Anu Ruokonen

T-shaped model as a tool for personal development – Case software industry company's Customer Service Function

2020

Abstract

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Instructor: Senior Lecturer Anu Kurvinen, LAB University of Applied Sciences

The fourth industrial revolution is changing the way's businesses operate and customer experience is more and more central in the organization's success. An integral part influencing the experience is the skills and knowhow of the experts. In today's world reskilling is a must. The aim of this thesis was to create a T-shaped model as a tool for personal development for the customer service function of the case company. The study examined the skills and know-how required in customer service, and literature and theory concerning T-shaped models. The thesis was done for a case company operating in a software industry. The work was done together with a project group consisting of six experts operating with different products within the customer service function.

This study was conducted in two parts, a literature review, and an empirical research. Literature and theory were studied about T-shaped models, T-shaped model development, soft- and hard skills and know-how in general and of a T-shaped professional (TSP), and customer experience. The aim was to study theory about T-shaped models in the customer service field, but nothing was found. The empirical research was done in two stages using two methods. The first stage investigated the skills and knowhow possessed now in the case company's customer service function, and future skills and knowhow. The data was collected with a questionnaire survey. Based on the literature findings and the questionnaire survey findings, the T-shaped model draft was formed. In the second stage, the draft was presented and discussed with the managers of the customer service function via focus group interview. The idea of the interview was to gain new ideas for the model and check the direction before the final version of the T-shaped model was created.

Based on the learnings of theory, literature and the empirical part, a T-shaped model was formed for the case company's customer service function. Further study is required in the customer service field on T-shaped model development, as there were no previous research concerning this specific field.

Keywords: Personal development, learning, T-shaped model, T-shaped professional, soft skills, hard skills, customer service, customer experience, SaaS business, software industry

Table of contents

1 Introduction

In the public version of the thesis business-critical information is left out.

This thesis is done as a case study for a software industry company's customer service function, with the objective of creating a T-shaped model as a tool for personal development.

The Fourth Industrial Revolution is changing the world at a rapid pace. The work is changing, and the career paths are changing. How can the companies ensure their personnel's competence, skills, and professional development in the changing world?

Many articles deal with the rapid change in the world and the transformation of the business environment. One term that defines the situation of the business environment is VUCA; Volatile, Uncertain, Complex and Ambiguous. It is said that the world is changing with a speed of light due to advanced technology, hence companies need to start thinking about the future. The only way to operate in a customer centric way, is to innovate, fail and learn from the failure. Companies need to change fundamentally. This means not only adjusting products, services, and processes, but in addition the fast pace makes the companies think about what kind of personnel profiles and interaction ways are required in the future. (To the point 2017).

According to Allwork's article (2018) people should be put on a pedestal when looking at future job prospects. She states that technology will create opportunities for people to grasp in a more creative, hence collaborative way. The article from World Economic Forum (2016) supports Allwork's article's thoughts by writing that the Fourth Industrial Revolution's main impacts on the organizations' businesses are on the organizational forms, product development, collaborative innovation, and customer expectations. Everything a company does should be done in a customer centric way.

The article from World Economic Forum (2016) continues that the Fourth Industrial Revolution will influence the content of the work as we see it now, as automation will substitute some jobs. He believes that in the future talent of an employee will play a crucial role in employment, which will divide the labor market into two segments: low skill/low pay and high skill/high pay. PWC (2018) states that leaders need to "nurture agility, adaptability and re-skilling". Wyman (2020) continues, that to keep up with the evolution happening around us, life-long learning is a must.

1.1 Objective of the study

The objective of this thesis is to create a T-shaped model for the customer service function of the case company as a tool for personal development.

As the company is an expert organization, the employees require a broad knowledge about many matters, but furthermore there is a need for deep expertise in certain fields. The case company's customer service function includes five different SaaS (service as a product) products. Hence, the research problem of this thesis is to create a T-shaped model suitable for the whole customer service function of the case company. The created T-shaped model can be further processed to meet the team specific requirements of the teams within the Customer Service Function.

In this thesis there is one main research question and four sub research questions, A-D, to support the main research question.

The main research question for this thesis is:

How to create a T-shaped model for an expert employee customer service function?

The sub research questions are:

A) What is a T-shaped model?

B) What are the goals of the T-shaped model from the Customer Service functions point of view?

C) What skills and expertise do the experts of the customer service function have currently?

D) What skills and expertise do the experts of the customer service function need in the future?

In line with the research aim, literature concerning T-shape models, current world-wide T-shaped models in the customer service field, T-shape model development and the soft and hard skills and knowhow of a T-shaped professional (TSP) is investigated to create a profound picture of the research problem. The customer experience point of view is taken in account.

Data for this research is acquired by a questionnaire survey and a focus group interview. Selected 47 employees (including managers operating in the customer service function) of the case company's customer service function are inter-viewed to figure out their ideas on the current, and future skills and knowhow required at work. Furthermore, the managers of the customer service function are group interviewed based on the created T-shaped model draft. The idea of the group interview is to create new ideas before forming the final version of the T-shaped model.

Figure 1. Thesis process

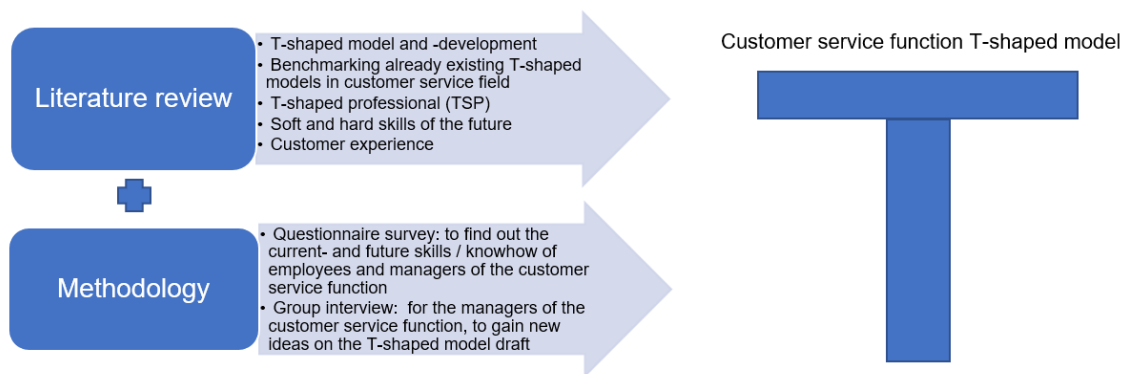The thesis is divided into two categories: literature study and empirical research. In the theoretical part of the thesis, the current T-shape models in the customer service field are benchmarked, T-shaped model development is investigated, and the skills and knowhow of the T-shaped professional are identified. In the empir-ical part, the case study method is selected for this research. The following part

of the thesis discusses the theoretical and empirical findings after which the T-shaped model for the customer service function is created. In the end, discussion and analysis is presented, followed with description of the limitations of the research findings and description of future research possibilities.

1.2   Research method

This research is conducted as a qualitative research with a case study approach. Qualitative research does not aim at statistical generalizations, the aim is to describe events, understand activities, or to give theoretically meaningful interpretations of empirical phenomena. (Eskola & Suoranta 1998, p.18). According to Sulkunen & Kekäläinen (1992) all qualitative research are more or less case studies, and they are not intended to be used to draw empirically generalizing conclusions in the same way as in a statistical study. Therefore, it is important that the material forms a whole, a case, in one way or another. (Eskola & Suoranta 1998, p. 64-65).

For a case study, it is typical that intensive, detailed information is produced about one case. Several methods are used in data collection and typically the aim is to describe a phenomenon and understand it comprehensively. Because the case study uses different methods of data collection and analysis, it cannot be considered merely as a data collection technique. However, there is no ambiguous definition for a case study, as it can be done in many ways, thus the concept of a case study is complex. In case studies both qualitative and quantitative methods are used, hence the case study is not a synonym for qualitative research. (Aaltola & Valli 2015, p. 181). The typical data analysis methods are suitable, hence there is no case study-specific method of analysis (Aaltola & Valli 2015, p. 189).

The most common ways of gathering data in qualitative research are interviews, surveys, observation, and information based on various documents. They can be used alternatively, side by side or differently combined according to the problem being studied and the research resources. (Tuomi & Sarajärvi 2009, p.71). In this research the data is acquired in two stages with two methods: a questionnaire survey and a focus group interview. A questionnaire survey is selected as the

data collection method to acquire preliminary data from the whole customer service function. This method is selected as it is the most economical and quickest way to collect data from the whole customer service function's various teams and employees with different job titles to gain an initial understanding of the researched phenomenon. After the questionnaire survey is completed and the results analyzed, an open group interview is conducted to the managers of the case company. The group interview is held after the draft of the T-shaped model is formed. The group interview's the idea is to gain new ideas to complement the formed T-shaped model draft and to check that the created model is in accordance with the wishes of the subscriber, before creating the final T-shaped model.

According to Brewer & Hunter (1989) triangulation means that different kinds of materials, theories and/or methods are used in one research. Also, multiple researchers can study the same object. It is said that with only one research method it is hard to get a comprehensive picture of the research subject, hence use of triangulation is justified. (Eskola & Suoranta 1998, pp. 68-70). In this thesis the research results are acquired with triangulation, to increase reliability and avoid bias. Please see figure two below.
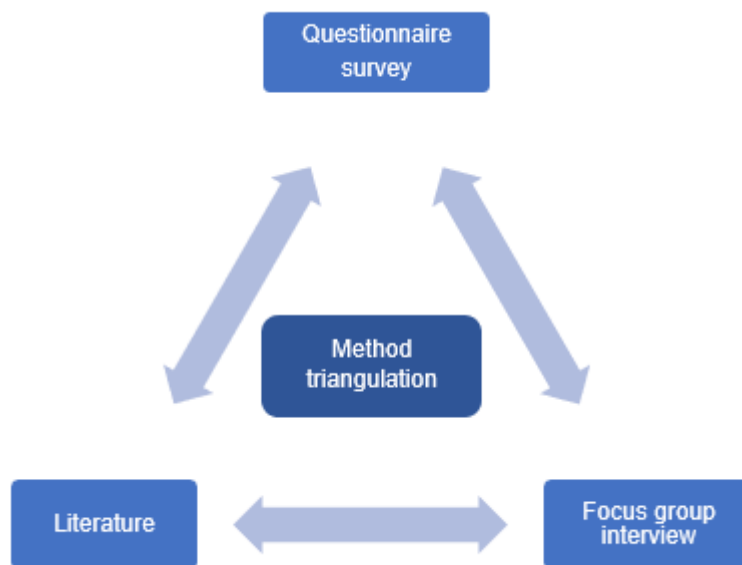
Figure 2. Method triangulation

In this thesis method triangulation is used, which means that the research subject is studied with several kinds of data acquisition methods. The material is collected with a questionnaire survey, focus group interview, and literature.

1.3 Theoretical framework

There are many models which describe the skill and knowledge abilities of an individual, such as I-shaped-, Generalist-, T-shaped- and Pi-shaped models. Please see figure three below.

I-shaped
Expert at one thing

Generalist
Capable in many things, not expert in any

T-shaped
Capable in a lot of things and expert in at least one

Pi-shaped
Capable in a lot of things and expert in many
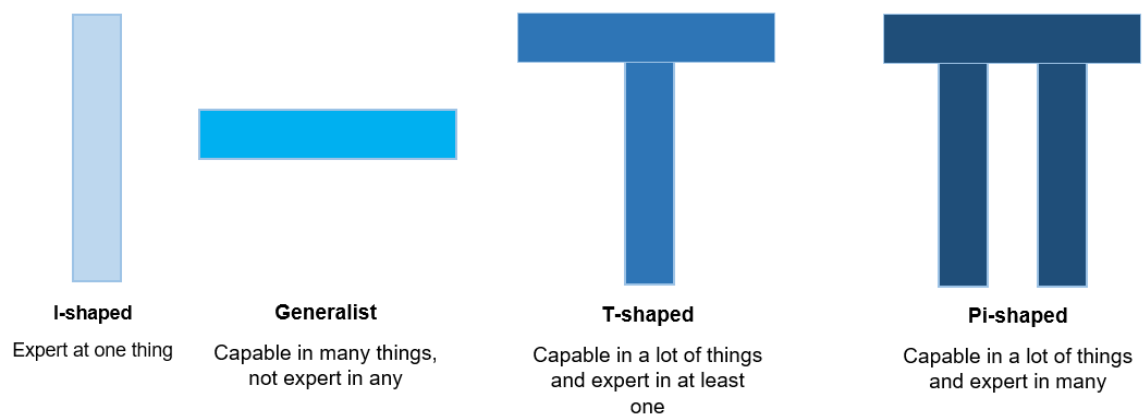
Figure 3. I-shaped, Generalist, T-shaped and Pi-shaped Models (applied from Medium 2018, and Medium 2017b)

I-shaped individuals are deeply specialized in one field, whereas generalists are capable in many things, but are not experts in any. T-shaped individuals complement their deep expertise with general level skills supporting that expertise area, in addition with great collaboration skills. (Medium 2019b). The Pi shaped employees are multifaceted encompassing a broad level of knowledge in many general level matters, supplemented with deep knowledge in few functional or domain expertise areas (Forbes 2019).

The T-shaped model aims to describe the breadth and depth of individuals' skills. The vertical bar describes the individual's expertise and skills in a certain field. The horizontal bar defines the range of skills, collaboration skills with other experts across disciplines, and the ability to apply knowledge widely in the organization, past own expertise area. (PTC 2014). Please see figure four below.
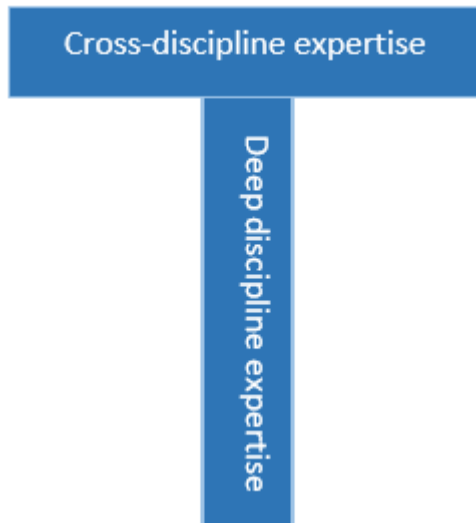
Figure 4. T-shaped model (CFI 2015)

This research is done in cooperation with a Software Industry company. In this uncertain environment, the case company has come to think of how it can ensure skills and professional development of employees and operate even further in a customer centric way to stay in the forefront of change involved. To answer to this need, the case company decided to create a T-shaped model for the whole organization. The T-shaped model gives the organization a better understanding of what is done in different segments, what is expected from the employees and leadership, what are the customer requirements, and gives a way to ensure skills and professional development of employees. The next step is to create T-shaped models for all the functions in the organization.

1.4 Scope of the study and delimitations

This study is carried out between February 2020 – November 2020 with a case study approach, investigating a certain case company in the Software industry in Finland. The timetable for this project is given from the company. The research- and project plan preparation is done during February-March, and the formation of the T-shaped model starts in April 2020. The draft of the model is presented to the Customer Service Function managers in September 2020 and the final version of the model is formed in November 2020.

This thesis focuses on creating a generic T-shaped model for the case company's customer service function consisting of five products, explaining, and justifying the process. The topic of the research is limited according to the case company's Customer Service Function's need. The work in the case company is done with a project group consisting of six experts from different teams within the customer service function. The case company wants to stay anonymous in the research.

1.5   Industry background

The case company's main operation sector is the software industry, and more precisely software design and manufacturing. According to the report of Ministry of Economic Affairs and Employment in Finland, the Software industry consists of four sub industries: 62010 software design and manufacturing; 62020 computer hardware and software consulting; 62030 data processing and hardware operation and management services, and 62090 other hardware and IT services. The largest sub-industry category is Software design and manufacturing which includes 4357 companies and is also the highest in terms of turnover. (Ministry of Economic Affairs and Employment in Finland 2020, p. 16).

In recent years, employment in Finland has developed in a positive direction. In year 2018 the software industry employed more than 53 000 people. Employment growth in the sector has been strong: almost 12% in 2017 and almost 10% in 2018 from the previous year. On average, companies in the industry employ 8 people. (Ministry of Economic Affairs and Employment in Finland 2020, p. 24).

For several years, there has been a lot of discussions about the manpower shortage in the Software industry. The report of Ministry of Economic Affairs and Employment in Finland (2017, p. 40) stated that most of the staff are highly educated and there is a concern on skilled workforce in the highly educated sector. In the software sector there is a fear that the shortage of experts will become an obstacle for growth in individual companies. The article by YLE (2019), follows this idea by explaining that according to Rasmus Roiha, CEO of the Software and e-Business Association, the need for software industry experts is about 5000-6000 experts per year. In the article the Finnish Federation of Telecommunications and Information Technology (FiCom), which monitors the interests of the ICT sector,

estimates that the skill shortage is estimated to increase to as many as 40 000 employees in five years' time in the entire ICT sector.

Within business services, the software industry is included in the so-called knowledge-intensive business services (KIBS). KIBS companies have a key role to play in productivity and overall economic growth. Demand in the sector has been considered cyclical. The knowledge-intensive nature of the industry is particularly evident in the innovation activities. An organization that provides KIBS services often has more extensive knowledge of its specialty than an individual customer organization. Companies in the industry pass on new ideas and know-how from one organization to another. The knowledge-intensive nature of KIBS companies is strongly reflected in their own innovation activities as the renewal of operations and the development of the new services are at the heart of the KIBS companies' operations. (Ministry of Economic Affairs and Employment in Finland 2020, p. 12).

Employees in the Software sector are required to have up-to-date technical knowledge of, for example, certain programming languages. In the industry, know-how is aging rapidly due to the rapid pace of technological development. The software industry is a male-dominated industry. For example, only about 15% of ICT specialists are women. Vacancies are mainly created in growth centers. (Ministry of Economic Affairs and Employment in Finland 2020, p. 24).

The growth of the industry is supported by rapid technological development and the digitalization of all industries. The software industry operates at the heart of digitalization by building solutions to digitize the operations of organizations in other industries and by developing its own intelligent products and services. The big challenge for the future growth of the industry is to solve the shortage of experts. The availability of skilled labor has an impact on the growth rate and global competitiveness of the sector. (Ministry of Economic Affairs and Employment in Finland 2020, p. 55).

2 T-shaped model

The first reference to a T-shaped man was made by McKinsey and Company, in 1980. The terms T-shaped skills and T-shaped person go back in time to the year 1991 introduced by mr. David Guest. Finally, the term was popularised by the CEO of IDEO design consultancy firm, Tim Brown. (CFI 2015).

A T-shaped person is someone who possesses an extensive basic knowledge base that is, knowledge and skills that support other capabilities. Additionally, the person has profound knowledge and skills in some area / areas of expertise. This person is a generalist and a specialist. (CFI 2015). Please see figure five below.
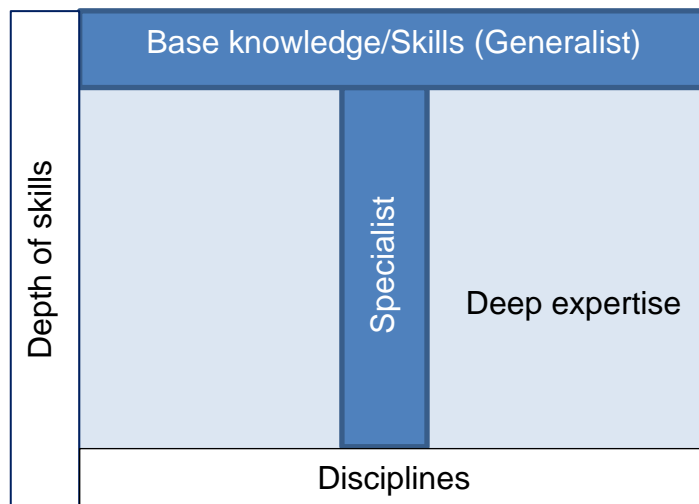
Figure 5. Illustration of the T-shaped model (applied from Medium 2017b)

The horizontal line illustrates the width of knowledge: the number of skills an individual has or should have. The individual should have at least an intuitive understanding of the subjects on the horizontal line. The vertical line illustrated the depth of knowledge for all the domains or skills, meaning how deep is an individual's understanding of an individual skill. (Youtube 2017).

According to Tim Brown, the vertical line gives an individual the chance for creative process development, whereas the horizontal line describes the tendency for interdisciplinary collaboration. (Talent Development 2018, p. 18).

2.1   T-shaped model development

T-shaped models are used typically when for example discussing skills and knowledge of marketeers (Growth Tribe Blog nd.), developers (Medium 2019a) and even lawyers (Smathers, 2014-2015). The similarity in all these tasks are the required cross-functional and soft-skills. None of the jobs could be performed successfully by only sticking on to the 'hard skills' required. To succeed, general understanding about many matters, and the ability to work with others are the key elements.

The T-shaped model in an organization can have many levels. The below figure six of a T-shaped Product Manager 2019, by Medium (2019c), illustrates the levels.
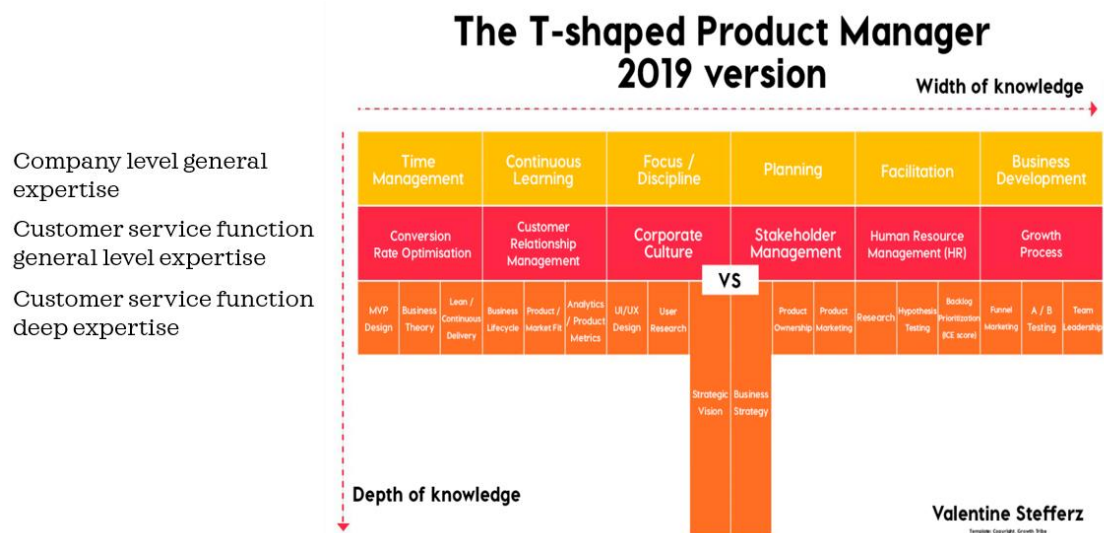
Figure 6. The T-shaped Product Manager 2019 (applied from Medium 2019c)

The researcher added text to the left side of the picture, to illustrate what the levels in the T-shaped model contain. There are three levels: first one contains the topics you need an intuitive understanding of, the second level means the topics you require a overall understanding of as well as some applied hands-on knowledge, and the third level is the level where the employee has profound, hands-on, critical and up-to-date knowledge (Medium 2017a).

The T-shaped model base for the customer service function looks as in figure seven below.

Customer Service Function T-Shaped model

Level 1:	Company level		Company level				Company level	
	x	x	x	x	x	x	x	x
Level 2:								
Level 3:								
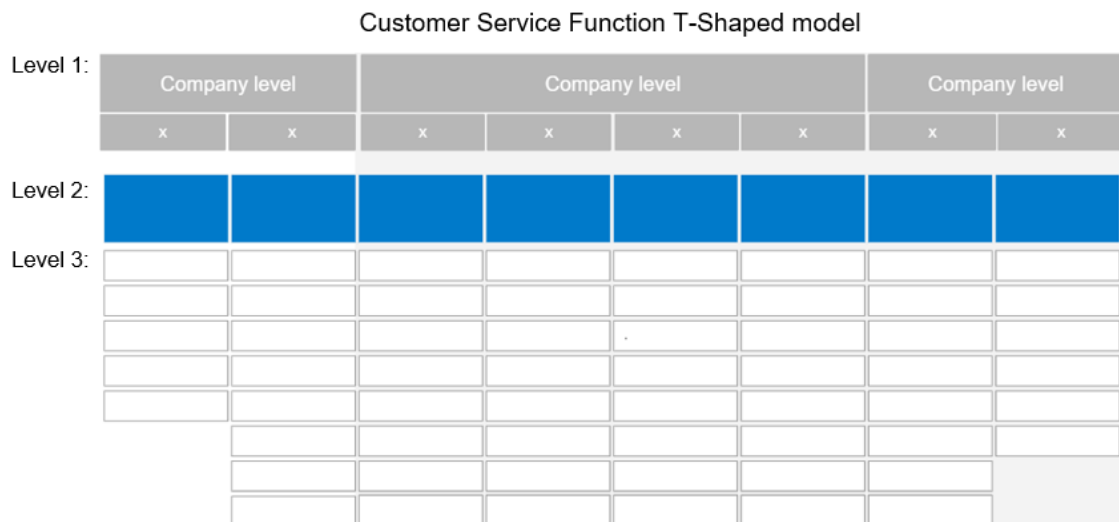
Figure 7. Illustration of the levels of the Customer Service Functions T-shaped model

The first level comes from the company's T-shaped model. This level gives direction for the customer service function level T-shaped model. The second level includes the aspects everyone in the function should have a general understanding of. The third level includes issues where the experts can deepen their knowledge.

According to College Info Geek, the formation of the T-shaped model starts with clarifying what the goal of the T-shaped model is. After the goal/s are clarified, the current knowledge and skills of individuals, both technical/hard- and soft skills, need to be defined. From these skills the skills which are seen most relevant to maintain and where is potential for development, are selected. (College Info Geek 2017). The researcher continues, that the third important point is to investigate the skills and knowledge that are seen to be important in the future, and which the experts might not yet have. After the current and future skills and knowledge required are defined, it is possible to broaden the perspective to think about bigger entities where the individual skills fit, hence start to build the T-shaped model's 2nd and 3rd levels.

2.2   Definition of soft and hard skills and knowhow

In today's work, it is important to have both soft and hard skills to succeed, contrary to the Industrial Era. Now in the knowledge economy we work together with

other people in most work tasks. Additionally, the Industrial Revolution has out-dated some of the manual work and the Knowledge Revolution has automated technical tasks taught in school. (College Info Geek 2019).

2.2.1 Soft skills and knowhow

College Info Geek (2019) describes the soft skills as skills that are hard to quantify, and are more difficult to learn, than hard skills. These skills are related to teamwork and communication as well as emotional intelligence. In the customer service jobs especially, soft skills are extremely important.

College Info Geek illustrates Marisa Morby's (n.d.) list of internal and external soft skills. The internal soft skills describe how well a person cooperates with himself. Then again, the external soft skills describe the ability to deal with others. (College Info Geek 2019). Please see table one below.

Internal soft skills	External soft skills
1. Self-confidence	1. Collaborative teamwork
2. Self-awareness	2. Effective communication
3. Self-compassion	3. Interpersonal skills
4. Accepting criticism	4. Self-promotion
5. Critical thinking / problem solving	5. Managing conflict
6. Resilience	6. Adaptability
7. Perseverance	7. Networking
8. Emotional management	8. Influence
9. Perceptiveness	9. Negotiation
10. Growth mindset	10. Expectation management

Table 1. Internal and external soft skills (College Info Geek 2019)

Soft skills are personality characteristics and interpersonal skills which have an immediate impact on your relations with others. (Themuse n.d.).

According to LinkedIn (2020) the five most wanted soft skills in the companies in 2020 are: creativity, persuasion, collaboration, adaptability, and emotional intelligence.

2.2.2 Hard skills and knowhow

Hard skills, hard data, are skills easier to quantify for example by tests (College Info Geek 2019). Often hard skills are defined bluntly as individual's technical knowledge which are acquired from training or education. (Indeed Career Guide 2020a). Hard skills include technical skills and specific experience and describe one's capability to perform a precise task (LinkedIn 2020).

According to LinkedIn (2020) the 10 most wanted hard skills in 2020 are: blockchain, cloud computing, analytical reasoning, artificial intelligence, UX design, business analysis, affiliate marketing, sales, scientific computing, and video production. ResumeGenius complements these skills with the following skills: computer technology, technical skills, hard communication skills, data analysis and project management skills. Computer technology skills include for example skills related to social media, Google Tools or Microsoft Office. (ResumeGenius 2019). Technical skills can relate to for example content management such as HTML, technical writing skills or familiarity with AI-bots (Business News Daily 2019). Hard communication skills mean for example foreign language skills and digital communication skills. Data analysis skills mean the capability to analyze presented data and to utilize this data for the organization's advantage. Project management skills include agile methodologies and software such as Trello. (ResumeGenius 2019).

2.3 Definition of the T-shaped professional (TSP)

A T-shaped person is excellent in collaborating with other individuals in a wide range of areas and has skills and knowledge in certain specific areas. T-shaped individuals are looked for when recruiting new, "strong", employees. T-shaped people are seen to benefit the organization, as they are experts in their own field and perform well in other work as they have good core skills and can learn new things quickly. The best qualities of a T-shaped individual are collaboration and communication skills, flexibility and maintaining both hard and soft skills. They see the big picture, because they can discuss matters with people from different departments, to create an understanding. They are team players as they flexibly take on tasks in addition to their own and try to make sure the team is on track

with their tasks, by offering help in areas needed. It goes without saying, that T-shaped employees do not only have hard skills, they complement hard skills with many crucial soft skills, such as networking and critical thinking. (CFI 2015).

T-shaped professionals are described by their ability to perform with intense disciplinary knowledge and system understanding in a minimum of one area. Additionally, these professionals are great in working across the boundaries between disciplines and performing as adaptive visionaries. (Heikkinen 2018, p. 18.) Please see figure eight below.

Boundary crossing competencies / skills

Teamwork, communication, perspective, networks, critical thinking, holistic understanding, project management, emotional intelligence, organizational skills, program management, cultural competence.

Many disciplines	**Many systems**
Understanding and communications	Understanding and communications

Deep in at least one discipline	**Deep in at least one system**
Analytic thinking and problem solving	Analytic thinking and problem solving

Figure 8. T-shaped professional, applied from Heikkinen (2018) and Bierema (2019)

According to Hansen et al. (2010) The boundary crossing skills mean the T-shaped professionals' ability to perform broadly in an array of disciplinary areas. This type of a person can comprehend the essence of the discipline, and use this information for their benefit, even though he could not solve a problem at hand. This type of person can redescribe the problem for an expert who can help in solving it. This means that the T-shaped person's project experience, communication and team-work skills are on a better level than the I-shaped persons, and therefore this might increase the value of the T-SP in work. (Heikkinen 2018, p. 19).

Bierema explains Chaoi and Pak's (2006) literature review results on the terms multi-, inter-, and transdisciplinary to get a more profound understanding on the TSPs traits. Multidisciplinary means someone who can gain knowledge from many disciplines but stays inside the boundaries of each area. Interdisciplinary implies an individual who is capable in combining and complementing connections between disciplines and reaches a comprehensible understanding. Transdisciplinary is somebody who can provide an overpowered comprehension or solution, which transcends the borders of conventional disciplines, by combining the disciplines. Bierema continues, that TSPs foster inter- and transdisciplinary ways of operating as they can create new solutions to multidimensional problems by generating synthesis between ideas transcending the contributing disciplines. (Bierema 2019, p. 72).

Discipline depth means thorough understanding of the system itself and being able to adjust to the rapid changes affecting on it as well. Discipline depth needs to be complemented with system depth knowledge. System depth knowledge means building ones understanding on the culture- and context understanding. For example, an accountant discipline knowledge is related to accounting, financial statements and so on, but additionally she requires knowledge on the economic system consisting of administration, industry, and education. It is good to have these knowhows in balance. (Bierema 2019, pp.75-76).

2.4 T-shaped professionals skill set for the future

According to Talent Development (2018, p. 18) when hiring a new talent, it is important to make sure he has growth potential and can relate his skills and talent to a company's mission. This means that the individuals who are adaptive, able to learn throughout the journey and understand the related disciplines well, are the ones who should be hired. The employees should have mental flexibility hence being able to apply his knowledge widely in many circumstances, based on the current needs.

In the article of Talent Development (2018, p. 18) it is said that to truly benefit the company, the above-mentioned skills, require collaboration skills throughout the whole organization. Bierema continues by writing that Kruusmaa (2015) says that

most beneficial collaboration can be achieved by individuals who are experts in their own field, with good interpersonal- and teamwork skills. (Bierema 2019, p. 72)

The article of Talent Development (2018, p. 18) states that the individual's value can be measured by how well he can apply knowledge to benefit the whole organization. When an individual has empathy skills, he can see the situation from a different viewpoint. Also, enthusiasm is required, to get started in personal development.

According to the article by Training & Development (2009, p.45), the professionals of the 21st century need to have a mixture of skills to understand technology, business, people, and culture. These skills include deep IT understanding including web 2.0 technologies and programming.

Bierema (2019, p. 69) writes that according to Training & Development (2009) the T-shaped professionals are great at solving problems and desirable partners as they can mix business expertise, technical skills, cultural vision and interpersonal skills to their expertise.

The most important traits of a future worker are collaboration skills; ability to work flexibly, with anyone and in diverse projects. Innovative and holistic ideas arise from teams that encompass people with different backgrounds, versatile skills and different ways of thinking. The workplace is in an essential role as an enabler of this way of working. Organizations should target achieving Human Experience (HX) among the employees to generate a deep relation among them. To reach HX organizations should operate in a flexible and agile way offering employees good facilities for engagement and collaboration and plenty of choice in work. (Allwork 2018).

Allwork's (2020) report claims that the future jobs require technical and cross-functional skills, hence individuals must build distinctive sets of skills, to stay competitive on the work market.

According to the article of Agile Lean Life (n.d.) general skills that are good to have for every specialist regardless of the field are; broad knowledge about a

certain area, broad context for the specialized skill set, basic understanding about people and society work, understanding your industry and basis on how the business world works. Agile Lean Life (n.d.) also lists important soft skills; teamwork, communication and networking skills, time management skills, information technology, tolerance and open-mindedness, and emphasizes an execution skill 'E' which is important, so that an individual can execute the ideas she has.

2.5 T-shaped expertise development matrix

It is important that the disciplinary and system skills, and simultaneously the boundary crossing skills described under section 2.3. are trained, as teamwork and interpersonal skills are more and more important in future work.

Bierema (2019) has created a T-shaped expertise matrix, for the support of T-shaped development in the context of higher education. The ideology is applicable in working life as well. Please see figure 9 below.

Figure 5.4. T-shaped expertise matrix.

Boundary Spanning Competencies		
Low		*High*
Novice Low Boundary Spanning Capacity Low Discipline Depth	Discipline or System Depth — *Low*	**Horizontal Expert** High Boundary Spanning Capacity Low Discipline Depth
I-shaped Expert Low Boundary Spanning Capacity High Discipline Depth	*High*	**T-shaped Expert** High Boundary Spanning Capacity High Discipline Depth

Figure 9. T-shaped expertise matrix (Bierema 2019)

The idea of the matrix is that an individual can develop one's competences from Novice to I-shaped Expert, and from there to Horizontal Expert and Finally to T-shaped Expert. Ones who do not possess boundary spanning competencies nor disciplinary and system depth skills are called *Novice*. These individuals start by learning collaborative and interpersonal knowledge and disciplinary competence. (Bierema 2019, p. 75.) This situation might be the case in work life for example

when a new employee starts in the team. The *I-shaped Expert* has low capabilities in collaborative work, and high discipline or system depth (Bierema 2019, p. 75). This way of operating is rather normal for expert employees. There is a high knowledge in substance related issues, and the boundary crossing competence skills need development. As Bierema writes, the problems which can arrive from this kind of skill set are related to flexible problem solving, which requires looking at things from new viewpoints (Bierema 2019, p. 75). *Horizontal expert* is very good in boundary crossing and collaborative competencies but does not have skills in discipline or system areas. These individuals are called dash shaped. (Bierema 2019, p. 75). The *T-shaped expert* is an individual who has good knowledge in system and discipline areas accompanied with good collaborative and boundary crossing skills (Bierema 2019, p. 75). These T-shaped experts are highly valued in a workplace as they are individuals who can operate smoothly across boundaries, gain knowledge from a broad array, educate themselves and others, and come up with innovative new solutions to problems.

3   Customer experience

As the model is created to the customer service function, one of the most important things to remember is the customer experience point of view. The most crucial element of companies' survival is the way of thinking in a customer centric way. All processes should aim to a customer centric way of operating.

3.1   Creating customer experience

In a company, everyone is responsible for creating superior customer experience. Every encounter is a customer service job; hence every job description and role should be designed from the customer perspective. When customer work is done by everyone in the whole organization, then customer experience can truly be enhanced. (Korkiakoski & Gerdt 2017, pp. 54-55).

Customers require quicker and quicker service all the time. In the past, companies had more time to investigate customer service situations. Now, considerable efficiency is expected from internal processes and communication. In most cases, customers find the answers online, either by themselves, through their networks

or in the worst-case scenario from the competitors. Korkiakoski and Gerdt write that mr. Jack Welch has predicted that most of the current businesses will vanish within 20 years' time, and new more agile companies will replace them. (Korkiakoski & Gerdt 2017, pp. 54-55).

The organizations should be able to build a culture where staff takes genuine responsibility for serving customers. A superior customer experience only emerges in a culture where everyone feels responsible to the customer and therefore takes responsibility for serving him. (Korkiakoski & Gerdt 2017, p. 55).

At its simplest, good customer service is answering to the customer's needs and requirements. Hence, understanding the customer is the starting point for good service. The signals from the customers can be verbal or nonverbal, and therefore emotional intelligence is needed. Therefore, an excellent customer service representative has sensitivity to interpret customers, in addition to a strong substance expertise. Serving others requires humility and genuine desire to take the position of another. (Korkiakoski & Gerdt 2017, p. 101).

Customer experience withholds the entire customer journey within the company. There are three primary elements in creating customer experience: a) customer service, b) technology and c) design. Customer service can be opened as the touching points where the customer interacts with the customer service teams (customer support, customer success, self-service support). Technology means the product, how it works and the interactivity points. Design withholds the touchpoint of the brand for the customer meaning the design, marketing, and feelings the brand generates. (Help Scout 2018).

3.2 Service culture

The service culture of a company is crystallized in a genuine desire to serve the customer. When every employee is committed to creating good customer service, the means to implement it is found. Rewarding and corporate culture support the willingness to service. The desire for service is called the "can do" attitude. All in all, service requires effort. Often it is easier to say "no" to the customers than to see the effort and figure out options. (Korkiakoski & Gerdt 2017, p. 104).

The best way to ensure customer centric culture, is to recruit experts with the right kind of attitude. The experience of the customer is always in relation to the person and their way of operating. Even the best process is not a substitute for a genuine willingness to serve and a smile. Where in the early 2000s' competence was thought to be the most critical criterion for person selection, today emphasis is placed on the candidate's potential. Potential means the ability of an individual to develop and change their way of operating constantly according to the changing environment, and above all according to customer requirements. When selecting a candidate, attention should be paid to the candidate's curiosity, ability to realize something new, commitment and ability to engage others and to one's determination. Studies have shown that the most successful companies pay particular attention to their recruitment process and emphasize, in addition to competence, the potential of individuals and the suitability of the individuals set of values to the company's values. (Korkiakoski & Gerdt 2017, pp. 109-110).

3.3 Employees role in customer experience

It is important to authorize the staff when aiming for superior customer experience. Those individuals working in the customer interface should understand the company's strategy, and controversially the management should listen to these individuals as they have first-hand knowledge of the customer experience. The employees should be given responsibility and power for independent thinking and decision making to answer to the customer expectations on quick service. Employees should be encouraged to experiment and given the freedom to innovate. The employees working closely with customers see the recurring problem areas of operations, but also the situations in which the company receives most praises. Also, unnecessary hierarchy should be pruned. The time spent with a customer, compared to for example internal reporting, increases the chances of success faster. Investments should be made to the customer interface by training staff and guaranteeing necessary resources. People close to the customer communicate the organization's policies and values to customers daily. (Korkiakoski & Gerdt 2017, pp. 111-114).

3.4 Customer centric organization

An innovative and truly customer-centric organization is distinguished by its following operating ways: a) the company's focus is strongly on the outside, not in internal processes, b) there is an owner for taking care of things with a genuine desire to help the customer, c) innovation is supported instead of processes and they are dared to be questioned when there is reason to do so, d) everyone should do customer work regardless of their role. (Korkiakoski & Gerdt 2017, p. 118).

Controlled uncertainty and continuous learning of new things ensures organizational renewal and improves responsiveness to changes in the environment. For an individual this requires more, but ultimately to maintain continuous learning and constant change as a part of the organization culture, it is the only way to generate innovation and improve the customer experience. This is where the small, agile companies normally succeed well. (Korkiakoski & Gerdt 2017, p. 120).

The genuine will to help colleagues across boundaries creates quality connections. Therefore, it goes without saying that fostering a culture of helping, is inevitable for the company to succeed. This kind of culture creates common will, which again creates innovations, better quality, and superior customer experience. This way of operating generates social capital and assets that the competitors cannot copy. The assets created through the social capital are for example knowledge, wisdom, ideas, advice, possibilities, contacts, service, funding, mental support, and benevolence. The quality connections effect on cooperation, internal coordination in the company, and on the individuals and their projects performance. Reciprocity makes better use of an organization's resources, finding new resources, solving multiple problems faster, and saving money and time. Then again communality builds up the positive social capital in an organization and is thus and integral part of a profitable business in order for all types of duplication, under-efficiency, and underutilization of resources to become visible in the organization and the members of the organization learn to locate and take advantage of available opportunities, work more efficiently and better link existing

know-how and technologies to better serve customers. (Fischer & Vainio 2015, pp. 101-102).

In the future, customer experience is more and more affected by the fact that internal processes in the organization are transparent and well organized. In to-day's work it is necessary to understand the whole of the organization and its stakeholders to make the most of the benefits of the positive social capital. Creating a competitive advantage requires new thinking and actions across borders. The whole company must be seen as an entity performing something important. (Fischer& Vainio 2015, pp. 102-103).

Central to an expert organization is that people understand each other, other professionals and what they do. It is much more than teamwork skills; it requires the ability to build own work on top of other's work as well as overlapping with it. One of the success factors of Finnish working life is how organizations can generate cooperation with in-depth experts in the same field, and especially in different fields. Companies are increasingly operating in networks where success is largely based on the ability to create quality connections and social capital with each other. (Fischer & Vainio 2015, pp. 103-104).

3.5   Customer service trends of the future

Customer service is constantly changing, and within the next five years the change will accelerate even further. Help needs to be fast as is required already today, but the role of excellent service experience is as important as ever. As the Generation Z enters the market, the customer experience expectations rise to a new level. (B2X n.d.).

Globally, the Millennials' and Gen Zers are the largest generations of history, and by 2025 the Millennials' single-handedly will represent three quarters of the world-wide labor force. These generations wish to handle problems by themselves, via online channels, hence not speaking with a person on phone. In other words, the demand for call-centers is diminishing and the requirements for digital self-service channels are rising. The mindset of these generations is that service needs to be available 24/7/365, which means every day of the year, and in the channels they require, and these channels basically mean online channels, not stores or

calling a call-center. It was studied that over 80% of the respondents in the B2X study would like to solve problems related to software by themselves, with a Virtual Assistant, AR/VR support or video tutorial. 50% of respondents would like to converse with digital customer care solutions. (B2X n.d.).

The most valuable finding is related to a rising demand for high-quality customer care experience. The B2X (n.d.) study shows that Millennials' and generation Zers' are not compassionate when they face bad service. 81% of B2X online survey respondents said that they had left a brand because of bad service. Customer Experience Management should take in account the Millenials' and Generation Zers requirements for rapid and instant access to Customer Care. This is one of the reasons why the self-service channels are preferred over human contact. It is important to understand that rapid service is even more valuable than the quality or cost of service.

3.6 Skills and knowledge required in customer service in the future

This section focuses on literature concerning the skills and knowledge required in the customer service field in the future.

According to the Salesforce blog (2019), the 10 most important skills which are required in the customer service field are: analytical thinking, active learning, creativity, technical design, critical thinking, complex problem solving, leadership and social skills, emotional intelligence, reasoning, and system analysis. Analytical thinking includes the employee's capability to combine and understand data, and realize new perspectives based on it. Active learning means continuous training based on the employees active learning. This means the commitment of the customer service representatives to self-initiated self-development. Customer priorities live and change, and changes are constant also within the organizations. It is the job of the customer service representative to stay aware of all this. Creativity means creative thinking. Technical design means that the customer service representatives can give constructive feedback and report problems the customers or the representatives themselves encounter in the daily work when utilizing the company technology, in other words the software. Critical thinking is important at these times when service is expected to be very quick. The representatives

need to be able to make rational moves on the go. Complex problem solving means the representatives ability to solve each customer case as a unique problem. The representative can search for solutions and answers from the experiences of different companies and apply them to different contexts, customers of channels. Leadership and social skills mean versatile things. Today's customer service representatives are required to have social skills, and efficiency in several different channels and contexts. Emotional intelligence means reading tips and identifying the customers feelings. This ability is in a critical role when striving for an excellent customer experience, especially when the customer has been disappointed. Reasoning has similarities to analytical thinking. It means the ability to justify one's own decisions. This ensures that the customer service representatives not only let data lead the decision making, but also, they utterly understand the connections that data reveals between things when dealing with customers. System analysis means the process of examining familiar practices and patterns with a critical eye, aiming to find ways to achieve the objectives more efficiently. (Salesforce blog 2019).

According to Freshworks Inc. the required skills are communication skills, organizational skills, collaboration skills, subject matter expertise and workload management. The communication skills include listening skills, patience, empathy, and ability to manage difficult conversations. Organizational skills mean the representatives way of working, accessing necessary information and using tools available to serve the customer with high quality and speed. Collaboration skills mean the cooperation within the company, with external stakeholders and customers. These skills help the representative to establish relationships with others. Subject matter expertise bluntly means the in-depth expertise concerning the product or service an individual works with. Workload management includes many areas such as good time management, goal setting, effective multitasking, performance and productivity maintenance and meeting deadlines. (Freshworks Inc n.d.). Help Scout complements the above skills with the importance of knowledge of the product or service, which means the overall understanding of the product the representative works with, but also other products within the company (Help Scout n.d.). To understand the customer and efficiently solve their problems, industry knowledge is required (Indeed Career Guide 2020b).

3.7 Customer support and customer success in SaaS business

SaaS customer service includes both customer care and customer success. They both have their own purposes when it comes to serving customers. The customer support team's single most important thing to take care of is assisting customers reaching out for the team when facing problems in the software. The success team works from another perspective. They work closely with the customers with a proactive mentality, trying to help the customers to accomplish their goals. A great experience can be delivered to the customers when these two teams work tightly together, and the service experience should be consistent. (Document360 2019).

There are some actions that can be made when trying to develop the quality of customer support. First, the right support metrics should be set to reach the set goals and see the progress. The second important factor is gathering an experienced team which in turn creates respect towards customers time by offering fast service. A world-class team can also improve the business's internal processes, even though building this type of a team can take time. The third point is to offer service in the platforms the customers require and ensure that the quality of service is consistent throughout the channels. Another important factor is to design a scalable support composition. The growth of SaaS companies can be changeable. Having said this, the team should be able to handle for example congestion peaks in the support demands. Customer-centric mentality instead of a product-centric approach in a product company is always not easy but should be the priority in any case. This way of operating also gives the support team more fuel to find the best solutions for the clients. Lastly, but maybe most importantly, the customer service department is the most important element in SaaS business organization. The customers require help with the product in use, and without support they could not use the product. Hence, the importance of great customer support in SaaS business cannot be highlighted enough. (Document360 2019).

4 Research process and findings

This section presents the research process and the empirical findings and analysis.

4.1 Case company introduction

As the case company is an expert organization with mostly Application Specialists in the customer service function, it is justified to say that the skills need to be on a general level about many topics, but furthermore there is a need for deep expertise in required fields. Currently the skills and knowledge of employees are not collectively known, nor training paths offered for the employees. Now the 70-20-10 model for learning and development is applied, which means that the employees are encouraged to learn by doing the job, from interaction with others and lastly from formal educational events. Hence, there is a need for a mutual company-wide acknowledged system for personal development for the new and already expert employees, as well as the managers to see the current and future requirements of required skills. The T-shaped model is formed to answer these needs.

Table 2. Product portfolio in the case company

The case company operates in a Lean and Agile spirit. The hierarchy of the case company is low, and a lot of responsibility and freedom are given to the employees. In this kind of environment, employees need to embrace a growth mindset to be able to learn constantly about new matters and take ownership of developing things further in a customer centric way. The main points in operating in a Lean and Agile spirit are ongoing development of product-market fit from the customer point of view and continuous improvement actions to answer to the customer requirements (Yoshida 2018).

4.2 Conducting the research

In this research, the material is gathered with a questionnaire survey and a focus group interview. In the first stage a large number of people are interviewed to deepen the project team's understanding on the subject investigated, in other words to find out the ideas of the employees current and future soft and hard skills and knowhow. In the second stage, the focus group interview is conducted to the managers, after the T-shaped model draft is ready, to gain new perspectives on the model. The research work is done mutually with a project group, consisting of six experts representing different products.

4.2.1 Data collection

In this thesis data is first collected with a questionnaire survey from individual respondents to gain a broad understanding on researched phenomenon, the skills and knowledge the employees and managers have now and should possess in the future.

Tuomi and Sarajärvi explain that usually a questionnaire survey method is used as a data collection method for quantitative research, even though it can be used in qualitative research. The questionnaire only asks questions that are relevant to the purpose of the study and the problem setting. Therefore, for each of the questions, a justification must be found in the research framework of the study, the data already known from the phenomenon under study. The difference between an interview and a survey is, that in an interview, the interviewer asks questions orally and records the informant's answers, hence the distinction is related to the informant's activities during data collection. (Tuomi & Sarajärvi 2018, pp. 74-85).

A focus group interview is conducted to the managers of the customer service function, to compliment the questionnaire survey findings and to support the development process of the T-shaped model. A focus group interview is an interview situation where there are multiple interviewees and possibly even multiple interviewers present at the same time. In this situation, the aim is a group discussion on a topic or theme desired by the researcher. Group interviews can be used to gain more information than normally, as the participants can for example remember, evoke memories, encourage, and support each other. Middleton & Edwards (1990) say this situation to remind of a collective remembrance. (Eskola & Suoranta 1998, p. 94).

4.2.2 Data analysis

The purpose of qualitative data analysis is to create clarity in the material and thus to produce new information on the subject under study. The aim of the analysis is to condense the material without losing the information it contains; hence the aim is to increase the information value by creating clear and meaningful information from fragmented material. (Eskola & Suoranta 1998, p. 137).

In many cases, the first approach to the material happens via thematizing. Themes that illuminate the research problem can be highlighted from the material. This makes it possible to compare the occurrence and appearance of certain themes in the material. The main topics can be extracted from the material and thus present it as a collection of framing questions. First the topics most relevant subjects to the research need to be found and then distinguished. To succeed, thematizing requires interaction of theory and empiricism, which in the research text appears as their interleaving. (Eskola & Suoranta 1998, pp. 174-175).

The other traditional approach in addition to thematizing is typology. Usually the qualitative material is firstly presented as themes, but it can be further processed, by building more common types of the responses. This means grouping the material into types by looking for similarities, in which case the material is usually presented using combined types, models. Typology always requires story set structuring, i.e. thematizing. Typology means grouping the material into types, clear groups of similar stories. There are at least three different ways to form types. The first one is an authentic, single response type, as an example of a larger piece of material. The second one is a combined, the most common type possible: only things that appear in all answers or in most of the answers are included. Third is the broadest possible type, in which case some of the things to be included in the type have appeared in perhaps only one answer. Essential to this type is its internal logic; the type is possible, but as such not likely. (Eskola & Suoranta 1998, pp. 181-182).

In this thesis, the material acquired vie questionnaire survey is first thematized and after that analyzed more thoroughly with typology. The material gained with the focus group interview is analyzed by thematizing the material.

Yin (2009) explains that there are some strategies to analyze the case study evidence, one of which is called relying on theoretical propositions. It basically means that the theoretical propositions set in the beginning of the research have led the case study. Yin explains that the propositions normally guide the process as they set the objectives and design of the case study, and these then again indicate the research questions, literature review and possibly new hypotheses and propositions. The proposition helps the researcher to focus on specific data

and to ignore the rest, to organize the study and identify other options to be ana-
lyzed. The case study analysis can be guided with questions "how" and "why".
(Yin 2009, pp. 130-131).

4.2.3 Questionnaire survey

In this thesis the questionnaire survey is done as an online survey, more specifi-
cally a Google Forms questionnaire survey. The advantage of an online survey
is that it is economical, and the responses can be utilized as an electronic file, so
the material input is omitted (Aaltola & Valli 2015, p. 93).

The people selected to be interviewed with the questionnaire survey need to work
in the Customer Service function in different teams, with different job titles and
lengths of working careers. The project team intends to interview people from all
teams included in the Customer Service Function to fully get an understanding of
the knowledge and skills possessed in the whole function. Therefore first, it is
clarified which teams are included in the Customer Service function, who are the
employees and managers in each team and what are the job titles in the teams.
Please see figure 10 below.

Figure 10. Customer service function organization chart

The focus is not the quantity, but the quality and the comprehensiveness of the
conceptualization (Eskola & Suoranta 1998, p. 18). The selection of informants
cannot be random, rather thoughtful and fit for purpose (Tuomi & Sarajärvi 2009,
p. 85 - 86). The interviewer can select interviewees who have experience on the
researched phenomenon (Tuomi & Sarajärvi 2009, p.74). For the selection, a
sampling method is applied. A sample is selected from each team operating in
the customer service function. The employees are selected according to the fol-
lowing criterion; a) employees are selected from each team, b) to get a wide
cross-section of the personnel working in the team, people with different job titles
are interviewed, b) the selected employees have different lengths of careers in
the customer service function, c) if the teams were divided into even smaller mini-
teams, people from each mini-team are selected to guarantee, that even the
smallest team's personnel has a say in the interview (concerning one product).
Please see figure 11 below.

Product specific representation

Other
7 %

Invoicing
5 %

Managers
16 %

Product D & E
18 %

Product C
2 %
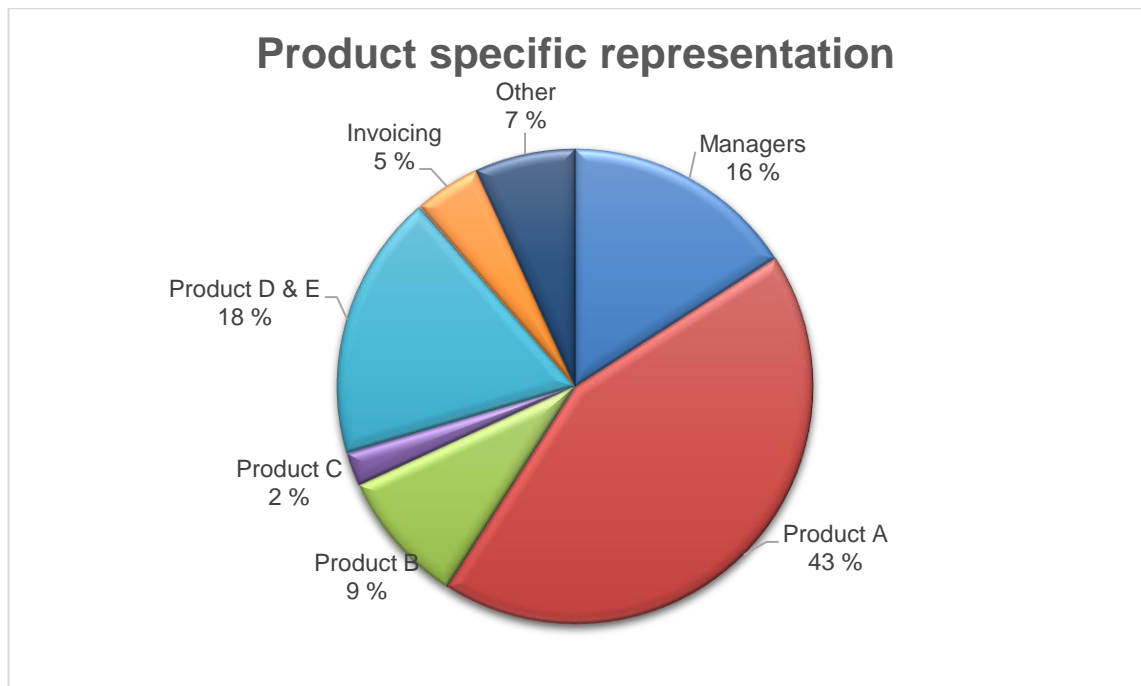
Product B
9 %

Product A
43 %

Figure 11. Questionnaire survey's product specific representation

A selected group of employees and managers are interviewed by a Google Forms questionnaire survey to collect information about the skills the employees and managers have now and should have in the future. Hence the response rate was 94%. There were some technical problems with the Google Forms form, and therefore at least one person's answers did not come through.

The questions need to be unambiguous and not prescriptive and should be built in accordance with the research objectives and research problems. (Aaltola & Valli 2015, p. 85). In the beginning of the form, the research problem is presented, a link for T-shaped model material provided, and only a brief definition for soft- and hard skills provided so that the definition would not greatly guide the respondents' answers. The preliminary information is seen important, so that the respondents have the possibility to improve their knowledge of the subject if they wish to do so, hence it is familiar to all the respondents already in at least some level.

After the preliminary information, the background questions are presented; name, job title, and the name of the product presented. After these questions, the main two open questions are presented. In this case the questions concern the skills and knowledge the individual has now and should have in the future (please see

appendix 1). The last question asks the individual to tell if he has worked in an-other team within the customer service function and to point out the possible skill differences between the teams. The questions in the form are relevant to the pur-pose and problem setting, as the questions discuss the skills and knowledge of the employees as one aspect in creating the T-shaped model for the customer service function. Please see the questionnaire survey questions below:

1. What soft and hard / technical knowledge and skills are NOW important to you at work? Mark at least 5-10 knowledge / skills. Prioritize them so that no. 1 = most important of all.

2. What soft and hard / technical knowledge and skills will be important in your work in the FUTURE, within 5 years? Mark at least 5-10 knowledge / skills. Pri-oritize them so that no. 1 = most important of all.

3. If you have switched from one team to another within the Customer Service function, have you noticed different areas of emphasis in your competence needs depending on the team? Describe below and tell us which team you switched to?

The benefits of using open questions are a) the opportunity to find out the re-spondents' opinions thoroughly, b) the possibility to classify the material in many ways, and c) there may be good ideas among the answers. The downside of open questions are a) they can be left unanswered and the answers are superficial or inaccurate, b) the respondent does not always answer directly to the question, but next to it, in which case the answer is not beneficial, and c) the answers are laborious to analyze as classifying responses and calculating results takes more time than interpreting ready-made alternatives. (Aaltola & Valli 2015, p. 106).

The main questions in the questionnaire are open, hence there are no ready an-swer options. This decision is made to gain as much information and ideas pos-sible on the possible skills and knowhow of the individuals. Giving ready answer options is seen as a risk to limit the thinking of the respondents, and in addition the project group feels like providing ready answer options is not possible due to the fact that there is not enough information on the whole function's employees' current or future skills and knowhow. Obviously, this way means more work in the analysis, but open questions are seen necessary to collect as much information

on the research problem as possible, to see the respondent's opinions thoroughly. In this case, the questionnaire survey material is first thematized and after that processed by means of typology.

4.2.4 Focus group interview

In the second stage, the focus group interview is conducted to the managers of the customer service function. The interview was held after the draft of the T-shaped model was formed, in September 2020. Please see figure 12 below which represents the draft of the T-shaped model.

Figure 12. Draft of the Customer Service function T-shaped model

According to Sulkunen (1990) the group interview can be used to at least five different purposes: a) acquiring factual information, b) researching mutual norms and ideals, c) researching intra-group interactions and social relationships within them, d) exploring group communication sociolinguistically, and e) researching the material produced by the group interview as a text, a cultural product. (Eskola & Suoranta 1998, p. 95). In this research the group interview was used for the purpose of researching mutual norms and ideals, the objective being to seek for new ideas.

According to Syrjälä & Numminen (1988) there are four research objectives that favor the use of group interviews; a) aim to understand human interactions, b) operational research, c) seeking understanding and insight, and d) seeking new ideas. (Eskola & Suoranta 1998, p. 95) In this case the objective is to seek for new ideas and perspectives.

In total 12 people are invited of which 11 were present: 5 managers and 6 people from the project group. One manager was not able to join the meeting. One member or the project group also presents the managers, as she works as a team manager for products B and C. Please see table 3 below.

Table 3. Managers interviewed in the focus group interview

The project team members represent products A, B, and C. Please see more specific information from table 4 below.

Table 4. Representation of the project team

The interview lasted for 1 hour and 14 minutes. The interview was kept as a video interview due to the COVID-19 situation, hence it was not possible to meet face to face. The interview was recorded so that the analysis afterwards was easier to make. The managers were given access to the material well in advance, so that they had the time to get familiar with the presented Customer Service function T-shaped model should they want to do so.

The group interview is not structured, the aim is a relatively informal discourse, persistent on the matter discussed. While designing the interview, it should be determined if the event will be kept as an interview, or a discussion. (Eskola & Suoranta 1998, p. 97) As the interview was kept as a video interview, it was decided that the aim is to keep the interview informal.

The interview situation was conducted so that the author presented the starting point and the current situation for the project, the results of the questionnaire survey, the analysis of the questionnaire survey material, and finally the created T-shaped model draft. After this, the speaking turn was given to the managers one by one. The managers were asked to present their thoughts on the model's content and possible ideas of the next steps. Due to the video-interview, it was easy to give turns for each of the managers, hence none of the individuals acted dominantly. The interviewees were also able to continue the ideas of others. The project group commented on the questions and explained the groups thoughts when necessary.

4.3   Research findings

In this section the questionnaire survey- and focus group interview findings are explained individually.

4.3.1   Questionnaire survey findings

The main questions of the questionnaire survey can be seen from appendix 1.

In this research the material gathered with the questionnaire survey was first divided into the following four themes; a) soft skills/knowledge required now, b) soft

skills/knowledge required in the future, c) hard/technical skills/knowledge required now, and d) hard/technical skills/knowledge required in the future. After this, the material was further processed by means of typology, in which case combined typology was used; only things that appeared in most of the answers were included.

Question one findings: The first question aimed at understanding the current soft and hard skills important to the case company's employees now. The responses were thematized to a) soft skills/knowledge required now and b) hard skills/knowledge required now. The first observation related to the amounts of responses per theme. It became obvious that the primary stress was given to soft skills and knowledge over hard skills and knowledge.

After the answers were categorized under the above-mentioned themes, the answers were progressed by means of typology. Only the answers that had more than one mention were selected. The next observation related to the quality of the answers. When proceeding with the questionnaire survey answers, it became apparent that the responses were in line with each other regardless of the position in the function.

When analyzing the respondent's answers on the current soft skills and knowhow, there were 13 types that occurred in most of the responses. Please see the table 5 below. When analyzing the answers related to hard skills and knowhow, there were only six skills and knowhow mentioned for the present requirement. Please see table 6 below.

Question two findings: The second questions' aim was to investigate if the case company's employees could mention new important skills and knowhow required in 5 years' time. The respondents were able to mention only one new soft skill or knowledge for the future, which was 'identification of relevant information'. All other soft future skills and knowhow mentioned were the same as the skills and knowhow required already today. Please see the table 5 below.

Soft skills and knowledge	
Now	**In the future (+ 5years time)**
1. Customer service skills	1. Customer service skills
2. Knowing and understanding the customer	2. Knowing and understanding the customer
3. Problemsolving skills	3. Problemsolving skills
4. Empathy ability and listening skills	4. Empathy ability and listening skills
5. Flexibility	5. Flexibility
6. Interaction and communication skills, communication	6. Interaction and communication skills, communication
7. Willingness to develop and change	7. Willingness to develop and change
8. Growth mindset attitude	8. Growth mindset attitude
9. Organizing and directing own work	9. Organizing and directing own work
10. Creativity	10. Creativity
11. Entity management	11. Entity management
12. Teamwork & co-operation skills	12. Teamwork & co-operation skills
13. Leadership skills	13. Leadership skills
	14. Identification of relevant information

Table 5. Soft skills and knowledge now and in the future

For the future hard skills and knowledge, two new skills and know how got most mentions. These were related to future technology and customer service industry knowledge. Please see table 6 below.

Hard skills and knowledge	
Now	**In the future (+ 5years time)**
1. Technical knowledge	1. Technical knowledge
2. Management skills	2. Management skills
3. Substance knowledge	3. Substance knowledge
4. Industry knowledge	4. Industry knowledge
5. Business understanding and strategy	5. Business understanding and strategy
6. Analytical thinking	6. Analytical thinking
	7. Digitalization, robotization, AI
	8. Customer service industry direction and innovation

Table 6. Hard skills and knowledge now and in the future

The third observation whilst analyzing the questionnaire survey material, was that the job-title specific substance expertise, marked with a red box in table 6, in the function level differs from each other. There are similarities, but also a lot of detailed knowledge not relevant to all teams in the function. Because of this, it was decided that this information is not analyzed in detail, except concerning the skills and knowledge related to product understanding. These skills and knowledge are important in all the teams within the customer service function. Please see table 7 below.

Substance knowledge / Product understanding	
Now	**In the future (+ 5years time)**
1. Understanding how software works	1. Understanding how software works
2. Experience in various ERP systems	2. Experience in various ERP systems
3. Knowledge of several products of the company	3. Knowledge of several products of the company
4. Understanding of the program / it's many aspects	4. Understanding of the program / it's many aspects
5. Using / instructing how to use the product	5. Using / instructing how to use the product
	6. Product compability as means of perceiving the entity

Table 7. Substance knowledge now and in the future

There were five skills and knowledge mentioned under the substance knowledge which are generally related to product and system understanding. The respondents found one new skill for the future which related to an even more holistic understanding of all the case companies' products and the products' compatibility.

The responses received to the third question were ruled out from this thesis, as there were only few responses which did not give any additional value to the whole.

4.3.2 Focus group interview findings

The focus group interview material was first spelled out. The respondents were marked with numbers 1-6 as there were six managers present in the focus group interview. Please see table 8 below.

Table 8. Managers numbered

In the chart the managers are given numbers from one to seven, their titles are presented, and the products and specific teams managed by each manager are presented.

The material was approached with a data driven analysis approach. The material was studied several times, and feedback related to the content of the model and next steps marked with separate color codes. At this point, comments irrelevant to the research questions were removed. The material was thematized. The themes arising from the responses related to ideas regarding the content of the function-level T-shaped model and suggestions for next steps.

The focus group interviews responses are categorized into two themes: T-shaped model content and next steps.

Content wise the feedback was related to further clarifying the idea of the T-shaped model's need. For example, Team Manager (4) commented that there are good elements in the model, but it still is unfinished. Support Manager (1) asked if the model is clear for a new employee in the sense that he is able to understand what is done in the Customer Service Function and what the process is from the customer perspective, in other words has the customer journey / business process been in the center when creating the model. The same person also pointed out that it could be fruitful to think about the reasons why the case company provides education and from the employee's perspective to which part of the process this education is needed. The Customer Service Director (6) added that what is happening in the Customer Service Function could be even further clarified in the model, meaning that in the top level it would describe what is happening, and in the lower level describe the topics in more detail. He also mentioned that the mode should clearly describe the elements of the function for a new team member operating in the function, or in some other team in the case company. The objective for the model is that it can be used as a tool for personal development, to see the operations in the function level, and for an individual to understand what kind on knowledge is required throughout the function if for example and individual would want to advance in his career, and to understand how to be a valuable member of this community.

Team Manager (4) said that should there be a need for managers feedback, it could be more beneficial to talk to each of them one by one. Customer Service Director (6) said that the model contains substantially correct things but requires shortlisting. This on the other hand requires decision making from the project group in the sense of what is being kept, and what deleted. He continued that to be able to make the right decisions, one tool in decision making could be to think about the content under each topic, and what the training paths under each topic could be. This might reveal if the topics described in the model are part of a larger entity. He also reminded the project group that the model cannot answer everything.

4.4 Summary of the findings and literature

In this section the aim is to analyze the research findings and literature studied as a whole, and to analyze the relationship with the set theoretical framework and to make a conclusion taking in account the research question.

4.4.1 Questionnaire survey findings analysis

The questionnaire survey analysis made it clear that the employees of the customer service function see the soft skills and know-how extremely important in their current work, and in the future work. This is seen from the amounts of responses per theme. There were 13 soft skills mentioned under the current soft skills and knowhow required, and 14 for the future requirements. In contrast, there were six hard skills and knowhow mentioned for today's requirements and eight for the future requirements. The respondents seemed to share a common understanding of the important skills and knowhow. The responses were very much in line with each other's regardless of the job title or team of the respondents. The only type that got versatile answers, was the job description tied substance expertise. This specific substance knowledge expertise differs from each other on a product and team-based level. Because of this finding, the project group understood that the function level T-shaped model should be accompanied with team specific T-shaped models, which can give more stress to the team specific substance expertise.

The soft skills and knowledge results (now and future combined) were the following: customer service skills, knowing and understanding the customer, problem solving skills, empathy and ability to listen, flexibility, interaction and communication skills, willingness to develop and change, growth mindset attitude, organizing and directing own work, creativity, entity management, teamwork and cooperation skills, leadership skills and identification of relevant information.

The hard skills and knowledge results (now and future combined) were as follows: technical knowledge, management skills, substance knowledge, industry knowledge, business understanding and strategy, analytical thinking, digitalization, robotization, AI, and customer service industry direction and innovation.

As the substance expertise varies, it was decided that only the expertise related to product understanding will be added to the customer service T-shaped model. The results were (now and future combined): understanding how software works, experience in various ERP systems, knowledge of several products of the company, understanding of the program / it's many aspects, using / instructing how to use the product and understanding the product compatibility as means of perceiving the entity.

All the results of the questionnaire survey will be utilized in forming the T-shaped model draft for the customer service function.

4.4.2 Focus group interview findings analysis

The focus group interview was decided to be kept when the T-shaped model draft was ready. At that point, the project team needed the managers' input to get an understanding if the direction where the model was heading was correct or if it should be focused, and if the managers had new ideas that should be taken in account. The responses received from the group interview made the project group understand that the model needed to better explain what is done in the customer service function, taking in account the customer journey.

The focus group interview was particularly important also in that respect that the original goals set for the function level T-shaped model were refined, so that the model's ability to assess in the recruitment process was eliminated. It was clarified that the model should help a new employee to understand what is done in all the teams of the function, and also deepen the understanding internally within the company of what the customer service function includes and more specifically what is done in the teams of the function.

After the questionnaire survey- and focus group interview findings were analyzed, it was decided that should there be a need for a T-shaped model to assist in recruiting, from the perspective of substance competence, the responsibility of this decision was transferred to each team in the Customer Service function.

4.4.3 Literature findings analysis

The T-shaped model related literature suggests that the model should be formed so that there are at least three layers: the horizontal layer where an individual should have an intuitive understanding about the disciplines, and the vertical layers which show the deep knowledge the individual has on the disciplines and systems. Bierema (2019) complements these layers with a layer of boundary crossing skills. The boundary crossing skills mean the individuals capability to perform flexibly between disciplines, with a cooperative touch by utilizing the teamwork- communication-, and project experience skills. When creating the T-shaped model for the customer service function, the boundary crossing skills are extremely important to take in account as these skills are mostly soft skills which play an important role especially when serving customers. Hence, this layer is formed based on the questionnaire survey findings supported with literature related to the T-shaped person profile and customer service skills. In other words, the T-shaped model will have three layers: 1st layer which is the case company-wide T-shaped models guiding layer, the 2nd layer, which includes the boundary crossing competencies important to all teams within the customer service function and other customer service function's general level expertise, and the 3rd layer including the deep expertise.

What comes to customer experience, the importance of acknowledging and putting the customer in the center of operations is more and more important nowadays. The world changes in a rapid phase, and the customers are becoming more demanding and base their customer relationship on excellent customer support. Customer support is not only provided from the customer service and success teams, but it is a companywide matter and each and everyone in the organization has an impact on the success or failure of it. This leads to the fact that already in the recruiting process focus should be put on finding the right kind of people, T-shaped professionals, to join the team. The other important point is to offer developing opportunities to these individuals, to guarantee even better customer support for example by experimenting and learning from failure. The better the individual understands the whole and the ways he can contribute to the overall customer experience, the better the result is from the customer point of view.

According to the literature there are many general skills and knowledge important in today's work, important traits a T-shaped individual should have in the future work, and essential customer service industry specific skills and knowledge. These will be explained separately in the next chapters.

The individual acts through his own abilities, more specifically the internal and external soft skills. These skills define the way an individual cooperates with himself and others. The whole list of these skills can be seen from table one. The internal soft skills are important to constantly develop, which can be done independently. In this case from the listing the following skills are selected when thinking about the critical skills for the customer service of the future which can be developed at work through the T-shaped model: critical thinking / problem solving, emotional management and growth mindset. From the external soft skills listing the selected skills are collaborative teamwork, effective communication, managing conflict, adaptability, networking. All the selected skills are important boundary crossing skills.

In addition to soft skills, hard skills are defined under topic 2.2.2. From the listing there are general hard skills which are selected according to the above criterion. These skills are analytical reasoning, artificial intelligence, technical skills, hard communication skills, data analysis and project management skills. All these skills are skills that the customer service function members need an understanding of to seamlessly serve the customers.

The T-shaped person specific traits are the following: an individual should have growth potential, adaptive, able to learn, mental flexibility, collaboration skills, good interpersonal and teamwork skills, empathy skills, enthusiasm, deep IT understanding, broad understanding of an area, understanding of people and industry, basics of business operations, networking skills, time management, open mindedness and execution skills. The TSP can use his skills and knowhow to the company's mission and this way are the most efficient workers for the company. They also are the ones to innovate and come up with boundary crossing solutions to problems by flexibly using the skills and knowledge learned in versatile situations. Because of their ability to empathize the individuals can see a situation from different viewpoints and hence is able to learn and develop himself nonstop.

The organization has responsibility in providing the TSP's possibilities to learn and develop for example via facilities where it is possible to engage and collaborate with people, and possibilities to have an impact on their work. This is important because the future work will require both technical and cross-functional skills, so versatile skill sets should be continuously trained. For each individual it is possible to map the current knowledge and skills for example with use of the T-shaped expertise matrix, explained in figure 9 where the expertise areas are specified as Novice, I-shaped Expert, Horizontal Expert, and T-shaped Expert.

When it comes to the customer service industry specific skills and knowledge related articles can be found. Depending on the publisher the content naturally varies a bit, but it is quite clear that the soft skills are especially important. The literature findings support the questionnaire survey findings as there are a lot of similarities.

According to the Salesforce blog (2019), the 10 most important skills which are required in the customer service field are: analytical thinking, active learning, creativity, technical design, critical thinking, complex problem solving, leadership and social skills, emotional intelligence, reasoning, and system analysis. According to Freshworks Inc. the required skills are communication skills, organizational skills, collaboration skills, subject matter expertise and workload management. Help Scout complements the above skills with the importance of knowledge of the product or service, which means the overall understanding of the product the representative works with, but also other products within the company (Help Scout n.d.). To understand the customer and efficiently solve their problems, industry knowledge is required (Indeed Career Guide 2020b). More specific details on the skills can be read under topic 3.6. All these skills are important and are taken in account when creating the T-shaped model for the customer service function, as these skills were mentioned in the questionnaire survey and in literature.

In the beginning of the research the theoretical framework was set. The research questions guided the research process and gave the researcher a clear direction on where to focus. The research process combined literature and methodology. The literature included literature on T-shaped model definition, the development

process, T-shaped professionals (TSP), soft and hard skills and customer experience. The research data was acquired by a questionnaire survey investigating the current and future skills and knowhow the employees have and should have in the future, and a group interview to gain new ideas for the T-shaped model and check the direction it was heading at. By combining all the studied and analyzed information, it is possible to create the customer service function T-shaped model. The formation process is explained in detail in the following chapter.

5 T-shaped model development process

The T-shaped model development process is guided by literature studied and applied by the project group, objectives set for the model, the T-shaped model framework, and the case company organization's T-shaped model. The actual content of the model is formed based on the analyzed questionnaire survey and focus group interview findings complemented with literature findings.

5.1 Process framework

To form the customer service function T-shaped model, the formation process is followed and simultaneously the research questions answered. According to researched theory and literature, there is not a strict guideline on how to perform the T-shaped model, hence the researcher has applied investigated material, to form a creation process for T-shaped model development. The processes steps 1-4 are applied from College Info Geek (2017) and steps 5-7 are formed according to the researchers own judgement based on the learnings acquired from the literature. Please see figure 13 below.

1. Define the goals of the T-shaped model → 2. Define current soft and hard skills/knowhow of employees/managers of the customer service function → 3. Figure out skills/knowhow required in the future (which the experts might not yet have) → 4. Select the skills/knowhow most relevant/potential for development → 5. Broaden the perspective by thinking about bigger entities → 6. T-shaped model draft is formed and presented for the managers → 7. Final T-shaped model for the customer service model is formed
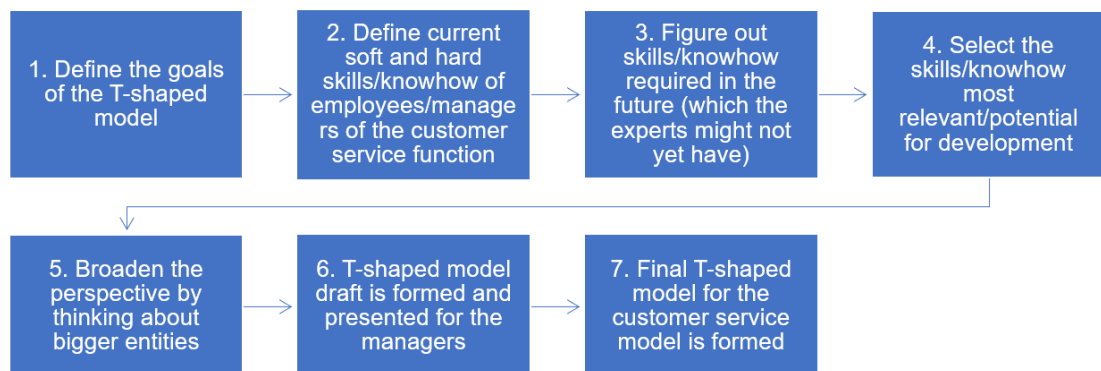
Figure 13. T-shaped model creation process (steps 1-4 applied from College Info Geek 2017)

The process follows the next phases: 1) the goals for the model are defined, 2) the current soft and hard skills and knowhow are identified from the case company's employees and managers with the questionnaire survey, 3) the required soft/hard skills of the future are figured out via the questionnaire survey, 4) relevant/development potential owned skills are selected, 5) the perspective is broadened by thinking about bigger entities where the current and future skills fit into, 6) the T-shaped model draft is formed and presented to the managers for discussion via a group interview to acquire new ideas and comments on the direction of the model, and 7) the final T-shaped model is formed based on the learnings of the focus group interview combined with literature studied.

The T-shaped model's layer formation can be even further specified. There are three separate layers which each are formed based on different influencing factors. Please see figure 14 below.
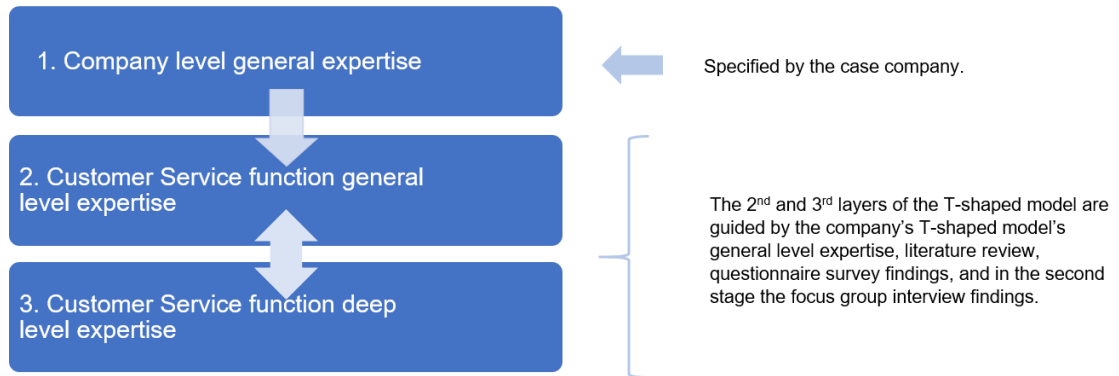
Figure 14. T-shaped model layers formation

The first layer of the model, 'Company level general expertise', comes directly from the case company, as the organization wide general T-shaped model has been formed already in the case company, and it guides the development process of the function-wide T-shaped models. The topics described in the company level T-shaped model describe the sub-areas important to the case company. Please see figure 15 below.

Figure 15. Case company T-shaped model's general level expertise

The T-shaped model development process is guided by the case company's organization level T-shaped model's general level expertise level. This level will set the guidelines for the development process of the customer service function's T-shaped model in the sense that the highest level guides the development process on a general level, by ensuring these sub-areas are taken into consideration when forming the model.

The 'Customer Service function general level expertise', and the third level 'Customer Service function deep expertise' are formed in this thesis. The formation process is two-staged. In the first stage, the T-shaped model draft is formed. In this stage the second and third level of the model is guided by the case company's T-shaped model's general level expertise layer jointly with the information received from the questionnaire survey results, complemented with literature. In the second stage, the draft is introduced to the managers and discussed with them in a focus group interview. The focus group interview results effect on the 2nd and 3rd layers of the model together with the studied literature and the questionnaire survey results. Hence the formation process follows the Deming (PDSA) cycle's idea about continuous development. Please see figure 16 below.
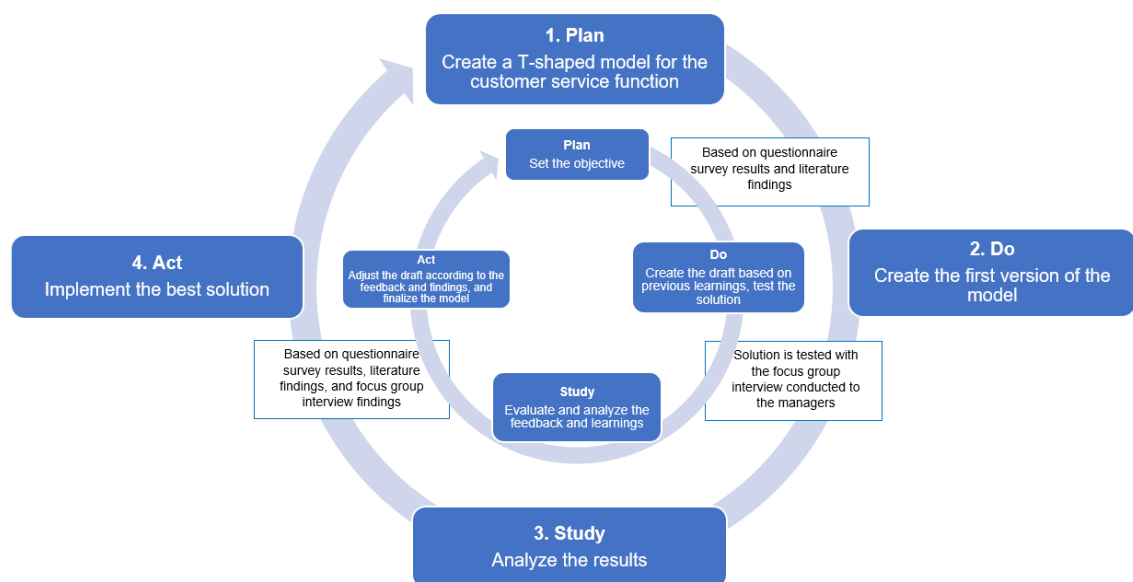

Figure 16: PDSA model in T-shaped model development

The formation process follows the Deming PDSA cycle. The stages are Plan, Do, Study, and Act. In the 'Plan' stage the problem and objective are named, in this thesis, to create a T-shaped model for the case company's customer service function. The second phase, 'Do', includes creating the draft of the model, based on literature and questionnaire survey findings and testing the solution, by presenting the draft to the managers via discussing it in a focus group interview. The third phase, 'Study', includes analyzing the results of the test, in this case meaning the focus group interview's results. The last phase, 'Act' means creating the final solution based on questionnaire survey- and focus group interview findings, accompanied with literature studied. The Deming cycle means an iterative way of development, and the development process is continuous, so even after the final version of the model is presented, the development process can be continued by the four steps described above. (MindTools n.d.).

5.1.1 Development stages

As there are no clear guidelines on how to create a T-shaped model, the creation process was multi-staged, and the project group had to modify the initial plan on the way. The creation process followed the Deming cycle, also known as the PDSA (Plan, Do, Study, Act) -model, used in continuous improvement processes (W. Edwards Deming Institute 2020).

Initially, the project groups idea was to form the T-shaped model by coming up with the second level general expertise topics, and then defining more precisely the third level deep expertise areas. The project team started to each individually define the second level general expertise area topics, by thinking about the current and future skills which are required in the Customer Service Function. After this, the team had a workshop where the aim was to form the second level, general expertise area topics, for the Customer Service Function T-shaped model based on everyone's thoughts. Quite quickly the project team understood that the team had different opinions on the topics, as each individual thought about the matter from their own point of view. In the workshop something was sketched on the paper, but it became evident that the project groups understanding of the whole function's operations, hence the current and future skills and knowledge, was not sufficient. Therefore, already in the very beginning of the project, the

project group learned, and decided it was necessary to interview the personnel of the Customer Service Function to supplement the project group's understanding of the research problem, by defining the knowledge and skills the employees in the function currently possess and what are their opinions on the future requirements.

5.2   T-shaped model draft

In the beginning of the process, the goals were set as follows: a) the created model should guide a new employee, when she/he starts to work in the case company, to understand what are the skills required function wise, and where to possibly develop him/herself, b) the model should also provide the experienced experts opportunities to develop their skills and knowledge, and c) it should help team managers in recruiting personnel to the team by recruiting talented people with a skillset not yet found in the team, to complement the team competence.

In the first phase, when developing the T-shaped model draft, the development process started from investigating and defining the skills and knowledge required in today's and future work, by the questionnaire survey complemented with literature studied about general soft and hard skills and knowledge required in today's work as well as specifically in the customer service sector. The skills selected are listed under section 4.4. The next step was to broaden the perspective by thinking about bigger entities where these skills and knowledge fit in to. The 2nd and 3rd layers were formed hand in hand and the content within both changed throughout the process, hence the PDSA model methodology guided the formation process. Please see figure 17 below.

Figure 17: T-shaped model draft presented to the case company's managers

In figure 17, the 2nd and 3rd layers of the T-shaped model are presented. Below is explained how the content to both layers was formed.

On the general level, the next topics were selected:. All these topics were affected by the case company's general strategy and customer service function specific strategy. As the case company wants to stay anonymous these strategies are not

opened in this thesis in specific detail. Additionally, the questionnaire survey results, and literature findings affected the content. In each column, the project group combined the information from different sources, and created broader topics where the identified skills fit in to, hence coming up with the 3rd level topics seen in figure 17.

In this draft, the aim was to find bigger entities instead of small nuances. The other thought was that the function model should give a comprehensive picture of the whole function's operations, strategy, and the future of customer service. After the draft was sketched the solution was presented to the managers via the focus group interview. The learnings and development stages of the final model are described in the next section.

5.3   Final customer service function T-shaped model

After the draft was presented to the managers of the customer service function in September 2020, and the feedback analyzed, the project group's became convinced that the function level T-shaped model alone would not be enough to answer the previously set objectives. The project groups idea was that the function level T-shaped model should be complemented with team specific T-shaped models. Already from the very beginning of the project the project group had thought about whether the function wide T-shaped model could be built in such deep level, that it could answer to the goal of helping the team managers to recruiting personnel to the teams by recruiting talented people with a skillset not yet found in the team, to complement the team competence. Based on the questionnaire survey results, where the substance knowledge within the function's different teams was so different and dependent on the product and job title of an individual, supported with the focus group feedback, the project team decided that the goals had to be changed in order to be able to create the function level T-shaped model in a large enough piety to suit all the teams within the function. Hence, the goals were updated, and the new goals were selected as: a) the created model should guide a new employee, when she/he starts to work in the case company, either in the customer service function or some other function, to understand what the function does, and b) the model should also provide the new and experienced experts opportunities for development.

Hence, the final T-shaped model's creation process started by redefining the goals. The feedback received from the focus group interview was promising in the sense that the subjects covered in the draft were seen as the right kind. The thoroughly analyzed feedback can be read from chapter 4.4.2. The main points from the feedback were that the T-shaped model should better categorize the topics, by further thinking about the entities and which topics can be combined, and what the broader upper level topics could be. The apparent state of mind of the managers were that the model should clearly show what is done in the whole customer service function taking in account the customer journey.

The project group started the formation process by discussing the feedback and the possible solutions. Quite quickly the idea evolved, and it became clear that the teams doing the same job regardless of the product, should be raised to the center, as the skills sets, other than substance knowledge, are the same. The next learning according to the questionnaire survey results and literature, was related to the customer service industry specific requirement concerning the boundary crossing skills. From both sources, the importance of soft- and collaboration related skills are of high importance especially in the customer service industry now and especially in the future as the jobs change on a rapid phase to a direction where automation will do the repetitive work and humans focus on collaborative more complicated work. Because of this learning, the boundary crossing skills were given a lot of weight in the final T-shaped model. At the same time when the customer service function T-shaped model was formed, the content under the whole organization's T-shaped model was added. Hence the project group was able to study the company wide T-shaped model during the process, and learned that some of the sub-areas included in the customer service function T-shaped model draft were already present in the company wide model, hence these sub-areas were deleted from the final T-shaped model version.

The challenge of creating the customer service function's function-wide T-shaped model was that the topics needed to be on the upper level to describe comprehensively what is done in the function from the perspective of the customer's journey. To answer this challenge, all the product teams operating with a similar

approach, are presented separately in the T-shaped model to create a better understanding of what is done daily in the function. Additionally, as there are similar issues guiding the actions for each team and individual in the customer service function, these topics are presented as the 2nd level general level expertise areas.

The created T-shaped model has three levels. First level is the horizontal company level which guides the formation process of the Customer Service function T-shaped model. The 2nd and 3rd levels are created based on literature findings, questionnaire survey findings and focus group interview findings. The 2nd level is a level where employees need a general understanding and some practical hands on experience. The 3rd level is a level where employees need deep, hands-on, critical, and up to date knowledge. This level is formed keeping in mind the customer journey, so that the elements of the journey are described from top-to-bottom.

In the created model, the skills and knowledge required are not present as the exact skills and knowledge required in the function according to questionnaire survey-, focus group interview and literature findings. These skills and knowledge are opened on the educational paths, which are created behind the sub-areas described in the model. This decision was made, when the goals for the T-shaped model were updated after the T-shaped model draft was discussed with the managers in the focus group interview. The educational paths contents are opened on a general level in this thesis, for the reader to get a better understanding of the content in the model. Please see the final customer service function's T-shaped model below from figure 18.

Figure 18: The final Customer Service Function's T-shaped model

Below is explained more precisely what each layer consists of and what the educational paths could contain.

1st level: The case company's organization wide T-shaped models general level expertise layer, which guides the formation of the customer service function's T-shaped model.

The 2nd level of the model: The second level means the topics you require an overall understanding of as well as some applied hands-on knowledge.

The 3rd level of the model: this level is created combining information on literature learnings, the questionnaire survey- and focus group interview findings. This is the level where the employees need deep, hands on expertise. This level includes customer service line-specific information on what is done in each of them.

5.3.1 T-shaped model's 2nd level areas

The 2nd level areas are formed by the company level's T-shaped model, literature learnings, questionnaire survey findings, and feedback from the focus group interview.

5.3.2 T-shaped model's 3rd level areas

The areas are formed by combining the learnings from literature, questionnaire survey results, and feedback from the focus group interview.

6 Discussion and conclusions

Today lifelong learning is a must, to stay competitive. This means that individuals need to take care of their skill-, knowhow-, and personal development. For the organizations, it is important to offer employees training paths to develop themselves, as this is an integral part of increasing customer satisfaction and operating in a customer centric way. When experts are trained continuously, it will show as better expertise and service.

For companies to be successful, they need to recruit right kind of personnel profiles with right kind of interaction ways. In the software industry there is shortage of experts, and fierce competition from existing ones. The employees are more likely to be attracted to the company and the company can keep good, ambitious, employees in the house by offering them solutions for development paths. Additionally, automation is increasing, so the talent of employees will pay an even bigger role in the future as automation will handle repetitive tasks and human

more complex ones. Hence, reskilling, and lifelong learning is not a question of opinion anymore, but a must. It can be concluded that the organization and employee mutually benefit from employees retraining.

In this thesis, the research problem was to create a T-shaped model for the customer service function of the case company, which operates in SaaS business. As the phenomenon under study was not known, the research method selected was qualitative research, with a case study approach. The aim was to establish a deep understanding of the researched case, not to create statistical generalizations of the case under study. The formation process of the T-shaped model was explained and justified, and the T-shaped model for the customer service function created. The formation process was done in cooperation with six experts from the case company's customer service function, operating in different teams in the function.

The research was conducted in two parts: literature review and empirical study. The framework of this thesis guided the research process; hence literature was studied concerning T-shaped models and – development, T-shaped professionals, general- and customer service specific soft and hard skills and knowhow, and customer experience. The idea was to benchmark already existing T-shaped models in the customer service field, but those could not be found. The case company is reportedly the first company in Finland which has created a T-shaped model for the customer service sector. Material related to T-shaped model development, or ready T-shaped models in customer service sector was hard to find. Most T-shaped models research was related to marketeers, salespeople, engineers, UX designers, and even lawyers. No models for customer service representatives were found.

The empirical data was acquired with a questionnaire survey conducted to the selected employees and managers working in the customer service function, and a focus group interview conducted to the managers of the customer service function, after the T-shaped model draft was ready. The empirical research's aim was to investigate the soft and hard skills and knowledge attained in the customer service function now and necessary in the future. This information was acquired

with a questionnaire survey. The findings were analyzed and combined with literature, to create the T-shaped model draft. The T-shaped model draft was discussed in a focus group interview conducted to the managers in September 2020. This interview gave ideas about further processing the draft to a direction where the final model would further specify the elements present in the customer service function taking the customer journey in account.

The questionnaire survey findings suggested that the respondents gave weight to soft skills, more specifically boundary crossing skills. This finding was complemented by literature findings stating that these skills are more and more important in nowadays and future work, as automation will take care of repetitive work and humans more complex problems, which require collaboration with others. Another finding from the results related to substance specific knowledge, which differed amongst job titles. This finding made the project group aware that the function wide T-shaped model could not possibly be created to a deep enough level where these skills would stand out, hence the substance knowledge related to specific product related job titles, was ruled out from this thesis. Only skills and knowledge related to product / system understanding was considered as it was seen important for the case company operating in the SaaS industry.

The most important learning from the focus group interview was the managers' feedback on focusing the model better in the sense that it would clearly tell what is done in the customer service function keeping in mind the customer journey. This requirement changed the objectives set in the beginning for the model so that the models' idea in helping team managers to recruit individuals possessing skills and knowledge not yet attained in specific teams, was ruled out. Hence, the responsibility of creating team specific T-shaped models focusing on the substance specific requirements, was given to the leaders of the function's different teams. The new objectives set to the function's T-shaped model, affected the outcome, as the information collected in the beginning of the research with the questionnaire survey concerning skills and knowledge required in the function, were not presented visually as separate elements in the final version of the model. Anyhow the skills and knowhow required are present in the final model, under the model's visible sub-areas.

The final T-shaped model was created keeping in mind the learnings throughout the process: the literature studied, questionnaire survey- and focus group interview findings. The theory and research process walked hand in hand throughout the whole process. The research itself offered the researcher opportunities for personal and know-how growth, as well as capabilities to react to changing situations. Additionally, the researcher got to lead the research project in the case company, which increased the researcher's knowledge and skills in project management and leadership skills.

6.1 Limitations of the research findings and future research possibilities

The goals for the model changed after the T-shaped model draft was formed. In the beginning, the goals were: a) the created model should guide a new employee, when she/he starts to work in the case company, to understand what are the skills required function wise, and where to possibly develop him/herself, b) the model should also provide the experienced experts opportunities to develop their skills and knowledge, and c) it should help team managers in recruiting personnel to the team by recruiting talented people with a skillset not yet found in the team, to complement the team competence. The goals changed in the process, as: a) the created model should guide a new employee, when she/he starts to work in the case company, either in the customer service function or some other function, to understand what the function does, and b) the model should also provide the new and experienced experts opportunities for development.

Naturally, the initial framework was created based on the goals set in the beginning of the research. If the goals had been as they were in the end of the project, the data collection process would have been different. Now the questionnaire survey focused on skills and knowhow, whereas the final goals set did not give that much of weight and focus to those elements, rather to the overall structure of the T-shaped model, from the viewpoint of it being explanatory regarding what is done in the customer service function keeping the customer journey in mind. Despite the change, the skills and knowhow relevant to the customer service function are used in the formation of the final T-shaped model and are important to take in account.

The future research possibilities for the case company specifically, would be the formation team specific T-shaped models of the customer service function. Information from this research could be utilized in that process. Also, additional research concerning T-shaped model development for customer service field is necessary, as these could not be found.

References

Aaltola, J. & Valli, R. 2015. Ikkunoita tutkimusmetodeihin 1. Juva: PS-kustannus. Bookwell Oy.

Agile Lean Life n.d. T-shaped skills in every area of your life. https://agileleanlife.com/t-shaped-skills-every-area-life/. Accessed on 12 September 2020.

Allwork 2018. The future of work is about fostering community. https://allwork.space/2018/09/the-future-of-work-is-about-fostering-community/. Accessed on 8 April 2020.

Allwork 2020. Future of work: The jobs of tomorrow and the skills needed to succeed in them. https://allwork.space/2020/02/future-of-work-the-jobs-of-tomorrow-and-the-skills-needed-to-succeed-in-them/. Accessed on 8 April 2020.

Bierema, L. 2019. Enhancing Employability Through Developing T-Shaped Professionals. NEW DIRECTIONS FOR ADULT AND CONTINUING EDUCATION, no. 163, pp. 67-81. DOI: 10.1002/ace.20342. Accessed on 6 September 2020.

Business News Daily 2019. Tech Skills That Can Make Your Liberal Arts Resume Stand Out. https://www.businessnewsdaily.com/5408-tech-skills-employers-resume.html. Accessed on 23 October 2020.

B2X. n.d. E-book: Customer Care 2025. Global study gives insights into the service of the future. Accessed on 12 November 2020.

CFI 2015. T-shaped skills. https://corporatefinanceinstitute.com/resources/careers/soft-skills/t-shaped-skills/. Accessed on 13 August 2020.

College Info Geek 2017. The T-shaped person: Building deep expertise and a wide knowledge base. https://collegeinfogeek.com/become-t-shaped-person/. Accessed on 18 April 2020.

College Info Geek 2019. Hard Skills Vs. Soft Skills: Why You Need Both to Succeed. https://collegeinfogeek.com/hard-vs-soft-skills/. Accessed on 21 February 2020.

Document360 2019. What is SaaS Customer Support? https://document360.io/blog/what-is-saas-customer-support-document360/. Accessed on 15 November 2020.

Eskola, J. & Suoranta, J. 1998. Johdatus Laadulliseen tutkimukseen. Jyväskylä: Gummerus Kirjapaino Oy.

Fischer, M. & Vainio, S. 2015. Potkua palvelubisnekseen. Vantaa: Hansaprint Oy.

Freshworks Inc. n.d. Customer Service Skills. https://freshdesk.com/customer-service-skills. Accessed on 23 October 2020.

Forbes 2019. Going Pi-shaped: How To Prepare For The Work Of The Future. https://www.forbes.com/sites/davidmichels/2019/09/27/going-pi-shaped-how-to-prepare-for-the-work-of-the-future/#4595cd16647d. Accessed on 8 April 2020.

Growth Tribe Blog, nd. The T-shaped Marketer 2020. http://b.growthtribe.io/t-shaped-marketer-2020/. Accessed on 12 September 2020.

Heikkinen, KP. 2018. Exploring studio-based higher education for T-shaped knowledge workers, case LAB studio model. University of Oulu. Doctoral degree. Academic dissertation. Accessed on 11 September 2020.

Help Scout 2018. What's the difference between Customer Service and Customer Experience? https://www.helpscout.com/blog/customer-service-vs-customer-experience/. Accessed on 23 October 2020.

Help Scout (nd.). 16 Key Customer Service Skills (and How to Develop Them). https://www.helpscout.com/blog/customer-service-skills/. Accessed on 23 October 2020.

Indeed Career Guide, 2020a. Hard Skills vs. Soft Skills. https://www.indeed.com/career-advice/resumes-cover-letters/hard-skills-vs-soft-skills. Accessed on 22 October 2020.

Indeed Career Guide, 2020b. Customer Service Skills: Definitions and 17 Examples. https://www.indeed.com/career-advice/resumes-cover-letters/customer-service-skills. Accessed on 23 October 2020.

Korkiakoski, K. Gerdt, B. 2017. Ylivoimainen Asiakaskokemus Työkalupakki. Helsinki: Alma Talent.

LinkedIn 2020. The most In-Demand Hard and Soft Skills of 2020. https://business.linkedin.com/talent-solutions/blog/trends-and-research/2020/most-in-demand-hard-and-soft-skills. Accessed on 16 November 2020.

MindTools n.d. PDCA (Plan Do Check Act), https://www.mindtools.com/pages/article/newPPM_89.htm. Accessed on 1 November 2020.

Ministry of Economic Affairs and Employment in Finland 2017. Kasvun mahdollistajat – ohjelmistoala ja tekninen konsultointi. Toimialaraportit. http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/80868/Ohjelmistoala_ja_tekninen_konsultointi.pdf. Accessed on 15 April 2020.

Ministry of Economic Affairs and Employment in Finland, 2020. Työ- ja elinkeinoministeriön julkaisuja 2020:6. Ohjelmistoala 2020. Toimialaraportit. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/162047/TEM_2020_6.pdf?sequence=1&isAllowed=y. Accessed on 15 April 2020.

Medium 2017a. How do you stay in the top 1% of T-shaped marketers? (2018 version.) https://medium.com/growth-tribe/how-do-you-stay-in-the-top-1-of-t-shaped-marketers-2018-version-c3dbfa120434. Accessed on 10 May 2020.

Medium 2017b. Beyond the T-shaped person; becoming star shaped, https://medium.com/@kris.coverdale/beyond-the-t-shaped-person-becoming-star-shaped-4ec80ab94543. Accessed on 16 March 2020.

Medium 2018. Why T-shaped people? https://medium.com/@jchyip/why-t-shaped-people-e8706198e437. Accessed on 21 February 2020.

Medium 2019a. What is a T-shaped developer? https://medium.com/quick-code/what-it-is-a-t-shaped-developer-and-why-you-should-be-one-e87293e4bb84. Accessed on 12 September 2020.

Medium 2019b. Scrum Team — I-Shaped vs T-Shaped People. https://medium.com/@warren2lynch/scrum-team-i-shaped-vs-t-shaped-people-569de6fa494e. Accessed on 8 April 2020.

Medium 2019c. Medium. The T-shaped Product Manager 2019 (Part 1 – Core Competencies). https://medium.com/hackernoon/the-t-shaped-product-manager-2019-part-1-core-competencies-c1c65456c4d9. Accessed on 16 March 2020.

PTC 2014. Why Engineers Need To Develop T-Shaped Skills. https://www.ptc.com/en/product-lifecycle-report/why-engineers-need-to-develop-t-shaped-skills#:~:text=The%20idea%20of%20T%2Dshaped,together%20to%20create%20new%20ideas. Accessed on 13 August 2020.

PwC 2018. Workforce of the future. The competing forces shaping 2030. https://www.pwc.com/gx/en/services/people-organisation/workforce-of-the-future/workforce-of-the-future-the-competing-forces-shaping-2030-pwc.pdf. Accessed on 7 April 2020.

ResumeGenius 2019. Top 10 Hard Skills Employers Love: List & Examples. https://resumegenius.com/blog/resume-help/hard-skills. Accessed on 23 October 2020.

Salesforce blog 2019. 10 kriittistä taitoa, jotka asiakaspalvelutiimisi tarvitsee viimeistään vuonna 2022. https://www.salesforce.com/fi/blog/2019/10-taitoa-joita-asiakaspalvelutiimi-tarvitsee-viimeistaan-vuonna-2022.html. Accessed on 15 November 2020.

Smathers, R. 2014-2015. The 21st-Century T-shaped Lawyer. Connecticut Lawyer 4(4). https://cdn.ymaws.com/ctbar.site-ym.com/resource/collection/B95C5820-BCC4-4002-AD3F-1A4491A73A45/Pages_from_Dec_14_Jan_15_-_21st_century_t-shaped_Lawyer.pdf. Accessed on 12 September 2020.

Talent Development 2018. Get the Most out of your hires. Talent Management, pp 18-19. Accessed on 6 September 2020.

Themuse n.d. The underrated skills that will make you a better employee (and human being). https://www.themuse.com/advice/the-underrated-skills-that-will-make-you-a-better-employee-and-human-being. Accessed on 3 August 2020.

To the point 2017. VUCA world – a quick summary. https://tothepointat-work.com/article/vuca-world/. Accessed on 7 April 2020.

Training & Development 2009. Help Wanted: "T-Shaped" Skills to Meet 21st Century Needs. pp. 42-47. Accessed on 6 September 2020.

Tuomi, J. Sarajärvi, A. 2018. Laadullinen tutkimus ja sisällönanalyysi. Helsinki: Kustannusosakeyhtiö Tammi.

Tuomi, J. Sarajärvi, A. 2009. Laadullinen tutkimus ja sisällönanalyysi. Jyväskylä: Gummerus Kirjapaino Oy.

W. Edwards Deming Institute 2020. PDSA Cycle. https://deming.org/explore/pdsa/. Accessed on 10 September 2020.

World Economic Forum 2016. The Fourth Industrial Revolution: what it means, how to respond. https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/. Accessed on 8 April 2020.

Wyman, P. 2020. The future of learning. https://www.howtolearn.com/2020/01/the-future-of-learning/. Accessed on 7 April 2020.

Yin, Robert K. 2009. Case Study Research: Design and Methods. United States of America: Sage Publications, Inc.

YLE 2019. Koodareita on koko ajan enemmän, mutta uusia tarvittaisiin tuhansia vuosittain – "Osa ei ehdi edes valmistua, kun työelämä kutsuu". https://yle.fi/uutiset/3-11094086. Accessed on 15 February 2020.

Youtube, Growth Tribe, 2017. How To Be a T-Shaped Marketer - 15 Necessary Skills. https://www.youtube.com/watch?v=PdFU1GntEVs. Accessed on 21 February 2020.

Figures and Tables

Appendices:

Appendix 1: Questionnaire survey form

Customer Service funktion T-shaped malli

Riittävätkö ne tiedot ja taidot mitä osaamme nyt enää muutaman vuoden kuluessa?

Olemme suunnittelemassa Customer Service funktiolle funktiotasoista T-shaped mallia, nimenomaan tulevaisuuteen peilaten. 'T-shaped person' on sellainen henkilö, jolla on laaja perustason osaamispohja, sekä syvät tiedot ja taidot jollakin/joillakin osa-alueilla. Mallin suunnittelua varten tarvitsemme parempaa ymmärrystä niistä tiedoista ja taidoista, joita meillä Customer Service- funktion eri tiimeissä on nyt, ja joita tulisi olla myös tulevaisuudessa. (Lisätietoja T-shaped mallista saat täältä:

Mallin luomisen tavoitteena ovat mm.:
- Auttaa hahmottamaan yleisellä tasolla mitä funktiossa tehdään = kokonaiskuva funktion toiminnasta
- Pystytään kartoittamaan mitä osaamista funktiotasolla on nyt ja mitä tulisi olla tulevaisuudessa
- Malli tukee yksilötasolla oman osaamisen kehittämistä ja urapolun rakentamista

Ao. kyselyssä pyydetään erittelemään pehmeitä sekä kovia/teknisiä tietoja ja taitoja.
- Pehmeillä tiedoilla/taidoilla tarkoitetaan tunneälyyn liittyviä tietoja/taitoja.
- Kovilla/teknisillä taidoilla tarkoitetaan teknisiin työvälineisiin liittyviä tietoja/taitoja.

Pyytäisimme sinua vastaamaan tähän lyhyeen kyselyyn pe 22.5. mennessä, jotta voimme paremmin hahmottaa Customer Service- funktion nykyiset tiedot/taidot, sekä tulevaisuuden osaamistarpeet. Tämän tiedon avulla jatkamme yhteisen Customer Service funktion T-shaped mallin suunnittelua.

Kiitos ajastasi! :)

T. Asiakaspalvelu funktion T-shaped mallin suunnitelutiimi;

Nimi

Your answer

Tehtävänimike

Your answer

Mitä tuotetta edustat?

1. Mitkä pehmeät ja kovat/tekniset tiedot ja taidot ovat sinulle NYT tärkeitä työssäsi? Merkkaa vähintään 5-10 tietoa/taitoa. Aseta ne tärkeysjärjestykseen niin, että nro. 1 = kaikista tärkein.

Your answer

2. Mitkä pehmeät ja kovat/tekniset tiedot ja taidot ovat TULEVAISUUDESSA, 5 vuoden sisällä, tärkeitä työssäsi? Merkkaa vähintään 5-10 tietoa/taitoa. Aseta ne tärkeysjärjestykseen niin, että nro. 1 = kaikista tärkein.

Your answer

3. Mikäli olet vaihtanut tiimistä toiseen Customer Service funktion sisällä, oletko huomannut tiimistä riippuen eri painotusalueita osaamistarpeissasi? Kuvaile alle, ja kerro mistä tiimistä toiseen olet vaihtanut.

Your answer

Submit

Page 1 of 1