Tim Backhaus

The Usage of AI-Powered Systems Replacing Customer Service – The Strategic Future of Customer Service?

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TIIVISTELMÄ:

Tekoäly on ajankohtainen ilmiö, jota yritykset ovat ottamassa käyttöön parhaillaan ja ovat korvaamassa erilaisia yritysten toimintaprosesseja automatisoidulla ratkaisulla. Tekoäly toimii kasvattaa tehokkuutta, sillä sen avulla voidaan automatisoida toistuvia ja rutiininomaisia työtehtäviä. Aikaisemmat tutkimukset ovat tunnistaneet tekoälyn hyödylliseksi työkaluksi tukemaan asiakaspalveluiden työtä ja heidän prosessejaan ja työtapoja.

Tässä laadullisessa tutkimuksessa tekoälyn vaikutuksen merkitys asiakaspalvelun strategiseen tulevaisuuteen ja mahdollisesti asiakaspalvelun ja sen toimintojen korvaajana kokonaan on tämän tutkimuksen keskiössä. Tämän tutkielman teoreettista viitekehystä tarkastellaan aikaisemman tutkimuksen ja kirjallisuuden avulla, joka liittyy transaktiokustannusteoriaan, asiakaspalveluun ja tekoälyyn. Tämä olemassa oleva tutkimus kerätään ja vertaillaan sen datan kanssa, joka on empiirisesti tutkittu ja kerätty tätä tutkimusta varten. Empiirinen data on kerätty puolistrukturoiduista haastatteluista, jotka suoritettiin yhdessä eri alojen yritysten asiakaspalvelujen ammattilaisten ja johtajien kanssa.

Nämä tutkimushavainnot antavat oman lisäyksenä aiempaan kirjallisuuteen antamalla näkökulmaa siihen, kuinka tekoälyä pannaan käytäntöön eri liiketoimintaprosesseissa ja asiakaspalvelun jokapäiväisessä työskentelyssä. Nämä havainnot myös tutkivat niitä syitä, miksi yritykset ottavat käyttöön erilaisia tekoälyllä varustettuja ratkaisuja operaatioissaan, ja sitä mikäli on järkevää ottaa niitä käyttöön transaktiokustannusteorian näkökulmasta. Tämä tutkimus myös tutkii tekoälyä ilmiönä ja kuinka se on otettu vastaan yritysmaailmassa. Se on myös tutkinut erilaisia mahdollisuuksia, joita tekoälyllä on antaa asiakaspalveluun ja miten haastateltavat ovat nähneet tekoälyn käyttöä heidän omissa organisaatioissaan.

Tässä tutkimuksessa havaittiin, kuinka asiakaspalvelu nähdään merkityksellisenä yrityksille ja inhimillisen otteen tärkeyden palvelutilanteissa asiakaspalvelussa. Tämä tutkielma on myös tunnistanut tekoälyn ja sen erilaisten ratkaisujen kustannustehokkuuden asiakaspalvelun eri toiminnoissa. Lisäksi tämä tutkimus on analysoinut kuinka eri tekoälyratkaisut ovat jo käytössä asiakaspalvelun eri toiminnoissa. Tämä tutkimuksen tulokset osoittavat, kuinka olennaiseksi osaksi tekoäly on jo tullut yrityksille ratkaisuna vähentää liiketoiminnan eri kuluja. Tämä on saatu aikaiseksi tekoälyn mahdollistamalla tehostuksella luovuuteen ja tuottavuuteen, joka samalla on luonut erilaisia lisäratkaisuja kulujen vähentämiseksi edelleen.

AVAINSANAT: Artificial Intelligence, Customer Service, Outsourcing, Transaction Costs, Transaction Cost Economics, tekoäly, asiakaspalvelu, ulkoistaminen, johtaminen, transaktiokustannukset

UNIVERSITY OF VAASA
School of Management
Author: Tim Backhaus
Title of the Thesis: The Usage of AI-Powered Systems Replacing Customer Service – The Strategic Future of Customer Service?
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Programme: Strategic Business Development
Supervisor: Tuomas Huikkola
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ABSTRACT:

Artificial Intelligence is a current phenomenon, which is making its way to companies and is replacing business processes with an automatised solution. AI functions as a boost to productivity as it automatises repetitive and routinised tasks. Previous studies have identified AI as a useful technological tool to support the work of customer services and their work processes.

In this qualitative study, the effect of AI examining customer service's strategic future is in the centre, with possibly replacing customer service and its operations altogether, are in the centre of this research. The theoretical framework of this thesis is examined through previous research and literature, which is based on transaction cost economics, customer service and artificial intelligence. This existing research is then collected and compared with data that has been empirically researched for this particular study. The data has been collected from the semi-structured interviews that were conducted to professionals and managers in companies from customer service in different fields.

These findings contribute to the previous literature with giving perspective into how AI is being implemented in the business processes and the day-to-day work of customer service. The findings also look on the reasons why companies may implement these different AI solutions in their operations, and whether it is sensible for them in terms of transaction cost economics. This thesis has also looked into AI as a phenomenon and how it has been perceived in the business world. Additionally, it has studied the possibilities AI has to offer to customer service and how the interviewees have seen AI usage within their organisations.

The research identified also the importance of customer service for the businesses, and the importance of human touch in the service processes. The study recognised the cost-effectiveness of the AI solutions in different customer service operations. Additionally, it has analysed how the different AI solutions is already being implemented in several different aspects of customer service. It also understands the vitality that AI has already become in companies in order to reduce costs of the business operations. This has been achieved by AI enabling to boost creativity and productivity, which also creates more solutions on reducing costs even further.

KEYWORDS: Artificial Intelligence, Customer Service, Outsourcing, Transaction Costs, Transaction Cost Economics, tekoäly, asiakaspalvelu, ulkoistaminen, johtaminen, transaktiokustannukset

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Abbreviations

AI = Artificial Intelligence

LLM = Large language models

TCE = Transaction cost economics

1 Introduction

Adopting artificial intelligence (AI) to different functions within organisations is a very actual practice currently. The recent technological advancements in machine learning and language processing have opened up new possibilities for companies, when it comes to adopting AI to their operations. AI has also reached a development point, where it has been developed to a powerful and accessible manner for companies. AI surpasses humans in written communication, as it can swiftly generate content and respond to written inquiries. AI's capacity to process data is also notably faster compared to humans. (Chang, 2022). Using AI in different operations may give the companies a competitive advantage, when they consider optimising and enhancing customer experience and by using AI companies expect growth in their operations (Haan, 2023). At the same time, companies are looking to save their costs by cutting down in their operations. It should be noted that generally the changes should not be started with the customer-facing roles as the customer service is the closest to the knowledge of what is needed to keep the satisfied customers. (Harvard Business Review, 2016).

AI will give customer service functions a boost with automating routine and repetitive tasks that may occur on a regular basis. For instance at the Hong Kong Shanghai Banking Corporation (HSBC), artificial intelligence is used to look through different credit- and debit card transactions to instantly accept the legitimate transactions, whilst also being able to signal the possibly problematic transactions for evaluation by the human workers (Wilson & Daugherty, 2018). This significantly speeds up the operational processes at the bank (Wilson & Daugherty, 2018). Additionally at Virgin Trains, an AI Bot has been in use at the customer service. The AI Bot is responsible for answering to basic issues raised by the customers, which has resulted the possibility to double the response rate and handled cases. This has also allowed the human workers to concentrate the matters that are more complicated and manifold. (Wilson & Daugherty, 2018).

In order to improve the quality of customer service, improving the self-service tools is in a key role as the need for help will be minimised when the interactive tools are intuitive

for the customer and functions properly (Dixon et al., 2017). Companies are also able to fund and offer better service experiences elsewhere as the customers are directed at first to self-service (Frei, 2008).

It is also recognised in many cases that the customer service front-line attendants are seen the most important asset of the company, as they have been recruited carefully and they have to be trained specifically for their roles (Jerger and Wirtz, 2017). The various options for channels where customer service attendants have to serve their customers have also increased greatly (Morgan, 2016). Customer service has also become a more challenging business function to its employees as customers are able to contact the customer service from channels such as call centre, visiting the offices face-to-face, social media channels, online chats and chatbots (Sands et al., 2021). Therefore, it could be said that customer service workers have to be trained into many different channels and yet be able to perform at their best in order to maintain the good quality.

At the current moment, it seems that the digitalisation is driving again towards white-collar jobs. Especially now with AI, which is being developed more and more towards replicating the human thinking. People are also using AI in their work because employees and people in general are so convenience-based and lazy. It is vital to create AI literacy, as people are very uninformed about the issues concerning AI. This particularly touches upon the older worker generations, where the mismatch of skills like critical thinking is crucial. Therefore, it could be said that AI is actually a result of many on-going megatrends.

The current development with AI is very fast. Currently, AI is the most familiar towards people with various applications and different generative AI language models like Alexa by Amazon, Siri and Apple Intelligence by Apple, Bard by Google, ChatGPT by OpenAI, Google's Bard and Copilot and previously Cortana by Microsoft's Copilot. Learning from users by data is essential for AI as well and in the end, its actually humans who improves AI by just using software and products.

A potential risk that arises with the AI tools usage is the concentration of the tools. Currently the main players are American-based tools, which may pose a risk for the users of AI. Therefore, a governmental or an intergovernmental player might be needed to pitch in with the on-going AI game in order to create a national or a European AI language model. At this current time, there are not enough competition between different models, as people cannot afford to create their own models, companies do not allocate funds to create these for their own usage or there is not enough interest from governmental players to allocate funds towards creating one for their citizens' use. It is vital to pluralise the AI landscape in the digital sphere. Therefore, it is important to develop the different smaller language models and tools as well, which may require funding from governmental players. Additionally, AI may pose another threat towards its users, as AI may use the users' digital traces and may collect the data of their users and exploit further the already collected date from previous usage of different digital tools and websites by the user.

All in all, companies should pay attention to their customer service functions as they are the first point of contact for customers in their matters. When the service quality is on a high level, the customer satisfaction towards the products will also stay high. The falling quality is a challenge nowadays though as customers are inclined towards a disloyalty with the brand when the customer service representatives are inadequate for their jobs (Dixon et al., 2017).

Therefore, it should be considered that what is the point where AI and self-service solutions can support companies with their customer service functions and what is the point where the quality of the customer service will decline? Where does these two meet each other and intersect in order to provide the organisations the tools to prosper and succeed? The research of this Thesis would concentrate in balancing the needs for human interaction in customer service and the usage of AI and self-service solutions in customer service and their relation in supporting the strategic future of customer service.

This study aims to understand the on-going phenomenon of AI in the business sphere and its implementation in customer service through the lens of transaction cost economics (TCE) theory. What are the reasons why companies have outsourced their operations to AI? What reconfigurations have already been made to the customer service operations in the light of transaction cost economics?

Lastly, the companies have to consider whether they develop the AI solutions themselves, together with an AI solution partner or to outsource the process altogether completely. The TCE theory should be able to interpret, whether the introduction of AI will be profitable for the companies through the economy's viewpoint for digital transactions. In addition to the TCE theory, this thesis will go through the idea behind customer service and whether the human aspect is important for the quality of customer service for the companies, or if it can also be completely replaced by the different AI solutions.

1.1 Objectives and Research Questions

The purpose of this Master's Thesis and the study behind it is to research an on-going business phenomenon through answering the following research question:

How can artificial intelligence (AI) support the strategic future of customer service?

For the sake of researching the strategic relationship between customer service and artificial intelligence, a deeper understanding of the concepts, the relations between the two and relation to economics is needed. This study aims to contribute to the literature in a few different ways. Firstly, the central theoretical contribution of this thesis will be the empirically gathered data and results in which the thesis will be showcasing its research. The thesis will be aiming to contribute into the research gap on the link between artificial intelligence and transaction cost economics. Simultaneously, it will be

looking how these two main concepts have a relation to customer service as a business function and the future of it.

This paper will be creating a theoretical framework to study more on the issue. The theoretical framework will then function as a ground for the exploratory qualitative research, where professionals and specialists in the field will be interviewed. The research will be executed by using a qualitative research method. As the goal of this thesis is to gain information from companies' customer service functions on their operations and possible AI adoption, qualitative data is the best solution to adhere the needed understanding of the context of the complex topic. Primary data will be collected through interview process and secondary data through existing sources.

1.2 Definitions of Key Concepts

In order to grasp a better understanding in the subject of this Thesis, this subchapter will introduce some key concepts that are presented in the Thesis and their definitions.

Artificial intelligence (AI): the capability of a digital machine to carry out tasks, which are affiliated with humans (Copeland, 2025).

Chatbots: software tools for companies to give customers and access to services and information (Følstad et al., 2024).

Customer service: an act of sharing information and assistance for the user of the service. (Følstad & Skjuve, 2019).

Transaction cost economics (TCE): framework theory which explains the efficiency for "a transaction between two parties to occur across the market or within an organisation" (Nagle et al., 2024, p. 1).

1.3 Structure of the Thesis

This thesis will be partitioned into seven chapters. The thesis will start firstly with an introduction chapter, which will be looking into the background of the topic and the purpose of the research. This includes outlining the research structure with the research question that will be studied. The second part of the thesis will be built around the main theory of the study, transaction cost economics and focuses on the previously written literature on the issue. Third chapter of the thesis looks into the phenomenon of AI and how businesses are implementing it in their operations. The fourth chapter of this thesis will look into the customer service as a business function and how AI and chatbots are transforming the customer service.

Moreover, the fifth chapter of the thesis will go through the research methodology used in the thesis. It will also look into the data collection practices and data analysis methods that have been used. The sixth section of this thesis will investigate the empirical data that have been gathered from the interviews. The last chapter of the thesis will be the discussion of the findings, which will showcase the key findings made in the research process and highlights the implications of them. Additionally, the limitations of the thesis and suggestions for the future research on the topic will be included in this section.

2 Transaction Cost Economics as a Base for the Theoretical Background

The background framework theory for this research that will be examined is the transaction cost economics (TCE) theory. The transaction cost economics is a framework theory that explains the efficiency for “a transaction between two parties to occur across the market or within an organisation” (Nagle et al., 2024, p. 1). This thesis is looking how the theory applies to this research case on companies thinking about the future of their customer service functions and AI, whether it is more cost-effective to use customer service attendants everywhere or whether to outsource tasks to AI. Transaction cost economics is also widely used as a theory reasoning to explain the empirical findings and phenomena in different business study areas like economics, marketing, accounting, finance, organisation theory, international business and strategy. In addition to business study subjects, transaction cost economics has been in use with law, public policy, health economics and policy, and agricultural economics and policy. (Macher & Richman, 2008). Due to its versatility of usage when doing research on business related matters, TCE is the most suitable and optimal theory to use also in this thesis.

As the research topic is the strategic future of customer service with AI, it is important to look into the quality of customer service and the experience of the quality in the research. The transaction cost theory illustrates the cost of different transactions within organisations, and which ones should be made outside of the organisation. Therefore, this thesis is aiming to understand how when AI will make better decisions for an organisation compared to human labour, and the cost effect between these two different functions. Additionally, with transaction cost theory we are able to study what the tasks companies should do within the company, what should be outsourced, and which will be done through strategic partnerships.

2.1 Background of the Transaction Cost Economics

The transaction cost economics theory was developed by Williamson (1975), where he identified economic activity to work between markets and hierarchies. The idea of transaction cost economics was first based on this findings by Coase in 1937. Transaction cost economics is a framework to study how the economic activities are organised, and its basic theorem is that the markets and hierarchy are two separate entities and seen as organisational systems. Coase (1937) made assumptions already early on that on some cases outsourcing tasks from a firm to markets may cause costs, which are higher than keeping it in the original firm's organisation. However, he also noticed that organisational costs would emerge if the production were kept within the organisation. Thus, according to this thought is not smart to keep all production within the organisation. (Coase, 1937).

Coase (1937) also mentions that transaction costs can be avoided to some extent with keeping production in the firm only if its more cost-effective than getting the production done outside of the firm (Coase, 1937). Williamson defines transaction as (1985, p. ix) "any problem that can be formulated, directly, or indirectly, as a contracting problem can be investigated to advantage in transaction cost terms." (Williamson, 1985, p. ix). Rindfleisch and Heide (1997) has also explained that transaction cost analysis gives the possibility to examine any kind of different economic problem, and may give the opportunity to analyse these economic problems as a transaction. (Rindfleisch & Heide, 1997).

There are three ways to examine different organisations and companies with the theory of transaction cost economics. The idea behind the analysis would be to look how to plan internal operations and auditing those operations in a company. Firstly, the level of the organisational structure of the companies shall be examined, which looks into the organisation as a whole and how the operational parts of the organisation should be set up. Secondly, it looks into the operational parts of the companies, which analyses the profitable activities within the company and which ones should be outsourced and on

what grounds. Thirdly, the theory of transaction cost economics looks into the human resources and how the function should be organised within the companies and organisations. (Williamson, 1981, p. 549).

Williamson (1981) describes that asset specificity are part of the exchange costs of the transaction which are part of the full cost. This is then part of the price. Asset specificity occurs in three different manners. Firstly is site specificity, where inventory and transportation expenses play a role. Secondly is physical asset, where specific tools are needed in the production process. Thirdly, the human asset specificity, which is related to learning by doing by humans. Asset specificity is integral as due to an enactment with an investment, buyer and seller are in a contract between each other for a time period after the investment. (Williamson, 1981). It is also argued that investing into specialised asset specificity may then take resources away from other functions in the organisation. Therefore, asset specificity should not have an effect on the management's decision on the hierarchical option usage. (Klein et al., 1990).

There are two main categories that makes the acts of a company or an organisation harder in the transaction cost economics theory: environmental uncertainties and behavioural uncertainties. Firstly, environmental uncertainty causes problems with transformation like adapting and customising in accordance with the varying circumstances. Therefore, environmental uncertainty is also the most difficult area to analyse with the transaction cost analysis. Secondly, behavioural uncertainty stems from an organisation's performance evaluation problem, which shows the difficulties with compliance concerning the agreements. The behavioural uncertainties may cause opportunistic behaviour, where acts of misconduct may be happening. Therefore, organisations have to develop different compliance and controlling mechanisms for their actions. (Klein et al., 1990).

One of the main sources of transaction costs is human actions within an organisation. Humans are limited in their abilities and human cognition, when it comes to decision

making processes. Therefore, humans have a bounded rationality (Simon, 1957, Grover & Malhotra, 2003, p. 459). As Simon (1957) has pointed out, the universe around is quite unpredictable and complex. Humans have a limit in their knowledge, skills and ability to predict and plan for the future and its occurrences. (Simon, 1957). Therefore, it can be said that human bounded rationality is an element that causes doubt and uncertainty in an organisation. This is also highlighted by the transaction costs economics.

Williamson (1999) exemplifies the TCE's core predictions of a simple contracting scheme. When the asset specificity of the company is low, they should outsource to the market with their production. When the asset specificity is high, the relation with contracting costs come into play. If the contracting costs are low, company should look into hybrid model with outsourcing with the market. The companies should include some of the production within their own organisation and then stem towards long-term contracts with outsourcing and buying from the market. If the contracting costs are high, company should look having the production within their own organisation with the hierarchy and vertical integration. (Nagle et al., 2024, Williamson, 1999, p. 1091).

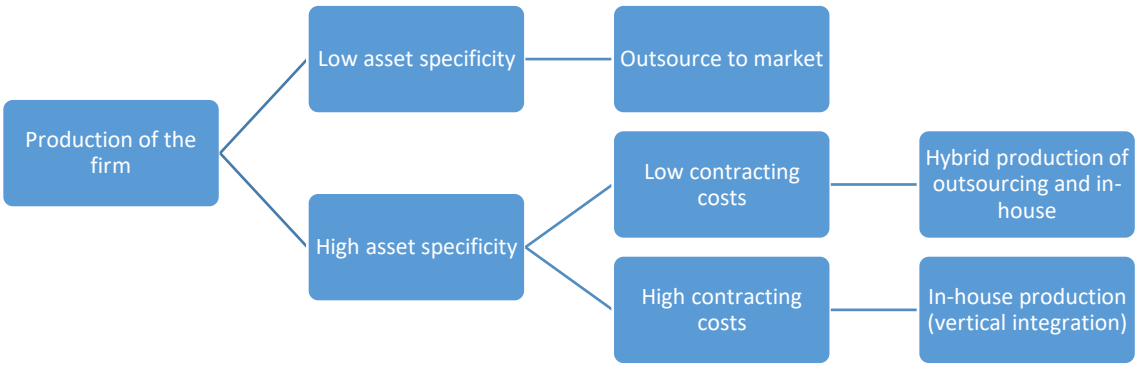

Figure 1. The relationship between asset specificity and contracting costs demonstrating the company's outer limits. (Nagle et al., 2024, Williamson, 1999, p. 1091).

2.2 Transaction Cost Economics related with the Digitalised Economy

Transactions done in the digital sphere are vital in the current business making, and has become more prevalent in the last two decades (Greenstein et al., 2013). In order to understand the relation between the TCE and the digitalised economy that the businesses are tightly intertwined in the current world filled with transactions in the digital world, we have to firstly define what are digital transactions. Digital transactions are defined by Nagle et al. (2024) as “any transaction between exchange partners that is digitally mediated” (Nagle et al., 2024, p. 2). Digital transactions may be combined with an aspect of physical transaction or may be a fully digital transaction. (Nagle et al., 2024) For instance, for a mixture sort of a transaction, a customer will book an electric kick scooter via an app from their phone and pay the transaction via the app, but ride the electric kick scooter in real life. In a full digital transaction, a customer could use an online chat with customer service to handle a missing payment due to their expired credit card details in an app for their experience with riding an electric kick scooter.

Digital transactions will probably improve or completely take the place of physical transactions altogether via digitalisation and digitisation. Digitalisation means that different digital technologies are used to improve various business operational processes, whilst digitisation is about transforming physical information and documents into a digital form. (Frenzel et al., 2021; Nagle et al., 2024).

Compared to the traditional transactions, digital transactions frequently and usually include more information from the buyer and seller due to the different digital traces that take place during the transaction. For instance, these digital traces include data on the price, date and time, method of payment, other products that are being sold and their prices. These traces design a network of data to a record, which may be beneficial for both parties. (Nagle et al., 2024). This record may also reduce doubt between the contracting parties (Weber & Mayer, 2014).

The created data information will also provide useful information for the seller of the buyer. That data can be useful in the future usage for the seller or other transacting partners in order to design to design a unique profile of the buyer with other big data (Zeng and Glaister, 2018, Nagle et al., 2024). This black box of a firm will explain to the companies how to use the big data to create value and how the various abilities of the companies also have different causation towards the value creation from big data (Zeng & Glaister, 2018). Gathering data of the buyer is much faster as a part of a transaction than compared to a traditional transaction (Nagle et al., 2024).

Using the data gathered from the buyer may potentially pose a threat towards the privacy of the individual. Therefore, there have been discussions that the individuals should have a bigger control over on the usage of the data: who can use it and how. (Nagle et al., 2024).

Sharing data between the partners of the transactions has also created a total new market of sharing the data to a third partner. This is called two-sided market. Typically, this means that a service may be free to use, but the company uses advertising services and sells the space for advertising that gathers revenue for the website's owner or by selling the customer data to data brokers. Simultaneously, is able to keep the service free for a user. (Seamans & Zhu, 2017., Nagle et al., 2024).

As the economy is more depending on digital transactions than before, TCE explains that it may influence the market to have greater conglomerates (more vertical integration) and added number of transactions that appear in the market (less vertical integration). The dominating force in the vertical integration will vary on the ground of the context (Nagle et al., 2024).

3 Artificial Intelligence as a Current Business Phenomenon

Digitalisation of the labour market has been the driving force for the past decades for different technological advancements. The digitalisation process first drove the advancements towards computerisation in white-collar jobs since the end of 1990s all the way to the 2000s. After that the phenomenon has been with robotisation among blue-collar workers in factories, but it has been noticed in the last decade that robots are actually quite expensive, and they have replaced already a sum of the work that they have been able to do so.

The idea of artificial intelligence is not necessarily anything new, even if it is an emerging trend at the moment. In the past there has been a lot of different automated tools, robotics in use and these have based themselves in mathematics. Artificial Intelligence (AI) is essentially a mixture of computing power, analysing data with learnt talent. AI is made to augment and assist people in their tasks, but it is not made to become a tool that serves a dominating and overpowering authority. How much of productivity growth can the people actually even take anymore?

This chapter will look delve itself into the AI; what are its abilities, how it is currently used in the business sphere. Additionally, it will look into how humans are still needed with the operation of AI and how AI is currently regulated.

3.1 Abilities of AI

The AI is developed to help humans with their daily tasks. Wilson and Daugherty (2018) showcase three main ways how AI is aiding humans to better realise their competencies. Firstly, AI is able to boost creativity among the employees and also strengthen their cognitive skills like analytical thinking and decision-making processes. For instance, AI is an excellent tool, when looking for matching patterns in different datasets – it has the

so-called deep learning skills. It is able to go through big datasets easily, when a human cannot adhere such a load of information. (Wilson & Daugherty, 2018).

Secondly, the collaboration between humans and machines enhances the interacting process with customers, and generally enhances the communication. For instance, transcribing meeting minutes for the absent members or outsourcing the routine questions in customer service by using chatbots that are able to service a large number of people. This also allows the employees to concentrate to the more challenging tasks. (Wilson & Daugherty, 2018).

Thirdly, the AI machines are striving more and more towards demonstrating the human skills, like a human employee. For instance in manufacturing, robots are used in different industrial tasks, but AI is allowing robots to become more human with better sensors and motors to embody the human employees as a context-aware “cobot”. These “cobots” are in use at Mercedes-Benz, which are designed to do the repetitive tasks like heavy lifting of objects and placing the heavy parts to a car while the human worker will do tasks that high motoric and judgment like putting together a vehicle’s gear motor. This in total adds to the flexibility for the company’s operations. (Wilson & Daugherty, 2018).

3.2 AI in the Business Sphere

Digitalisation has brought new changes to the company organisation and innovation and economy altogether. This is especially through different digitally enabled generativity tools. (Yoo, 2013).

In spite of that, what drives companies to change their processes to be outsourced to AI? AI is able to help companies with three main business desires: automating different operations, getting a better understanding on the company’s performance through analysing data and helping with the interaction between customers and employees (Davenport & Ronanki, 2018).

In terms of customer service it is the need to enhance the quality of customer service, fasten processes in order to give the front-line servants right and cutting costs. Employees at the front-line are rather costly, which is one of the biggest incentives to companies to out-source these tasks to artificial intelligence. The customer service attendants are a value bringing factor to the companies and are at a key role with solving the customers' problems (Sands et al., 2021), and this is especially highlighted in service situations in-person like at stores (Chung et al., 2018).

One of the main factors driving companies towards the introduction and usage of AI in their business operations are economic factors. It has been studied that the CEOs see the economic value of AI higher than the costs of implementing it in customer acquisition processes as investing in AI usually elevates operational efficiency in the organisation and boosts the competitive advantage of the company. (Maldonado-Canca et al., 2025)

However, consumers and customers use their time online with different situations, like shopping or solving their issues, so naturally companies should also follow to the digital sphere. Therefore, companies are introducing different digital service solutions to serve their customers online (Sands et al., 2021). For instance, solutions like chatbots would be digital service agents that are eventually made to replace the human agents altogether (Chung et al., 2018).

Currently, chatbots are used as one of the most prominent software tools as an answer from the companies to give customers an access to their services and information. (Følstad et al., 2024). Chatbots are in use especially in customer service (Adam et al., 2021). Chatbots in the customer service functions are usually employed for the tasks that are seen as critically low and easy to solve (Følstad & Skjuve, 2019). However, this is predicted to shifting as the capabilities of the chatbots will evolve in the future through the large language models and other AI -related solutions (Følstad et al., 2024).

Large language models are being introduced in chatbots replacing the chatbot-model of intent-based solutions. Intent-based models use texts that are already pre-set to them previously, whilst chatbots based on large language models are more flexible to understand the conversation with the customers, but may also give responses outside of the company's pre-set data. (Følstad et al., 2024).

The usage of chatbots for companies are rising all the time, but it has been disadvantaged to utilise in customer service functions. They may be quick to use and are rather easily reachable to the customers in easy questions, usually user experiences are rather deficient in more complex questions or issues from the customers as the chatbots may be poorly designed. Therefore, many customers are actually unwilling to use chatbots. (Følstad et al., 2024).

For instance at a tech project service called Gigster and their software development department, AI is analysing different-sized software projects in order to give their human workers the possibility to adapt their workloads in real time accordingly, but also to give better estimations how much of work is required and their delivery time. This gives the company, and their workers added flexibility to accomplish their workload and tasks. (Wilson & Daugherty, 2018).

3.3 The Need of Humans with AI Operations

When working with machines like AI, humans play a vital role as well. Humans must train the machines how to do the tasks they are built for. For instance, Wilson and Daugherty (2018) mention that the machine-translation applications have to be trained to understand different linguistic idioms and expressions in order to be useful in their task that they should perform in. Human trainers were needed also to teach human emotions like empathy and sympathy to the AI assistants like Microsoft's Cortana, Apple's Siri and Amazon's Alexa. (Wilson & Daugherty, 2018).

The humans are also needed for explaining the behaviour of AI and the conclusions and results of the tasks that AI is creating, especially for those who are not familiar with AI as AI is reaching solutions, which are hard to understand and adhere. These specialists are especially crucial in areas like law and medicine, as it is important to get the right kind of medical recommendations or legal advice. A third factor where humans are needed with machines is that the companies need employees who make sure that the AI and other machined or automated systems are working as they should in accordance with ethical standards, safety and responsibility. (Wilson & Daugherty, 2018).

One exemplary case proves that AI work is very reliant on humans and that customer service is at the moment a crucial tool for shopping. A tool called “Just Walk Out” by Amazon was launched to the public in 2018 in its Amazon Go and Amazon Fresh stores. The “Just Walk Out” -tool aimed to have frictionless shopping experience in convenience stores. The basic idea was that a customer can enter a store with their Amazon -account. These stores are cashier-free, and the customers would be able to just pick up what they want or put stuff back in the shelves and leave the store with the wanted items and the customer will be billed automatically. All of this aforementioned shopping process would be recognised through AI. However, it was revealed in 2022 that there were actually 1,000 workers in India, who were reviewing the shopping experiences in real time via security camera footage and via other manual checks. Amazon has decided to phase out this style of the Just Walk Out -technology altogether and will develop other ways for frictionless shopping like smart shopping carts, which will keep track of the shopping selections and will debit the customers’ accounts automatically. (Bitter, 2024).

Even if AI attendants or chatbots are being introduced at companies, it requires a lot of human attendance to run the business with these. For instance, in favour of contributing to the best possible customer experience via these solutions, the chatbot has to be trained accordingly with the company’s values and tasks. Additionally, it is also important to use the chatbot to understand what kind of customer service it provides to the customers. (Wilson & Daugherty, 2018).

According to a survey done by Wilson and Daugherty (2018), companies that have introduced AI machines and automation in business processes have not started to optimise the usage in a collaborative manner and thus will miss the full potential of AI. In order to companies transform, be ready for the forthcoming and be the frontrunners with making business alongside AI, they should grasp the idea of collaborative intelligence as soon as possible in order to be ready to reconstruct their markets, industries, operations and staff. (Wilson & Daugherty, 2018).

Wilson and Daugherty stated in 2018 that the EU's General Data Protection Regulation (GDPR) will create estimated 75,000 new jobs, especially with AI as a major contributor. This is because under GDPR, consumers have the right to get a description on decisions like an interest rate offer on a mortgage or a credit card, which have been created by an algorithm. Explainers, who have the deeper understanding for these decisions, are the ones who are in the front-runner positions for jobs, especially in these consumer-facing industries where such decisions by AI or machine could be wrong, illegal or unjust. (Wilson & Daugherty, 2018).

3.4 Regulative Acts on AI

Common regulations and legislation on AI are still very much to be agreed upon. The European Union (EU) has taken the biggest initiative on this issue within the European continent, in order to regulate on a higher level on the matter. Issues that arise with the usage of AI are the different information and data security issues and immaterial and intellectual property rights. Many of the currently leading AI houses are based in the US and this might be an issue for instance for Europeans.

The EU regulated an AI Act in 2024, which made the EU the first institution and governmental player in the world to make a legal framework on AI. The basic idea behind the regulation is to create and advance AI language models in Europe that are accurate,

credible and trustworthy. (European Commission, 2025a). The regulation sets out the rules on placing AI systems on the market, using them and putting them into service within the EU. It sets out prohibitions on certain AI practices and lays down requirements for high-risk AI systems and obligations for the owners and operators of these systems and established harmonised transparency rules for AI. Additionally, it establishes harmonised rules for creating general-purpose AI models, rules for governing, enforcing, monitoring and surveillance for the market and different measures on how to support especially SMEs and start-ups on innovating. (Regulation on Artificial Intelligence EU/2024/1689).

The Act came into force on 1 August 2024 and will be fully in force within two years on 2 August 2026. It has three exceptions concerning the coming into force: Firstly, prohibitions and the obligations for AI literacy entered into force from 2 February 2025 onwards. Secondly, the rules and the obligations for governing the different general purpose AI models will be applicable on 2 August 2025 and the rules for high-risk AI systems, which mean systems that are integrated in these regulated products will have an extended transition period until 2 August 2027. (European Commission, 2025a).

The EU has also established the European AI Office, which is under the European Commission. It functions as a central point for AI Expertise and is the foundation for a single European AI governance system. The European AI Office implements the AI Act and enforces the rules for general-purpose AI models. (European Commission, 2025b).

At the time of writing this thesis, the AI Liability Directive is being discussed currently in the European Parliament in addition to the AI Act. The AI Liability Directive has been seen as an important and essential addition to the AI Act, as there is currently no liability framework for damages caused by AI systems. Product Liability Directive has been agreed upon and approved in December 2024, which contains risks on AI and software. However, it has been seen to lack some AI-specific risks such as harms of generative AI and IP infringements and covering harms in fundamental rights violations like

discrimination. (Datta, 2025a). In mid-February 2025, the European Commission has indicated that it will withdraw AI Liability Directive from the legislative proposals it has set earlier. This is happening for now, and this has been viewed as a big disappointment in the European Parliament (Datta, 2025b).

4 Customer Service as a Vital Business Function and the Deployment of AI in the Customer Service

Følstad and Skjuve (2019) have defined customer service "as the provision of information and assistance to the users of a service provider. Customer service may be designed to strengthen users' engagement with the service provider and increase company revenue or merely to provide users required help and information. The performance of customer service operations is closely associated with user experience; inadequate customer service likely leads to dissatisfied users and reduced customer loyalty." (Følstad & Skjuve, 2019, p. 2).

As customer service is currently on-going different digitalisation processes, such as moving operations to AI with chatbots, it is important to be able to study the importance of customer service for companies. The value of customer service has to be understood in order to make management decisions concerning the cost of customer service. The implementation of different AI solutions in the customer service also has raised the question of whether the AI solutions work as enhancing tools for quality of customer service and loyalty by the customers towards the brand.

This chapter will look into the vitality of customer service for companies. It will also look into the economics behind customer service. Additionally, it will look into what kind of value customer service brings to different companies. This chapter will also examine the link between customer loyalty and companies. Furthermore, it will delve into the on-going change process at companies adapting to the usage of AI. Lastly, it will go through different case examples of the usage of AI in customer service functions in various companies.

4.1 The Economics Behind Customer Service

Services are essentially dynamic processes, which take a certain period of time and are usually part of a series of events and steps. A service process may include several business partners, which go into an agreement and have contact with each other and possibly have deadlines along the process and then deliver some outcomes. Service processes may take a short time or a long period of time. (Bitner et al, 2008). In a customer service setting, the time frame for a contact should be as short as possible and take the least number of contacts as possible. This will then enhance the customer experience, which is defined by Meyer and Schwager (2007) “the internal and subjective response customers have to any direct or indirect contact with a company” (Meyer & Schwager, 2007, p. 118). Service experience could be defined as the reactions such as cognitive, affective, and behavioural that are linked to a service event that has taken place (Padgett & Allen, 1997). This definition of service experience suggests that an interaction and consumption of a service with a customer and service provider is constrained with time. (Bitner et al, 2008).

The current focus of companies requires innovation for their services, and companies are establishing value for their business operations through customer experiences. This requires companies to look into new techniques, methods and research and development for their services. (Bitner et al, 2008).

Dixon et al. (2010) mentions that surpassing the customer’s expectations by adding another service like a faster delivery time, a refund or a product for free of charge does not necessarily make the customers more loyal than just catering to the needs of the customers. Companies want to exceed expectations and a survey by Dixon et al. (2010) also explains this by showcasing that 89 out of 100 heads of customer service said this as their main strategy. At the same time, 84% of customers had indicated that their expectations had not been exceeded in their recent interactions with the customer service. (Dixon et al., 2010).

Professional service firms (PSF) have two key resources at hand: the employees and the customers. These key resources are also linked tightly with capabilities. The value of these firms is mainly created by the professional employees that are working in them, and the skills they possess also are vital with getting new customers and keeping the clients with them. Therefore, a strategy at a PSF should tightly link the professionals and customers. (Nanda & Narayandas, 2021). As the professional service firms are providing specialty business, they may also be very money-making and profitable commodities. However, if the PSFs want to create more income and revenue, they also need more specialised employees and staff to their companies. (Sawhney, 2016). Therefore, companies like PSFs are now looking into options how to save with costs concerning staff and are willing be moving to AI and outsource some of its tasks to AI.

4.2 The Value of Customer Service

The main tool that is being used to track the value of the customer service in companies is to use customer satisfaction (CSAT) scores, which tells about the experience that the customer has had with the customer service. Another tool is the Net Promoter Score (NPS), which tracks how likely the customer is to promote the service or product forward. It is often believed by managers that that higher customer satisfaction leads to greater loyalty. It should be noted that customers are four times more likely to leave customer feedback on an interaction they felt negative than one that felt a positive one. (Dixon et al., 2010).

Therefore, it could be said that customer service can actually have quite a limited ability to boost the customer loyalty, but can often significantly actually harm the customer loyalty. Loyalty is usually towards a brand or the quality of a brand, but seldomly for the customer service. Consequently, customers choose to buy from a company in the interest of products with good quality, good value of the product or an appealing brand. However, the customers may leave companies because bad customer service. (Dixon et al., 2010).

Next issue avoidance is also a crucial way, how to keep the customers happy and loyal to the company. The need to call again is the biggest cause that overloads the customer services. Dixon et al. (2010) showed that 22% of the repeat calls were related to the original problem that was handled in the first contact. Even if companies are generally assuming these issues might come up, they seldomly pick up on the next issue avoidance due to the sole focus on the management of the call time. (Dixon et al., 2010).

Dixon et al. (2010) also argue that staffing and empowering the front-line customer service is vital in order to create results that bring a low-effort experience for the customers. Removing the statistics that track productivity will bring better quality results on the contacts with the customers, as this frees the focus on the issue itself. Additionally, it was researched that an Australian telecommunications provider removed the productivity metrics from the front-line customer service representative's performance scorecards. This might have increased the handle time by each contact but reduced the need of repeat calls by over 50%. (Dixon et al., 2010).

It was raised by Dixon et al. (2010) that companies should make sure to minimise the change of customer service channels in order to buffer the usage of self-service channels. 57% respondents to the survey by Dixon et al. (2010) told that they called to the customer service after going to the self-service channels first. Companies want the customers to turn to the web instead of calling to the customer service, but are insisting to invest in their sites with proper improvements due to the image of technological advancements and upgrades are costly and that only costly changes will be resulting to the wanted aftermath. Having many choices of self-service contact points may also overwhelm the customers completely. Cisco Consumer Products increased the usage of their self-service channels by their customers from 30% in 2006 to 84% in 2010 by simplifying language in their websites, and by making a step-by-step instructions available for the customers. Travelocity simplified their website's layout and readability of their help section of the website in order to give better solutions there. The calls to

the customer service decreased by 5% and the self-service saw a doubled use of the top searches by these changes. (Dixon et al., 2010).

However, Ozuem et al. (2024) noted that there should be multiple communication channels for customer service, especially for situations where customers have had a negative experience with a customer service situation. Customers should also be able to choose themselves on the communication channel. This case was especially highlighted in a situation that there should be a quick way to interact with a human customer service attendant for those customers who see chatbot the only channel to communicate. It was also emphasised that intelligent chatbots, who have faced with a situation of not being able to solve the issue raised by the customers, could transfer the conversation directly to human assistants would be a better solution. This also has the possibility to gather more than only one customer segment of customers to this point of communication. (Ozuem et al., 2024).

Lastly, the usage of the feedback from the negative responses or customers who are struggling with the self-service is vital in order to lessen the customer's effort. For instance, National Australia Group has customer service representatives that are specifically trained to call the customers that have given low feedback and discussing the matters concerning the earlier interaction with customer service has usually increased the issue-resolution rate. This may also be done in the self-service channels. Earthlink initiates this by giving the customer a pop-up of a chat to discuss the matters they may have in their mind, if they have been in the FAQ section for more than 90 seconds. (Dixon et al., 2010).

4.3 Link between Customer Loyalty, Customer Satisfaction and Companies

Principally, companies are able to create loyal customers by aiding them with solving their issues and concerns rapidly and as effortlessly as possible. However, technological

advancements can have a varying effect to customers' loyalty towards a company. On one hand, having a point of contact online that works as effortlessly and quickly as possible will enhance the contentment towards a product. On the other hand, if contacting process to the customer service via several attempts with a chatbot that does not understand the problem faced, may decline the satisfaction of the customer towards the company. (Dixon et al., 2010).

Loyalty may be a basis in management of businesses, as it is measurable as retention of customers and employees and investors. These are the forces of loyalty, and can be directly affected to the cash flow of the company via the link between loyalty, value and profits. Costs shrink as there is no need to acquire new relationships with new customers. Employee retention also gets higher as the satisfaction of the employees towards the job is higher, which then in turn adds to customer retention via better customer service. (Reichheld, 1994). However, customer loyalty has changed over-time, especially during the Internet-era, as there are a wide range of customer feedback online portals. Additionally, different customer feedback services are easier to be sent to customers and feedback varies a lot, just like the customer behaviour in these feedback has an also a wide range. (Heskett, 2002).

Consumer loyalty is a product of customer satisfaction (Oliver, 1999) or customer satisfaction is seen as a main factor contributing towards customer loyalty (Sousa & Voss, 2009). Customer satisfaction is made of cognitive and affective variables. Cognitive variables can be disconfirmation, expectations and perceived performance. The other variables may include equity and performance, the difference between expectations and perceived performance and willingness to pay. Positive outcome of a customer service situation has a positive relation to satisfaction, whilst negative experience has a negative effect to customer satisfaction, and both of the situations have a relation to customer feedback. (Fraering & Minor, 2013).

When a promised service fails, this usually has an effect towards customer satisfaction and has a negative impact to customer retention (Sousa & Voss, 2009). If there has been a negative experience with a brand and their electronic services, the recovery process usually has a greater impact on the customer loyalty than a failed experience (Buttle and Burton, 2002). However, if the experience of the service failure has been managed well, satisfaction and trust towards the brand are retained (Buttle and Burton, 2002).

An issue for the managers of the companies is whether the company has resources and capability to answer to the customer experience and their expectations. If the company wants to manage and design customer experience properly, it requires to present evidence for the company's customers in order to meet and exceed the customer expectations. The entire experience of the customer will be influenced by these evidence and will then amount to a good perceptions of service quality and value of the company. (Berry et al., 2002). Layering the evidence and integrating this to the service design will be beneficial for the company. This will in turn then create brand loyalty and strengthen existing one towards the brand. If no clues or evidence are given on the upcoming customer service, customers will not be able to understand the possible value of the service. (Haeckel et al., 2003).

AI agents and chatbots are changing the relationship between customers and brands (Ozuem et al., 2024). If the e-agents like chatbots have utilitarian and hedonic attributes, it has been seen that they have a positive impact in relationships between customers and brands (Magno & Dossena, 2023). Initial trust towards chatbots and other technological advancements has a comprehensive result towards the engagement in the brand, and thus, also advances the future adoption of chatbots (Mostafa & Kasamani, 2022). According to Purani et al. (2019), millennials loyalty towards a brand or a retailer usually gets stronger, when the brand or retailer uses innovative solutions and especially technologies that are easier to use (Purani et al., 2019).

Rajaobelina et al. (2021) have also recognised that a group of customers have found the usage of technological advancements as chatbots to be a disadvantage, which causes anxiety and frustration, and thus, creates a need for a human assistance in the customer service situation (Rajaobelina et al., 2021).

4.4 On-Going Operational Change in Companies to AI-Powered Solutions

AI-based chatbots are already in use with customer service functions in different companies. An AI-based chatbot is designed to have turn-by-turn conversations that are basing itself on understanding the questions from the customer and the conversation as a whole in real time (Adam et al., 2021). Prior research indicates that chatbots should be built in a human-like manner (i.e. anthropomorphically), which show to the customer like they have a sense of social presence and understanding of a social situation like human to human that they are going through (Adam et al, 2021; Derrick et al., 2011; Elkins et al., 2012, Rafaeli & Noy 2005; Zhang et al. 2012). For instance, IBM Watson Assistant is seen as a successful implementation of an AI agent that is able to understand the user's input in the conversation based on narrow AI. Narrow AI refers to the systems that are able to execute a task that require a specific capability, but not having the understanding to use intelligence to problems unlike generative AI has. (Adam et al., 2021).

These chatbot agents are being rolled in companies and are essentially replacing customer service human attendants (Adam et al., 2021). However, one of the core abilities of a human customer service attendant is applying the compliance and persuasion techniques towards a customer and it has to be understood better whether chatbots are able to mirror this behaviour like the human attendants can (Adam et al., 2021). It has also been highlighted that chatbots are a tool to guarantee steady results in the human-facing customer service roles and their performances, as the routinised tasks can be outsourced towards chatbots (Schanke et al., 2021).

Adam et al. (2021) suggests in their research to companies to be as open and transparent as they can to the customers on the interaction happening with a chatbot rather than a human customer servant. By doing this, the chatbots are able to be the source of persuasive messages and lead the conversation better. Making the chatbots to adopt more human-like attributes like small-talk and empathy have a better positive impact towards user compliance. (Adam et al., 2021).

Additionally, Adam et al. (2021) stated that AI-based conversational chatbots may be time- and cost-saving for the companies. However, the disappointing experiences like high failure rates with chatbots still arise among customers, which then results in resistance towards using the chatbot technology and, when using, defying the answers and instructions that the chatbot gives. (Adam et al., 2021).

4.5 Additional Case Examples of the Usage of AI in Customer Service

Firstly, a phone call AI assistant named Aida is in use at Skandinaviska Enskilda Banken (SEB), which is a Swedish bank that operates in other countries too. The AI assistant is able to communicate with customers through a data set and history of different conversations, in order to address many questions that are often appearing, for instance on how to make payments abroad and how to open a bank account. It is also able to ask follow-up questions from the customers in order to solve problems and, additionally, is able to detect the tone of voice of the caller. If the AI system assistant is not able to resolve an issue, the call goes to a human customer service representative, who then feeds the information to the AI in order to solve this issue in a forthcoming call from another customer. Around 30% of the calls were forwarded to the human customer service. This has significantly aided the human representatives to more complicated cases and particularly the cases where the customer has been unsatisfied with the service they have received, either from AI or humans. (Wilson & Daugherty, 2018).

Secondly, AI has also been trained for different decision-making processes. Morgan Stanley has introduced robotic advisers at its financial services. These robotic assistants are able to present different options and information for investments on an actual time basis from the market. (Wilson & Daugherty, 2018).

Thirdly, AI has also been introduced at retail and fashion segments, where AI is able to analyse the data from customers and their historical purchases. Thus, AI is used for personalization and to offer personalised service by the companies to their customers. This analysis is then sent to human attendants and fashion stylists, who are able to advise their customers with individual and unique suggestions for style and fashion. (Wilson & Daugherty, 2018).

4.6 Summary of the Theoretical Framework

The theoretical framework of this thesis has concentrated on transaction cost economics as its base theory, and has tried to investigate different solutions from the viewpoint of transaction cost economics. It has also looked into the relation between the transaction cost economics and digitalised economy, and how transaction cost economics work in that framework.

Moreover, this theoretical framework looked into the phenomenon of AI, and how it is viewed as a business operational phenomenon. Firstly, it examined the abilities that AI possesses. Secondly, it looked into how AI is used in the business sphere. Thirdly, it considered on the need of humans in the AI operational aspect. Lastly, it also studied the current work on regulating the AI.

Finally, this theoretical framework investigated customer service's vitality as a business function and how AI is being implemented into the operations of customer service. It assessed the economics behind customer service and what is the value of customer service for companies. Subsequently, it delved into the link between customer loyalty,

customer satisfaction and companies; and into the on-going processes that companies are having with implementing AI into their operations.

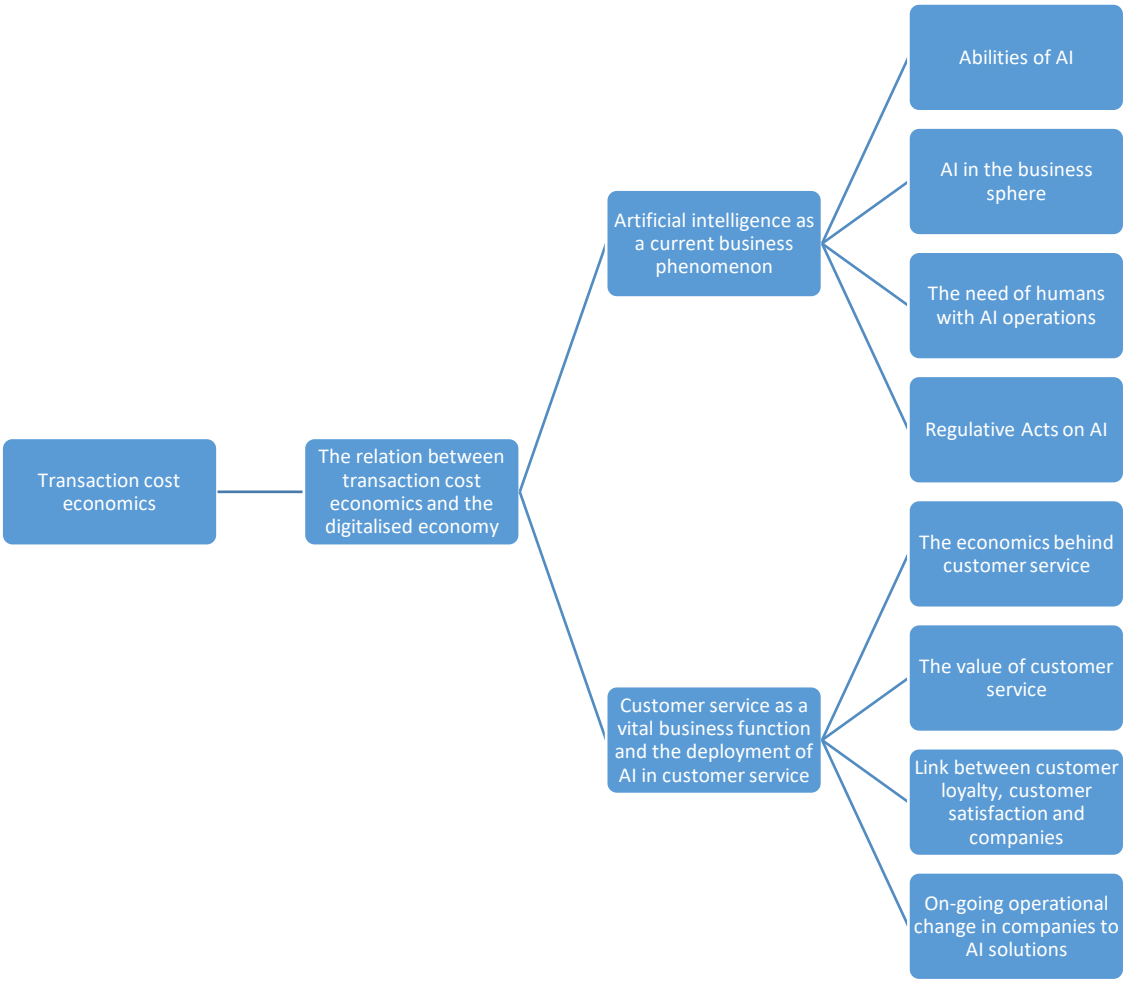

Figure 2. The theoretical framework of this Thesis.

5 Research Methodologies

This chapter will look into the methodology behind this thesis, which has been selected to correlate with the set research objectives of the thesis and to understand the phenomena introduced in the thesis. The chapter will introduce the chosen method of qualitative research method. It will also look into the data collection process that has been materialised for this thesis.

Additionally, this chapter will also cover the interviewees for this thesis. Furthermore, this chapter will go through the data analysis process that has taken place for this thesis. Lastly, this chapter will be exploring the reliability and validity of this study and the processes that have taken place.

5.1 Methodological Approach

The aim of this thesis is to achieve understanding on how the artificial intelligence supports the strategic future of customer service. This topic is a phenomenon-based topic, and the phenomenon in question is very timely, as companies are taking on different kind of AI solutions in their business operations. Therefore, qualitative study was chosen for this thesis research.

As the objective is to gain information from companies' customer service functions on their operations and possible AI adoption, qualitative data is needed to understand the context of the complex topic. Qualitative data will be collected to this thesis via semi-structured interviews. This collected data from the interviews and their transcriptions will then be analysed according to pre-set categorisation carefully.

5.1.1 Qualitative Research Method

There are various techniques created for data collection, which can be divided into two main categories of quantitative and qualitative methods. Quantitative methods base themselves on numerical data that can be achieved for example from questionnaires. Qualitative methods like interviews create non-numerical data. Any other information than numerical or words, for instance electronic media of videography or photography, are also categorised as qualitative data (Saunders et al., 2007, p. 139, 145). Qualitative methods try to understand the phenomena and reasons behind them, which have been posed in the research (Eriksson & Kovalainen, 2008). Qualitative research method is also not aiming to create results that are applicable on a general level (Puusa et al., 2020, Chapter 11). This is as qualitative research recognises the connection to reality as it is socially constructed, and is prone to understand the phenomena or context. This is mainly done through doing research on finding answers to questions, which are based on how and why. (Cleland, 2017).

The phenomenon behind this thesis is also a rather new one, which has only emerged properly within the last five to ten years. Hence, there are not generous amounts of studies behind this topic. Therefore, the qualitative research methods are best to cover the subject behind this thesis through understanding from the experts in the field, who are working with the phenomenon currently. (Cleland, 2017). Thus, qualitative research concentrates on studying the phenomena from the viewpoint of individuals or groups through settings that are natural for them (Moser & Korstjens, 2017).

The selected data collection method of this thesis was semi-structured individual interviews. The approach with semi-structured individual interviews was chosen as the aim is to understand the causal link between the implementation of artificial intelligence in business operations and the strategic future of customer service. The format of semi-structured interviews gives the possibility to propose new and additional questions in the interviews, if a need for that arises in the conversation and, thus, gives the possibility

to gain a deeper understanding of the raised topic with the follow-up and clarifying questions (Saunders et al., 2007, p. 312).

5.2 Data Collection Process

The data for this research was collected via the semi-structured interviews. The interviews that have taken place are exemplified in the end of this chapter in Table 1. The data for this research was collected by interviewing professionals and managers working in field of the customer service from various organisations, as the goal was to receive a deep understanding of the on-going business phenomenon with AI rather than a broad perspective of the topic in order to avoid the concentration of data. The open-ended questions empowered a stronger and a more conclusive image and information of the topic that was being conversed (Eriksson & Kovalainen, 2008).

The interviews for the research of this thesis were recorded with the consent of the participants. The interviews took place in April 2025 and were conducted via Microsoft Teams software application. These tools were selected for the interviews as the interviewees were located across the world. Both the researcher and interviewees were familiar with the chosen and used application for the interviews. The interviews lasted between 48 minutes and 59 minutes. All of the interviews were written into transcriptions, which were written to separate documents by the author.

In order to make sure the full anonymity purposes of the participants of the interviews, this thesis used pronouns ‘they/them’ when referring to the interviewees in order to safeguard the anonymity. Doing this will also ensure that it is not able to distinguish the people of the interviews from their responses based on their sex or gender. (Saunders et al., 2007). The anonymity of the interviews was emphasised in order to build trust between the researcher and the interviewees, to make sure that the interviewees feel they can speak freely throughout the interviews. Additionally, the anonymity was emphasised to avoid any bias for the possible findings of the interviews. Furthermore,

the participants were informed about their rights concerning the interviews and the usage of the data.

Table 1. Overview of the interviews.

Interview no.	**Industry of the organisation**	**Geographical reach of the organisation**	**Role of the interviewee**	**Number of employees in the organisation**	**Length of the interviews**	**Pages of memos and transcriptions**
Interviewee 1	IT Services and IT Consulting	International	Customer Service Manager	4000	59 minutes	14
Interviewee 2	Public services	National	Customer Service Team Leader	12 000	55 minutes	13
Interviewee 3	Consumer services	International	Business Development Manager	1000	54 minutes	12
Interviewee 4	IT services	National	Customer Service Coordinator	10 000	52 minutes	10
Interviewee 5	Consumer services	International	Customer Service Country Coordinator	500	48 minutes	9

5.3 Data Analysis

The objective of data analysis is to characterise, define, and understand the phenomena that is being researched. The goal is to establish an interpretation of the phenomena that are good quality, give a complete outlook on the phenomena and demonstrate conclusions via the analysis of the topic (Puusa et al., 2020, Chapter 4).

The data analysis process is formed of several phases and the stages appears several times throughout the research process, also simultaneously. The different phases are choosing the topics for the analysis, familiarising yourself with the data, categorisation of the data and summation of the data. (Puusa et al., 2020, Chapter 9).

The empirical interviews with the respondents were conducted either in Finnish or in English. The researcher and the author of this thesis kept transcriptions of the interviews and with those transcriptions, the author translated the needed information and parts into English for this Thesis.

During the final stage of interpretation for this thesis, the themes raised by the respondents were identified from the interviews and the results. This was done after the transcripts were proofread, anonymised and studied carefully a few times. Anonymised direct quotations were used in order to maintain the transparency of the material that were found in the empirical research. The collected data and themes raised by the respondents were categorised to match the topics that were researched in the theoretical part of this Thesis. The categorisation of the data from the interviews was also made in accordance with the relevancy on the theoretical review of this thesis.

5.4 Reliability, Validity and the Ethics of the Research

In order to emphasise the quality standards of the research, validity and reliability are used as tools to guarantee the quality.

Validity may also be threatened with external factors in the research. There are four main categories on threats towards validity: observer bias, observer error, subject or participant bias and subject or participant error. In order to avoid errors of participants or subjects with for instance feelings of the respondents, the interviews should be aimed to take place at the most neutral time than possible. (Saunders et al., 2007, p. 149-150).

Validity on one hand functions as a tool to look into and assess the aimed actions of the research and to understand whether the phenomenon researched is judged in an accurate and unbiased manner. Validity on the other hand can be examined in two manners: external validity and internal validity. The first looks into the findings of the

research and whether it can be applied to other phenomena, which are being studied. The second looks into the relationship and causes between two different variables. Validity may also be faced with threats. (Edmondson & McManus, 2007, Puusa et al., 2020, Chapter 5, Saunders et al., 2007, p. 149-151).

The researcher is in a key role in order to obtain neutrality in the interviews. This enhances the reliability of the research. The questions in the interviews should be as open as possible without any leading when laying the questions, as this may cause threats to the validity through observer error and cause an influence towards the respondent's answers. Additionally, the participants may cause subject or participant bias with answering the questions in the interview in a way that they might feel something would be expected from them. (Saunders et al., 2007, p. 149-150).

As aforementioned, qualitative research does not necessarily create or produce results that are applicable on a general level (Puusa et al, 2020, Chapter 11). As the study had a limited number of participants as interviewees, this could be also seen a reliability issue. However, the study limited itself to interview people that are knowledgeable with the fields in the research and the findings of the study have been analysed together with previous research and the theoretical research that has been executed for this thesis.

The reliability of this thesis research's data collection in this study was assured by interviewing experts, professionals and managers in the business sphere, who mainly have experience with the Customer Service field, but also other managers in various companies and different fields. This was to guarantee the varied results in the empirical findings and research for this thesis and the data from various subjects increases the reliability of the data (Puusa et al, 2020, Chapter 11).

6 Empirical Findings

This chapter introduces the empirical findings, which are from the data collected through interviews that have been organised for this thesis. The research question of this thesis in chapter one and the theoretical framework of this thesis in chapters two, three and four are the provided basis for the structure of this chapter. This chapter includes quotes from the interviews, and some of the quotes that are derived from the interviews are also presented in the Appendix 2 of this Thesis. Those quotes in the Appendix 2 are organised in relation to the subheadings of this chapter.

This chapter will be structured into sub-chapters that correlate with the topics from the theoretical framework: the vitality of customer service as a business function AI as a tool to save costs on business operations, how outsourcing will be perceived as an operational prospect and the impact of AI on customer service operations. Lastly, this chapter will include a summation of the empirical findings.

6.1 The Vitality of Customer Service as a Business Function

In this section, the thoughts from the interviewees on vitality of customer service for companies' business operations will be discussed. It was seen in most of the cases that customer service is seen as an important function to the organisations, and in some cases they were seen as one of the main business functions, with an equal stance towards other ones.

> *It can be seen that the appreciation towards the work of customer service grows within those functions that work closely and in cooperation with customer service. In our organisation, the marketing department is the closest departments to us, and with sales we also work closely. (Interviewee 1)*

> *Customer service is seen as one of the three main and equal business operational functions within the company, in addition to sales and marketing. These functions fulfil and support each other. (Interviewee 3)*

> *In our organisation, customer service is seen as a cornerstone of effective services. It serves not only as a support function but as a critical touchpoint between the organisation and our customers. Our goal is to provide humane, accessible, and efficient services that meet the diverse needs of customers and other stakeholders. (Interviewee 2)*

Customer service was also seen as a part of company and organisation that creates a lot of data on the customers and their contact requests, which is seen fundamental for the whole organisation as it may not be available from anywhere else.

> *Compared to sales, customer service is vital as we are able to track the reasons for contacts. (Interviewee 3)*

> *As we know or are able to track the different reasons why customers contact us, we can also start automatising the answers through FAQ sections. Thus, we are able to avoid some number of questions that would come to customer service. This is different to sales, as you seldomly can the unique selling processes that are tailored to each company. It could be said that customer service will probably be automatised to some extent in the future developments. (Interviewee 3)*

> *We strive towards first contact of resolution in all the cases that come to our customer service, because if the cases cannot be handled in the first contact, the cost per contact rise and it decreases customer satisfaction and loyalty. (Interviewee 1)*

The different organisations also have different perspectives on how the customer service is seen from the higher managerial side of the companies. This may be a drastically different view than what kind of work the customer service actually does in their operations.

> *The biggest challenges in understanding the value and work that customer service gives and does are at the higher levels of management. It seems that on some level, they might lack the knowledge and understanding what customer service actually does. (Interviewee 1)*

> *Higher management often sees customer service as a function that only costs money for the organisation as customer service does not bring money into the*

company directly. Additionally, it is often seen that customer service only needs other functions to support its own work, even though the purpose is actually the other way around. The costs that are created and comes from the operations from customer service are often high, as they are based on personnel costs, software and hardware costs, tools and other costs. (Interviewee 1)

The additional value that customer service brings to the company affects to the whole value of the company, but it is not necessarily seen immediately in the balance sheet, but it can be a value, which is harder to measure on money. (Interviewee 1)

The empirical interviews discussed also the future role of customer service and how the interviewees see it developing for the upcoming operations of the organisations.

In my opinion, customer service is evolving from a reactive support function into a more proactive, strategic service. We foresee an increasing shift towards personalised guidance, digital service channels, and hybrid support models where humans and AI collaborate to offer quicker, more accurate, and tailored assistance to the customers. (Interviewee 2)

I think customer service will remain essential for any business that relies on customers for their revenue. It might even become more important if you want to stand out against competitors in the current economic climate. (Interviewee 5)

The role of customer service will be transforming to a more proactive one. Instead of only problem solving, we strive towards anticipatory and proactive stance in the service work and understanding the whole overall need that the customer might have for us. Technology and its role in our work will most certainly grow, but human-centric approach in our work will remain important. (Interviewee 4)

6.2 Outsourcing as an Operational Prospect for Organisations

One of the main themes of the transaction cost economics is outsourcing the operations to market. For this thesis, outsourcing customer service can be inspected from two points of view either fully or partially: firstly, outsourcing customer service to another outsourcing partner or secondly, outsourcing customer service to AI. This section will identify the findings from the interviews on this topic.

Firstly this section looks to the cases, where organisations have used outsourcing partners to support their work with customer service or other business operations. Companies have been outsourcing based on operational times of the company, on cost-effectiveness and bringing talents in for specific parts of some projects.

> *We have outsourced some of our operations, if we lack the resources in-house for these tasks. For instance, we have used an outsourced customer service for phone calls outside of our main operational opening times. This included evenings and weekends. (Interviewee 1)*

> *We are a company that functions actually as an outsourced customer service provider for other organisations and companies, but we also outsource some services of our own. For instance, our customer service is not open 24/7, but our customers may need service in their situations outside of our opening hours. Therefore, we then use an outsourcing partner for calls that occur outside of our opening hours due to the small number of contacts. It is more cost-effective to outsource these calls to an outsourced on-call-duty services than have our own trained and educated employees at our call centre for the small number of calls. (Interviewee 3)*

> *Some tasks are by nature such that it may be easier to outsource parts of projects rather than hiring talents completely as new full-time employees to the organisation. Using freelancers that are experts in their field within some projects and specific aspects of a project is far more cost effective. (Interviewee 1)*

Secondly, this section will introduce those answers by respondents, which brought up different kind of outsourcing solutions that are related to AI solutions, automation solutions or through other kind of software solutions.

> *Outsourcing customer service has been in the discussions. This is due to making our services more cost effective, lack of accessible resources and the scale of our activities. In some cases, we have implemented AI solutions, such as chatbots and automated response software to e-mail cases. (Interviewee 4)*

> *After we outsourced some of our operations with a software-based solution from a pure call centre -based customer service, we started chat operations within our customer service. With that chat-based service we were able to take on three live*

chat contact simultaneously compared to one call per each attendant. This meant we were able to attain cost savings. (Interviewee 1)

There are solutions with intercom built on AI, where the whole conversation is done with an AI agent. The agent asks the basic questions on the error that the customer has faced, which are also based on the FAQ's that the company would be asking in the situation. The intercom AI agent is also able to recognise different spoken languages for the conversation as well. (Interviewee 3)

It was also noticed that developing AI solutions are rather costly and take a lot of resources. Therefore, organisations use different AI service providers that are able to either creating an AI service completely or partly to the organisations or tailor AI services in accordance with their wishes.

There are no resources to develop AI agents in-house locally, so it is most effective resource-wise to buy the development process of the AI agent and then implement it in our website. (Interviewee 3)

Our AI solutions are currently outsourced to an AI-service provider, who is responsible of the platform base, but our organisation has then built and tailored the chatbot solution in accordance with our brand in the platform. (Interviewee 1)

Collaboration with AI providers allows us to integrate tools that can enhance efficiency, reduce wait times, and offer 24/7 assistance/services for customers. This ensures continuity of service and improves the overall experience for our users, especially in handling high volumes. (Interviewee 2)

Something that was also brought up is that in-house customer service may also be quite costly for the employers particularly in Finland, and in these cases outsourcing the customer service to a partner may be cheaper.

In-house customer service can also be very costly especially in Finland as there are a lot of costs that the employer has to pay for each of its employees on top of the salary. These include for instance the employer's share of the social security contributions etc. Additionally, software and such license costs are costly too. Therefore, outsourcing customer service to a partner may come cheaper for the company. (Interviewee 1)

One respondent mentioned in the conversation the need for keeping the customer service in-house, but understands the need for having AI as a tool in the customer service operations in order to boost productivity and keeping costs on a more effective level.

> *Keeping customer service functions in-house ensures better continuity, staff expertise, and alignment with local service goals. It also allows for closer integration with the organisation's broader strategy for our services. However, it is important to note that some core digital and data services – such as the systems used by our customers and our employees – are managed centrally, sometimes outside of our organisation. Despite this, maintaining AI-supported customer service operations within the organisation still offers significant benefits. We can better ensure data confidentiality, maintain local knowledge, and align service quality with our standards. Over time, building internal AI capabilities could be more cost-effective and adaptable than relying on external outsourcing contracts, especially in areas where we can integrate AI into our service workflows and support models. (Interviewee 2)*

Furthermore, when asked about the possibility of fully outsourcing customer service to AI, the responses vary a lot. This usually depends on the context what kind of the customer service is. The change however is linked to many different factors, like values, costs and resources.

Two respondents felt that it a full outsourcing of customer service may be possible practically, but it would nevertheless need a careful consideration.

> *I think that it is possible in practical terms. However, I think it is a value-based decision for the company to make such a decision. In the same vein, we could decide on not having a customer service as a whole in our company. It is also a possibility. However, this most probably has a direct relation to customer loyalty, customer satisfaction and the brand image. We could also outsource our customer service as a whole, but the risks on losing the satisfaction of customers towards our product might be too high. The reasons that may strive for these kind of decisions are clearly based on cost reasons, but it is definitely also a decision based on company's values. (Interviewee 1)*

> *On average, the customer contacts that come to our customer service lie around 10 main reasons by the B2C customers. I think it would be viable to outsource*

> *customer service completely to AI, when it comes to B2C -side. However, one administrator would be needed to take care of the quality on the situations handled by the AI in order to ensure the image of the company will stay intact; and the administrator would be human. (Interviewee 3)*

For two respondents, full outsourcing of customer service felt more unlikely, but could be seen as a last resort option.

> *The only reason for us outsourcing customer service operations to AI fully is when personnel costs become too high for us and there is no other option than to outsource. (Interviewee 5)*

> *For us, a significant lack of resources, pressure on cost effectiveness or quality issues in the customer service may be reasons for a full outsourcing of customer service. However, the needs of the customer segment, character of the service and the strategy of the organisation are also values that have to be considered, if such a move would become relevant. (Interviewee 4)*

6.2.1 The Impact of Outsourcing Towards Quality of Customer Service, Customer Loyalty and Customer Satisfaction

One of the questions related to the connection between quality of the customer service, when its being outsourced to an outsourcing partner or to AI solutions. Additionally, in the same the link between outsourcing, customer loyalty and customer satisfaction was being studied.

It was discussed on several occasions that outsourcing partners and AI are usually seen as a good tool for the companies to help with their operations. These solutions, mainly in terms of AI, could also have a positive impact for the customer loyalty and customer satisfaction towards the brand and product. However, the usage of outsourcing partners in particular were seen costly.

> *We see that if the AI tool is purpose-built and well-optimised for our organisation and our customers, it will serve the purpose and has a lot of potential to even grow*

the customer loyalty vs. with manually handling the contacts via our customer service as we are able to hasten our processes. (Interviewee 1)

Customer service calls that end up going to the outsourcing partners are very expensive. Therefore, instead of using an outsourcing partner, using an AI on these issues, who would take the reasons of the contact and then a human attendant would call back, could most probably be more cost-effective than using an outsourcing partner. This would then also be good service to the customer and increase satisfaction. Additionally, this helps the human attendant to save time in order to not needing to find out the problem behind the call, but actually going directly to the issue with the customer. (Interviewee 3)

There were also negative thoughts on the usage of different outsourcing solutions in customer service. This issue was risen particularly relating to outsourcing partners, but also with the usage of AI solutions in the work of customer service. The risk for losing the customer loyalty and a lower customer satisfaction were identified.

Outsourcing partners usually handle several different companies' customer services, and not only one company. Therefore, using an outsourcing partner with handling customer service may cause a drop in the quality of the delivered service. (Interviewee 1)

In our context, our customer services are still largely manual and strongly centred around human interaction. Customer satisfaction in such services stems not only from efficiency but from empathy, trust, and the feeling of being genuinely heard and supported. While AI cannot (and should not) replace the human encounter, especially in emotionally complex situations, it can play an important supportive role. Much of the administrative burden – such as handling basic inquiries, retrieving documents, or drafting decisions – can be automated. This does not mean removing the human touch from the service, but rather freeing up time and mental space for professionals to focus on what matters most: the client relationship, motivation, and tailored guidance. By using AI to support the bureaucratic or repetitive aspects of the job, we can enable more meaningful human encounters, increase service capacity, and improve the overall customer experience. This human-AI collaboration has the potential to strengthen trust and satisfaction, which in turn builds customer loyalty – especially when clients feel they are being treated as individuals, not just cases in a system. In this way, AI is not a replacement for human service, but a tool that allows us to be more human where it counts most. (Interviewee 2)

6.3 The Impact of AI on Business Operations

It is predicted that AI will have many different impacts on customer service operations. Many organisations of the respondents have already implemented AI in their work. There are different levels of implementation of the AI solutions. On one hand, they may have implemented it completely on a daily basis regular tasks with different solutions, like chatbots. On another hand, AI is being used by human customer service workers to support their work on their tasks on a need basis. However, it has become clear that AI will be implemented more and more in different parts of business operations.

> *AI is already part of our customer service operations, or operations in the company as a whole. It is estimated to be valued similarly to one full-time employee in customer service. Our AI chatbot is in our website's chat and our application's chat function and it is able to tackle the different frequently asked questions, which would come to the customer service otherwise. (Interviewee 3)*

> *Factors include cost efficiency, scalability, and accessing specialized expertise, which for we are using outsourced service providers. Some functions – such as basic inquiry, leaving contact requests, and data processing – have started to be supported by AI solutions like chatbots or other automatised systems, especially for after-hours services. (Interviewee 2)*

With the introduction of AI to operations, the companies feel that they are able to better concentrate on the division of labour and more specifically on tasks that require more careful consideration and more resources. AI has also been a tool that has given the organisations more opportunities to even expand their services.

> *The optimum situation would be that we would not have to receive any unnecessary contacts in our customer service, when they could be solved with an AI agent. This would then provide time and resources to other more important issues. (Interviewee 3)*

> *The usage of chatbots with AI in our organisation's customer service has increased productivity remarkably as we are able to run parts of our customer service 24/7, which means that we are able to serve customers even when we do not have human customer service attendants at work 24/7. Additionally, AI does not require breaks, lunch breaks or even holidays which are needed for the human attendants*

already by law. Therefore, the shrinkage is decreased in the budgeting. (Interviewee 1)

There were also negative thoughts on the implementation of AI and other automated processes in the customer service work.

I do not think a business should ever rely fully on automated technological applications like the AI as they cannot replace people, as human intervention remains necessary for a personalised, high quality customer service. (Interviewee 5)

Full outsourcing of customer service operations to AI would only be considered under very specific circumstances – such as dramatic resource constraints, a surge in service demand, or the need for 24/7 multilingual availability that cannot be met in-house. However, given the sensitive nature of our services, particularly the human support needed during vulnerable life situations, full AI outsourcing would not currently align with our service values. Any consideration toward full AI outsourcing would need to account for ethical and legal frameworks (e.g. data protection, equality of service), the impact on service quality and trust and whether automation enhances or hinders human-centric service delivery. In our case, a hybrid model, where AI handles background processing and routine inquiries while human specialists focus on guidance and encounters, would be a more suitable and sustainable path. (Interviewee 2)

6.3.1 AI's Impact on Costs

It was seen in most of the interviews that AI will be seen as a tool for cutting costs for the companies. There were varied opinions on what kind of costs it will be touching upon depending on the customer service that the organisations have, but mostly it was seen a cutting tool for employee costs. It will also decrease costs that may be created on just operating the customer service.

The cost of a contact handled by a human attendant is around 5-6€ for each contact that the customer service has to handle. Therefore, the interest in investing to AI solutions is remarkable, as price per every contact will decrease significantly. (Interviewee 1)

When it comes to the seldomly appearing contacts on problems during the night, cost saving would be remarkable, when those could be outsourced to AI rather than outsourcing to another partner. Especially, when these contacts are usually contacts that could be easily solved by an automatised system, who recognises the problem by asking specific questions related to the problem. (Interviewee 3)

AI makes it possible to automatise our own processes without the need for great costs that occur from outsourcing to another partner, and this reduces costs in the long-term. Additionally, it is then possible for our in-house customer service to maintain a better control of the service and connection to the brand, which then enhances our customer satisfaction. (Interviewee 4)

Switching costs to AI were also something that the interviewees brought up. The switching costs may include direct costs on software or hardware, but it also includes the costs from e.g. management allocating time towards change management rather than doing tasks that are included in their normal daily routine work.

When changing to AI solutions, switching costs increase in the short-term, for instance with buying new software and training and educating employees. No switching costs would occur, if we would not change anything in our operations and keep them as they are now. Indirect costs are probably higher than direct costs, as for example taking the time from managers from their day-to-day tasks and training them for change management with the switching process. (Interviewee 1)

6.3.2 AI's Impact on Employees

In most of the cases, it was seen that the workforce would not lose employees in the organisations. However, in some organisations it had already partially happened, that AI has been a driving force for cost cutting on the number of employees. Nevertheless, the biggest impact that the AI has in the organisations and their employees is the need for upskilling and training towards new kind of tasks that are handled with AI. Moreover, the implementation of AI may be a radical change to some of the employees, as it may require complete changes in the work tasks.

I do not see that AI would replace employees in customer service directly, as there is always a need for clarifications or complicated cases which have to be handled by humans. However, it will make the process of customer service more effective as it is able to handle more cases simultaneously than human customer service attendants can. Therefore, I see that the customer service attendants would be trained more to an administrator role, who take care of and inspect the quality of the work that the AI has done. Upskilling and trainings would have to be organised. (Interviewee 3)

AI will not replace the core of our work, which is built on trust, support, and personal interaction. Instead, it will shift the nature of the work: automating repetitive, time-consuming tasks will open up more time for deeper, value-adding client interactions. This can actually increase the meaningfulness of the work for our staff. However, this kind of transition will require reskilling and upskilling. Employees will need competencies in working alongside digital tools, understanding AI-supported processes, and possibly participating in the development and evaluation of these technologies, which is not supported at the moment. New roles may also emerge – such as AI support specialists or service designers – particularly as we define how technology can support but not replace human service. (Interviewee 2)

6.3.3 Other Impacts Generated by the AI Implementation

Other impacts that the implementation of AI and other automatisation tools included the possibility of stronger customer segmentation in the companies and their services. It could either create the possibility of segmentation altogether, or strengthen the on-going processes with the data that the organisations are able to have from the AI.

Automatisation will be able to better develop our business operations with segmentation of customers. AI will be able to take care of the customers that are rarely using our services and may contact us on basic questions, which could be also solved in other ways such as the self-service functionalities within our website. More time can be allocated then towards the personalised customer service for customers that use our service either with a large number of transactions or are business accounts. This will then in return bring more revenue or give opportunity for the company to grow more on the area. (Interviewee 1)

I think customers should not expect that contacting customer service would automatically mean a contact would be with a human attendant. I think it should be based on "how good of a customer" you are. If you are a free user of a service,

> *you would have to settle with an AI agent. In case of a premium user, who pays for a premium service, they already pay for a service and then you would be eligible for human customer service. As a premium business user, you could even have a personal contact person then. (Interviewee 3)*

Generally, the development of AI was seen very quick at this stage, but the future development is seen as a positive thing. Different tools emerge all the time and the already existing tools learn to take on tasks that are more and more challenging.

> *AI develops all the time more and more, and towards a better direction from my point of view. AI is able to do more challenging cases with customers now than it was before. In five years, the situation can be drastically better. (Interviewee 1)*

> *When AI is able to take most of the customers issues to be handled and lowers the cost of customer service, this could then be directed as lower costs to the end user. (Interviewee 3)*

Additionally, a few recommendations were risen from the interviews, which concerned the future of the AI language models. Firstly, one idea was that companies should create together an open-sourced model for AI rather than developing models for their own use. Secondly, an intergovernmental player within Europe was seen to be important as the current global political situation with US and China has never been so tense than right now.

> *I feel that companies should not create their own AI language models, but rather they should come together with their resources and develop one open-sourced language model, which would become the norm in the field. (Interviewee 3)*

> *Seeing the global political situation, it would be vital to develop or coordinate a language model on the European level by the EU, as now the situation is that many AI solution providers are basing themselves on the American ChatGPT or Deepseek from China. (Interviewee 3)*

Lastly, it was important to discuss how the companies and organisations make sure that the AI aligns with their long-term strategies and values. In most of the organisations, AI is already implemented in their long-term strategies, as it will become a tool of a general

use in the organisations more and more. Some suggested that it should also be included in the short-term strategy quickly. Value clashes were also discussed in the interviews.

> *It already is part of the strategy. However, the company still needs to properly think how to set clear targets, how to achieve those and what the company wants to achieve with the AI altogether. The key to all of this is change management within the company and communication for all. Employees have to be up-to-date and get a needed education and training for working with AI. It is also important that all middle-management is informed about the changes; in order to be able to communicate it to employees so the strategy can be implemented fully also on the floor-level. (Interviewee 1)*

> *In the long-term strategy of our organisation, the AI implementation will be playing a role. In the implementation, we will be striving for the customer-friendly orientation, ethicality and strategical compatibility. The AI solutions have to be chosen and implemented in a way that they support the customer experience, but also the productivity of our employees and sustainable business making. (Interviewee 4)*

6.4 Summary of Research Findings

The data collected from the empirical research suggests that customer service is seen as an important business operational function within organisations. Customer service is seen as a base for a lot of incoming data on the customers, especially through the contact requests by customers as the information may not be available from anywhere else.

The empirical research also looked into outsourcing as an operational prospect for organisations. In particular, by outsourcing customer service, either via another outsourcing partner or to AI solutions. Both of these solutions had been used in the interviewed organisations. However, the answers varied a lot especially concerning quality and possible cost-effectiveness of these solutions.

With outsourcing partners, interviewees were satisfied with the help on specific parts of projects or with being able to outsource customer service outside the normal

operational hours. However, using outsourcing partners were seen as quite costly among the interviewees and their organisations. On the other hand, having an in-house customer service can be quite costly due to the different costs that the employer has to pay for each employee.

Therefore, the new in-rolling AI tools have been a good solution as they are more cost-effective and are very efficient and raises productivity in the operations. These AI tools could potentially result in a full outsourcing of customer service to AI. However, more likely it was seen as a need of upskilling and retraining of employees to be ready with working together with AI. The research data also showed that developing AI agents is rather costly, and therefore, development partners or service providers are needed to work with on implementing the AI solutions to customer service operations.

Data also demonstrated that the impact on quality with outsourcing can be varied. Outsourcing partners and AI solutions were seen positively as supporting tools. Firstly, it was seen that the quality of customer service could even be better, especially with tailored AI tools as it fastens the processes and is able to tackle the most frequently asked tasks. Secondly, in terms of outsourcing partners, it was seen that quality usually lowers as they handle several companies in their operations compared to an in-house customer service. Additionally, a risk of a badly implemented and trained AI tool may also lower the customer satisfaction and loyalty towards the brand and the product.

With the implementation of AI, organisations can concentrate better on the division of labour and are able to increase the productivity via these solutions as the human employees can concentrate on the more challenging tasks. AI also has the benefit of being such a cost-effective tool that it is able to bring more revenue to the companies and reduce costs on contacts and employees. Thus, the implementation of these AI tools may cause changes to the companies' workforce.

All in all, the data also shows that AI has become a vital tool in the work of customer service and its different processes. Some organisations are in a more advanced stage than others in the implementation of AI within their operations.

7 Conclusions and Discussion

This chapter will go over the conclusions of this master's thesis and discusses the findings from the empirical research and refers to the theoretical literature presented in the thesis. It will also compare the results of this study with previous studies that have been already conducted on the topics that this thesis has covered in its research.

Additionally, this chapter will have a sub-chapter on the practical implications that this study has for the companies that consider AI in their operations. Moreover, it will examine the limitations of the research that was conducted for this thesis. Lastly, this Thesis will provide suggestions for future research on the topic.

7.1 Main Findings of the Study

The aim of this Masters' Thesis was to find out what is how AI can support the strategic future of customer service. This study has been with the qualitative manner and means, where the research data has been gathered via semi-structured interviews with five respondents. The interviews based itself on the theoretical framework of this Thesis. The interviews had the following three main themes: Firstly, the vitality of customer service as a business function. Secondly, outsourcing as an operational prospect for organisations and the impact it has towards the quality of customer service, customer loyalty and customer satisfaction. Thirdly, the impact of AI on business operations and the impact AI has on the costs and the employees of the organisations.

This study has aimed to examine artificial intelligence as a current phenomenon, particularly in the business realm. Additionally, it looked into the abilities that the AI offers. For instance, there have been different automatised tools in use, but AI has been developed with the ability to handle and analyse large amounts of data simultaneously. It also looked into the usage of AI in the business sphere and where the humans are still

needed when operating together with AI. It also briefly went through the regulative acts that are concerning AI.

Moreover, the study looked into the role of customer service as a business function and how AI is being used and implemented in customer service. It studied the economics behind customer service and the role of it. Additionally, the value of customer service and the link between customer loyalty, customer satisfaction and companies were also studied in this thesis. Lastly, the on-going operational change in companies to AI solutions was also investigated in this thesis.

AI has been recognised as a tool that increases productivity in the organisations as outsourcing to a tool that can handle several customer requests simultaneously or handle large amounts of data, and provide that to the customer service. This study affirms the vital role of AI in the future customer service operations. As it is already being implemented in several companies, it can be stated that it already has a fundamental role on the operations. Some companies are ahead in the implementation process than others, but this may be related to the nature where the companies operate. Companies are looking for different tools on automating their customer service processes, either to help the workload of their human attendants in the operations or on looking for AI solutions to eventually replace the human attendants in the customer service either partially or fully.

However, it was risen in several interviews that image or brand value of the companies may be harmed if the service quality of outsourcing partners is low, or an AI solution or tool does not function the way it is supposed to. Therefore, this may cause issues towards the satisfaction of the customers, as the service does not function as promised, which may then in turn also have an effect to the loyalty of the customers.

One of the major findings of the empirical research centralised itself on the costs of AI. Currently, AI is seen as an expensive investment to companies, particularly those ones

that do not have the resources and knowhow to develop AI solutions to their use. Therefore, outsourcing the development to a service provider, at least in the beginning was seen a useful solution on some occasions. Switching costs may be high, especially, in the short-term due to the needed software, change management in the companies and training the employees.

At the same time, AI is seen as a very cost-effective tool to run the day-to-day operations of customer service. It is able to take on the more repetitive tasks from the human attendants and handle them on their own, which blocks unnecessary contacts to the customer service. This in turn gives the companies and organisations options on labour division and concentrate the staff to the needed tasks, or even reduce employees, as AI can be developed to be such an efficient tool, especially in the future.

All in all, the implementation of AI to the operations of customer service is already taking place and the change to AI solutions is almost inevitable. AI in customer service is mostly seen as a beneficial phenomenon and implies to have a lot of possibilities to develop customer service into a new direction.

7.2 Comparison of Results with Previous Studies

This thesis has aimed to tackle the gap in research that is related to the usage of AI in the customer service, especially in the eyes of transaction cost economics. Previous studies have either concentrated on AI as a technological method in customer service and how it has been implemented from a technological perspective. Additionally, transaction cost economics have been studied before many times, but not from the viewpoint of AI, and additionally, how the TCE theory is implemented in customer service.

The aim of this thesis was to understand better, whether there is a causal link between the transaction cost economics and artificial intelligence and how it is matched. Additionally, the thesis has tried to expand the current knowledge and understanding

the phenomenon of AI in the business world, and how useful it has become and how it will be continuing to take over work from humans.

This study used the transaction cost economics theory as a basis on finding out the reasons for companies to implement AI solutions in their operations. In transaction cost economics, it is important for companies to identify what parts of their operations shall be outsourced to markets in order to support their own business and its profitability. (Coase, 1937). It was identified in this study that transaction cost economics and outsourcing are closely linked to the business operations of customer service, particularly in cases where companies are looking for different solutions on how to save costs by outsourcing. In this particular study and the empirical research, the main implication was that companies are currently in the process of outsourcing their customer service operations to AI solutions, such as chatbots. Outsourcing to markets in the contracting scheme was seen especially important by Williamson (1999), who discussed the differences in high and low asset specificities and how these had a relation to the outsourcing to market or when keeping the production in-house. Therefore, there is a clearly a link between the transaction cost economics and the implementation of AI.

It was also studied in this Thesis, that there is a clear need for humans with AI operations. Whilst there may be aspirations to replace human attendants altogether with AI operations, there is always a need for attendants that will be supervising the actions of AI, teach complicated cases or training the AI to understand linguistics and expressions (Wilson & Daugherty, 2018). This was also affirmed in the empirical research, as companies may be looking to automatise the processes with customer service. Currently, the basic questions can be handled through AI, and the most complicated cases will be handled through human attendants. As the development of AI is quick and is enhancing the AI rapidly, the usage of it to complicated cases is also getting nearer all the time.

Customer service has been seen as a crucial partner and function in the business operations within companies. With a good customer service experience, customers are

more likely to use and come back to the product, but customer service itself has a limited causal link to the customer loyalty and customer satisfaction as the loyalty is usually towards a brand or a product (Dixon et al., 2010). The actions of customer service, such as next issue avoidance, keeping the front-line of customer service staffed more than adequately and keeping the channels to contact customer service at a minimal level are some of the key elements, where customer service is able to keep the customers within the product they represent (Dixon et al., 2010).

There is a causal link between consumer loyalty and satisfaction and positive outcome of a customer service situation (Fraering & Minor, 2013), particularly when new technological advancements are successfully implemented in the operations (Ozuem et al, 2024, Dixon et al, 2010). In this current phenomena that this research has studied, it particularly means different AI-based solutions, particularly chatbot agents (Adam et al, 2021). This had also been confirmed in the empirical research, as customers have been more content to the service they have received as it has been faster and thus it has created a more positive link to customer satisfaction particularly.

Adam et al. (2021) stated that conversational chatbots, which are AI-based, may be time- and cost-saving tools for the companies and in particular with customer service functions (Adam et al., 2021). Følstad et al. (2024) also has confirmed, that the chatbots and their usage is rising overall as they are able to handle many cases simultaneously (Følstad et al., 2024). This study has affirmed that productivity has been risen within the companies that have been research empirically, and that it is more cost-effective to handle cases through AI chatbots, than for instance via calls, as the AI chatbots are able to work 24/7 and handle several cases simultaneously versus human attendants being able to answer one call at the time and are limited with for instance set working hours.

Lastly, the link between saving costs in business operations and implementing AI operations is inevitable. AI being so versatile in handling many cases, as it can be developed to operate on so many different platforms, e.g. calls, texts, e-mails and chats,

it is definitely a tool that saves costs for the companies, particularly from the staffing, as the number of front-line service attendants can be reduced and be replaced by a few AI attendants. As the development of AI goes further, it can be built to resemble more humanised versions overall. In the eyes of transaction cost economics, outsourcing to markets (Williamson, 1999, Nagle 2024) is done through outsourcing customer service operations to AI. It could also be seen that as companies are not able to develop AI tools within in-house operations due to high costs, this development is then outsourced to AI solution partners. Both of these cases are relevant also in the empirical findings of this study, where interviewees stated that both of these solutions are used in different organisations, either both or one solution is used.

7.3 Practical Implications for the Companies

Companies have to implement AI with an orderly change for the organisation. Implementation of AI will most probably mean changes to their workforce, either through upskilling and training employees to new tasks or via reductions to their workforce as the last resort.

The biggest implication that the implementation of AI will bring to the business sphere is the cost effectiveness and, thus, the ability to cut costs with automatising processes to AI solutions. It was studied that AI can process several customer contacts simultaneously, which in turn cuts the costs per contact that customer services handle within their operations.

When changing to AI solutions, the costs may be high in the beginning. This is due to the need of purchasing of new software and licences, allocating management's time to guide the change and training the staff to their new roles or tasks. However, the switching costs will be balanced out in the long-term, or even in short-term, if AI solutions are being implemented and managed effectively.

There will be a need for training and upskilling the employees, as AI may radically change the role of a human customer service attendant. It will be changing to a more specialist -styled role, where customer service attendants take on the most challenging cases and basic tasks are outsourced to AI. The implementation of AI in customer service may also mean that the humans become quality controllers of the work of AI, which will be responsible of the customer service tasks otherwise.

7.4 Limitations of the Study

One of the limitations that this study for this master's thesis is the limited number of interviewees. A broader number of interviews would bring a more expansive view on how the different companies implement AI currently in their operations. Despite that the respondents came from different organisations, the study could nevertheless have been more expansive in the different fields, where the organisations, companies and their employees operate at. As the pool of interviewees consists of quite a small sample, expansive observations on generality on the research findings may be difficult to achieve. Furthermore, the interviewees were all in a business leading position concerning customer service. The answers could have a more varied result, if for instance CEOs or other leading managers from the companies would have been interviewed for this study.

Moreover, all of the participants of the interviews are all located in Finland, and that might cause a limitation with the applicability of the study. Additionally, it may also limit the view on the usage of AI in the business operations as based on the researched literature, different AI or automation solutions are widely used especially in the USA.

Additionally, the actuality of the topic can also be seen as a limitation on the study as the AI as a phenomenon is overgoing changes all the time and different organisations are on vastly different levels on implementation of it in their operations. This also means that the development is very quick, and it may be difficult to keep up with all the generalised data on the topic.

7.5 Suggestions for Future Research

In the existing literature, AI is investigated a lot from the technical aspect as how the tools are created and what kind of technical functionalities it has or should have. Future research on the topic could concentrate itself on the outcomes of what the AI is actually used for in customer service tasks, and how it is being managed by the companies.

Additionally, the impact of AI on employees could be studied in a deeper level. What kind of changes AI has already caused in the workforce and employees of companies and how the work life will be changing in companies. This could also build another suggestion for a possible future research, which could touch upon the societal impact that AI has.

Further research could also be done on the future of the different AI language models, particularly on what ethical questions the usage of AI rises and the political aspects of AI tools. The on-going political situation globally between US and China has sparked this conversation especially. Therefore, it could potentially be researched whether an EU-led development towards a common AI language model become a possibility?

This also raises the question on the regulation on AI. The regulative steps are currently only in the beginning phase by the EU, especially on the data security issues, immaterial rights and intellectual property rights as many of the leading AI houses are either in the USA or China. Therefore, future research could be done on the legal framework behind AI.

Moreover, a research could be done on whether AI language models could become a more open-sourced based development, where different companies and governmental players develop language models together rather than closed-models for each company. Thus, the feasibility of open-source AI language models could be researched further.

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Appendices

Appendix 1. Interview Plan

- How is the role of customer service perceived in your organisation?
- How do you envision the role of customer service evolving in the future?
- How do you anticipate the role of customer service will change with advancements in technology and AI?
- What factors have led your organisation to outsource certain business operations? Have any of these been outsourced to AI solutions?
- Why and how would your organisation benefit most from cooperation between customer service and AI service providers?
- How does implementing AI in your organisation's customer service reduce transaction costs compared to human-driven processes?
- Why would investing in AI technology be more cost-effective than outsourcing customer service functions to business process outsourcing companies? How does keeping customer service in-house compare in terms of cost-effectiveness?
- How can implementing AI in customer service reduce switching costs?
- How do you view the relationship between the use of AI solutions and the potential for increasing customer loyalty?
- How could certain conditions or challenges lead your organisation to consider fully outsourcing customer service operations to AI? What factors would influence whether that is a suitable for your organisation?
- How will AI affect your workforce – will it replace jobs, create new roles, or require upskilling among your employees?
- How do you ensure that AI will align with your organisation's organisational values and the long-term strategy?

Appendix 2. Additional Quotes from the Interviews

The Vitality of Customer Service as a Business Function

Our customers (which we refer to as members) generate the largest part of our revenue, so customer service is deemed quite important within our organisation. Unfortunately, our organisation has downsized quite a lot over the years though, which means we have less staff that can focus on customer service compared to a few years ago. (Interviewee 5)

Customer service is seen as an integral part of the customer experience and the brand image. Customer service is not only a supporting function, but an important element in maintaining the customer relations and in strengthening the customer loyalty. (Interviewee 4)

In my opinion, the customer experience is a significant part of customer service. Customers expect to have a positive experience in customer service situations that they take part in, nevertheless the format of the situation. (Interviewee 1)

Outsourcing as an Operational Prospect for Organisations

We have started outsourcing some tasks of customer service to a chatbot agent, which is specifically an AI-based chatbot solution. (Interviewee 1)

It takes a lot longer to set up customer service functions externally than to use AI technology. Keeping the development in-house would mostly save us on time as our employees are already trained for this. (Interviewee 5)

Currently, there are different kinds of intercom solutions, for instance information buttons at public transportation systems, which connect to a call centre or other human attendant. However, seeing that these are rather expensive as these intercoms have to be provided with a phone connection, they could be easily outsourced to AI. This would then in turn save a tons of costs, when a localised AI service would replace these intercom systems. Though, it has to be remembered that seldomly humans want to discuss with a robot rather than with another human attendant. (Interviewee 3)

Cooperation with AI service providers would make it possible for us to use these technologies without the need to big investments internally. These providers could bring such skills, knowhow and knowledge in general, which could then in turn support the quality and speed of customer service's work. (Interviewee 4)

The Impact of Outsourcing Towards Quality of Customer Service, Customer Loyalty and Customer Satisfaction

If customer service is quick, consistent and easily accessible with AI, the customers will more likely retain as customers and will not be transferring to another provider or product. A good user experience will more likely increase the customer engagement to our service and service provider. (Interviewee 4)

AI will make the service quicker, which then may have a relation to increasing customer satisfaction. With AI, the information is also accessible easier and faster for the customer from their home. If the AI tool works well, it may increase the customer satisfaction, and the customer may recommend the service forward. (Interviewee 4)

Using an outsourcing partner with handling customer service cases usually helps with the manual work, but the costs are high. (Interviewee 1)

With outsourcing partners, we are not able to ensure the same quality towards the customers than we are with our own in-house customer service. The work of outsourcing partners also has had a direct correlation with retention of customers or customer changing to another provider. Bad service or bad customer experience may then have a hit on the brand image. (Interviewee 1)

If the contact by a customer has been outsourced to either an outsourcing partner or to an AI tool, but the situation is a negative experience for the customer, it is more likely to decrease loyalty and satisfaction towards the brand and the product. (Interviewee 3)

I believe that customer loyalty can only be acquired when customers are serviced by humans. AI solutions can be supportive tools in many cases, but human contact is still needed. Nobody wants to be helped solely by robots. (Interviewee 5)

If the AI tool is done badly, we risk losing our customers to a rival product and company. This then has an impact towards our brand's image, as the negative impressions through word of mouth and reviews tends to rise. (Interviewee 1)

The Impact of AI on Business Operations

The amount of automatisation in customer service operations will be higher in the future. (Interviewee 1)

AI is currently a very hot topic in our organisation, and is finding its strategic weight in our operations in the whole organisation. (Interviewee 1)

Changes on operations with including AI in an even bigger role in customer service will happen within the next few years. (Interviewee 1)

AI will likely take over many repetitive, routine inquiries, enabling human customer service specialists to focus on more complex cases and personal guidance. Hopefully this kind of hybrid approach will improve service availability and quality while maintaining empathy and understanding in situations that require human judgment. (Interviewee 2)

We have implemented at least some automated processes in customer service, for instance chatbots and automated replies to e-mails. (Interviewee 5)

AI will automatise the routine work tasks and will free up the employees to more challenging customer encounters, which cannot be automatised. I believe that customer served will change to more data-oriented, so the solutions can be adjusted and tailored in a more effective way. (Interviewee 4)

When the AI is able to function and take on most of the contacts by being so productive, this will then ease the burden on work from the call centre agents towards other tasks, and this would be a big advantage to our organisation's customer service. (Interviewee 3)

AI's Impact on Costs

It all comes down to costs and resources. Outsourcing to AI is very cost-effective. (Interviewee 3)

Cost per each contact is around 4-6€, which have been by our call centre attendants. With AI solutions and the possible productivity provided by the AI, the price per contact could decrease to a fraction of a price from this. (Interviewee 3)

AI can make onboarding and transitioning between services smoother for clients, as systems can quickly adapt to individual needs and histories. This reduces the friction when clients move between services, ultimately making our services more "sticky" and decreasing churn. (Interviewee 2)

The main benefit for the business I can think of is that it reduces personnel costs. AI services are usually faster than humans, so cost us less than the time we would pay our employees for. (Interviewee 5)

It requires less effort to reach out to a company through a chatbot function instead of through a phone call for example. AI processes requests faster or even instantly than when you rely on employees. (Interviewee 5)

Mostly high personnel costs have led us to outsource some business operations to AI. As our organisation is active in several countries, we used to employ people from all these countries to provide customer service in each language. We had to let some of these people go due to downsizing and now rely on some generative AI services to provide customer service and content generation in those languages. (Interviewee 5)

I assume that AI reduces transaction costs by automating high-frequency, low-complexity interactions, which cuts down on labour time, shortens response times, and decreases the need for follow-up contacts. AI also supports process standardization and hopefully reduces human error. (Interviewee 2)

The benefits of using AI would be the possibility to handle a big number of customer contacts simultaneously. This in turn reduces the need of personnel resources and fastens the response time, which then decreases costs per each customer contact. (Interviewee 4)

AI's Impact on Employees

When the simple tasks are automatised through AI, customer service agents are able to concentrate on the tasks that are more challenging and requires more attention. Additionally, attendants are also needed to supervise and train the AI for optimising it to our organisation's needs. (Interviewee 1)

The humans are needed to check the work of AI, in a more quality control manner, as it is important to know what the AI has answered to the customers and make the quality of answers better for the next time. (Interviewee 3)

When introducing AI more and more to the daily tasks of customer service, it will be a radical change in the work tasks of the customer service. We need to upskill our employees also accordingly. The job will have new dimensions compared to only call centre -styled customer service, and this requires readiness for the change from the employees. Managers also have to be able to recognise the talents and the right potential within the employees. (Interviewee 1)

The employees of customer service will become more of like specialists […], perhaps specialising more towards to some specific sub-areas. Future recruiting processes to our company's customer service and perhaps generally in our business field will

be targeted more towards applicants with experience, education or other relevant experience from a technological field. (Interviewee 1)

If the employees are not ready for the change in their work with AI, this may mean changes and/or reductions in the workforce and their roles. This comes directly from the view of costs as workforce is rather expensive for employers. (Interviewee 1)

AI may replace some parts of jobs within our organisation, but not fully. Our staff has to upskill to learn to work with some AI implementations. (Interviewee 5)

In my view, AI will be replacing some recurring tasks or roles in customer service, but at the same time it may create new work roles for analysing the customer data and quality controlling the AI. Upskilling, retraining and development of skills are in a key role in this transformation process. (Interviewee 4)

Other Impacts Generated by the AI Implementation

AI is already part of the long-term strategy in our organisation, as we have implemented already AI solutions like the chatbot as part of our customer service. I would say, it is even part of the short-term strategy as the AI solutions develop so quickly at this current moment. Big changes will probably take place very soon in terms of AI and customer service. (Interviewee 3)

Our services must always reflect its core values: inclusion, equality, transparency, and the promotion of individual well-being. Any use of AI should be guided by ethical principles and human rights, especially since we work with sensitive life situations and personal data. (Interviewee 2)

Currently, using AI is seen only as a supportive tool within customer service, not as a replacement for humans. Therefore, we do not see its full implementation as a replacement of employees in our long-term strategy and values. (Interviewee 5)