports watches belong to. Link to the survey was also distributed in Polar Twitter account and sent to customers who had contacted Polar customer service for questions or reclamations. The probe was chosen to gather more in-depth information about the experience of using the Polar Ignite product. The survey participants had the opportunity to state their interest to participate in further research regarding the Polar Ignite and those were sent the link to the probe document.

Phase 2.5 Pandemic Force Majeure

As see in Figure 3, at phase two-and-half (2,5) unfortunately the process came to a halt the beginning of the year 2020 a global pandemic came to the consciousness of people around the whole world. As in many companies, in the case study company and commissioner of the study also, the situation required lay-offs which also effected to proceeding with the cooperation. For the master student conducting the study time used to progress the thesis work also demised drastically during this stage. Beginning from March 2020 timely resources had to be divided between a new full-time occupation as a UX-designer and being a full-time care giver to a own child as a safety precaution due to the pandemic as he did not attend day care. This slowed the speed of working with the thesis but also gave the opportunity for the writer of the thesis to gather more extensive experience of development of digital products in general and of the benefits of user centricity in developing commercial products.

Phase 3 Analysis

During phase 3 the process went to an analysis stage, as seen in Figure 3. In this phase, based on studies made, a customer journey map (of a current journey of a customer) and two personas were made. As the needs concerning this study for the commissioner were mainly about gathering information and insights of users of one individual product in their range and the student's personal interests in the process were broader a decision was made to continue with study to gather more information to serve this larger purpose: concentrating more on how customer centricity is and could be utilised more in this particular case-company or companies from a wider perspective. During the analysis phase the topic of the thesis was approached by participating in online courses around the topics of interaction design, user-centric development and conducting user-centric surveys as a part of a development process of a digital product. In this phase writing of the master's thesis report also begun.

Phase 4 Gathering information and insights

As seen in Figure three (3) the iterative study process of a thesis proceeded to return to a phase of gathering information and insights. During the prior stage of the process the decision was made to broaden the scope of the thesis to include more aspect of customer centric development and leading customer service. In phase four (4) there were interviews with product development stakeholders within Polar and especially. These interviews provided highly useful information about the commissioner's status concerning applying user-centricity as a method within a development process of a digital product. This phase also included going back to literature describing customer centricity and leading a design process as in the prior stages focus was more involved with wearable devices and sports watches in specific.

Phase 5 Analysis

In this second (2) analysis stage the interviews held in the previous stage were analyzed. Also, in this stage the analysis aimed towards finding a possible solution to solve the challenge of implementing customer centricity in a company's or organisations product development processes

Phase 6 Documentation and conclusions

As seen in Figure three (3) focused mainly on documentation. It included writing the thesis report, creating documentation needed for an answer for the thesis research question that manifested in a form of a workshop prototype, a press release for the thesis and presentation of the thesis in its entirety. This phase also included analysing and evaluation the thesis process.

1.4 Wearable Computing

This chapter describes the context of the case study utilised in this development research. When the topics of customer experience, leading customer experience and customer centric development are scrutinized, sports and wellbeing wearables propose a fruitful soil for studying the possibilities of the through a product that often is very close to its user. The closeness is both physical and mental as they are firstly and foremostly bringing information about the users themselves. The many forms of historical and wearable computing are all affecting the form of which wearable computing and smart digital products are today.

The study of wearable computing includes the practices of designing, inventing, building or utilizing miniature computational and sensory devices (Mann). Wearable technology in healthcare and sports technology is identified as products that are wearable, for example smartwatches that measure heart rates. These are designed to gather data of the users personal health and about how they exercise.

The motivation of designing and producing wearables is straightforward: to contribute convenience for the user. As the world has evolved to be increasingly connected, peoples attention is becoming more divided. (Guler, Sibel Deren, et al.2016, 3)

Brief History of Wearables

The following subtitle describes the development journey of wearables from the first and earliest wearable technologies and their role in fashion, technology and society. The history of wearable devices serves as background for understanding the challenges and underlying needs for the devices of today, also the product Polar Ignite that was the subject of the case study in this development assignment.

The underlying motivations that led to the designing and producing wearables has been simplistic as their main reason for existing is to provide convenience for the wearer. The world is becoming more and more connected and people's attention is constantly being divided between the sources of information. Utilities, such as garments and accessory-pieces, when chosen with caution can bring relief and comfort for their wearer. As an example, by adding more functionality to one's attire and the number of objects used to make oneself more effectively mobile can be thus consolidated. The ability to access and use, for example, an e-mail account or book a meeting whilst on the move opens a plethora of new possibilities for where and how an individual works. (Guler, Sibel Deren, et al. 2016, 3)

The wristwatch became general as a wearable after World War I and advances to be redesigned and readapted today. The first mechanical digital watch was created in the 1920s, and this technology was widely used before the end of 1960's when quartz watches were induced to the market. The new technology undoubtedly improved the accuracy of timepieces and reduced the maintenance required. In 1972, the Hamilton Pulsar electronic digital watch was introduced to the market. In 1976, the company took the watch further, using new LCD technology, and sold the first watch including a calculator. An improved alteration of the calculator watch was redesigned by Casio in 1980 and became wildly popular as an iconic nerd accessory. In 1982, Seiko took the watch to a new level with a television watch, featuring a small blue LCD screen. Although the watch had to be restrained to another piece that housed the TV tuning system, it was impressive. As the watches came more popular, the price of manufacturing a digital watch decreased significantly, and companies began to add more features such as Nintendo games and address books. In 1994, Timex added a new critical element to improve the watch: the ability to communicate with another digital device. Using an optical sensor integrated in the watch, the Link150 could transmit data to a PC. Other remarkable developments included the Casio camera-watch which was released in 2000, and housed a tiny functional digital ,camera; and the Seiko e-ink watch, released in 2010, which was the first smartwatches with an interactive e-ink display. To this day, companies like Apple, Samsung, and Google continue to design watches, adding more and

more functional elements to the small in size, wearable wristband (Guler, Sibel Deren, et al. 2016, 3)

Although rings are considerably smaller in size compared to watches worn on the wrist and arguably less commonly worn, the ring has also been used as a computational device for centuries. In the 17th century, the Qing Dynasty of China designed and produced the first smart ring in the form of an abacus embedded in a metal ring that was worn on a person's finger. The size of the abacus was 1 cm by 1/2 cm, and it accommodated seven rods with seven beads on each rod that could be moved back and forth using a small tool such as a needle or a hairpin. It is believed that the ring was utilised by traders who needed to make calculations fast while travelling from port to port. The ring has been designed with other computational functions as well, but making calculations being the most common one. (Guler, Sibel Deren, et al. 2016, 39)

Development of sports and wellbeing wearables

Prior to cell phones became a common widespread used hand-held accessory, a vast amount of people used the wristwatch to tell time. The history of the daily used wristwatch began in the 16th century, when it was re-designed to use smaller parts instead of large, heavy ones, causing the device to shrink in size considerably. German inventor Peter Henlein begun designing smaller watches that hung in a chain around it's wearers neck as seen in Picture 2 and could be used as a jewelry in the form of a necklace.

Then, in the late 17th century, as vests became a fashionable item of clothing men began to wear watches in their vest pockets, increasing to the popularity of pocket watches for men. Wristwatches appeared in the market at approximately at the same time, but women wore them almost exclusively and they were marketed as a bracelet. Over time, the watches became even smaller and more we more accurate in telling time. In 1904, pilot Alberto Santos-Dumont ordered the famous jeweler Cartier to create his own watch that could be worn in his wrist, allowing him to keep his hands free when flying a plane. This demonstrated to be convenient way of wearing the watch, and many soldiers began to use watches to help them in telling time during the war. (Gulen, Sibel Deren et al. 2016, 3)

The wrist-worn watch became popular as a wearable after World War I and continues to be redesigned and readapted today. The first mechanical digital wristwatch was designed and produced in the 1920s, and this technology was widespread used until 1969 when quartz watches were introduced to the market; the new technology enabled considerable advancements in the preciseness of watches and cut down the need for maintenance efforts needed. In 1972, the Hamilton Pulsar electronic digital watch came to the public market. In 1976, the Pulsar took the watch further, utilising new technology called LCD, and sold the first watch equipped with a calculator. In 1980's the calculator watch was redesigned by

Casio. It became hugely popular as an iconic accessory for the so-called “nerds”. In 1982, Seiko created the television watch taking the device even further. It featured a miniature blue LCD screen from which television was able to be viewed on. Although the watch had to be restrained to another piece of equipment that housed the TV tuning system, it was an impressive display of technology in a small device. As time passed, the manufacturing a digital watch deteriorated significantly, and companies were drawn towards adding more features such as Nintendo games or address books. Timex added in 1994 a component that was critical: communicative ability with another digital device. The use of an optical sensor was integrated in the watch and the feature called Link150 could transmit data to a PC. Alternative distinguished improvements included the Casio camera-watch, which was released in the year 2000, and housed a tiny, yet fully functional digital ,camera .The Seiko e-ink watch was released 2010 and it was one of the first smartwatches equipped with an interactive e-ink display. To this day leading companies such as Apple, Samsung, and Google continue to design wrist watches with more and more functionality to the small, wearable wrist-held device. (Guler, Sibel Deren, et al. 2016, 3)

Yet another intriguing wearable device is the hearing aid. The so-called ear trumpet was the first hearing aid and it was invented in the 17th century. The first electronic hearing aid created in the 1890's following the invention of the telephone. Digital hearing aids were launched to the public market in 1892. The development of digital hearing aid is continued towards the creation of smaller devices which makes the use of them more and more convenient for the user. (Guler, Sibel Deren, et al. 2016, 5)

The desire of cheating in the game of roulette led to the invention of a shoe that assisted in the cheating. This invention was made in 1961 by two aspiring mathematicians Edward O. Thorpe and Claude Shannon. Their idea behind the roulette-cheating show was to hide a timing device inside the shoe. The hidden timing device could then reasonably accurately predict the number of the roulette ball would land on. The informative numbers of this timing device was communicated to the user via radio waves received to an earpiece. It allowed the wearer to make a well-informed bet and thus increase chances in winning in the game. When the inventors tested the device, it increased the possibilities of winning by 44 percent. Unfortunately, when Thorpe and Shannon took their invention to be tested in a real-life roulette game in a casino, they experienced various hardware challenges and were not able to reach their goal of doubling their money as estimated. Looking back, this timing device inside of a shoe was quite primitive, but yet still was able to tackle many of the challenges designers face in designing wearables to this day. (Guler, Sibel Deren, et al. 2016, 5)

The challenge of designing communication that is personal between the device and wearer is one of the aspects in the project of cresting a wearable device and requires a considerable amount of experimentation and consideration. It encases the hardware in such a way that it could stand the wear and tear of an active person wearing the device. Alan Lewis, who is a

theoretical physicist, managed to solve the problem of using a computer that is hidden in a camera case. Some years later, in the end of 1970's a team of mathematicians that called themselves "The Eudaemons". The groups aim was to create a wearable device that would help them to succeed in the game of roulette and use the winnings to fund a scientific community. Their design also concealed a computational device within a shoe. The data was inputted to the device by tapping a hidden switch under the big toe in the shoe. Then the signal was transferred to an output system that was hidden in the wearers shirt. Input came out as three vibrating solenoids that vibrated in a specific pattern. This vibrating pattern informed the user of which of the eight octants of the roulette would be best choices to bet on. The input came from three solenoids that vibrated in a specific pattern, informing the user which of the eight octants of the roulette wheel to bet on. (Guler, Sibel Deren, et al. 2016, 6)

In 1883 professor of harmony Theodore Dubois from the Conservatoire in Paris presented his creation, the electric ballet La Farandole. The ballet featured dancers who wore electric lighting on their foreheads. The batteries of the lights were concealed in their clothing and when they pressed a button in their belts the lights were turned on. This form of technology was utilizing the batteries that were displayed in electronic journals of the era. (Guler, Sibel Deren, et al. 2016, 6)

A year later in the New York Times there was a published article describing a new phenomenon called the Electric Girl Lighting Company. The company business idea was renting out "illuminated girls". The workers that were rented went to the customer's homes while wearing filament lamps featuring lighting power of fifty candles, as advertised. The "illuminated girls" would sit either by the door or in the hall of the customers and guide quests through the apartment or house providing lighting in the dark. The story claimed that the cost of hiring a girl was less than the cost of electrical lighting and hiring a servant. This meant that the service was a worthy replacement for both services. The New York times article anticipated that the lighted girls would in due time replace stationary electrical lighting systems and also that the invention of "Illuminated girls" was close to the importance of the invention of electricity. (Guler, Sibel Deren, et al. 2016, 7)

1.5 Polar Electro and Competitors

Polar Electro Oy head offices are situated in Kempele, Finland. It operates globally in over 80 countries and the products are sold in over 35 000 outlets around the world. Their revenue was 160 million euro in 2019. Polar Electro Finland Oy, a subsidiary of Polar Electro Oy, offers its customers sales, marketing, distribution and after-sales support in Finland. Polar Electro Finland Oy's head office is located in Espoo. Polar is driven by their desire to be the best at what they do, as well as being ambitious and employ highly talented professionals who

passionately believe in what Polar does today, as they have believed for over 30 years. Our success is clearly visible. Today, Polar manufactures all of its products in its wholly owned factories. Polar employs 1,200 people worldwide. Millions of people around the world use Polar heart rate monitors, sports watches and Polar Flow's individual training guidance every day (Polar, 2019).

Polar had been one of the leading companies in the area of wearable sports technology for over forty decades. It has been a forerunner in helping professional athletes, coaches and sports enthusiasts, helping them to reach their goals and monitor progress. Polar developed the first carriable heart rate monitor and since then has offered diverse solutions to monitor the performance of athletes and assisting them in training. Polar products are designed to work accurately and precisely and to have excellent usability. This culminates to winning the Red Dot Design Award in 2015 of the Polar A300 fitness watch which is seen in Picture 5. Millions of people around the world use Polar heart rate monitors, sports watches and Polar Flow's individual training guidance every day. (Polar 2019).

The product range consists of innovative wearable technology solutions and has also won awards, such as the Red Dot Product Design Award for Polar A3, (as seen in Picture 4) fitness and activity monitor and Polar V650 cycling computer in 2015 (Polar 2015). The year 2015 was also the most successful for Polar so far as they reached sales of 222 million euro (Ylä-Anttila 2021). The products fir seamlessly with Polar exercise applications and cloud services. Polar is focused on manufacturing product and services related to wireless heart rate measurement (Polar Electro press release, 2019). The customer segments of Polar include divers types of athletes and therefore there are differences in their customer journeys as wells as their needs. Polar, as a company is driven by encouraging people to do and feel better by gaining with a deeper understanding of their own bodies (Alahuhtala, Saharinen, Tiitto 2019).



Picture 1. Polar A300 fitness watch (Polar media bank)

Polar created the world's first heart monitor in the year of 1977. Innovative physiological and sports medical research has been at Polar's focus their business venture. The company has a research center located in Oulu, Finland where it does studies in the fields of wearable technology, sports sciences, physical activity and sleep. Their research team is actively

involved in global research collaborations. Polar offers a wide product range that serves the needs of sports and wellness enthusiasts of all levels also offering essential support and advice for the users. The product range covers everything between improving a professional athlete's performance to helping the users enjoy a healthier lifestyle and aiding rehabilitation as well as managing weight. (Polar 2019)

Polar Electro Management

During its history the company has had five CEO's. The first was founder Seppo Säynäjäkangas M.Sc. (Eng.), until 2001. The next CEO was Jorma Kallio who resigned in 2005. From 2005 to 2019 the CEO was Sari Säynäjäkangas, daughter of Seppo Säynäjäkangas. From August of 2019 to May 2021 the CEO was Tomi Saario M.Sc. (Eng.). Prior to Polar Electro, Saario has held management positions in numerous ICT and electronics companies in Finland and abroad (Polar Electro press release, 2019). Sander Werring was chosen to the role of CEO in May 2021 (Ylä-Anttila 2021), he has been responsible of the company's sales globally and also has been a member of Polar executive team.

Polar Electro product design and development

In a pro gradu research by Ella Murtomäki in 2018 in page 54 it was described that the employees of Polar felt that there were many possibilities to get more information of the users. Gaining more information about users was perceived to be most important in the beginning of product development process. In the same research process report in page 54 she tells that employees feel that they want to do more research to seek out customer's needs and their challenges. They also described that the mentioned is a vital part of the product design and development process.

Polar also works with Polar Ambassadors, who are professional athletes and are sponsored by Polar. These athletes use Polar products and through them product designers and developers get information about how the equipment works and serves the needs of the users.

Competitors of Polar

The wellbeing, smart and sports watches segment is today a highly competed one. Polar Electro has multiple competitors but in this sub header the two most valuable ones are discussed. They were chosen based on similarities or the company in question itself mentioning Polar as their competitor.

Garmin

Garmin Ltd. is a holding company. It engages in the provision of navigation, communications and information devices, most of which are enabled by Global Positioning System (GPS)

technology. It operates through the following five segments: Marine, Outdoor, Fitness, Auto and Aviation. In 2020 their revenue was 4.2 billion United States dollars. (Garmin 2020). Garmin's sales are growing and most of the increases is coming from wearables. The Garmin division that includes wearables and other handheld sports devices brought in an estimated \$565 million last year from wearables, up eightfold in two years (Knapp 2016)

Garmin is an American multinational technology company founded in 1989 by Gary Burrell and Min Kao in Lenexa, Kansas, United States. Their headquarters are in Olathe, Kansas. In the Garmin Annual report for 2020 their main competitors are mentioned to be in the fitness product category the following: Apple, Bryton, Elite, FitBit, Huami, Huawei, Polar, Samsung, Sigma Sports, Suunto, Wahoo Fitness and Xiami.

Garmin develops and sells products that are engineered for the life outside. This is done with the aim of enabling customers to make the most of their time pursuing their passions. The company has more than 14 500 associates in 65 offices globally and they bring GPS navigation and wearable technology to the fitness and outdoor markets as well as the automotive, marine and aviation markets. Garmin operates supported by the vision that every day is an opportunity to innovate and change to improve from the days prior. Their business practices and policies reflect their commitments to protecting the planet and empowering communities and individuals. (Garmin 2020)

Product design of Garmin is committed to designing environmentally conscious products that have minimal environmental impact through their life cycles. As part of their product care and workplace safety, they always provide material safety data, and for example batteries upon request and other items sold with a product. Garmin also supports the recovery and reuse of valuable materials and they thrive towards managing hazardous components safely (Garmin 2020).

Suunto

Over 80 years ago Suunto was founded by Tuomas Vohlonen. He was a Finnish adventurer who was unsatisfied with the days current technology and improved it by creating a liquid-filled compass that was steadier and had a more accurate needle than the compasses before. Garmin sets high demands for their products and they test them out in the real world. The thought behind this is that if they survive in Finland they can survive anywhere and of everything. For over 80 years Suunto has been constantly learning and fine-tuning their technology, allowing the creation of reliable products, even in the most extreme conditions. Since 1999, Suunto has been a subsidiary of Amer Sports Corporation. Suunto's sports instruments combine clock-like appearance and functionality with computers designed for a specific sport. In 2007, Suunto employed more than 500 people around the world, and the company's products are exported to more than 100 countries. (suunto.com)

Suunto highly is committed to taking effort in protecting the environment and reducing pollution by designing, manufacturing and delivering products that are high in quality and offering wide services as well as acting responsibly. They describe that the company in its actions respect nature in all its forms. Their primary environmental design goals are designing sustainable products which minimize environmental impact. In their producing and logistics operations they search for ways to reduce their environmental footprint. They also work with their suppliers to make also their practice more sustainable (Suunto.com)

1.6 Case Study

In this thesis the backbone of the process was studying one particular product in the range of Polar Electro. This enabled to bring into context the larger themes within the study: customer centricity and customer centric development. Through studying the impressions and gathered insights of users of the particular device itself the master's thesis writer was given an opportunity to also gather information about it for the commissioner.

The aim of a case study is first and foremost to have the most diverse picture possible. When thoroughly implemented, case studies contain a wide range of both quantitative and qualitative material. The reliability of a case study can be valuable compared to the case itself, due to the large amount of data collected. Conclusions can be subjective and the generalizability of results can be problematic. (Järvenpää, Kosonen 1996). Cases studies are used in several areas of working life, for example, in engineering, consulting and engineering offices (Rajamäki 2019)

In social research, a particular phenomenon is explained and addressed in relation to individual people, groups of people, organisations, communities, cities or even nations (Swanborn 2010, 1). The phenomena are studied in their natural environments, utilising many forms of empirical material as a base to gain knowledge about the subject (Järvenpää, Kosonen 1996).

The field of study defines the tools which are utilised in the case study. These can be, for example, various forms of scientific-philosophical discussions, procedures choices as well as theoretical and methodological viewpoints. The aims of case studies can be very diverse. The aim can be understanding the case, forming a detailed description of the produce in question, explaining a complex phenomenon or events or producing an original theoretical idea or hypotheses (Eriksson, Koistinen 2005).

The types of case studies are identified as intensive and extensive studies. When an intensive case study is in question the main objective of the study process is to form a thick description, to understand an unique and theoretically compelling case and to interpret it. In an intensive case study it is most important to describe the context of the case but in

addition the conductor of the study may also collect information on how the participants of the study perceive their surroundings and experiences. On the other hand, an extensive case study aims toward finding common characteristics, new theoretical models and concepts. This is done by comparing several cases and they are used as means of researching different phenomena. (Eriksson, Koistinen 2005)

In this thesis the approach of the case study was extensive as it aimed towards finding common characteristics and the end result is a concept. There were a distinct amount of cases compared to form conclusions. These cases were describing the customers experiences but also the experiences of employees developing the product of which the customers were using. Through these the main phenomena and case researched formed to be user centric development in the context of design leadership and the concept created aims to tackle the challenges of leading an company or organization towards customer centric development through an action plan including representatives of different areas of expertise.

2 Knowledge base for the development assignment

This chapter explains the methodologies and approach of the thesis. The study relies on design thinking as the main method and applies also service design, customer experience, user experience and employee experience viewpoints.

2.1 Design Thinking

"Design thinking is not limited to a process. It's an endlessly expanding investigation." –Sandy Speicher, IDEO CEO

Design thinking is used to solve complex problems. It aims to generate innovative solutions with user-centered approach and made by multi-disciplinary teams. Originally design thinking was introduced and shaped by a popular design consultancy IDEO. Currently design thinking is becoming increasingly popular in business schools and it is applied in research and development departments of innovative companies. Compared to traditional creative design process, which is often very intuitive and individualistic process, design thinking consists of iterative sequences of process steps. They each include several tools and result are presented in the form of diverse artefacts. Due to the fact that design thinking is applied by teams representing diverse disciplines instead of highly trained designers a deep understanding of the process is crucial. Numerous scientific books and publications exist about the topic but they often lack a detailed and structured model of the actual method itself. Most existing descriptions of design thinking are informal and too simplified or even cryptic. (Thoring, Muller 2011, 1)

Design is an approach to innovation that is human-centered and includes understanding of customer's needs, prototyping and generating ideas. The aim is to transform the way organisations, services, processes and products are developed. When design thinking is used decisions are made based on what customers really want and need instead of purely trusting historical data or by making guesses based on instinct than evidence and information gathered via research (IDEO). At its core, design thinking can be described as a creative problem-solving approach. A more complete description is that it is a systematic and collaborative approach for identifying problems and creatively solving them. The term design thinking means that approaching problems, and their solutions, is done with following a mindset and thought pattern of a designer. While this will be done subsequently, an illustrative characteristic of the design thinking approach is that it is intentionally nonlinear, as seen in figure 2. (Luchs et al. 2015, xxii)

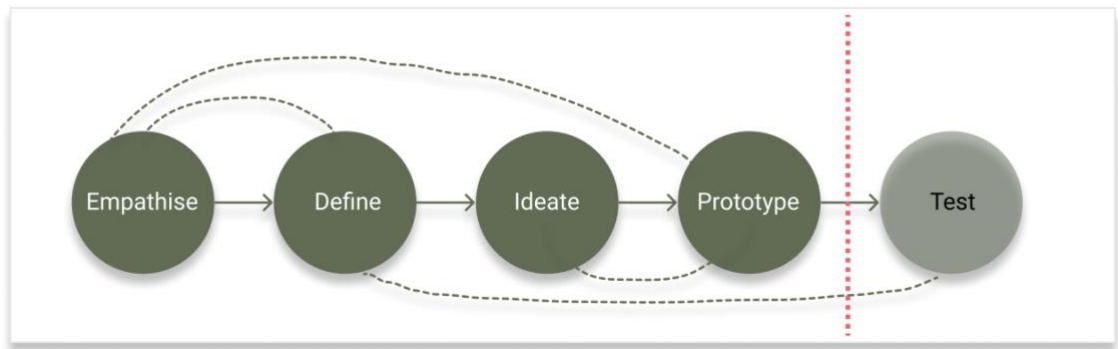


Figure 4. Design thinking process

Design thinking is closely related to having a human point of view of what is technologically profitable and economically viable. Design thinking seeks answers to questions like

- What makes sense to people and for people?
- What is technically possible within the foreseeable future?
- What is likely to become part of a sustainable business model? (IDEO)

As seen in Figure 2 the stages of the Design Thinking process are

Empathize

In this stage the questions guiding the process are framed and the team working on the design need to be inspired to think about the customer and their needs. It also includes inspiration by research, exploring and observing.

Define

In the define stage the research question or development challenge is defined and confirmed. The questions should also be from the viewpoint of the end-user.

Ideate

In the ideate stage the previously gathered inspiration is used to push past obvious solutions and with the aim of creating new and fresh solutions to the problem

Prototype

The prototype stage the created ideas are made tangible by building prototypes to find out is the idea working and answering to the customers need.

Test

In the test-phase the idea is tested by customer and feedback is gathered. This can include multiple rounds where changes to the prototype are made and then re-tested to find out was the correction the right one. It's also the phase where the story of the design solution can be told to colleagues, customers, users and clients.

It's also valuable to take into account that the phases may happen iteratively several times and there is movement back and forth between them. (IDEO). The viewpoints of design thinking by IDEO are described in Figure 5. The first is viability as in how viable the solution would be for the customer or end user, second is desirability as in is the solution something that the customer would be drawn towards and want to use and the third is feasibility, as in how feasible the solution is when it is in use and in production.

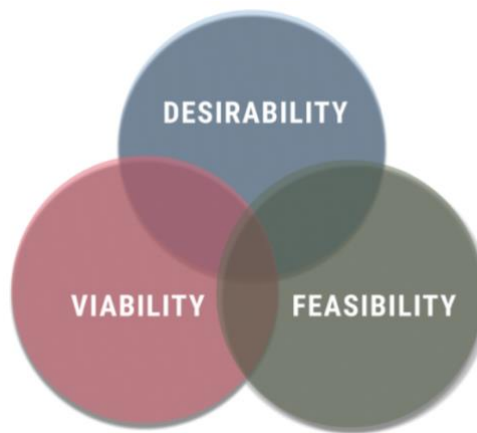


Figure 5. Design thinking viewpoints

“The main tenet of design thinking is empathy for the people you’re trying to design for. Leadership is exactly the same thing - building empathy for the people that you’re entrusted to help.” (David Kelley, Founder of IDEO)

Beginning in the late nineteenth century onward connection between design and business is a story of where new challenges are met with vision, creativity, and innovation” (Lockwood 2010, 35). Design thinking focuses on human-centered processes for innovation. It emphasizes observing and collaborating and enabling fast learning due to them. In design thinking visualizing of ideas, creating rapid prototypes and as well as business analysis are in focus. These ultimately enable innovation and business consolidative strategies. The aim is to involve and include consumers, designers and business representatives in a process which can be applied to any product, service or business design on a strategical level. Design thinking is also a vehicle to drive imagination towards future states and enabling bringing products, services and experiences to be brought to market. The term itself is generally referred to as applying the designer’s thoughts to problem solving and applying them to a plethora of problems. As design thinking is a set of methods for innovation and enablement it should be separated from professional design in art or design crafts (Lockwood 2010, 19).

2.2 Service Design

This sub-header describes service as a process where designers create continuous solutions and best possible experiences for both customers in unique contexts and any service providers involved in the customer’s journeys. It also focuses on what is the core of service design.

Service design is an approach that aims to improve the experience of both the user or customer but also the employee by designing the operations of the organization to be more optimized and aligned. When this aim is fulfilled the customer journeys of the company are improved enabling a growing level of customer satisfaction

The term "service design" was first introduced by Lynn Shostack in 1982. Shostack suggested that organisations develop an understanding of how behind-the-scenes processes interact with each other because "leaving services to individual talent and managing the pieces rather than the whole make a company more vulnerable and creates a service that reacts slowly to market needs and opportunities." This statement is true to this day but compared to 1980's the responsibility of designing the services a company offers does not only lie on operations and management but it is considered to be a responsibility covering the whole organization (Gibbons, 2019). One of descriptions for service design is it being the art of finding the right question to ask and the craft of making insights visible by imagining of a best possible solution to the co-creation of the future (Björklund et Al 2019, 7). Design is the act of developing existing situations into endorsed ones. In practice, it is often distinguished as design by its domain: software design, organizational design, industrial design or engineering design. Disregarding of its field of application, the current increased interest in design can be traced to aiming for a more human need-centered, experimentative way for innovating, and design having systematically moved closer to its users across through the years (Björklund et Al 2019, 11)

Service design can be defined as an the activity of planning and organizing business's resources that are people, props and processes. This required to be done in order to:

- a) directly improve the employee's experience
- b) Indirectly improve the customer's experience

(Gibbons 2017)

"Design is not just what it looks like and how it feels like. Design is how it works" (Steve Jobs, Cofounder of Apple Computer Inc.)

Customer understanding is the first step in the service design process, in other words development work. The new or at the beginning of the old service development process, an immediate understanding of whether there is a service is needed existing market or the creation of a new market (Arantola & Simonen 2009, 6). Service design can. Be described as the activity of planning and organising a business's resources. The mentioned are people, props, and processes that directly improve the employee's experience, and improve indirectly, the customer's experience (Gibbons, 2017). Catalonotto described in 2018 that service design improves the experiences of the user and the employee by designing, aligning, and optimizing the organization's operations. This needs to be done to better support

customer journeys. He also adds that Service Design improves the experiences of all the individuals involved in service, not only the end-user or employees but also the partners and all people who use or take part in develop it (Catalonotto, 2018).

In service design the components of a particular product or service are broken down into frontstage and backstage. The aspect of customer seeing or directly experiencing the actions defines are the components front -or backstage ones. This division could be described as a theatre performance. Everything the customer “audience” sees is in front of the curtain, meaning the actors, music played by an orchestra, costumes props and so on. The backstage is everything behind the curtain and could also be identified as an ecosystem which covers the director, stagehands, lighting coordinators and designers of the set and costumes. It is often told that service design is simply re-designing a service but it is much more complicated as it is used to address how an organization gets something done and problems solved. Designing a service focuses on the touchpoints that create the journey of the customer, the “experience of the user”. (Gibbons, 2019)

Service design is the design development of services using design-based methods so that the starting point for all development is the user of the service. Understanding the customer service experience is therefore the starting point for all development work. The company or organisation in questions does not design any service fort the customer from the company’s own point of view, but rather plans the service in cooperation with the customer, carefully listening and interpreting the customers need. There has been a shift from mere product focus to more holistic design of experiences, systems and processes. The emergence of service design has been facilitated by the proliferation of sustainable development planning. Businesses no longer see consumers as counterparties but are increasingly seen as partners and contributive to the development processes (Kokko 2017).

The reasons attentions are needed to be focused to designing a service and towards the experience of the employee is that the organisations internal backstage processes have a tremendous impact on how the customer perceives the service. The backstage processes of an organization impacts the user experience in various ways, even more that the points that are visible to the users of the service. A valuable example of this is how the server communicates allergies to the chef at a restaurant. If it is not done in a clear and precise manner there could be severe consequences to the customer consuming the food. Another example from the restaurant world is an overcrowded restaurant. If a restaurant has a systematic process in place for clearing tables and assigning customer to their tables, customer will not need to wait or even know it is overcrowded at all (Gibbons, 2017). In service design, users determinedly participate in the process since the production of the service relies on varying capabilities of an agency from the user side. Service users are active participants in generating value by bringing in their own knowledge into the service. Their actions and interactions with service providers affect the final outcome of the process. (Penin 2018, 27)

Service design attempts to combine the worlds of business, design, change management, as well as the service economy. It is a multi-level approach for the introduction services and aims to create sustainability within them (Lockwood 2010, 310). Service Design is a part of a larger phenomenon, where the goal of the product development process is shifting towards molding new ideas with clients from the basis of creative work that has been done (Miettinen 2016, 21). Mikko Koivisto, who is an industrial designer describes service design as a method of construing services and customer experiences via new abstractions which clarify specification of service products and productization more concrete and controllable (Miettinen 2016, 43). As a method it is also used to find answers to the research questions. In service design, people are at the center of the design process, and it is defined by scholars and practitioners to be essentially human-centered (Angelini 2018, 150).

The double diamond, as seen in Figure 6, is a common visual representation of the design and innovation process. It is a simplified vi to describe the steps taken in any design and innovation project, irrespective of methods and tools used (Ball 2021).

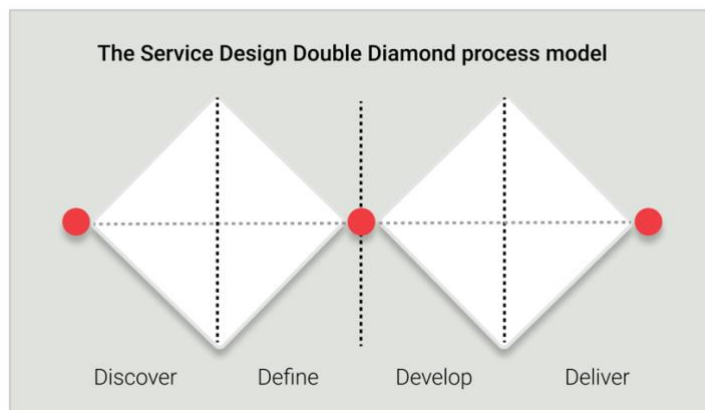


Figure 6. A common interpretation of the service design process

2.3 Customer Experience

This subheader describes what is customer experience and its meaning for modern development of products and services. The term customer experience is used when discussed of all touchpoints during a customer journey interacting with a product or service. The main goal of customer experience is to nurture stable and strong customer-brand relationships (IDF). The development of the digital customer experience can be summarized in four areas, as seen in Figure 7: service speed, personalization, and user-friendliness, supported by a well-built technology environment. Knowing and understanding the customer's business and everyday practices are successful key cornerstones of the service business in all service development companies regardless of industry (Arantola & Simonen 2009, 0).

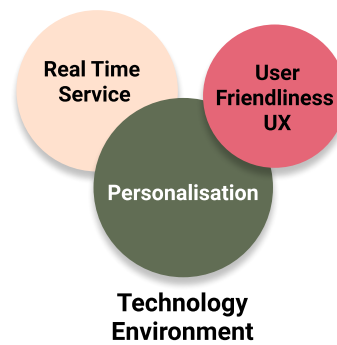


Figure 7. Main development areas of CX in the digital era

CEOs and development managers see the customer focus of their own organization significantly more positively than the rest of the organization. In recent years, companies have become increasingly interested in focusing customer experience. At the same time, it is felt that customer-centric projects still lack resources (Frankly Partners 2019). Although customer orientation has been considered a primary topic on organisations agenda for at least half a century it is not whole-heartedly implemented (Gummerson 2008). Organisations that are consumer-facing have realized that if they approach their customers correctly they will likely be rewarded by increased customer loyalty. Increased customer loyalty will eventually lead to increased market share, improving sales and reputation and lastly, to higher profitability (Daffy 2019, 0).

The development of customer experience processes, as seen in Figure 6, includes, among other things, different communication channels and their mutual integration, continuous service availability, fast response times, utilization of background information and proactivity in follow-up and follow-up services such as care or disease monitoring. (Gerdt, Eskelinen 2018, 14). The fact combining all of these is that there is no one time solution but they are developed continuously.

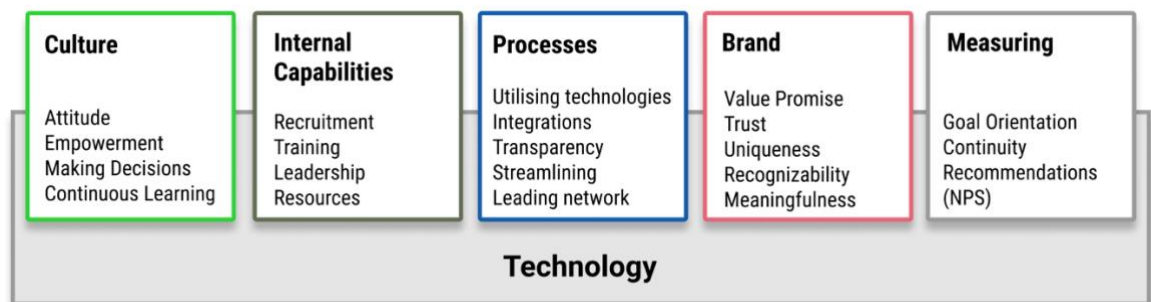


Figure 8. Elements of Customer Experience Development

With the rapid development of technology, it is good to note that the basic elements of developing the customer experience have not changed. When developing the customer

experience, it is still necessary to look at the whole, the company's culture, internal capabilities, processes, brand and measurement. In the development of these areas, the focus has only shifted to technology-assisted, with its strong development (Gerdt, Eskelinen 2018, 13)

Research results of Finnish companies reveal that feelings are already much more customer-centric than genuinely in action. Customer focus can already be found in missions, strategies and value promises, but the systematic building of a concrete foundation is in the weakest position. For example, a genuine understanding of customer needs, versatile and systematic use of data 24/7 and strategic segmentation are, on average, still in the early stages in Finnish companies. (Frankly Partners 2019)

Organisations today have actualized the emphasis of accommodating their existing customers as well as acquiring new ones. A potent customer experience strategy is required to assure that services are consistent activities were exceptionally designed to meet customers' and organisations' demands. Measuring of customer satisfaction and customer efforts are becoming more common as wells as performance metrics across organisations, descending from the top down. Improved operating practices and rapid advances in technology are changing the corporate landscape. (Villani 2018, XVIII)

Many of the globally largest organisations have won customers' loyalty in a highly competitive global marketplace. The Apples, Amazons and Facebooks of this world have put their creative efforts into fabricating brands that offer customers a consistent, distinctive experience with a clear value proposition they can respond to. These are also companies that take pride in nurturing, training and retaining their personnel. (Villani 2018, 1)

Customer focus is how an organisations resources are organized and build to support a customer centered culture and how the resources in turn organise their efforts around the customer. Customer commitment is the best possible customer experience is created. (Berridge 2016, 75). Companies focusing on their customers tend to have a large, loyal customer base since their main concerns are the customer journey and the experience their customers throughout their journey (Berridge 2016, 76).

2.4 User Experience

User Experience (UX) is a key concept in human-computer interaction that refers to a holistic experience of using or consuming a product or service that encompasses, in addition to the product interface (UI) and usability, a variety of other experiences and emotions that may occur over a long period of time of using the product. User experience design is the process design teams use to design products that provide meaningful, relevant and enjoyable experiences to the products users. This process includes the design of the entire process of

acquiring and integrating the product, including aspects of branding, design, usability and function. (IDF)

"No product is an island. A product is more than the product. It is a cohesive, integrated set of experiences. Think through all of the stages of a product or service - from initial intentions through final reflections, the from the first usage to help, service, and maintenance. Make them all work together seamlessly."

Don Norman, inventor of the term "User Experience"

User experience design includes the design of multiple components. These are visuals, features, commands, copywriting and information architecture. The user experience design aims to the situation where the elements are designed correctly but also integrated seamlessly to each other creating a total experience. It is good to keep in mind that service design follows the same thought patten and basic idea: the several components of a service should be thoughtfully designed and work together seamlessly. (Gibbons 2017)

"User Experience Design" is often used interchangeably with terms such as "User Interface Design" and "Usability". However, while usability and user interface design are important aspects of UX design, they are subsets of it - user experience design covers a vast array of other areas. An UX designer is concerned with the entire process of acquiring and integrating a product, including aspects of branding, design, usability and function. It is a story that begins before the device is even in the user's hands.



Figure 9. Building Blocks of User Experience

The products that contribute in excellent user experience, for example the iPhone are designed keeping in mind the product's consumption and use but also the entirety of the process of acquiring, troubleshooting and owning it. In a similar manner, user experience designers do not only focus on designing usable products as they also concentrate on various

other aspects of the user experience. These aspects can be for example efficiency, pleasure and the feeling of using the product being fun or entertaining.

Consequently, there is no single definition available of an excellent user experience. A good user experience can be described is one that meets a particular user's needs in the specific context where he or she uses the product. (IDF 2018)

2.5 Employee experience

Employee experience refers to what a person employed to a company or organisation experiences at their work. How they interact with tools needs for work and other employees to the products and services they are working with. Employee experience includes the entire spectrum of experience of a person employed.

Maylett and Wride described in 2017 in their book at page 23 that if an organisation wants to reach sustainable and high-class customer experience they must first create a sustainable employee experience. Company employees have a vast amount of quiet, personal information and expertise that is difficult to store, share, and duplicate. Such empirical knowledge is called tacit knowledge (Arantola, Simonen 2009, 25). When this knowledge is collected from the employees by creating a positive experience of working in the company it can be utilised to achieve high-level customer experience.

Within an organisation, it's employees should be put first. When this is done, results will follow as the employees are the face the organisation and how they feel and experience it shows through their actions and creations. Even if customers see the website, marketing and physical premises they do not outweigh a customer servant who goes out of their way to solve a problem and help them. This is called the "law of congruent experience": employees will deliver a customer experience that matches their own experience in the organisation. (Maylett, Wride 2017, 25)

A success for a company comes through the quality of their products, pricing and how they offer support and interact with their customers. Employees who personally care about what kind of experience they create for the customer through their work culminates to a positive customer experience. When the environment and the experience for the employees does not support this the level of customer experience is likely to be poor. If an organisation has engaged, respected and appreciated employees and management who wants to maintain this the employees will trust their management and dare to take the risk of emotionally investing their efforts for the benefit of creating excellent customer experience. Conversely, an organisation does have a foundation of inspired people caring about providing a terrific experience and making customers' lives better, all the technology and systems in the world

won't keep its customer experience from failing. Engaged employees are the core of the organisation and the main enabler of customer experience. (Maylett, Wride 2017, 24).

In the Figure 10 below the components of employee experience are displayed. This model is created HR analyst Josh Bersin. These components are:

Meaningful work

Meaningfulness is created by knowing the end user or customer of the product or service the employee is working with but also the feeling of working for something that has meaning

Opportunity to grow

It is natural for people to have the desire to learn new things. Growing does not necessarily mean stepping up in the career ladder but can also mean deeper specialization to a topic and also setting goals regarding learning.

Productive environment

A productive environment requires goal-setting and enabling prioritisation. It does mean excessive amounts of results but best possible results with the resources used in the best possible ways.

Engaging Leadership

In creating a positive employee experience the importance of leadership is increased. Leadership goals should be set to enable engagement, transparent communication and trust.

When these four topics are focused on it is guaranteed that employees feel their efforts are meaningful and their health and well-being is in condition.

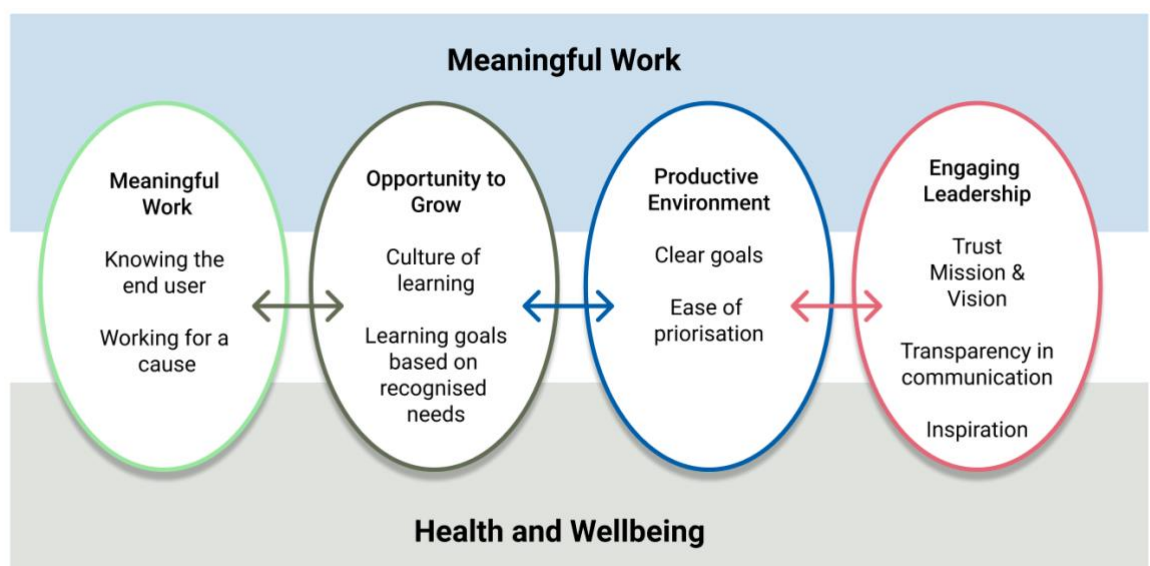


Figure 10. Components of employee experience

2.6 Approaches Towards Developing Products and Services

As technological development changes the shape of selling and marketing, the perspective of product development is also changing its form. Customers and end-users of products are constantly having more options thanks to innovations and on-going digitalisation. In this post, I explain the differences between the two main approaches of product development: product-centric business logic and customer-centric business logic. These two approaches were chosen to be discussed as the commissioning company, based on the development study, utilised much of the characteristics of product-centric business logic but would most benefit from customer-dominant business logic and is already utilising some of its features.

Product-centric business logic

The role of the consumer has been to receive information and talk when is being talked about. Suppliers have selected consumer groups that have provided new information development of new and existing products. Companies have developed ideas for products and tested consumer perceptions and purchasing decisions. This role of customer focuses on product-centricity as producing the best or most innovative product to the market is the main goal.

In product-centric business logic, the product produced by a company is the most important factor guiding operations and management. The goal is to produce the optimal product that as many customers as possible want to buy. The job of marketing is to convince a potential future customer of a product superiority and profitability of the purchase. Important attributes here the logic is price, product features, and profit maximization. From here as an example, a product that becomes a market leader through strong marketing where emphasizing product features and desirability with a focus on product design cost-effectiveness and thereby maximizing profits. (Tiitto 2019) Product-centric logic is from SDL point of view is the innovation of capacity required for realizing situated use value for the customer. Thus, it creates value for customers as a capacity where products and services or service products are tools for assisting in its situated realization (Lindhult et al. 462). This is described in Figure 11 below, where the product-centric development process is described. The process begins by an innovation or new resource which is a base for a product and which is sold to the customer utilising marketing and communications with the aim of financial profit and customer commitment for the company.

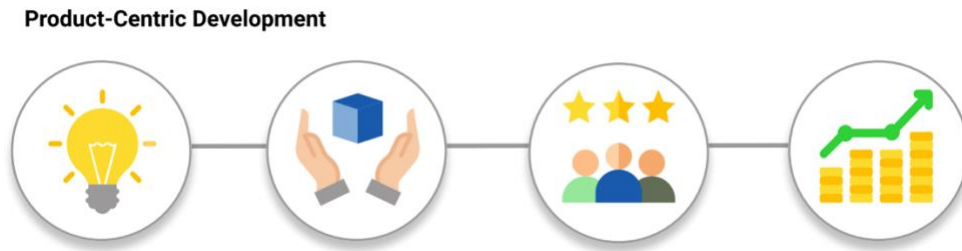


Figure 11. Product-centric development process

Customer-Dominant Business Logic

The beginning point for business management is traditionally based on the desire for creating or maintaining a profitable business which, of course, is a vital part of a successful business venture. However, there is a difference for whether the starting point for management is solely the profitability or the customer. When a business is run the customer-centric view is that the business would not exist without the customer. In reality this means that the customer and their needs are the starting point for all activities, from design to marketing and not just as part of the process, for example, under the responsibility of the customer service department or emphasis in marketing. (Heinonen, Strandvik 2015, 111) When business is run the customer-centric view is that there is no business without the customer. In practice this means that the customer and his needs are the starting point for all activities and not just as part of the process, for example, under the responsibility of the customer service department. (Tiitto 2019) Customer-dominant logic has its viewpoint on business and marketing based on the primacy of the customer. Adopting this mindset means shifting the focus from how providers include customers and users in their processes towards customers being a part of their ecosystems, engaging with different types of providers. In other words, focusing attention on how customers include service in their processes rather than how organisations provide service to their customers (Heinonen et al 2015, 472).

In customer-dominant business logic model, the customer's role is active. He is a part product development process holistically. The management approach is the effort to create the product that the customer needs, using means of in-depth and reciprocal mapping customer needs. In this model, the customer is involved in the product development process, for example through co-development workshops. (Tiitto 2019)

The key features of customer-centric business logic can be divided into separate factors, which examine its benefits as well as the differences from previous models. In customer-centric business logic is marketing is not a separate part of the product development process where the product is sold but a holistic part of the business where the customer is at the center. It is therefore not an activity driven solely by a product, its price, its service or its growth objective. This, in turn, is an activity that seeks to understand entities such as experiences and activities and thereby create the most suitable product for your needs and preferences. Customer-centric business logic seeks to understand the

customer's behavior and his or her the logics of their actions. This is not done by looking only at how the customer behaves in relation to an individual product or service but by looking at his behavior holistically.

The customer focus offered by the company means that when designing a product, the starting point is not what the company wants to sell but what the customer wants to buy. This is made possible by making methods in the product creation process that map to the customer relevant product. In customer-centric business logic, the idea is that the value experienced by the customer for the product formed through his mental and physical experiences and not created emphasizing the features of the product or the benefits of its use. The customer's ecosystem encompasses the physical and virtual dimensions experienced by the customer dimensions in relation to what is on offer. These dimensions are customer-defined, otherwise such as in a service ecosystem where service is the determining factor. (Tiitto 2019)

In the Figure 12 below is visualized how the customer-centric development process proceeds. It starts from customer opinions, needs and challenges as a first step, then based on them ideas and innovative solutions are created which in the third step are further developed into products or services. Then, in the fourth step success and customer loyalty can be achieved.

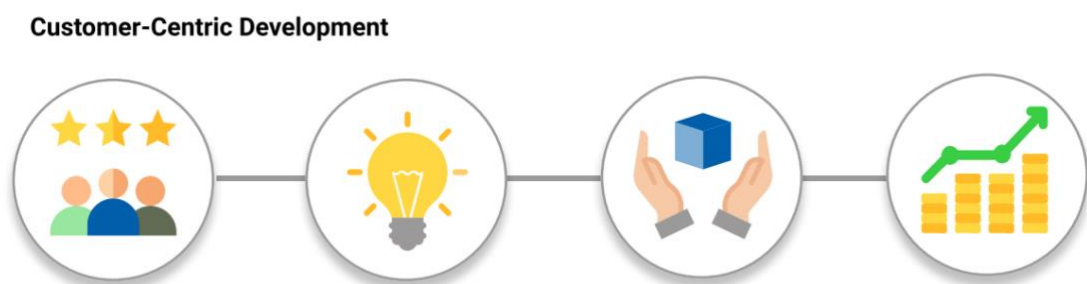


Figure 12. Customer-centric development process

Benefits of Customer-Centric Development

When there is a mindset change from product centricity towards customer centricity the focus is on the customer and in the challenge of offering a solution of customers challenge. This requires more interaction with customer but also has the possibility of increasing the amount of solutions as information flows more from the customer to the company. As seen in Figure 13 below development process starts from the customer and their needs. The needs culminate into ideas that can be further developed to products and services and lastly to financial profit and customer commitment and brand loyalty. A possible scenario is that with increased listening of customer needs there will be more ideas available to productize and thus create success. Also, there is a strengthened possibility for customer to accept the product or service offered as they have been included in the creation process of it.

Benefits of Customer-Centric Development

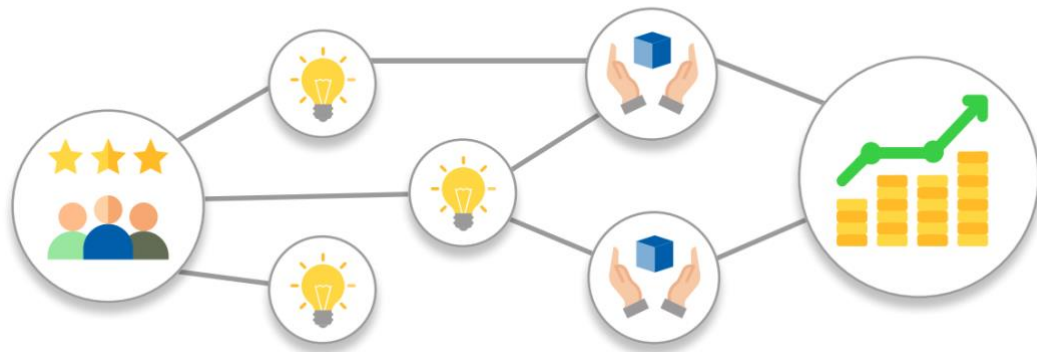


Figure 13. Benefits of customer-centric development

2.7 Design leadership

‘Design is a key contributor to making organizations successful in what they set out to do, and so ranks as a commercial imperative’ (Raymond 2013, 27).

Design leadership focuses on the practices and mindsets associated with creating and managing a creative organizational culture in a business: design thinking, design strategy, design process, design research, design project management, and collaboration with the client. Design enables a clear and practical connection between the strategic discussions in management meetings and the daily routines of business (Turner 2013, 9). Understanding design leadership requires understanding of management in general. Commonly it is defined as the process of planning, organising and controlling resources to reach pre-established objectives. On other words, design management could initially be explained to be the management of processes related to design activities within an organizational context. (Scaletsky, Da Costa 2019, 5). Design Management Institute which has promoted discussion and studies in design management since 1970s defines design leadership to be the encompassing of ongoing processes, decisions and business strategies that enable innovation. It will also create effectively designed products and services as well as enable communications and brands to enhance the life quality of the companies customers as well as build competitive advantages through various factors. The goal of design leadership is to foster the role of design in companies and thus enable increasing collaboration between business and design creating a more effective organisation.

3 Methods of information retrieval and analysis

This heading discusses the methods for gathering information from the development study. Methods used were a survey conducted online regarding the customer experience of Polar Ignite fitness watch, a probe for Polar Ignite users, interviews with Polar employees and netnographic research conducted in Polar Ignite social media group.

3.1 Survey

Surveys can be utilised as a part of many different studies and types of research. It can be used as one of several or as the sole method of collecting data. Application of the survey to the study depends in part on the research objectives and the research strategy chosen. Research objectives and the subject under consideration also affect whether it is worthwhile to use a modified or utterly self-created form (Ovaska, Aula, Majaranta 2005, 17).

Questionnaires are used to collect information about the respondent's thoughts, opinions and feelings. A questionnaire contains the information consistently and uniformly which enables separating the extraneous factors and making them controllable. It also allows increasing the number of participants with a minimum increase of research resources. This mentioned, it is vital to keep in mind that a large pool of participants does not always guarantee a successful research and can also limit the possibilities to reach goals set for it. Questionnaires can be used as a part of research or they can be also used as the sole method of gathering information. The research questions, subject of study and the theory related to the study set the prerequisites of how well a questionnaire is suitable as a part of the research. The most considerable limitation for the suitability of the use of a questionnaire is related to the subjective nature of information and insights collected via them (Ovaska, Aula, Majaranta 2005, 17).

A questionnaire was chosen as a method to gather information in this study to create an overall understanding of the users of the product Polar Ignite watch. The secondary goal for the questionnaire was to seek out an volunteer audience to take part in the probe research which would gather more in-depth information, insights and experience of the individual Polar Ignite User. The questionnaire template was created utilising Google Forms as seen in Picture 7 survey creation tool as it is easy to use and produces the results also in an easy to interpret graphic form.

The link to the survey was published in the following social media channels in February of 2020:

- Polar Twitter account <https://twitter.com/PolarGlobal>
- Facebook: Polar Ignite <https://www.facebook.com/groups/polarignite/>
- Facebook: Polar Ignite Community <https://www.facebook.com/groups/1341194202685851/>

- POLAR, GARMIN Sportwatches & Wearables Fans/Users
<https://www.facebook.com/groups/1798078923750710/>
- Kestävyyttä pintakaasulla 24/7 (a general group for sports enthusiasts)
<https://www.facebook.com/groups/kpk24/7>

It was also requested from the administrators of the official Polar Facebook page to publish the questionnaire link Polar to publish it in their customer newsletter but the requests were unfortunately denied and thus impacted the number of answers gathered.



Picture 2: Survey published at Facebook group Polar Ignite Users

The social media shares of the questionnaire links produced 58 filled and returned forms.

Answers came from the following countries:

- | | | |
|------------------|---------------|------------------|
| • Australia | • France | • Poland |
| • Belarus | • Germany | • Portugal |
| • Belgium | • Greece | • Romania |
| • Brazil | • Hong Kong | • Slovenia |
| • Canada | • Hungary | • Slovenia |
| • Czech republic | • Israel | • Sweden |
| • Ecuador | • México | • United Kingdom |
| • Estonia | • Netherlands | • USA |
| • Finland | • Norway | |

The countries most represented in answers were Finland, Germany and USA. Altogether 58 answers were returned. 43.1% of the respondents were aged 35-45, 20,7% 46-55, 20,7% 26-35, 10% were 56-75%. 63.8% of respondents were men and 36.2% women. 62,1% of survey participants informed that they are physically active 24.1% that they are physical very active and 13.8% that they were occasionally active physically. None of the participants were professional athletes.

As seen in Figure 14 below most of the respondents (63.2%) had purchased the Polar Ignite watch because it has functions that matched their needs. 31.6% had purchased it due to it being visually pleasing. 28.1% made their decision to buy due to having owned Polar products before and 35.1% due to its affordable pricing.

What was the reason/reasons for you to choose the Polar Ignite fitness watch?

57 vastausta

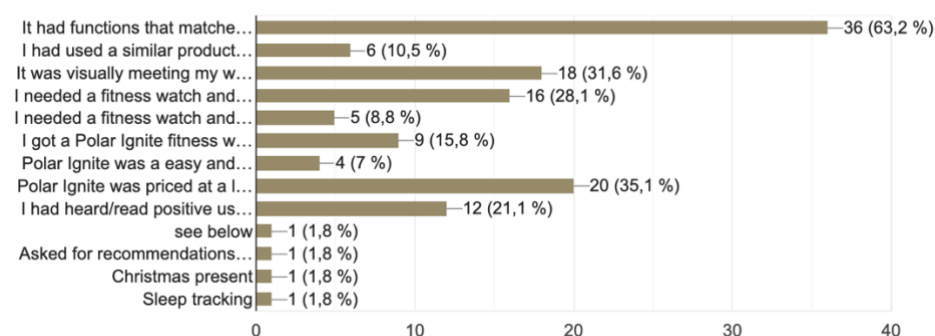


Figure 14. Reasons for purchasing Polar Ignite

41.1% stated that they own and have owned other Polar products as well and 48.3% told that they have owned or own currently own similar products from other companies. Most commonly mentioned brands were Suunto and Garmin.

General commentary and wishes regarding the Polar Ignite

"Battery need improve"

"I'm not happy with GPS positioning when running"

"I really like the Ignite, but I find it slightly odd, that one of the simplest and most basic functions on a fitness watch is missing, lap times, so therefore I would like to request the lap times function for a future update."

"I am disapointed. Watch either not app dont recognize international marathons like Ljubljana marathon with Golden badge."

"Please add an option to quickly go to alarm settings. On Vantage V, you can swipe down and click on a shortcut. On Ignite, there's a screen lock in the same place"

"More consistent movements to the display (sometimes up/down left/right), fabric/ woven band since plastic one is uncomfortable. Generally I would like to use a sportwatch as easy as I would use my iPhone Also Polar Flow could be visually bit more inspiring (compare f.ex to FitBit) Ignite looks quite nice though"

"I hope for future development daily activity and training will be more related to each other. And not only based on nightly recharge."

3.2 Netnography

Netnography can be described as an extension of the traditional ethnography. Ethnography itself can be defined to study and systematic record findings of human cultures but also the descriptive work produced from the research. Contemporary netnography as a research method is based around the idea that a specific set of related data is collected analyzed is ethically represented in the research practices. In netnography a significant amount of data is retrieved through a highly appropriate humanist observational stance (Kozinets 2015, 3). In a more general level netnography associates itself closely with the thought that human beings should study other human beings to create understanding of phenomenas and behaviours. This should be done as much as possible, as other human beings, despite the used technologies and masses of data there is need to reduce and dehumanize our humanity into numbers and other decontextualized and decontextualizing descriptors (Kozinets 2015, 8).

In a modern environment where todays humanity exist, they are constantly connected to the internet. This is enabled through computers and variety of mobile devices. Especially the younger generations tend to share their experiences, opinions and insights to their everyday lives in online channels and applications of mobile devices connected to internet. This means that the evolution of netnographic research is closely connected to the evolution of the internet and information technologies. Netnography utilizes various online tools such as targeted forums, focus chat rooms, blogs and internet of things to reach its subjects (Heinonen, Medberg 2018). An example of an observation done online is the comparison of frontpages of Polar and its competitors from September 2020 as seen in Figure15. This comparison shows that the online presence of the three are very similar. This can cause confusion and weaken brand image.

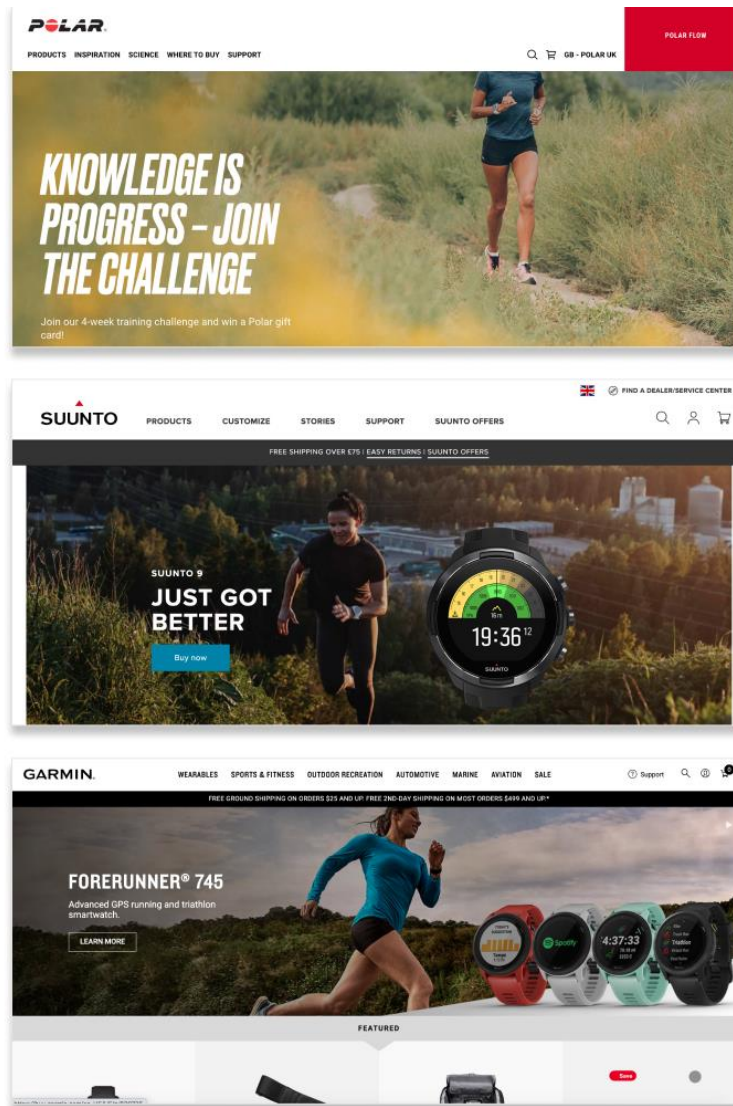


Figure 15. Polar and competitors front pages

In this development study netnography was done by studying Polar Electro social media channels, focusing on the Facebook group “Polar Ignite Users”. This group was observed from January 2020 to May 2020. The findings from the observations are introduced in the form of the customer journey map that utilised also the survey answers. The netnographic study also formed the base of the personas created as well as material for ideating the development suggestions for the commissioner.

3.3 Probe

Design probes are an approach of user-centered design for understanding human phenomena and exploring design opportunities (Mattelmäki 2006, 39). A probe is based on user participation as it is a form self-documentation. The users or potential users collect and document their experience of using the product or service working as active participants in the user-centered design process. A probe is a collection of assignments through which or

inspired by which the users can document their experiences and feelings. It is also a tool for expressing thoughts and ideas related to the product. Secondly, probes look at the user's context and their individualistic perceptions. The purpose is to document human phenomena and the users which also introduces the user's perspective enabling enriching the design. The tasks within the probe focus the users' attention and record their everyday lives in their social, aesthetic and cultural environment. It documents the needs, feelings, values and attitudes of the participants responding to the probe research. Thirdly, probes have an exploratory character as they explore new opportunities rather than solve problems already recognised. The mentioned characteristic relates the probes to the "wicked" design problems) and designing of concepts, often with an experimental goal. Probes are used to support both the designers and the users in their interpretations and outlet for creativity. They are used to ask questions and definitions from the users to experiment and express and their experiences related to the research subject (Mattelmäki 2006, 40).

To map the current situation a probe was created to gather information about the Polar Ignite users opinions, feelings, expectations and motivational factors about the product itself. The probe was implemented as a diary-type self-documentation. The probe was conducted over a two-week period. The student conducting the study provided the participants with material in digital format. In addition, users were asked for images related to the use and training situations of the product in order to capture the context of use and the characteristics of the capture and the context of use.



Picture 3. Diary-type probe used in the study

Main findings from the probe

The probe study was conducted in March-April 2020. The prospect participants were recruited from the survey that was done earlier. Launch of the probe was done using Mailchimp e-mail marketing platform. As the survey was launched in international Facebook groups the recruited potential participants were also from around the world. As seen in Figure 6 below. Unfortunately, the global Covid-19 pandemic affected most of the world just as the probe was launched. It is likely that this affected also the amount of participants to the probe. Three people proceeded to participate in the study, one male from the Canada and one female from Finland. The third participant was also male and from US but did not answer most of the questions of the probe and thus the answers did not support the study.

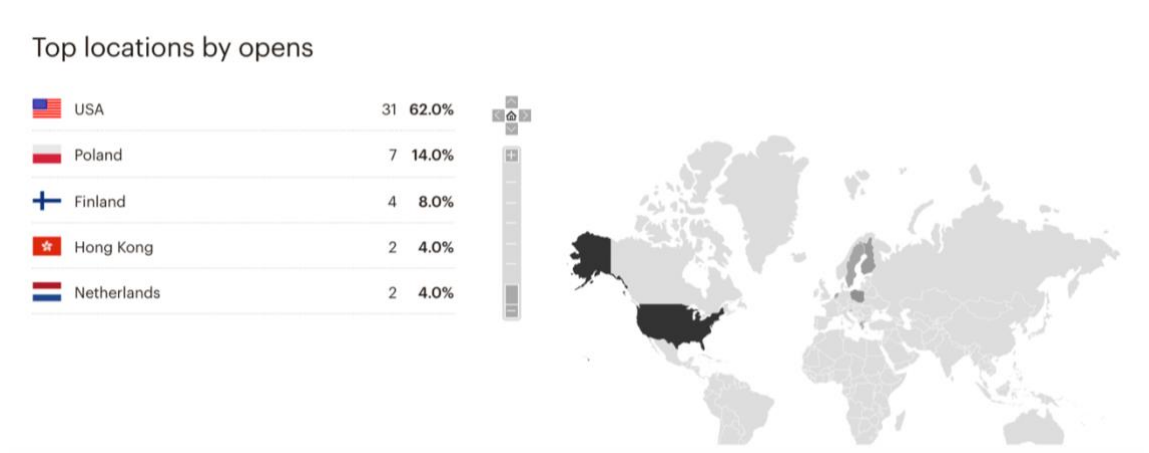


Figure 16: Top locations by opens

Connecting factors

The connecting factors of participants were that they were all interested of their personal health and maintaining it. The focus for them was health in general: including rest and sleep and monitoring it.

"I am interested in staying healthy and helping others do the same. I want to stay vital and healthy to keep up with my young daughters." (Male 47)

"Interested in good life in general, eating well and exercising enough, becoming a better person" (Female 33)

Challenges

Problems in using the Polar Ignite were mostly related to the sensitivity of the touch screen and the discomfort of the silicone wrist band. Especially the silicone wristband and the irritation it causes to some users skin is a re-occurring topic in the Polar Ignite Facebook groups discussion as well.

"I found it a bit hard to get the lights back on the watch - once I managed to stop the exercise while just trying to check the screen." (Female 33)

"However, I struggled with getting the lights on to the screen just to check the time." (Female 33)

"The wristband got really itchy on my skin at some point, I had to take the watch off!" (Female 33)



Picture 4. Polar Ignite with a non-brand textile band (Pirita Tiitto)

"I needed to lick my finger to make the touchscreen work" (Male 47)

"Turning my wrist to see the time rarely works to turn on display" (Male 47)

Most valuable functions and features

The participants felt that the Polar Ignite serves well in fitness tracking. The touch screen in general was perceived as a good feature as well as functions related to well-being.

"Expected good fitness tracking and it has been great for that." (Male 47)

"I like the appearance of the Ignite overall. The band is comfortable." (Male 47)

"Touchscreen. Yes, it certainly helps using the watch." (Female 33)

I love the notifications from my phone, heart rate zones during training, and sleep tracking. (Male 47)

Wishes for developing Polar Ignite Further

Increased customizability and stimuli for its users as well as using the device to measure distance indoors with a way finding solution were wished improvements.

"I wish the device would "talk" to me more! I always seem to forget it's there." (Female 33)

"I also wish there were more watch face options." (Male 47)

"I would like to see the GPS be more accurate." (Male 47)

Would like to see it have better accuracy and work indoors for indoor track running.

Heart rate monitoring is a must, but it would be nice if it didn't have to be so tight and above the wrist to get a reading. Is there any way someone could put some sensors into the watch strap itself? (Male 47)

About Flow application/ ecosystem

The Polar Flow obviously takes some time to get acquainted with. This came through from the probe commentary as well. Other feedback from the Flow ecosystem mentioned that the user interface was different depending on which device it was used in. This caused confusion.

"I learned I either cannot use this device / ecosystem or it's simply not working very well..."
(Female 33)

"It may not be the most pleasing to the eye, but it is functional and user friendly. I like the variety of graphs and visuals to see trends. The Feed can be a bit cluttered." (Male 47)

I like the Polar Flow as there is a lot of useful data. I do find it a bit annoying that there are different things on the watch itself, the app, and the desktop version (Male 47)

Other considerations

"I don't remember any specific struggles, but the manual was very helpful." (Male 47)

This may indicate, that the Polar Ignite is not very intuitive in use. This finding is backed up with the findings from Facebook groups of Ignite users, as there are often questions on how to take certain functions in use.

3.4 Interviews

An interview is a pre-planned interactive discussion situation that allows the usability study can primarily collect information on user attitudes; and experiences, not so much the actual usability problems. Interviews can be divide into forms, thematic and open interviews that can be conducted on an individual, as pair or group interviews. These many types of interviews and implementation methods added the fact that the interview can also be combined with other research methods, enable the versatility of interviews to be used in research. As a research method, the interview naturally involves both strengths and challenges. The strengths of the interview include, for example, flexibility and direct interaction with the interviewee. The challenges of the success of the interview situation are related to for example, interviewer skills and interview questions. The implementation of the interview is a step-by-step process in which enough time must be set aside (Ovaska, Aula, Majaranta 2005, 37)

An open interview is the most free of all interview types. It uses open-ended questions where the answer options have not been pre-formulated. An open interview is a discussion situation with a specific subject. You can go deep into the subject.

The interviewer has the opportunity to ask new questions based on the interviewee's answers. (Ovaska, Aula, Majaranta 2005, 38)

According to Hirsjärvi and Hurme (2001), the most important interview method is a form interview. In this type of interview, the interview proceeds according to the form according to a fully pre-defined according to the questions raised. The method differs from the survey only in that the interviewer put the pre-planned questions orally to the interviewee and record his or her comments their answers to the form, while in the questionnaire the questions are asked on a paper form, in which the defendant records his answer (Ovaska, Aula, Majaranta 2005, 39)

Between a fully harmonized form interview and a free-form open-ended interview the format is geared towards a thematic interview. The thematic interview proceeds with pre-conceived thematic but there is also room for maneuver in interview situations (Hirsjärvi & Hurme 2001, 21). It is the pre-planned themes that distinguish the thematic interview from the open-ended interview. The interview form can be a semi-structured one, if the interviewer can decide in what order and in what wording he will advance planned questions ask (Ovaska, Aula, Majaranta 2005, 39)

In this thesis study interviews were used to provide insight to the Polar company product development process from the viewpoint of the employee. This was needed since studying only from the viewpoint the customer or the end user of the product does not give any information or gives just guesses on how the product development process is organized within the company and thus does not provide answers to the question “What are the actions needed for an organisation to implement a customer-centric approach to product development?”.

Interview findings

Interviews were held during August and September of 2020. The total amount of interviewees was four and three interviews were held. This was due to one of the interviews held being a group interview with two participants and the interviewer. Participants represented product design, development and customer experience specialists. The interviews were approximately one hour in length. Interview script with questions can be found from attachment 5.

Penetration of customer centricity throughout the organisation

The commissioning company Polar Electro mentioned in e-mail correspondence in February of 2020 that they utilize customer driven development. The term was unknown for one interviewee, two were familiar with it and one recognized it from internal company information. This may indicate that customer centricity has not penetrated throughout the organisation.

Utilising customer insights and information

In discussions it was also noted that Polar gathers a considerable amount of data of their customers but there was some confusion around the topic of utilising the information and the interviewees felt that customer information could be utilised further to serve needs of product and service development. It was also pointed out that working with market research and analysis could be done in a more consistent and transparent way.

Responding to competition

When discussing about how the design and development process of a new product begins and what is the starting point, it was mentioned that it is often a need to answer competition, for example by bringing a similar product to the market that one of Polar competitors.

Utilising service design methodology and tools

Based on the interviews service design is somewhat familiar throughout the organisation and its customer-orientated approaches have been expanding within the organisation. This has created a need for managing customer experience more evident. It was also mentioned that the focus of customer experience and use of service design was mostly done in the start of a product development process.

Interview conclusion

Polar does not yet have a full customer-oriented development model, but partly product development is still product-driven. This is made possible by a large user pool as well as committed customers. According to the interviewees, customer orientation could be used even more as a starting point for development work. Polar would benefit from an even more systematic model for gathering customer information and experiences. Currently, practices vary. Customer knowledge should be approached even more by asking questions: what qualities do customers need?, what are the customer's views?. An additional benefit may also arise from the fact that when more data collection would be done, also focusing on the beginning of the customer journey and what happens before purchasing the product.

3.5 Affinity Diagram

The affinity diagram is a visual map of the core problems observed in the research and empathy phases. An affinity diagram helps to synthesise large amounts of data by finding relationships between ideas. Affinity diagram is a tool for structuring information that needs to be aggregated into several different types of sources. These can be, for example, findings from ethnographic research, brainstorming ideas, views as well as design challenges. An affinity chart can be used to structure and group information and its use can be very important to the success of a research that brings it together and creates a common understanding on the merits of the essence. (Tiitto 2019)

In an affinity diagram (as seen in Figure 17) information is gradually structured from the bottom up into meaningful groups. It forms a clear viewpoint to the start of an analysis and enables decision making. Affinity diagrams can be used to draw out and organise common themes from large amount of information or research data. They can also assist in discovering previously unseen connection between various ideas or information and in brainstorming root causes and solutions to a problem. (Luoju 2019, 8)

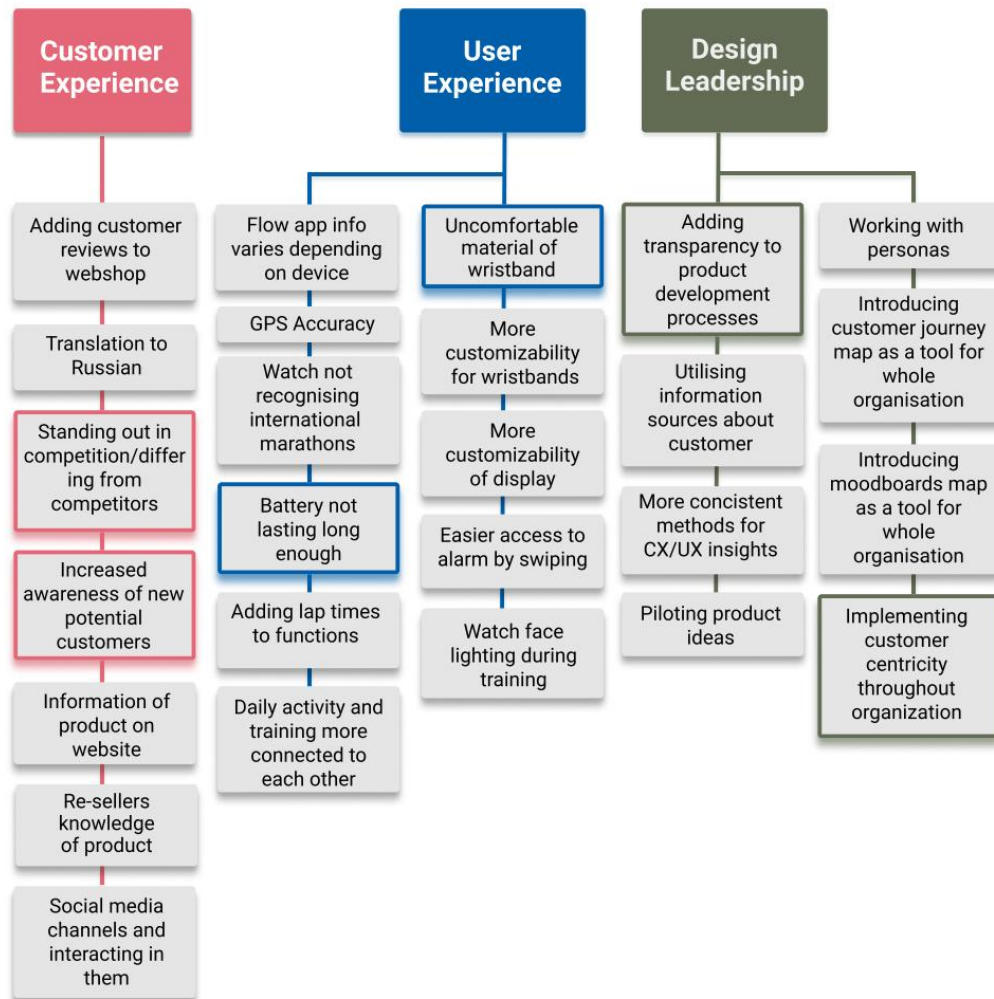


Figure 17: Affinity diagram

3.6 Customer Journey Map

A customer journey describes how the customer perceives the service and its touchpoints. It also includes the events leading to using the service and what happens and is felt after it. The first stage of customer journey mapping is to decide what is the first and last touchpoints of the service. In a customer journey map, the service is represented in a visual way and it is studied by various tools. (Miettinen 2016, 10) In this development assignment the customer journey, as seen in Figure 17, is described from the point of getting an idea to purchase a fitness watch to the point where they could be a loyal customer. This was done to create understanding why individuals become Polar customers and what are the experiences occurring to enable this.

Journey maps are tools for synthesizing and analysing. Journey maps that are often called also customer journey maps or experience maps are among the prominent service design tools. This is due to the fact that they cater to the time-based and experiential nature of service design. Designing services need to take into account sequential actions and the creation of narratives over time. A journey map is a visual timeline that graphically

documents a set of service engagements and interactions. It shows multiple touchpoints and channels throughout the customers experience of the service. A journey map captures the user's whole route through the service and is essentially a highly user-centered tool. The point of view is always that of users— what they see, feel, and experience. The journey map aims to describe motivations and causal effects behind people's actions. It can be used both as a research tool, to visualise existing services, or as an ideation tool to help generate new service sequences and features. (Penin 2018, 216). In addition to this a journey map can be used as an informative tool in organisations to tell employees and stakeholders about the company's customers and how they perceive their offering.

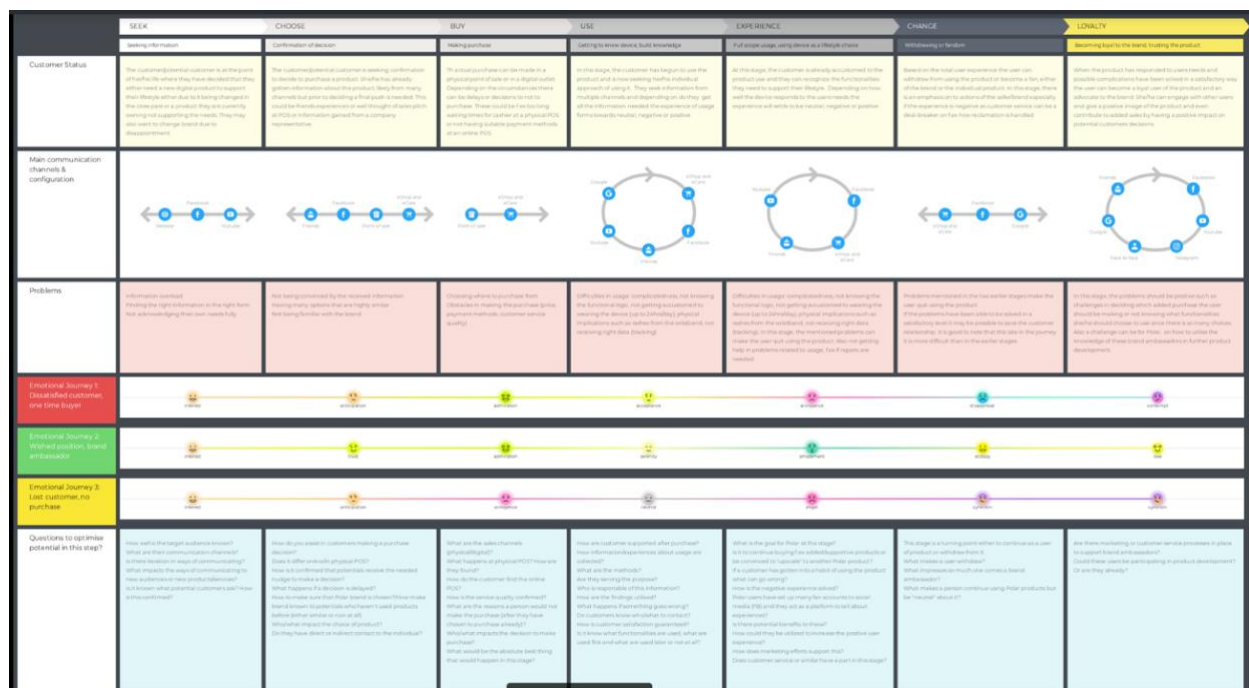


Figure 18. Customer Journey Map of a Polar Ignite sports watch user

In this development assignment the customer journey in Figure 10 was described in detail in a journey map utilizing colors, icons and text. The stages in the journey are seek, choose, buy, use, experience, change and loyalty. In the seek stage the potential customer of Polar Ignite fitness watch is looking for information based on which a decision to purchase could be made. In the choose stage the customer makes the decision to purchase the product and thus may proceed to the buy stage. In the use stage the customer starts to use the product and after learning to use it, proceeds to the experience stage where they are so familiar with the product that fully experiencing the product and its possibilities is evident. The change stage is a vital possible turning point in the journey as in this stage the customer can also choose to turn to another product. If this is not done a loyalty change begins

Customer status describes in detail the stage where the customer and later in the journey, user is

Main communication channels describe how the customer communicates about the product and/or Polar as a company

Problems describe the challenges that the customer may experience during the journey

Emotional Journeys the journey map feature three different types of customers

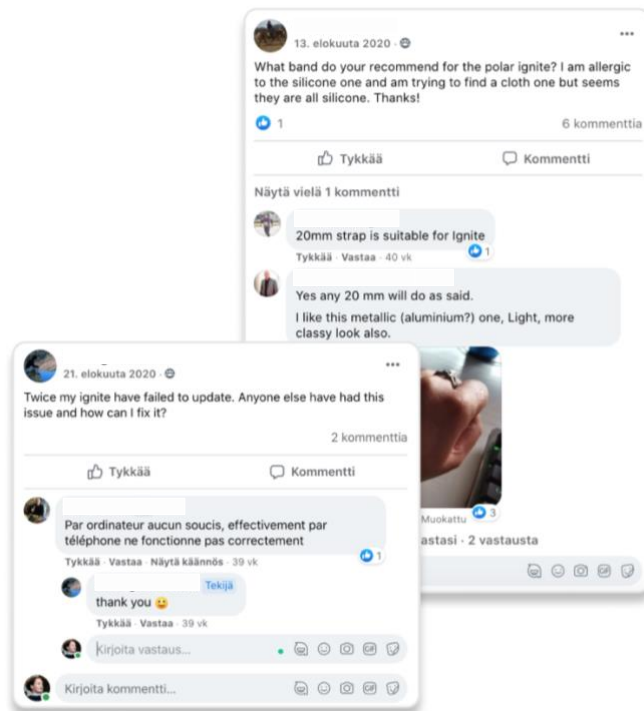
- Dissatisfied buyer
- Brand Ambassador
- Lost customer, no purchase

This was done to describe the journeys and how they differ depending on how satisfied the customer is. The emotions are visualized with icons so satisfaction or dissatisfaction can be clearly seen from the journey map.

Questions to optimize potential of step

This final row in the journey presents questions for each step. These are formed to optimize each step. These questions are to be considered and answered to make the customer more connected to the company and product. When this is improved the possibilities of gaining a new customer or confirming an existing customer to remain as one becomes increasingly possible.

The information for the customer journey was gathered by visiting two physical retail outlets selling Polar Ignite, browsing Polar's own web shop and Verkkokauppa.com-online retailers page and online following discussions around the product in the Facebook group "Polar Ignite Users" from January 2020 to August 2020 as seen in Figure 6.



Picture 5. Discussion on Polar Ignite Facebook group

3.7 Personas

Personas are commonly used in service design and user experience design processes to deliver information and insights and information to designers of potential users and customers of a service. It is vital to identify the different types of customers (Cattaneo Terzi 2019, 71). Personas are a way to describe a job the user wants to get done were popularised by Alan Cooper in 2004.

Personas are a tool to explain and clarify what users wish to accomplish. Initially, they were a way for designers to ensure services were being developed in ways that would deliver meaningful experiences for their users. Personas are a useful concept in gaining understanding the user and customer in a deep, profound manner and they can be utilised in engaging them. Personas should also deliver information for selling and marketing the service thus impacting all of the steps within a customer journey. This means that instead of just superficially looking at how customers use a product and then treating marketing and sales as challenges of distribution services being designed should be considered as something inspiring and purpose serving for customers to buy and use. This can be attained by identifying who wants to buy the service or product, who is going to use it and how what are their behavioral drivers are and what are their goals and desires. Personas do not need to represent real users but can be. More accurately be described as archetypes of actual, existing users. This said, it is not appropriate to use real persons to mark an entire group of real users. It has to be kept in mind, that created persona has to be also representative of other users as well. (Friis, Soegaard 2014, 2039)

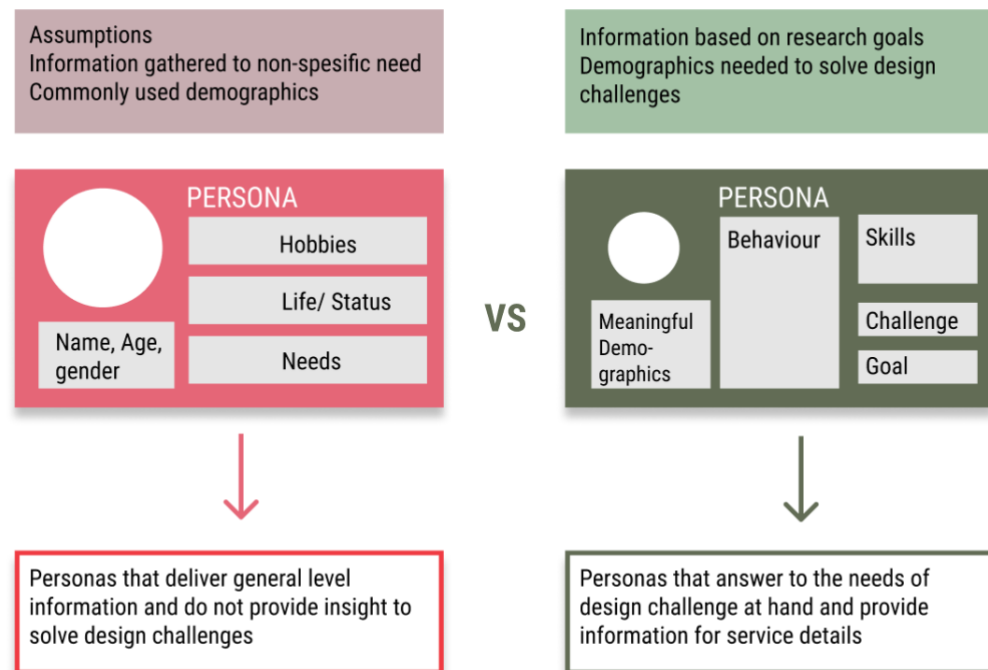


Figure 19. Comparison of a generic and need based persona

The benefit of using stereotypical characteristics is that the sketch can be already accessible to others. When using features and characteristics, the main goal is to be as accurate as possible and the personas need to be recognizable when coming across them during the design process. The benefit of using detailed descriptions of users is that they provide also exact information on product or service features that need to be implemented in the design. In comparison to more general descriptions are highly likely to cause broader feature lists and provide less understanding of must-have features (Cooper, Vlaskovits 2013, 71). Personas are often used as an appealing way to describe obvious data or demographics that are collected through research but not considered from the perspective of the particular design process. As seen in Figure 18 personas that are generic and created without considering what needs they should serve within the design process, are not serving the purpose of solving design challenges and do not provide needed insight for the service being created. Often demographics such as a person's age, income and marital status are displayed as a part of a persona (Revella 2015, 10). These details are not always needed and when using them in the creation of a persona, they should be observed critically and considered do they have meaning, for example, in the way a person uses a service. If these characteristics are irrelevant, or even misleading they should not be used.

As it challenging and difficult to determine what information within a persona is vital for the design, the creation of personas should not be automatically done at the beginning of the process but at a point in time when enough understanding of the challenge at hand has been established. The main goal of creating personas should always be to guide the design process towards success.

In this development study personas were created as an example of permanent personas that could be utilised in the product design process by bringing information of the users to the employees in a simplified, graphic and inspirational way. Utilising the information gathered during the study.

"80-90 % of projects do not need personas" (Jared Spool recording of the webinar "Why personas are the wrong way to start")

In the interviews with the Polar employees was mentioned that currently personas are re-created every time a new product design process starts. On the other hand there was discussion that Polar focuses currently most of its efforts to existing Polar customers and less effort on prospect customers. When a company has a steady customer base it can be assumed that some of the customers are the same or very similar. This would lessen the need for creating new personas to all new projects. The personas created (seen in Figures 10 and 11) represent two main personas and the thought behind them is that the two would remain as base for informing about Polar user personas. The personas represent Polar sports and fitness watch users both existing and potential new customers. In addition to these two main personas, new personas would be created when the design process of a new Polar product begins. Also, these two main personas should be revised based on information gathered by, for example, user research, benchmarking and if the Polar product range would drastically change.

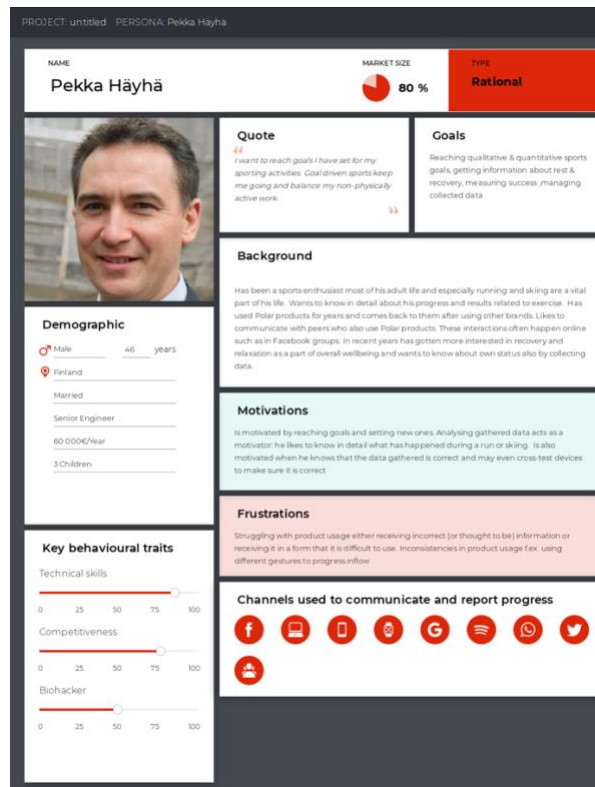


Figure 20: Polar Ignite user persona 1

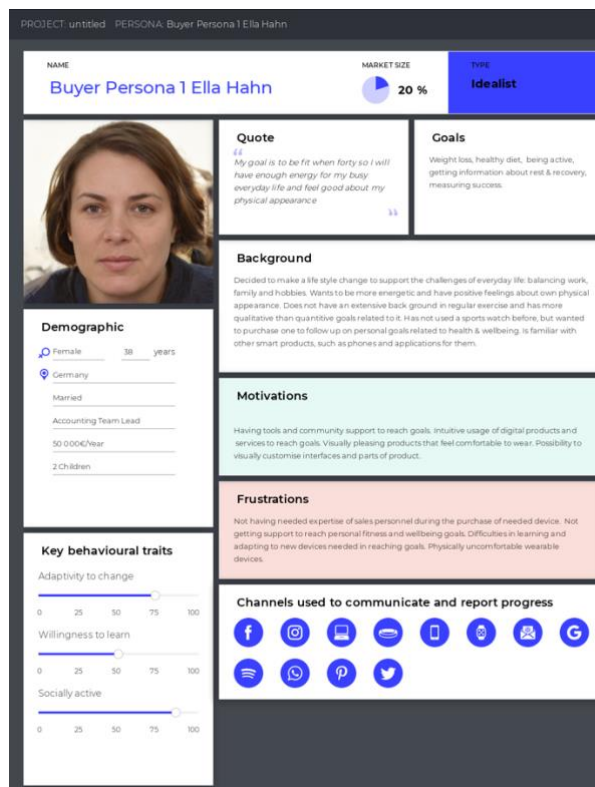


Figure 21: Polar Ignite user persona

4 Development

4.1 SWOT

SWOT analysis is an acronym of the terms Strengths, Weaknesses, Opportunities and Threats. The analysis model is used to allow organisations, such as businesses, public organisations or associations to rapidly identify both their internal factors linked to internal functioning and factors external in nature that depend on the environment in which it is evolving. The SWOT analysis model is used as a base for decision-making and for facilitating the development of strategic plans and efforts. It is widely used due to it being a simple, yet powerful tool. As well as being easy to use due to its simplicity, it also gathers results that can be easily communicated to the needed audiences (Probert 2015, 4).

Critical key terms related to the SWOT analysis are:

External Factor: an element linked to the organisations operating environment which cannot be influenced from within

Internal Factor: an element that can be influenced by or within the organisation in question (Probert 2015, 4)

Strengths: factors internal in nature that reinforce the competitive position of the company. Strengths are elements of an organisation that influence its development. Generally, strengths are considered to be highly meaningful as they do not characterise the competition. (Probert 2015, 7).

Weaknesses: factors that are internal and weaken the competitive position of an organisation. They are also connected to the internal functioning of the organisation, Weaknesses tend to have a negative impact on organisations internal development. The capability to clearly identify and document internal weaknesses within an organisation is significantly important as it allows for the improvement of relevant issues and tackling difficulties and create possibilities to re-orientate work in order to make the organisation less vulnerable (Probert 2015, 7)

Opportunities: factor external in nature that pose the possibility for a positive impact on the competitive position of an organisation. Options depend on what is available external to the environment of the organisation: factors that can be exploited to improve progression and competitive position. Once opportunities and prospects are discovered, they can become factors that positively influence the development factors of an organisation (Probert 2015, 7).

Threats: factors that are external to the organisation and will influence negatively to the competitive position (Probert, 2015, 4). Threats are needed to be detected and identified in time to be reduced. They are a result of external traditions or behavioral pattern in their impact to an organisation (Probert 2015, 7)

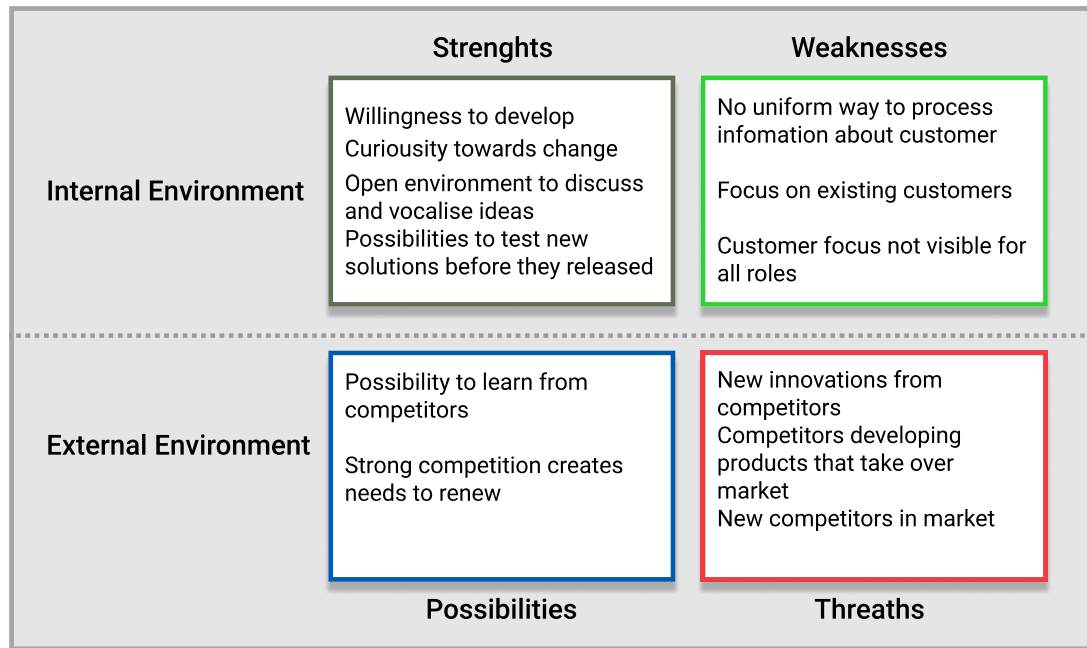


Figure 22: SWOT analysis of Polar product development

The SWOT analysis of Polar product development can be seen in Figure 21. The main source for gathering information was four interviews with five participants held in August 2020 with Polar employees. These employees were representing roles closely involved with product development. In the section for external environment topics brought to the analysis were based on studying competitors and their offerings in the market.

Based on interviews with employees the internal environment seems to be open to change and also a forum for representing new ideas. This can be seen, for example, in possibilities to develop ideas further in the form of prototypes, without the main focus being creating a new product to the market.

The internal weaknesses described were that processes were experienced to focus on existing customer which means also that the possibilities to discover new customer types or groups are left un-utilised. Also, it was told that there are many ways used to this day to gather information and data about customers but it is not used in a cohesive manner. Bringing the customer and their needs was also experienced to be something that was not visible or common practice in some roles which would likely benefit from it.

The external environment of Polar Electronics is a highly competitive one, with many companies producing similar products to the market. This creates possibilities to learn from competitors but on the other hand requires benchmarking to be done in a constructed way as part of regular business development processes. As the external environment is competitive it creates a positive push to renew and remain active in the field of product development.

The threats proposed was that competitors may develop new innovations and thus take over the market. This also drives product development at Polar to focus in keeping up with the competition by producing similar products to keep up with the competition. This may work against success, since there is also possibilities that competitors have made choices in their product innovations that are not successful or serving the market needs. Possibilities also exist where a competitor takes over the market, grasping the market share that Polar works on.

4.2 Benchmarking

It is common for companies and organisations to develop an inward focusing mindset. This can be heard through commentary such as “we have always done it this way”. The challenge of this mindset is that it lessens the focus on constant improvement and thus is also potentially lessening the possibilities of new or improving possibilities to succeed.

Benchmarking is a technique to compare an organisation against other organisations and identify opportunities and methods to improve (npd solutions 2019). The main point in benchmarking is the continuous process of comparing a company’s strategies, products, front and backstage processes with those of the best and most successful in the industry or in areas suitable for comparing. The goal of it is to learn from the best and avoiding a situation where there is need to “reinvent the wheel”(Cotîrlea, Dragolea, Cotîrlea 2009, 813).

In the publication by Curedale (2013, 48-49), it is described that benchmarking is a method for organizations. It is used to analyse their products, services or customer experiences and compare them to other industry products, services, skills and general offering to identify best practices and possible development points in the organisations own processes and results caused by them. It is said that it is fruitful to identify, build and create standards of best practises and of operational excellence. Secondly, as benchmarking is a structured process during which best practices, methods and procedures are sought. The first gain from a benchmarking process for a company or organisation is to adopt the positive findings of it. (Tiitto 2020, 49).

In Figure 22 the Benchmarking process of Xerox is presented. It is a manifestation of the companys benchmarking process which was a part of the company’s quality program This initiative played a vital role in pulling Xerox out of trouble in the 1980’s. By utilising the program the company managed to become one of the best examples of the successful implementation of benchmarking (Cotîrlea, Dragolea, 2009, 820). The figure consists of four stages planning, analysis, developing and action. The arrows represent the re-occurring nature of benchmarking as it is not an one-time event but one that needs to be repeated in planned according to the market and company needs.

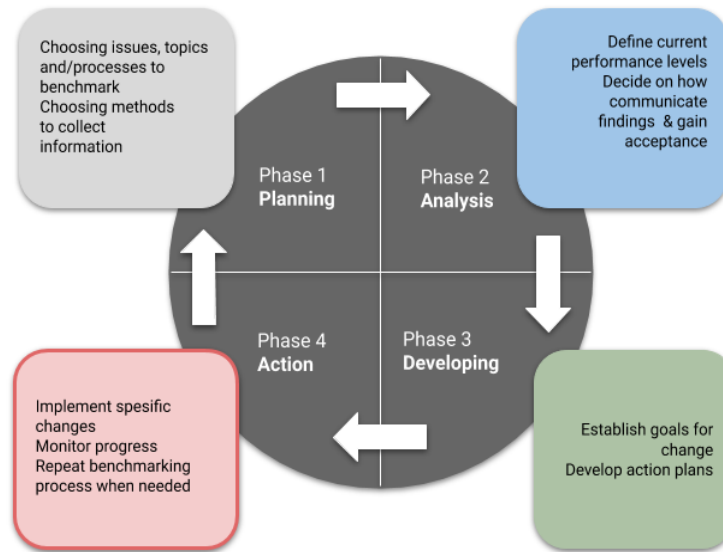


Figure 23: The Xerox Benchmarking Process

In this development study benchmarking was done by comparing Polar Electro to two of its competitors: Garmin and Suunto. Material for benchmarking was collected online, from company websites, social media channels, industry review site and from rating in AppStore. The topics chosen to be compared were:

- Value proposition
- Channels for customer insights and collaboration
- Technologies and innovations
- Market satisfaction

In addition the benchmarking canvas (Figure 23) has a section for considerations in which topics or ways of working represent a possible unique competitive edge.

From the benchmarking comparison it can be seen that the value propositions of the competitors are fairly similar, especially between Polar and Garmin and Suunto focusing more on practicality. For communication channels it could be concluded that Garmin and Suunto may be more active in interacting with their customers online as Garmin states that they integrate social media in their product design and Suunto even having Movesense, an open wearable tech platform. Related to communication channels, in Picture 10, there is a comparison of the companies front-pages. They are very similar. This may be confusing for a customer since by their online presence the competing companies are difficult to separate from each other.

For technologies and innovations each of the compared companies has a unique starting point but only Garmin having integrated Spotify in their comparable device. Market satisfaction for applications is on the same level, with Suunto leading. For considerations Polar has 10% of sales directed to research which may provide a lead in competition if it is directed correctly. On the other hand Suunto has a variation strategy which enables changing

the appearance of the watch by changing for example wrist bands and watch display that has possibilities to increase sales through add on sales.

Benchmarking			
	Polar	Garmin	Suunto
Value proposition	Enabling people with the best solution to achieve their well-being, sports, and performance goals.	To make products that are engineered on the inside for life on the outside. We do this so our customers can make the most of the time they spend pursuing their passions.	Suunto products are not only extremely durable, but also represent a practical, beautiful Nordic style in their design
Channels for customer insights and collaboration	Polar research center Polar ambassadors Official FB site	Integrates social media and product design, Garmin Forum on webpage	Active official FB site Suunto Community forum on webpage Movesense, open wearable tech platform
Technologies and innovations	First wireless heart rate monitor Accelerometer for measuring activity	Specialisation in GPS technology Integrated Spotify in some watches	First diving compass in market
Market satisfaction	Polar Flow app 4.3 in AppStore Ignite 4/5 Techradar review	Garmin Connect app 3.6 in AppStore Vivoactive 3 4/5 Techradar review	Suunto 7 app 4.4 in AppStore Ambit 3 run 3.5/5 Techradar review
Considerations	Polar spends 10% of its sales on research. Mostly research and development is done in a research center located in Oulu, Finland	Vertical integration business model: all design, manufacturing, marketing and warehousing are in-house, ensuring effective management of schedules, quality and service	Variation strategy enabling changing a single product to suit different occasions

Figure 24: Benchmarking canvas

4.3 Development suggestions

This subtitle presents the development suggestions based on the knowledge gained during this development study. The suggestions are all of topics that are useful in a larger scale, not just at Polar Electro. This is due to the fact that many companies would benefit from increasing customer centricity in developing their offering and all of the development suggestions all have a touch point to the topic. This said, the uncertainty in the suggestions chosen to be introduced is that the knowledge of Polar Electro's internal processes is limited in this study.

This can also serve the benefit of utilising the suggestions in a wider scale since the emphasis is more on findings and conclusions concerning the status of customer centricity utilised in today's business ventures.

Benchmarking and market analysis as a guarantee for success

Benchmark studies are used when compared organisational practices against the best within the industry. Based on the studies made for this thesis, Polar focuses its benchmarking efforts mostly on product features but much less on processes how competitors develop their products. These internal processes are partially considered as trade secrets but there still is a good amount of information available concerning it. For example, during a small-scale benchmarking as a part of this development assignment it was found out that Garmin, a main competitor, already utilizes social media as part of their innovation processes.

Market analysis is a practice of researching customers in order to determine the products and services that they need or want as well as the factors that influence their decisions: such as why they make the purchase but also the competitors existing in the market. It includes some of the same characteristics as benchmarking but is more customer centric in nature. In the interviews it was pointed out that *"Acquisition of information should be more systematic than at present: eg market review/ analysis every two years to ensure that the information available to customers is up-to-date and corresponds to the correct market situation. Focus would also be on mapping information acquisition from potential customers"*. Contrary to what is mentioned in the previous comment the suggestion is to do benchmarking and market analysis yearly. This is due to the fact that the industry where Polar Electro focuses on is very rapidly evolving and new products or even competitors are created at a fast phase.

The benefits of benchmarking and market analysis is that the company will get more specific and in-depths information about their competitors as well as their customers and their needs and experiences

Increased customer involvement in the product development processes

In her pro gradu study for University of Lapland Ella Murtomäki tells at page 56 that several Polar employees interviewed in 2018 hoped that customers could be more included in the product development process and also wished that the involvement would happen throughout the design and development project. The aim of this is to share insights, opinion and findings as well as test the product early, during the process, not just at the end of the cycle. Similar opinions were vocalized in this development study as well when, for example an interviewee told that a *"deeper understanding of the user could be helpful"* and *"Product development should move even more in a customer-oriented direction"* when the product development process was discussed.

Currently Polar utilizes their Ambassadors, who are professional athletes who use Polar products and share their experiences of using the products, they collect data of customers in the start of a design process and sometimes cooperate with externals, such as companies and universities (such as Laurea university of applied sciences) in collecting customer and user data and insights. These can be done in the form of workshops and interviews. The focus of this is more in the beginning of the design process and based on the interviews of this study the research is directed more on individuals who already are Polar products users.

Increased participation in Polar design and innovation process as well as in testing the product prototypes would increase the possibilities of products being the best possible when they are launched to the market. This would decrease the need of bringing multiple versions of the same product to the market at a fast phase and also the amount of work after launch as more issues would have been fixed before the product is sold. The mentioned would also improve customer satisfaction and enable possibilities of finding new customer groups to focus on.

Utilizing social media in gathering customer insights and innovation

Ram and Liu discuss in their journal article “Social media driven innovations” in 2018 that Mount and Martinez found out that social media can be an effective tool for open innovation. This conclusion was made based on observing three companies that were able to drive their innovations by engaging with customers both current and prospects. Polar products have multiple active Facebook groups where the users discuss and share their experiences of the products they are using. Based on the discussion with a Polar employee these groups are not utilised consistently thus their full potential is not utilized. During benchmarking it was found out that a main competitor, Garmin already states that they use the potential of their social media channels as a part of their product design and development process. This serves as proof that to keep up with competition this should be done.

Utilizing social media more is also part of increased customer centricity in companys processes as it is going to where the customers already are. This means that the interaction would not be forced but more natural. It is also considerably more cost-effective than, for example, organising multiple interviews and workshops. The mentioned of course serve their purpose but communicating through various channels that the current customers and potentials already use creates increased possibilities for gathering information.

Extended use of personas and customer journey maps

Personas and customer journey maps are an informative way of presenting customer information that is not currently used at their full potential at Polar Electro base on the insights gathered during the interviews for this development assignment.

Personas are a way to humanize and simplify data. Through them it is easier to gain understanding of the divers types of target audiences of a product or service and also reference to the employees or stakeholders when examining which features are useful and which could be improved (Jansen 2019). In the interviews it was commented that *“They allow you to democratically communicate customer needs throughout the organization”*. Many of the characteristics remain in the customer journey maps as well: they make the customer experience more tangible and thus easier to comprehend. The need to utilize personas and customer journey maps further was evident based on the interviews with Polar employees as it came through form comments such as *“Communication from the customer's point of view, in which case the product's features can be created to meet real customer needs and not so that users can be found for the product, for example through marketing measures.”* and *“If it is related to customer information then some kind of consistent ways of presenting it (would be needed).”*

The extended use of personas and customer journey maps would make it easier to share information about customers within the company and enable deeper customer understanding through the employees. Currently at Polar, based on the interviews, new personas are created for each new product. Concerning this study it was not clarified why this is done as it requires a vast amount of research effort. As part of this development suggestion the creations of personas should be discussed. It can be more efficient to develop main personas for Polar product groups. These personas should be revised based on research more general in nature. In the interviews it was suggested that consistent market research should be done. This research would serve the need of persona updates and creation of sub-personas that would focus more on new product being developed.

Improvements to Polar Ignite device

This development study included netnographic research within Polar user groups in social media. Many of the posts in these groups were about wished improvements, product malfunctions, asking for advice on how the product works. The most common problem was the wrist band and the same problem also was brought up in the probe study. The silicone band causes irritation and rashes to some users and during the study it was mentioned in the Facebook Polar Ignite users group that many had ordered a non-brand wrist band from Ebay. Currently Polar sells textile bands for the Ignite, but it is only available in pink and turquoise. They also include rubber that is an common allergen. Even the users who did not suffer from irritation due to the silicone band wished for a wider selection of colours and materials for

the wrist bands. Adding more wristbands to the range would enable increased customizability for the product and increase satisfaction towards the product but offer add-on sales possibilities for Polar.

Second often mentioned challenge was the durability of the battery. Users reported that the battery ran out suddenly and this caused loss of data. As the device is intended to be used around the clock to monitor its user a good battery life is required. Also, when there is less needs to load the battery comfort of using the product increases.

The third improvement is also about customizability. When the study was made the Polar Ignite only offered one option for the watch display. When familiarizing with similar products there is often a possibility to choose from many display options with different fonts and colours. Adding a feature of various display options to choose from would offer the customer a possibility to customize the product to their own particular needs and thus connect more to the Polar brand

4.4 Roadmap to implement customer centricity

For the past twenty years many companies have been trying to adopt customer centricity as a part of their operations. The Chief Marketing Officer (CMO) Council has investigated and found out that only fourteen percent of marketers say that customer centricity is endorsed within their companies and only eleven percent of customers agree that companies are customer centric. There are many reasons for this result but volume, velocity of customer data can be overwhelming and complicate decision making. It may be assumed that not all companies have the systems and technology to segment and profile customers. On the other hand, some lack the operational capabilities and the processes to target their customer base with personalized experiences and communication. (Yohn 2018) Based on the previously mentioned, as part of this development study the need for creating an approach for companies to take ownership and enable customer centricity as part of their processes arose. The idea for the approach model is represented in the form of an fake add in Figure 25. The approach includes the thought that it has to be a facilitated process led by an internal or an external neutral professional and that to guarantee success all representatives of stakeholders in the product or service development process within the organisation need to be included in it.



Figure 25: Fake advertisement

The roadmap for implementing customer centricity is an approach to tackle organizational challenges of the process. These challenges are identified to be:

1. Starting the process of shifting to customer centricity
2. Identifying the maturity level to implement customer centricity
3. Determining the actions and responsibilities needed to implement customer centricity

Starting the process of shifting to customer centricity

The process of changing an organisations entire mindset and core of operations, example from product centricity to customer centricity, is always considerably demanding. When this is done the first action is to start the process. Starting and communicating the start is the first step in adapting to customer centricity. This phase includes:

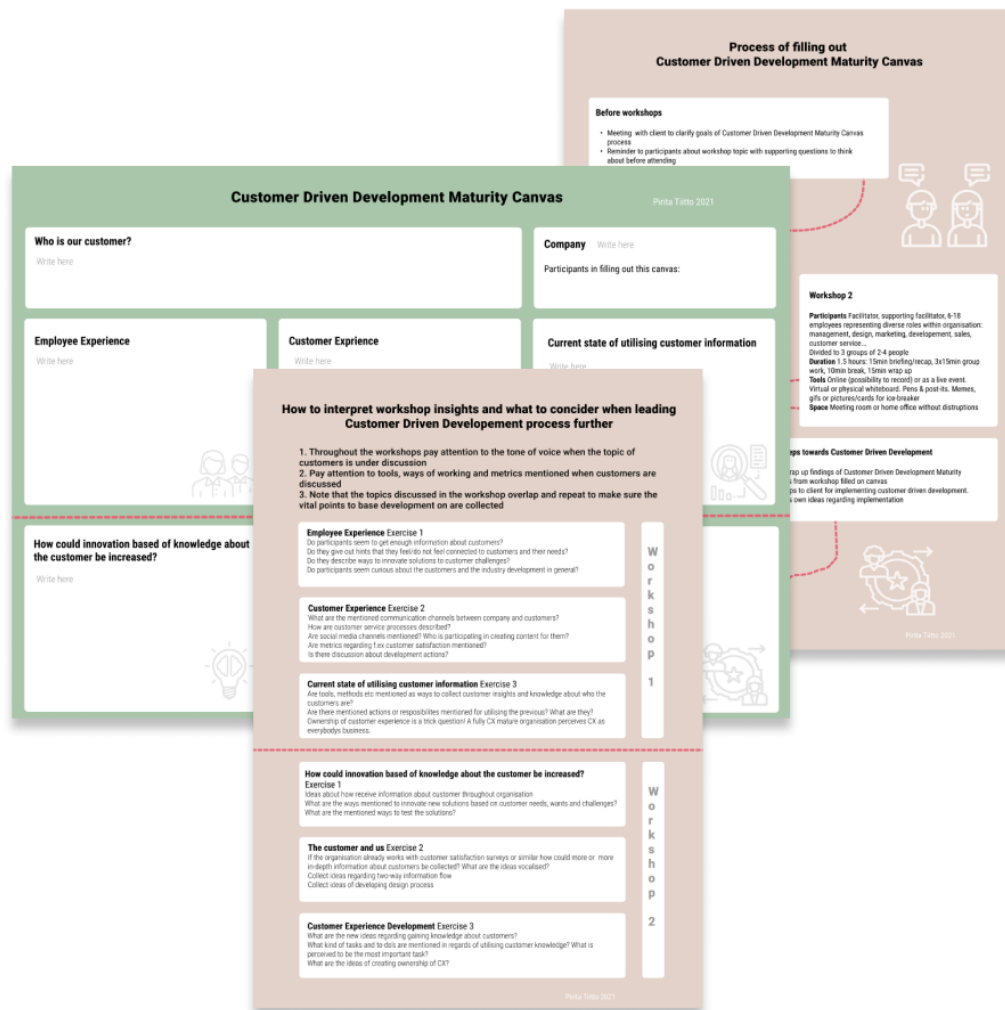
- Meeting with client to clarify goals of Customer Driven Development Maturity Canvas process
- Reminder to participants about workshop topic with supporting questions to think about before attending
- Sending out questionnaire about status of customer experience within organisation

Identifying the maturity level to implement customer centricity

During the process of shifting an organization's focus towards customer centricity also the current maturity level has to be identified. In this suggested approach model the maturity level topic is tackled by a questionnaire mentioned in the last topic and by a facilitated workshop in two parts.

Changing the entire product development process within a company to be customer-centric is a timely process which is impacted by various factors such as the current approach of product development, size of the company and the maturity to implement a new approach or strategy within the organisation. Evolving into a customer-centric business requires a mind-set change involving the entire organisation and it can not only be limited to designers or employees interacting with customers directly. Due to the scale of the change, there is a difference in how leading towards success can be conducted. This demands a managed and structured program that takes a considerable amount of time and focuses on aligning the strategic and operational priorities. In this proposed scenario the estimate is 36 months. This time scale was chosen due to Polar Electro being a large, international company and based on the interviews with employees and the perceived maturity level based on them. As this model is intended to be used in other organisations as well the process may also be shorter or longer depending on the size and adaptability of it.

In this approach for implementing customer centricity the maturity level for it is identified through the information gathered with a survey to the organisation and insights and knowledge gained through two separate workshops. Both of these sources serve as the information pool for filling out the Customer driven development maturity canvas (as seen in Picture 11). This canvas offers a general view of the maturity level and act as a base for the actions needed in proceeding with the topic of customer centricity and benefitting from it.



Picture 6. Print outs of workshop materials

Determining the actions and responsibilities needed to implement customer centricity

As the shift of applying customer centricity is demanding and thus requires a structured approach with set responsibilities and defined actions an existing model can be utilised to guarantee the best possible outcome. Change, by definition, demands creating a completely new system, which in turn always demands leadership (Kotter 2009). In this approach, leadership happens both in individual and group level. By defining needed actions and responsibilities the vision of change becomes clearer as the actions are tangible. The model for determining actions and setting responsibilities is explained further in the next sub-header.

4.5 RACI model approach

The RACI is a project management model. It is a checklist-tools that tells you what to do, who does what, and by when. In the table, the rows indicate the tasks to be performed and the columns the persons. Without a list, it can often happen that one forgets what needs to be done and, above all, who had to do it. It is a simple matrix chart which clearly assigns roles and responsibilities of each task and sub-task on a project. The clear mapping out which roles are involved in each task and at which level eliminates confusion. Simply put, the RACI model answers to the common question “Who does what?”. If the task involves a lot of work, it makes sense to stack the tasks in a RACI table. In the RACI model R stands for responsible, A for accountable, C for consulted and I for informed. The letters in the acronym represent the differences in the levels of task responsibility (Harned 2019).

Benefits of the RACI model

The RACI model, as seen in Table 1, offers assistance in setting roles and responsibilities and communicating them in a clear form and makes it easy to affirm that, for example, many people would be working with the same task without their knowledge due not being informed about it.

Table 1: Example of RACI model Checklist

RACI model checklist to for adapting Customer Centric Development within organisation [1]	Completed?	Accountable [2]	Responsible [3]	Consulted [4]	Informed [5]
1. Consistent process for measuring customer satisfaction in place	✗				
a) Process for analysing results of customer satisfaction measurement in place	✗				
2. Reach out to customers who have been directly affected by these shortcomings	✗				
a) Send offers to unhappy customers	✗				
b) Ensure that the cause of their unhappiness is dealt with	✗				
3. Take advantage of your current points of excellence	✗				
a) Replicate your strengths across all possible areas	✗				
4. Build a customer journey map with the data you have collected	✗				
a) Decide which stages you need to include to best fit your business model	✗				
b) Use a template to build each customer journey map	✗				
5. Identify the least successful stages in your customer journey	✗				
a) Identify the things that need to change to improve the KPI's in each stage	✗				
6. Make the necessary changes to your business	✗				
7. Optimize the ROI of your customer experience strategy	✗				
a) Capture leads	✗				
b) Upsell	✗				
c) Customer contact (loyalty)	✗				

A RACI matrix also encourages team members to take liability for their work or delegate to someone else when necessary. Actually, personal judgment and politics are removed from the process and focus shifts towards the team's ability to act responsibly within a framework created. (Harned 2019)

The definitions in the RACI model checklist are:

- **Responsible:** This team member does the majority of work needed to complete the task. All tasks need at least one *Responsible* person. There is also possibility to assign more than one responsible but in the case of multiple responsible, it has to be made sure that the division of the task is clear
- **Accountable:** This team member delegates tasks. The person is answerable to reviewing the task or deliverable prior to it being deemed complete. In some tasks the responsible and accountable may be the same. In this case it has to be confirmed that only one person is accountable
- **Consulted:** Every deliverable is strengthened by reassessing and consultation from several team members. *Consulted* team members are typically the people who provide input based on either how it will impact the success of the project or their domain of expertise on the deliverable itself.
- **Informed:** These team members are needed to be kept in the knowledgeable on project progress, rather than be informed about details of each task of every deliverable. (Harned 2019)

RACI model checklist for adapting Customer Centric Development

As the process of implementing customer centricity and customer centric development in the product or service development within a company or organisation is commonly an extensively complicated one, demanding resources from many or all roles, it needs to be confirmed that the tasks and responsibilities are documented.

In this modified RACI model checklist seen in Table 2, the first column represents the three different routes needed to be taken into account when transforming into a customer centric organisation. These are employee experience, customer experience and customer research. All of the three routes mentioned should be represented in the checklist tasks. This approach is chosen due to the thought that firstly the employees of the company are the key asset to implement customer centricity within it as they will create the customer centric approach through their daily work. Secondly because customer experience should be the main focus of the tasks from the start of the process from the beginning of the project and thirdly because

without research of the customer's needs and desires customer centricity will soon be out of focus and thus tasks related to research should be a vital part of the implementation process.

The second column is for the actions that fit under each of the routes. The actions should be described clearly but shortly and in case the task needs to be completed prior to the deadline of the entirety of the project the sub-deadline should be written in the column. The column for the responsible is also defined to be for the doer, to clarify that person/person identified in this column are also the ones to actually do the majority of the work within the task.

The accountable-column is for stating the name of the person who is accountable of the task being done, but also of who will review the task during the process of it being done. The column for consulted is also described as input, meaning that the one/ones who will consult the task will also give input about it. The informed column states the persons or groups who will be informed of the task. This is not informing in a detailed level but more on the level of status or success of the task. A valuable approach towards the informed could be a newsletter for the whole personnel of the organisation describing all or most of the tasks within the entirety of the project in a general level and focusing on the benefits of the project.

The status-column describes the current state of the task is it completed "done", in progress or in the status of "not started". It is valuable to keep on top of mind that customer centricity is an approach, not a one-time project and this could be reflected in the tasks: not all tasks will be ever completed and in progress could be a permanent status. The last column is for defining commentary for the task. When filling it out it must be remembered that the column is not for constant communication but only for defining the task and mainly of the tasks status and issues effecting it.

Table 2: Example of RACI model checklist for implementing customer centricity

Roadmap to customer centric development				Timeline: 12/2021-5/2022		Company name: <i>Company X</i>	
Route	Action	Responsible/ Doer	Accountable/ Reviewer	Consulted/ Input	Informed	Status	Comments
Employee Experience	Creating a channel for presenting ideas related to solving customer challenges	Tim/ Marketing	Carla/ HR	Company internal mailing list	Company internal mailing list	Done	Mention this in investor monthly newsletter. Company mailing list for short status updates and successes
Customer Experience	Questionnaire to customers 1 month after purchasing product X	Leann/ Continous Services	User Experience Team	Development team leads, management		In Progress	Waiting for clearance from legal. Results presented in Co-worker monthlies by management team members
Customer Research	Our way of facilitating workshops tips & tricks-sheet	Tarja/ UX research team	Marketing	User Experience Team, strategists		Not started	Focus on "how to ask the right questions" Marketing can support with tools etc

5 Conclusions and reflections

The aim of this development assignment was bifold to seek out information about Polar Ignite users and their experience of using the product and secondly to find out how a company, such as Polar, could benefit from increased customer centricity in their product and service development processes and how this kind of mindset change could be implemented to the actions and ways of working within the company. Through the study understanding of the current situation of the design and development process at Polar was achieved both through the information retrieved from its employees and also through how the customer perceives the end product, such as the Polar Ignite fitness watch.

Design thinking is a way to identify people's needs and create new solutions using the tools and mindsets of design professionals. Design thinking as an approach means more than just aesthetics or the development of physical products. It is a method by which wide range of personal, social and business challenges can be addressed in creative new ways. In this development study it served as the red thread leading the work.

The method of this development used in this thesis was service design. As service design is a process where the designer and their customers aim to create sustainable solutions to tackle existing or expected challenges it was also utilised to answer the commissioner's questions in this study and also as a tool for addressing personal learning needs of the thesis writer. Personas and customer journey maps are common manifestations of service design as they are visual representations of knowledge about the customers. Both of the mentioned were done as a part of the assignment.

Employee experience was also a topic discussed in this thesis. It was a vital addition as it builds around the thought that the employees are the creators of the customer experience and how they are treated as professionals impact greatly to the products and services the company will offer.

Thesis process

The thesis development assignment followed the design thinking process model developed by IDEO. In the empathize-phase the topic of the thesis was approached by literature review and netnography. The define stage served the purpose of defining the study questions as well as what is needed to answer them through further research. In the third stage the approach for implementing customer centricity to an organisation was ideated. Then the process moved on to prototyping the approach. The testing phase of the process was excluded from this development assignment.

5.1 Main findings and conclusions

The goals set for the thesis were achieved during the development work. The knowledge base focused on design thinking, service design and customer-centric business logic, and the intersection of the latter two, creating an approach to identify the maturity level of an organisations customer-centricity and leading the process to implement or strengthen it as a part of the organisations processes.

During the study phase of this development process the main findings were:

1. Polar Electro and companies considered in a more general level would benefit from increased customer centricity.
2. Polar Electro employees feel that customer-centricity is vital for the companys success and they feel that increased knowledge about the customers, both current and prospects, would assist them in their work in all stages of the product design and development as well as the stages after them.
3. Applying customer centricity requires a structured approach with set responsibilities and defined actions
4. The approach developed during this development assignment can be productized but requires testing in real-life to confirm its applicability in practice.

5.2 Answers to questions leading the development assignment

Two guiding questions were asked for this study and development assignment. The answers to these questions are reviewed below. The questions leading the development task were:

- 1) What affects the customer experience of Polar Ignite users?

The topics and issues related to the customer experience of using the Polar Ingite users was studied by a survey, a probe in the form of a two-week diary and netnographic studies conducted in Polar Ignite fan forum on Facebook. As 41,4 percent of the users in the survey were already familiar with Polar as they have owned or currently own other Polar watches in addition to the Ignite it is evident that the main nominator in customer experience is familiarity. Consumers by a familiar brand and get accustomed to it. This topic of familiarity came through also from the observations on the Ignite fan group where many posted about shifting to the product from another Polar product. As familiarity is a main nominator it can be estimated that drastic changes to following product in the range may even cause resistance among customers. The topic of familiarity is also a part of brand loyalty, a highly valuable asset for successful company. In the study, familiarity was mentioned as an experience increasing the positive customer experience.

Secondly, the customer experience of Polar Ignite is affected by product features. Both in the survey and in the netnographic study topics regarding product features were identified. Most

of the commentary was about the products battery and the experience of the users that it does not last long enough and the wristband that caused skin irritation on some users. Also, there were wished on increased customizability of the Polar Ignite watch. In conclusion, if the customer would be able to make more changes to the product, customizing it to serve their individual need more, it would make the customer experience of using the product more positive.

2) What are the actions needed for an organisation to implement a customer centric This question was tackled by interviewing Polar Electro's employees as well as familiarizing with leading customer centricity through literature. It is evident, that when implementing customer centricity, leadership is a key topic. It is needed to start processes of a mindset change and keeping the topic alive so the financial and brand related benefits are reached.

The needed question related to implementing customer centricity as part of business operations was answered by an approach model for leading the change towards customer centricity. The main actions in this approach were to participate all level and areas of expertise, defining the maturity level of the particular organisation and present the findings regarding it in the form of a customer driven development maturity canvas and setting defining responsibilities as well as identifying detailed actions.

Limitations of the study

Even if the studies for the development assignment were conducted utilising many tools and both customers and employees were included in the process limitations are identified. The survey for Polar Ignite users returned 58 responses. As the information of how many Polar Ignite watches were sold and in use during the study, it is very difficult to estimate is this amount sufficient, even if the respondents represented multiple nationalities and thus the global customer base of Polar Electro. Also, the probe study returned three responses with two of them filled completely it can be assumed that the information gathered through this method is not applicable to represent all Polar Ignite users. Four employees of Polar were interviewed during the study and they all represented customer multiple roles within the company but no managers participated to them. If management would have participated the gained view inside Polar Electro as a company would have been broader. This would have served the purposes of the development assignment better and likely made the results more trustworthy.

The second limitation is that the study was conducted by an external researcher and thus in-depth knowledge of Polar Electro's operations is missing from the study. The missing of internal view from within the company did not limit the research and answering the first question regarding what impacts the user experience of Polar Ignite users. Concerning the answering the second question the missing of this internal view was more imminent. As the

knowledge gathered was based on interviews with four people, it can be assumed that there are limitations to how correct the development suggestions are. This said, the development suggestions are very likely to serve the needs of other companies in addition to Polar as based on the literature review similar challenges as discussed in this study exist in many companies today.

The third limitation concerns the testing of the approach developed for implementing customer centricity from this study. As the thesis process did not include testing of the concept, its usability remains to be investigated. During the thesis process materials were created to display the idea from a fake add to instructions and a canvas that are parts of the concept. With these testing could be done with ease and without the need of creating the actual material

Conclusions

All of the Polar employees interviewed were agreed that customer centricity should be included in their design and development processes in a more complete way and that it is a topic that concerns all employees. The benefits of this were recognized to be shifting resources from marketing and creating needs for customer towards developing products that the customers really need. This proves that Polar Electro would benefit from a structured process of leading the company towards increased focus towards customers and their needs.

Polar users reported that the Ignite watches wrist band was uncomfortable and that they would want more options on for display appearance. Based on the survey, probe and netnography the customers would be more satisfied with Polar Ignite and Polar products in general if they would be more customizable.

The commissioning company does not currently have a fully customer centric approach to their operations as the finding was based on the interviews. The design and development process is still mostly product centric, where for example, new products are designed based on what competitors bring to the market. This proves that increased customer centricity can add success potential for Polar Electro.

In a more general level it was investigated during the study that customer centricity is a focus that is still lacking in companies. As in a study conducted by Frankly Partners in 2019 at the worst level are many practical tools needed to concretely implement customer focus. This proves that there is need to create an approach where customer focus is displayed as actions and responsibilities.

Analysis

This thesis study applied design thinking and service design in approaching the development assignment. As design thinking is an iterative process, it enabled the bifold nature of the study: answering the first research question regarding what affects the customer experience of Polar Ignite users and seeking out answers to what actions are needed in a company to implement customer-centricity. Several service design tools were used during the process, with personas and customer journey being the most useful and informative to the commissioner.

Adding employee experience as a topic of discussion made the study and its results more comprehensive, as employees create the customer experience. The focus on employee experience is also seen in the RACI-model action plan introduced in chapter 4.5. The action plan is related to employee experience. It simplifies the processes and responsibilities in a simple chart. Actions related to increasing customer-centricity are informed to employees, thus increasing transparency in an organisation. As the approach created is meant to be inclusive throughout the organisation, it can be assumed to increase employee experience by including professionals in company processes that have a significant business impact.

During the thesis, the process became apparent that similar challenges exist in many companies, not only in the industry where Polar Electro operates. This means that the results and the concept for applying customer-centricity are applicable also in other industries and organisations. To fully utilise the concept for applying customer-centricity, further studies should be conducted. The approach should be tested with a customer representing an honest company. The actions decided upon should be followed upon. This would be a large project over time that would be desirable to last for several years as otherwise, the actual results would not be recovered.

To conclude the analysis of this development assignment, it can be forenamed that the gained results during the study supported each other. Even due to their limitations, they can be trusted to point in the right direction, increasing customer focus.

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Attachments

Attachment 1: Laurea University of Applied Sciences Thesis Research proposal

Students:

Pirita Tiitto, B.Eng, MBA Digital Services, Laurea UAS (MBA Leadership & Service Design)

Thesis Supervisor:

Päivi Tossavainen, M.Ec, Principal Lecturer

Commissioner: Polar Electro

Commissioner Contact: Maija Hautere, Usability Specialist

Goals for Masters Thesis

Master's theses at the university of applied sciences are, by nature, oriented towards workplace development and renewal. The purpose of thesis work is to create, produce and develop competence for the needs of both workplaces and more extensive development projects. In the thesis, the development task is viewed at a level that is more general than the development tasks of an individual organisation or practical development tasks.

In accordance with the curricula of the Master's degrees at Laurea University of Applied Sciences, once the student has completed their thesis, they are able to

- independently carry out development work in their own field;
- apply the obtained research knowledge in their own research in a critical and analytical manner;
- apply information gathering and analysis methods that are suitable for the development task;
- master the applied research and development method and the related documenting and report-ing
- work as an expert in a community conducting applied research and development work;
- independently acquire information and monitor, analyse and critically assess the development of professional practices and research knowledge in their own field;
- independently generate and apply information.

(https://laureauas.sharepoint.com/sites/linken/Documents/YAMK_ONT_%20ohje_28-5-2019k-en.pdf)

Research Questions from Commissioner

1. How did users choose to purchase Polar Ignite?
 - What kind of goals they have?
 - Why did they purchase a sports watch instead of Smartwatch etc.?
2. How well has Polar Ignite met expectations/needs?
 - What kind of guidance and motivation users would need?
 - Has Polar Ignite changed user's lifestyles healthier?
 - Does Polar Ignite provide valuable information/content to the user's life?
 - How Polar could help users to stay motivated?

Expected Deliverables from Commissioner

- User personas (what kind of personalities, what kind of exercisers they are, what kind of goals they have, what kind of help and guidance they need, etc.)
- Improvement and development proposals to help users reach their goals
- Customer journey/s
- Presentation of research findings

Deliverables for thesis

Each student writes her own thesis document. Currently, the aim is to create one thesis in an article and the other in a traditional report form. Theses are presented at a Laurea thesis workshop after the project is completed. It is decided later will there be two separate presentations or one presenting both thesis processes and the research done.

Preliminary Research Questions/Topics for Thesis

- Value proposition and creation of services (within Health Tech)
- Value creation and customer experience
- Co-creation of digital healthcare products
- What are the megatrends and trends affecting Health Tech as an industry?
- What are the currently unrecognised business possibilities in health tech?
- Can personas be implemented in product development processes throughout the organisation? (And what would be the benefits)
- How to create understanding with stakeholders in a digital product development process?

Note that for the purpose of thesis research, the amount of research questions is usually limited to two to three main ones. The research questions can change during the research process.

Frame of reference

Related Methodologies

Design thinking

Service Design

User-Centric Development

Customer-Centric Logic

(Foresight)

Proposed tools in addition to commission

Mind maps

Stakeholder map/analysis

Empathy map

SWOT

Service Blueprint/s

Value Proposition Canvas

Customer Journey Map

Research Methods suggestions

Online Survey

Not a traditional one time survey but a set of shorter questionnaires in f.ex four steps to seek out answers to the following questions:

Why the customer has purchased the product?

What are the most important experienced benefits of the product?

What are the experienced negative issues related to the product?

How to influence commitment to the brand?

Sets of questions based on the previous ones not completely planned and "set in stone" in the beginning

Tools from Google or f.ex Survey Monkey

Heuristic Evaluation

Find out more f.ex:

<https://blog.prototypr.io/elevate-your-ux-with-heuristic-analysis-how-to-run-a-usability-evaluation-5ae45648045d>

Netnography

Find out more f.ex:

https://www.researchgate.net/publication/319613944_Netnography

(Utilising especially social media (FB) groups but also possibly Google Analytics & other tools)

AttrakDiff User testing

<http://www.attrakdiff.de/index-en.html>)

User Interviews

(Focus on UX of the existing product)

interaction-design.org/literature/topics/user-interviews

Expert interviews

To gain insights into Polar product development

(Possibly also interviews of UX designers or other industry professionals)

Design Probe

<https://www.servicedesignlab.net/design-probes>

(requires to loan products for testing or to get people who already own the product to take part)

Usability/ Accessibility evaluation

Analysis Methods

- Narrative analysis is a method used to analyse content from various sources, such as interviews of respondents, observations from the field, or surveys. It focuses on using the stories and experiences shared by people to answer the research questions.

<https://koppa.jyu.fi/avoimet/hum/menetelmapolkuja/en/methodmap/data-analysis/narrative-analysis>

- Content Analysis of User Interviews

Suggested Timeline for the project

Desk Research 1-2/2020- (likely to be needed throughout the process)

Survey 2/2020

Interviews 3/2020

(Workshop Maybe 3/2020)

Other methods timeline decided later

Final presentation to commissioner 6-7/2020

Theses reports finalised 7-8 /2020

Attachment 2: Survey form

Polar Ignite Customer Experience

This survey is a part of Polar Ignite user experience study. It is a part of two Masters theses done for the Laurea University of Applied Sciences in Espoo, Finland. Information is collected only for the purpose of Polar Ignite customer experience and for learning purposes within the thesis process and will not be shared to further parties. Information is handled anonymously, and the raw research data is discarded after analysis or three (3) months after theses completion the latest.

Answering this survey takes approximately three (3) minutes.

The study ethics comply with the Finnish Ministry of Education and Culture's Advisory Board on Research Ethics' good scientific practices (2013), is conducted under a Non-Disclosure Agreement made between Polar Electro and the students and the field's principles of professional ethics.

Thank you for your contribution!

Regards,

Pirita Tiitto, MBA student Digital Services
MBA Leadership & Service Design

Pirita.tiitto@student.laurea.fi

<https://www.laurea.fi/en/>

*Pakollinen

1. Your Age *

Merkitse vain yksi soikio.

☐ Under 18

☐ 19-25

☐ 26-35

☐ 36-45

☐ 46-55

☐ 56-75

☐ 76-85

☐ Over 86

28/05/2021

Polar Ignite Customer Experience

2. Your gender. Choose one (1) answer. *

Merkitse vain yksi soikio.

- ☐ Female
- ☐ Male
- ☐ Other
- ☐ Prefer not to tell

3. Define your level of physical activity. Choose one (1) answer. *

Merkitse vain yksi soikio.

- ☐ I am not physically active
- ☐ I am occasionally active physically active (f.ex walking short distances, exercising on non-regular basis)
- ☐ I am physically active (f.ex following a training regime or walking or cycling to places on regular basis)
- ☐ I am physically very active (f.ex exercising most days of the week, competitive sports)
- ☐ I am a professional athlete

4. Where you live? Define country and city. *

5. Do you own and use a Polar Ignite Fitness watch? Choose one (1) answer. *

Merkitse vain yksi soikio.

- ☐ Yes
- ☐ No
- ☐ No, but I consider purchasing one
- ☐ No, but I have used to own one

28/05/2021

Polar Ignite Customer Experience

6. What was the reason/reasons for you to choose the Polar Ignite fitness watch?

Valitse kaikki sopivat vaihtoehdot.

- ☐ It had functions that matched my needs
- ☐ I had used a similar product before and I wanted a replacer with similar functionalities
- ☐ It was visually meeting my wishes
- ☐ I needed a fitness watch and bought Polar Ignite since I have used other Polar products before
- ☐ I needed a fitness watch and Polar Ignite since I was not satisfied with a product from another brand that I had purchased earlier
- ☐ I got a Polar Ignite fitness watch as a gift
- ☐ Polar Ignite was a easy and convenient option to purchase
- ☐ Polar Ignite was priced at a level suitable for my financial situation
- ☐ I had heard/read positive user experiences about Polar Ignite and decided to purchase based on them

Muu: ☐ _____

7. If you answered "other" to a prior question, please specify your answer here.

8. Do you own and use other Polar Products? Choose one (1) answer *

Merkitse vain yksi soikio.

- ☐ No, and I do not own a Polar Ignite
- ☐ Yes, I do not own a Polar Ignite but i own other products by Polar
- ☐ No, I do not use other Polar products but I own a Polar Ignite
- ☐ Yes, I own a Polar Ignite and I use other Polar products as well

28/05/2021

Polar Ignite Customer Experience

9. Define which Polar product if you answered "yes" to the prior question.

10. Have you used fitness watches from other brands? Choose (1) answer. *

Merkitse vain yksi soikio.

- ☐ No
☐ Yes

11. If you answered "Yes" to the prior question define product here

12. Are you interested in participating in further research made regarding the Polar Ignite user experience? This can mean for example further surveys or interviews. By answering "Yes" you are not committing but accepting contacting you in the future during February -May 2020. Choose (1) answer. *

Merkitse vain yksi soikio.

- ☐ Yes
☐ No

13. If you answered "Yes" to the previous question, please leave your e-mail address for contacting you related to the research.

28/05/2021

Polar Ignite Customer Experience

14. If you have questions or comments or you want to send requests related to product development regarding Polar Ignite, please write here. *

Thank you for your insights and time!

Google ei ole luonut tai hyväksynyt tätä sisältöä.

Google Forms

2 Week Polar Ignite Customer Experience Diary (probe) Plan

[illegible]

Recruiting of participants

- [illegible]

Goal number of participants (note that analysing the diaries is highly time-consuming)

-

Demographics of participants

- [illegible]

Attachment 4: Probe form

**Polar Ignite Customer Experience Diary**

**Great to have you onboard to share your experience
with using Polar Ignite!**

This is a two (2) part document. First part is where we get to know you as a person and an athlete. The second part is a two (2) week diary of your Polar Ignite customer experience with

daily theme questions. You can also add pictures or visualisations of your experience to the document. In the end you can conclude your Polar Ignite experience and share your thoughts further. Filling the diary takes approximately five (5) minutes per entry.

This diary is a part of Polar Ignite customer experience study. It is a part of two Masters theses done for the Laurea University of Applied Sciences in Espoo, Finland. Information is collected only for the purpose of Polar Ignite customer experience and for learning purposes within the thesis process and will not be shared to further parties. Information is handled anonymously, only by parties involved in the study, and the raw research data is discarded after analysis or three (3) months after theses completion the latest.

The study ethics comply with the Finnish Ministry of Education and Culture's Advisory Board on Research Ethics' good scientific practices (2013), is conducted under a Non-Disclosure Agreement made between Polar Electro and the students and the field's principles of professional ethics.

Pirita Tiitto
MBA student Digital Services
Pirita.tiitto@student.laurea.fi

<https://www.laurea.fi/en/>

If you have questions please contact pirita.tiitto@student.laurea.fi

Information about you, the Polar Ignite user

Please fill in your information here.

First name	Age	Gender
Write by clicking here	Write by clicking here	Write by clicking here

Country	City
Write by clicking here	Write by clicking here

Tell us about yourself

For example: your family status, profession, what are your hobbies. what are you interested in, what Polar products have you used

Write by clicking here

My favourite sports and/or activities

What to you do to keep fit, how are you physically active

Write by clicking here

Your exercise and wellbeing goals

What are your goals related to exercise and well being? What motivates you to move and take care of yourself?

Write by clicking here

How do you take care of your wellbeing and manage keeping fit?

How often do you exercise? Do you follow a training programme/schedule? Do you use services of a personal trainer or coach? If [yes do](#) you use Polar products together with your trainer (f.ex sharing information or analysis). What are your experiences related to the previous?

Write by clicking here

Start of your journey with Polar Ignite

Description of how you chose Polar Ignite, received information about it and how was the process of purchasing it.

- Describe here how you chose to purchase Polar Ignite (or if you receive it as a gift).
- How long have you used your Polar Ignite?
- Did you make the purchase online or in a physical store? Write the name of retailer
- Did you ask questions from the seller? Was the seller able to answer them in a satisfactory way?
- Did you [search information](#) about Polar Ignite online prior to the purchase?
- Did you find all the information needed?
- Where did you get information (f.ex Polar-website, magazines, reviews in social media, social media groups...)

Write by clicking here









Pictures









You can add pictures of you using the Polar Ignite in your natural environment. (training environment, company or your feelings or other meaningful topics related to your wellbeing). Or if you are feeling artistic you can draw.

Diary

























The diary is divided into two (2) week long parts. During the weeks we would like you to document your physical activity and also how you recover and take care of your general wellbeing. Each day also has its own theme questions to gather insights of your Polar Ignite customer experience.

























Note that the Polar ecosystem refers to all products included in it (wrist-held device, sensors, mobile and online services)

1.week / Fill in date
How did you exercise today? Write by clicking here
Did you use the Polar ecosystem today? Describe how? Write by clicking here
How did your Polar Ignite perform today? What worked? What did not? Write by clicking here
<div style="display: flex; justify-content: space-around; align-items: center;"> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> </div>
1. Has the Polar Ignite met your expectations so far? Can you name one main expectation or functionality that you expected from the device? Write by clicking here

1.week / Fill in date
How did you exercise today? Write by clicking here
Did you use the Polar ecosystem today? Describe how? Write by clicking here
How did your Polar Ignite perform today? What worked? What did not? Write by clicking here
<div style="display: flex; justify-content: space-around; align-items: center;"> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> <div> <input type="checkbox"/></div> </div>

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<p>Are there functionalities that you have missed on your Polar Ignite so far? Or is there a functionality that you know that is missing and you would like to have it added to Polar Ignite?</p> <p>Write by clicking here</p>

<p>1.week / Fill in date</p>																
<p>How did you exercise today?</p> <p>Write by clicking here</p>																
<p>Did you use the Polar ecosystem today? Describe how?</p> <p>Write by clicking here</p>																
<p>How did your Polar Ignite perform today? What worked? What did not?</p> <p>Write by clicking here</p>																
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<p>Thinking back to when you started to use Polar Ignite: how did you perceive the beginning of using the device? Describe what supported you at the start? What did you struggle with?</p> <p>Write by clicking here</p>																

<p>1.week / Fill in date</p>																
<p>How did you exercise today?</p> <p>Write by clicking here</p>																
<p>Did you use the Polar ecosystem today? Describe how?</p> <p>Write by clicking here</p>																
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Thinking back to when you started to use Polar Ignite: how did you feel when starting the use of the Polar Flow-ecosystem? Do you use mainly the application or desktop version of Polar Flow?

Write by clicking here

1.week / Fill in date

How did you exercise today?

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here



What are the three (3) main functions that you use in your Polar Ignite? Do you have suggestions on how to improve them? Is there something that you definitely want to keep, your favourite?

Write by clicking here

1.week / Fill in date

How did you exercise today?

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here



How do you perceive the use of the Polar Ignite user interface (choosing functions/features, movements needed to operate, contrast, font, buttons..)

Write by clicking here

1.week / Fill in date

How did you exercise today?

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here



Have you used the Polar Ignite functions that support your recovery (Nightly recharge, Sleep plus stages, Serene)? Have you learnt anything new related to your well being?

Have you made behavioural changes or plan to make them?

Write by clicking here

2.week/ Fill in date**How did you exercise today?**

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here

☐☐☐☐☐☐☐☐**Do you utilize the Polar Ignite Smart coaching features to get more out of your exercise (f.ex Sports Profiles, Wrist based heart rate monitoring, Fitness test? Describe how.**

Write by clicking here

2.week/ Fill in date**How did you exercise today?**

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here

☐☐☐☐☐☐☐☐**Do you utilize the Polar analytics features to get more out of your exercise (f.ex Training load pro Profiles, Running index) Describe how.**

Write by clicking here

2.week/ Fill in date**How did you exercise today?**

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here


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Do you compare and analyse data you produce using your Polar Ignite? Have you learnt something new? Have you made changes to your behaviour/training or plan to make them?

Write by clicking here

2.week/ Fill in date

How did you exercise today?

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here


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Do you follow a particular training programme in cooperation with a coach or a personal trainer or a training group? Have you shared and/or analysed data produced with your Polar Ignite? Describe the experience.

Write by clicking here

2.week/ Fill in date

How did you exercise today?

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here


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How do you perceive the appearance of the Polar Flow application? What pleases your eye? What feels easy to use? Is there something in the appearance you would change?

Write by clicking here

2.week/ Fill in date

How did you exercise today?

Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here


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How do you perceive the physical appearance (material, colours, feeling against your wrist/finger) of the Polar Ignite? What pleases your eye? Is there something in the appearance you would change?

Write by clicking here

2.week/ Fill in date

How did you exercise today?









Write by clicking here

Did you use the Polar ecosystem today? Describe how?

Write by clicking here

How did your Polar Ignite perform today? What worked? What did not?

Write by clicking here

							
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Describe your best moment using your Polar ignite. What made it particularly memorable?

Write by clicking here

Final thoughts and insights

Is there something you would like to share about you using the Polar Ignite that you haven't mentioned earlier in the diary?

Has there been changes on how you perceive the Polar Ignite during the two week diary period?

Has there been changes in your training during the time you have been using the Polar Ignite?

Has using Polar Ignite affected them?

Has there been changes in your wellbeing during the time you have been using the Polar Ignite?

Has using Polar Ignite affected it?

Do you have wishes for the designers and developers of the Polar Ignite?

Write by clicking here

Thank you for filling your Polar Ignite Customer Experience Diary!

We appreciate your contribution of sharing your insights.

Best regards,

Pirita Tiitto

Laurea University of Applied Sciences

Attachment 5. Interview script

Disclaimer

This interview is a part of a Masters thesis study done for the Laurea University of Applied Sciences in Espoo, Finland. The topic covers Customer Experience and utilising service design tools in developing services and products. The aim is to offer Polar suggestions on how to improve CX with these tools.

Information is collected only for learning purposes within the thesis process and will not be shared to further parties. Interview findings will be presented anonymously in a thesis presentation and written report. All raw research data is discarded after analysis or three (3) months after theses completion.

Taking part in the interviews takes approximately 30 minutes and it is conducted online via Google Hangouts. Interviews are recorded but individuals may decline the recording. Interviews will be conducted in Finnish. Thesis report in which interview findings are presented will be written in English

The study ethics comply with the Finnish Ministry of Education and Culture's Advisory Board on Research Ethics' good scientific practices (2013), is conducted under a Non-Disclosure Agreement made between Polar Electro and the students and the field's principles of professional ethics.

About interview

The setting for the interview is informal and discussive
 The session is recorded but participants may decline recording. Recording is made to save time (no time needed for interviewee to write notes during discussion), to guarantee that gathered data is usable in a productive manner and serves the purposes of study and development suggestions based in it
 Aim is to map the current state, pain points and development possibilities of utilising personas and customer journey maps at Polar

Background

Introductions

Interviewer
 Participant/s

Describe your role in the Polar Organisation

Department/function
 Relation to Polar Ignite product
 Duration of employment
 Past roles

Information needs

What information do you need for your work?
 What are your most used means of communicating related to your role?
 What do you like about them?
 What do you dislike/find difficult about them?
 What would be your ideal way of communicating related to your work?

Customer Driven Development

Polar utilises Customer Driven Development-method in product/service development

Are you familiar with the concept?

What is your personal opinion about it?

How do you get information about the development stages processes at Polar

Personas

Are you familiar with the concept of personas ?

What do you like about them?

What do you dislike/find difficult about them?

How are you connected to the Personas creation process at Polar?

How research is done to gather information for the personas?

What in your opinion is the primary goal and benefit of working with personas

Customer Journey map

Are you familiar with the concept of Customer Journey Mapping ?

What do you like about them?

What do you dislike/find difficult about them?

How are you connected to the CJM creation process at Polar?

How research is done to gather information for the CJM?

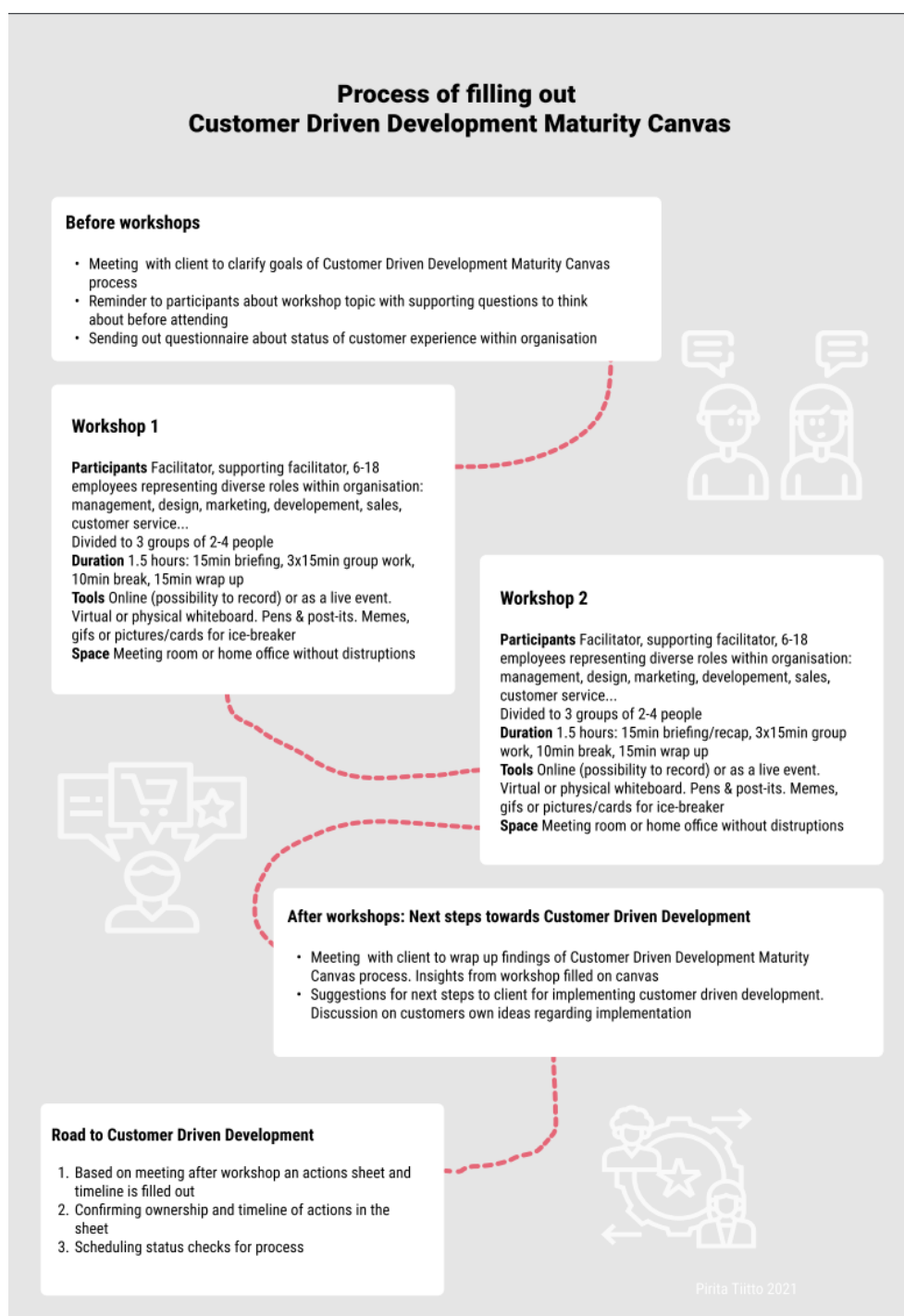
What in your opinion is the primary goal and benefit of working with CJM?

End words

Thank participant

Describe next steps generally

Attachment 6. Workshop materials



How to interpret workshop insights and what to consider when leading Customer Driven Development process further

1. Throughout the workshops pay attention to the tone of voice when the topic of customers is under discussion
2. Pay attention to tools, ways of working and metrics mentioned when customers are discussed
3. Note that the topics discussed in the workshop overlap and repeat to make sure the vital points to base development on are collected

Employee Experience Exercise 1

Do participants seem to get enough information about customers?
Do they give out hints that they feel/do not feel connected to customers and their needs?
Do they describe ways to innovate solutions to customer challenges?
Do participants seem curious about the customers and the industry development in general?

Customer Experience Exercise 2

What are the mentioned communication channels between company and customers?
How are customer service processes described?
Are social media channels mentioned? Who is participating in creating content for them?
Are metrics regarding f.ex customer satisfaction mentioned?
Is there discussion about development actions?

Current state of utilising customer information Exercise 3

Are tools, methods etc mentioned as ways to collect customer insights and knowledge about who the customers are?
Are there mentioned actions or responsibilities mentioned for utilising the previous? What are they?
Ownership of customer experience is a trick question! A fully CX mature organisation perceives CX as everybodys business.

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How could innovation based of knowledge about the customer be increased?

Exercise 1

Ideas about how receive information about customer throughout organisation
What are the ways mentioned to innovate new solutions based on customer needs, wants and challenges?
What are the mentioned ways to test the solutions?

The customer and us Exercise 2

If the organisation already works with customer satisfaction surveys or similar how could more or more in-depth information about customers be collected? What are the ideas vocalised?
Collect ideas regarding two-way information flow
Collect ideas of developing design process

Customer Experience Development Exercise 3

What are the new ideas regarding gaining knowledge about customers?
What kind of tasks and to-do's are mentioned in regards of utilising customer knowledge? What is perceived to be the most important task?
What are the ideas of creating ownership of CX?

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How to interpret workshop insights and what to consider when leading Customer Driven Development process further

1. Support questions to exercises are written under each of the exercises
2. Select a whiteboard tool common to the attendants, it can be either virtual or physical. Ask invitees to install it and practise using it beforehand
3. Prepare board with supporting questions for each exercise
3. Some of the support questions overlap. This is intentional to guarantee enough answers and useful information to progress

Employee Experience Exercise 1

Do you get enough information about customers?
 What customer needs, wishes or challenges have you recognized?
 How do you describe ways to innovate solutions to customer challenges?
 Do you feel curious about the customers and the industry development in general?

Customer Experience Exercise 2

What are the communication channels between company/organisation and customers?
 How do you document customer service processes?
 What social channels are used? Who within company is responsible of creating content?
 What are the metrics regarding customer satisfaction?
 What development actions are done to improve CX?

Current state of utilising customer information Exercise 3

What tools, methods are used as ways to collect customer insights and knowledge about who the customers?
 What are the actions or responsibilities mentioned for utilising knowledge about customers?

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How could innovation based of knowledge about the customer be increased?

Exercise 1

Ideas about how receive information about customer throughout organisation
 What are the ways to innovate new solutions based on customer needs, wants and challenges?
 How could these solutions be tested?

The customer and us Exercise 2

If you already work with customer f.ex satisfaction surveys how could they be utilised further?
 How would these ideas support developing design process?
 What are your ideas regarding improving two-way information flow between organisation and customer?

Customer Experience Development Exercise 3

How could knowledge about customers and their needs be improved?
 What kind of tasks are needed for utilising customer knowledge, needs etc further? What is most important?
 How could ownership of customer knowledge and CX be shared within organisation?

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Customer Driven Development Maturity Canvas with support questions

Pirita Tiitto 2021

Who is our customer?

How do individuals become our customers?
How do we maintain our customer relationship?

Company name

Participants in filling out this canvas:

Employee Experience

1. How do employees receive information about customers?
2. What are the channels to inform about customer needs, wishes or challenges for the employee?
3. What are the methods to thank employees for finding, addressing or solving a customer need, wish or challenge?

Customer Experience

1. How does the customer communicate with the company?
2. How does the customer receive information about what happens within the company due to the communication?
3. Is there metrics in place to measure customer experience?

Current state of utilising customer information

1. How does the company collect information about its customers?
2. How is the gathered information utilised in developing the company's products and services?
3. Who are the owners of the customer experience in the company?

How could innovation based of knowledge about the customer be increased?

- 1- What would be the information channels?
2. How could ideas based on customer knowledge be developed?
3. How could the ideas be tested with customers?

Customer Experience Development

1. How does the company collect information about its customers?
2. How is the gathered information utilised in developing the company's products and services?
3. Who are the owners of the customer experience in the company?

Customer Experience Development

1. How could information about customers and their needs be collected? What ways in addition to the existing ones?
2. How to make sure the knowledge gathered is fully utilised? What is the 1 most important task?
3. How can ownership of customer experience be shared throughout the organisation