



Change management: Digital transformation in passenger services

Henna Jalkanen

Haaga-Helia University of Applied Sciences

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Abstract

Author(s) Henna Jalkanen
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<p>Digitalisation is a megatrend, which is driving organisational change in all industries. Automation and self-service devices are impacting and changing the day-to-day work of the frontline employees, and this brings many challenges to the leaders and the managers. Passenger handling at the airports is no exception and self-service devices have already reshaped the daily work of the frontline employees.</p> <p>The aim of this thesis was to find out, what kind of issues the employees have faced related to the shift from staffed check-in to self-service check-in devices and to find concrete recommendations, how the leaders and managers can help the frontline employees to adjust to technology-driven change in the future.</p> <p>The scope of this thesis is limited to the employees, who are working in the passenger services department of the case company and who have experienced the shift from staffed check-in to self-service check-in.</p> <p>The chosen approach was a case study, and the primary data was collected with mixed methodology, which included semi-structured interviews and a survey conducted with an online survey. Before the primary data collection, a comprehensive literature review was completed. Mixed methodology was chosen in order to gain deeper understanding of the research topic. The primary data was collected during Spring 2023. Eight employees were interviewed, and 121 employees participated in the web-based survey. The interview topics were based on the theoretical framework and the questionnaire was based on the topics that emerged from the thematic analysis of the interviews.</p> <p>The research showed that the employees faced several issues related to the change to the self-service check-in, such as dealing with the resistance of the passengers and the changed behaviour of the passengers, technological issues with the new technologies, concerns about changes in tasks and about job security, issues related to the communication and especially its lack of interactivity and lack of participation in the development of the change.</p> <p>The result of the development work was a list of recommendations for similar technological-driven changes in the future. The recommendations include improving software and hardware, more piloting, providing more information about the technologies and the change, providing soft-skill training for the employees, making using the self-service devices voluntary, shorter task lengths involving assisting passengers with the new technologies, improved participation in the development of the change, earlier communication related to the change, offering better ways to give feedback about the change and showing that the feedback is taken seriously.</p>
Keywords Change management, digitalisation, self-service, organisational change, airport

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1 Introduction

Digitalisation is a megatrend, which impacts all industries, and the aviation industry is no exception. The society's fast adaption to technology as well as the growing dependency on technology changes not only private lives but also the world of the workforce (Wilén 2018, 14). Digitalisation is one of the key drivers that is changing the way of working in organisations. (Bueechl, Härting, Schröder, 2021, 2753) Digitalisation is as much about organisational transformation as it is about transforming the adaption and usage of new technologies. Therefore, it can be said that strategy drives digital transformation and investing in people is crucial for successful digital transformation. (Halpern, Budd, Suau-Sanchez, Brathen & Mwesiumo 2021, 195)

Digital transformation is a long process and usually also a disruptive one. Halpern & al. (2021, 185) list support from stakeholders as one of the key challenges for digitalisation at airports. Some employees will undoubtedly prefer the status quo and will therefore fight against the change and because of that, leaders who are future-minded, will need strategies that will help the employees to adapt to the change. (Levit 2019, 211)

According to Di Pietro, Pantano & Di Virgilio (2014, 845) most of the research conducted about self-service technologies revolves around a customer's point of view, excluding the point of view of the employees. According to GPi (2020) a people oriented working culture has already passed good wages in importance which makes focusing on listening to the employees and their suggestions and feedback to become more and more important. Changes at the workplace can be disruptive for the employee experience (Långstedt & Manninen 2021, 334). User experience has been interesting researchers already for decades, but today also employee experience is gaining interest, because a positive employee experience is helping the business to thrive (Swann 2018, 101). Therefore, also the focus of the thesis will be on the employees' point of view.

Employees are the ones in an organisation, who will be implementing the changes in a workplace, therefore they play an important role in the change process. Reviewing the perspectives of the employees provide an alternative point of view to management-focused development research and can provide useful insights for organisational development and also, how to improve the change process in order to ensure a positive change experience for employees. (Cullen, Edwards, Casper & Gue 2013, 270)

Hodges (2019, 2–3) states that most of the existing literature on how to generate engagement with change revolves mostly around generic solutions and tools which are not uniquely linked to the engagement with change. Hodges also argues that the companies often neglect the stakeholder participation in a change process, although it is proven to be vital for the process.

Also, Kovynyov & Mikut (2018, 1) state that research related to digitalisation has been conducted about various industries, but there is not much research done about airport ground operations, although digital transformation has the potential to impact airports in many ways. Halpern & al. (2021, 184) also confirm that the digital transformation of the airports has received barely any attention in academic literature, but that most of the publications are done by management consultancy companies and industry associations.

Additionally, the research related to digital disruption in the workplace is lacking data about its impact on the frontline employees, especially when it comes to digitalisation at the airports. Most of the research concerns the customer experience instead of the employee experience. Also, concrete recommendations how to support the frontline employees during the change are rare. Therefore, this research aims to explore the impacts of digitalisation in the airport environment from the employees' perspective and to find concrete development suggestions.

1.1 Introduction of the case company

The case company is a Central European flag carrier with approximately 5000 employees. The airline has its own ground-service department, which employs ca. 500 people. Approximately 300 of them are working in passenger services, which includes check-in tasks. Pre-pandemic the airline transported on average approximately 40 000 passengers daily.

As many other airlines, also the case company has invested in new digital technologies, including self-service technologies in passenger handling. The main shift towards self-service check-in occurred in 2016, when the self-service baggage drop-off was introduced, which made the whole check-in process possible as self-service. In the beginning the self-service check-in and baggage drop-off were offered for the passengers as an alternative to staffed check-in counters, but soon there was a shift towards more self-service and as a result of the increased demand for contactless services and less interaction due to the Covid-19 pandemic most of the staffed counters were closed.

Currently only self-service check-in and baggage drop-off is offered to economy class passengers in the case company's main hub. Staffed check-in counters are open only for business class passengers, special cases and troubleshooting in case of problems at the kiosks. In the future, the company plans to at least partially automatise the business class check-in as well. In 2021 approximately 6% of the passengers used the self-service kiosks to check in and ca. 13% checked in at a staffed service counter. Most of the remaining passengers checked in online. 43% of the passengers used the self-service baggage-drop off.

The self-service baggage drop-off is a so called 2-step process, where the passenger prints their bag tag in the first step and goes to the automated baggage drop-off point to send their luggage. If the passenger has checked in online beforehand, they can scan their printed or mobile boarding pass at the bag tag printers in order to get their bag tag. If they have not checked-in yet, they can use the self-service check-in kiosks to check-in and print their bag tag. Figure 1 highlights the setup of the self-service areas in the case company's check-in area

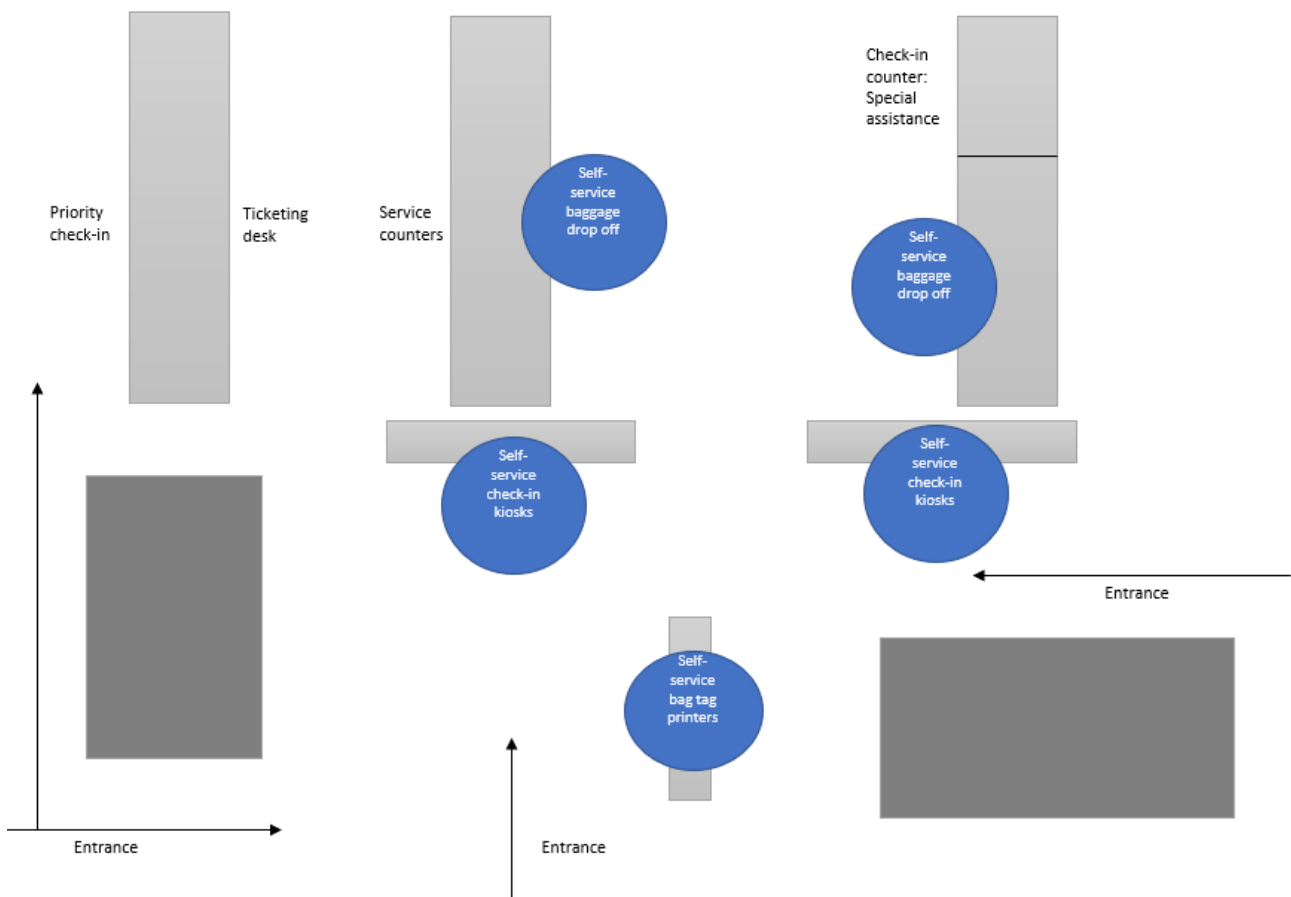


Figure 1. Map of the case company's check-in setup

The frontline employees are acting as floorwalkers in the check-in area, assisting the passengers with the usage of the self-service devices and troubleshooting any issues that might come up. Currently, employees of an external company are slowly taking over the floorwalking tasks, releasing the airline employees to concentrate on other tasks.

1.2 Structure of the thesis

This thesis is divided in eight main chapters, including the introduction. The next chapter will present the objectives of the thesis as well as the research questions and the scope of the research.

The third and fourth chapter contain the theoretical framework related to the topic of this thesis. The methodology will be explained in detail in the fifth chapter and the outcomes in the sixth chapter. The seventh chapter includes the development suggestions, which is the result of the development work. Discussion is the last chapter. It completes the thesis and includes the answers to the research questions, an evaluation of the reliability and validity of the research, suggestions for future research and evaluation of the thesis project. Sources and appendixes are included in the last pages.

2 Objectives

The shift from staffed check-in to self-service check in has impacted especially the jobs of the frontline employees. Many employees have had difficulties in adapting to their new role and tasks and some have even left the company or the department due to that. As automation and new technological inventions are likely to take over various other tasks of the frontline staff in the future as well, this case study will introduce recommendations for helping the staff to adapt to similar digital disruption in the future. The recommendations will be based on suggestions made by the frontline staff and the idea is to provide concrete recommendations for situations involving similar technology-driven change in the future. Interviews were chosen to be the main data collection method in order to collect these suggestions from the employees. Furthermore, a survey was conducted in order to validate the recommendations derived from the interviews. These methodologies and their purpose will be presented in detail in chapter 5.

2.1 Research questions

In order to achieve the objectives of the thesis, following research questions were defined:

Q1. Which are the key issues the employees currently face or expect to face in the future, concerning the digitalisation of the passenger services?

Q2. What kind of support do the employees need from the company in order to adapt to the digital transformation?

Q3. Which of the possible measures do the employees find the most important?

2.2 Scope

Digitalisation impacts various fields of aviation, but in order to narrow down the scope of the research, self-service check-in and baggage drop-off was chosen as the main focus of this thesis. The focus is on this topic, because self-service check-in and baggage drop-off has already been implemented in the case company, which allows the exploration of its impacts on the frontline staff and evaluation of the change management concerning it. Also, many other digital solutions do not have such a big impact on the frontline employees.

2.3 Desired outcomes

The digitalisation will not end with the automation of the check-in process and baggage drop-off, but there will be new technological solutions in the future, which will impact the frontline employees. The aim of this thesis is to find out recommendations for the management, how to better

support the frontline employees when adjusting to technology driven organisational changes in the future.

3 Digitalisation of airport services

A megatrend can be described as a global direction, toward which the whole world is driven by a transformative force. A megatrend will not affect only parts of the world, but our entire globe. Megatrends connect and affect every part of our life and can be therefore seen as a crucial shift in the society. (Abeyratne, 2019, 84)

SITA (2023) lists the following trends which will shape the aviation industry during the next decade:

Societal trends:

- Restructuration of the workforce with the help of technology
- Privacy, digital identity rights and controls for the passengers
- Sustainability

Traveller trends:

- New generations of travellers who are demanding more integrated digital journey
- The aging travellers
- Seamless multimodal travel

Economic trends:

- Full digital economy
- Flattened business organisations
- Transformation of the supply chain

Technology trends:

- Metaverse operations at airports
- Autonomous, electric vehicles
- Urban Air Mobility.

Digitalisation is considered to be the fourth industrial revolution (Man & Man 2019, 303). Kovynyov & Mikut (2019, 2) define digital transformation or digitalisation as “the use of new digital technologies, such as cloud, mobile, big data, social media and connectivity technologies, to improve customer experience, streamline operations or create new business models.” Digitalisation cannot be categorised as a technical development, as it is rather a citizen and customer-driven industrial and social revolution. Digitalisation is one of the megatrends, that will have an impact on the future of the society. As already seen in the past, it is typical for megatrends, that they cannot be resisted and will overcome any barriers. (Institute for Digital Transformation 2018) New technologies are the key drivers for digitalisation (Kovynyov & Mikut 2019, 2)

According to Wilen (2018, 15) digitalisation has brought the following changes:

- Enabling a more global and competitive work environment.
- A diverse, global, and multigenerational workforce, which is becoming more mobile, technologically fluent and distributed with different expectations to the business leaders.
- Change in industries from hardware systems to software systems, from flat media to multi-media and from lack of data to overload of data.
- Access to knowledge has become more accessible and available.

Digitalisation is argued to be using new technologies in order to improve the performance of the company and to enable major improvements of the business, but it can also facilitate business model change, provide new revenue opportunities and help to create completely new digital businesses. Digitalisation can also help to improve the customer experience and streamlining operations. (Kovynyvov & Mikut 2019, 2–3)

Digitalisation can also help to improve sustainability in the future. Digital solutions may for example help to reduce the carbon footprint of a company. However, there is so far only limited research exploring the opportunities related to combining sustainability and digitalisation. (Lichtenthaler 2021, 65–66)

Automation is one of the many forms of digitalisation. The fundamental purpose of automation is to replace work activities carried out by human employees with machines. The goal is to increase the quantity and quality of the output while decreasing the unit cost. (Muro, Maxim & Whiton 2019, 13) According to Ivanov (2019, 5–6) automation and self-service technologies can have both positive and negative impact compared to human staff. Positive impacts of include doing routine work repeatedly, working without breaks, expanding the scope of tasks with upgrades for software and hardware, lack of human errors, lack of emotions and lack of strikes, discrimination and sick leave. Negative impacts include lack of creativity, need for human supervision and lack of personal approach. They can only work in structured situations, cannot improvise and can be seen as a threat for human staff.

As digitalisation is a megatrend, which affects all industries, it also has an impact on the aviation industry. Digitalisation in the aviation industry refers to organisations involved in air-transport establishing digital platforms, on which they can build their operations, develop the customer experience and determine the future journeys (Taneja 2017, chapter 1). 35 percent of airports and 58 percent of airlines have already formed a digital strategy (Heiets & al. 2022, 2). The interest for the usage of digital technologies and especially mobile technologies has grown also at the airports. Digitalisation has changed the expectations and demands of the passengers. They are seeking seamless experiences, personalisation, smartly designed services and expect efficiency through

the digital solutions. Many passengers are also switching from mobile first to mobile only. Passengers are not only looking for better experience, but they wish for improved control throughout the journey. Also new inventions, such as voice control and wearables are shaping the future. However, different passengers segments, such as business travellers and leisure travellers, have different expectations, needs and demands. (Taneja 2017, chapter 1)

Although, the low-profit margins of air transport organisations make investing in advanced technology hard, airlines and other companies in the aviation industry have still invested huge amounts as well as efforts in new technologies. The main motivation for the air transport companies to invest in digital technologies is that it can improve the efficiency, reduce costs and increase the profits. Additionally, digital technologies can help to increase the risk tolerance and improve the customer experience. (Heiets 2022, 3)

Kovynyvov & Mikut (2019, 6–7) suggest that new technologies could be used to support for example the following business scenarios in the airport ground operations:

- Self-service check-in kiosks
- Self-boarding
- Digital irregularity vouchers
- Smart wheelchairs
- Indoor navigation
- Smart wearables
- Biometric services
- Automated baggage-drop off
- RFID baggage tags
- Digital bag tags
- Lost luggage kiosks
- Real-time luggage tracking
- Lounge access gates

Some of these scenarios, such as self-service check-in kiosks, self-boarding and automated baggage drop-off are already widely in use, while other scenarios such as biometric services and digital baggage tags are being tested. Some of the scenarios, such as smart wheelchairs and real-time baggage tracking are still in an early stage of development, in which the concept is formulated, but it has not been implemented yet. (Kovynyvov & Mikut 2019, 18)

3.1 Self-check-in and baggage drop off at the airport

Self-service technology is technology, which allows the customer to interact with self-service software. Self-service kiosks usually include a computer using a self-service software but can also be computers or tablets available for customer use. Self-service kiosks can be offered to the customers as an alternative to interaction with an employee to meet their needs or the customers can be required to use the self-service kiosks, like in the case company. (Abdelaziz & al. 2010, 17–118) Today, self-service is used in many types of situations such as retail, banks, hotels and restaurants. Due to many benefits for the companies, many of them are trying to convince the customers to use the self-service kiosks more (Di Pietro & al. 2014, 845).

The benefits of self-service technologies for the customers can include faster service, variety in the choice of services, saving money, saving time, avoiding interaction with staff, more control over the service process and convenience. For the companies self-service technologies can be for example reducing labour costs, opening new market segments, more productivity and perceived increase in service quality. (Sharma, Ueno, & Kingshott 2021, 2)

On the other hand, there are also negative aspects for both the customers and the companies. Negative aspects for customers can include e.g. higher stress levels due to lack of knowledge and experience with self-service technologies or due to inadequate maturity of the self-service technologies, risks being perceived higher compared to interpersonal service process and longer waiting times. One of the biggest challenges for the companies can be the low acceptance by the customers. (Sharma & al. 2021, 2)

Digitalisation impacts the entire aviation sector and all companies acting in the aviation industry. Airlines, airports and other companies need to adapt to the new standards set by the industry and environment in order to stay in the competition. Therefore, they need to implement newest technologies and digital tools. (Zaharia & Pietreanu 2018, 92) Also, the Covid-19 pandemic has increased the pace of implementing automation at the airports, as contactless traveling gained popularity during the pandemic. Another reason why Covid-19 pandemic has made airlines lean into automation is, that many of them suffered significant losses during the pandemic and they are trying to find ways to operate more economically. As digitalization and automation can help to cut the costs, many airlines are looking into new technologies even more intensively than before. (Liang 2020, 1)

The focus of this thesis will be on the passenger handling and the shift from staffed check-in counters to self-service kiosks and self-service baggage drop-off. According to Kovynyov & Mikut (2019, 3) passenger handling can be divided into two categories and they consist of the following processes:

- Departure processes: ticketing and reservation, check-in, waiting area, lounge, boarding
- Arrival processes: de-boarding, transfer, baggage delivery, lost & found services, arrival lounge

Various passenger handling processes are already being digitalised, some examples include self-check-in kiosks, self-boarding gates, digital processing of irregularity vouchers, automated baggage drop-off and lost luggage self-service kiosks (Kovynyov & Mikut 2019, 11).

Self-service kiosks at the airport allow the customers with flight tickets to check-in for their flight, to print their boarding passes and baggage tags, to change seats, to add their mileage card and to choose a new alternative flight in case of a cancellation. (Abdelaziz & al. 2010, 19). Automated baggage drop-off allows the passengers to drop off their luggage without queuing to a drop-off counter. Studies show that online check-in and self-service check-in have already become the most popular option for checking in, with 70 percent of the passengers choosing them over staffed counter, but self-service baggage drop-off is not as widespread yet, and only 20 percent of the passengers want to drop-off their luggage at the self-service drop-off. (Heiets & al. 2022, 8)

Often digitalisation initiatives are driven by the intention to reduce costs, although there would also be potential for creating new business models and revenue streams (Kovynyov & Mikut 2019, 22). In the best-case scenario, the digitalisation will improve the customer experience and improve the working conditions, but only if the digital maturity is on an established level, as a failure in the transition will disturb the business. (Blondel & Pell 2018).

It is critical, that the usability of the self-service kiosks is well-designed. They must be universally designed so they can be used by all customers, independent of their level of technological knowledge, age, educational background or previous experience. They must also fit the needs of disabled and senior customers, for example. If the self-service kiosks are not designed to be easy to use or are not working properly, the customers tend to have a negative experience and get frustrated, which will have an impact on the work and the tasks of the frontline employees and the customers' attitudes towards the self-service technologies. It is crucial, that user-centric approaches are taken into consideration already in the development phase and that the maintenance is done well enough, so the self-service kiosks are running error-free and reliably. (Cserdi & Kenesei 2021, 9)

Some passengers prefer using staffed check-in and similar manual processes (Halpern 2022, 111). Forcing the customers to use self-service kiosks and limiting their access to staffed counters will not only make them perceive the self-service technologies negatively and to reject them in general, but also make them lose control of their decision making, which will cause a negative attitude towards the company and intention for negative word-of-mouth. (Cserdi & Kenesei 2021, 5) The

need for interaction is a key factor that determines, if passengers will accept self-service technologies. (Cserdi & Kenesei 2021, 8)

3.2 How digitalisation changes the customer service

Digitalisation and automation change the customer service in many ways and has a great impact on the jobs of the frontline staff. The job design and tasks of the employees are changing due to the digital revolution. Also, a different skill set will be required in the future.

Automation is nothing new. All tools and technologies that humans have developed serve to the mean to reduce the human effort while increasing the economic output. (Muro & al. 2019, 13) Research suggests that over 80% of customer interactions could become digital in the future. (McKinsey 2021)

Blondel & Pell (2018) highlight that when it comes to the digitalisation of the airport services, it should not be underestimated, that there will be issues due to the age, skills and capabilities of the existing employees. The transition to digital ways of working may face resistance, as the employees might not trust the new processes or be ready to adapt to the change. Also, the readiness of the passengers to adapt to the digital transformation can impact the staff in the customer service. Creating an organisational culture of digitalisation is one of the key factors in successful transition to digital processes (Zaharia & Pietreanu 2018, 92).

Digitalisation advances the automation of work. Although the automation process started already with the first industrial revolution, digitalisation has intensified the work automation and will continue to do so in the future, leading to job elimination, change in the tasks and the content of the jobs, re-organisation of workplaces and competence requirements. It will also create completely new jobs. (Ilsøe 2017, 334)

3.2.1 Impact of change on the daily work and tasks

Regardless of the type of change, organisational change will create new working conditions (Jasinska 2020 3). Automation and self-service technologies will change the future of the operations in hospitality, including airports. The most visible change will be, that the service will be provided by a non-human agent, such as kiosks, robots or computer software. Therefore, the role of technologies will increase when it comes to the service delivery. (Ivanov 2019, 7) However, customers expect the frontline staff to be present and available to help them, in case of a failure with the self-service kiosk. Therefore, many airlines place their frontline staff to the close vicinity of the self-service kiosks. (Sharma & al. 2021, 8)

Frontline employees are the main actors impacting the service quality. Their performance impact the interaction quality and the customer satisfaction. Often, the frontline staff can suffer from role overload, as they need to satisfy the needs of the customers and meet the needs and expectations of their employer. Role overload is a key factor causing job stress. (Jha, Balaji, Yavas & Babaskus 2017, 283)

Other factor impacting the frontline staff is the emotional labour needed for the job. Emotional labour can be defined as “the act of expressing organizationally desired emotions during service transactions”. Organisations are expecting the frontline employees to display friendly and cheerful emotions when interacting with the customers and to control their emotions. (Morris & Feldman 1996, 987–988) They are expected to express emotions expected by the organisation through body language and facial display. This is a form of labour because it requires effort and self-control from the frontline employees. Emotional labour can increase the exhaustion levels of the employees, as it may require so called surface acting, where the expected emotions must be faked or simulated by the employees. (Lam & Chen 2012, 3–4)

According to Huang & Dootson (2022, 2–3) customers are expecting that if the self-service technology fails, a human employee will be available to help. A failure of the self-service technology can cause customer aggression, which is first directed towards the failed technology, but can be transferred to the employees intervening the situation. The most typical type of customer aggression is verbal aggression, such as yelling or insulting, but the aggression can also take physical forms. As the amount of regular interpersonal service decreases, a higher percentage of the interpersonal interactions the staff experiences, will be intervening situations where the technology fails, which means the frontline staff will experience more difficult situations with possibly aggressive customers than regular interactions. The widely accepted mantra by the society, individuals and companies is that “the customer is king” which also contributes to the illusion for some customers that the frontline staff does not matter, and they believe that they as customers always come first. This is also one reason for aggressive behaviour towards the employees. (Bi, Choi, Yin, & Kim 2021, 2)

Airport is an environment which is often stressful for the customers because they might have fears such as missing their flight or there might be environmental factors such as crowding and noise, which might create a stressful experience. This can lead to dysfunctional customer-employee interaction, which can threaten the employees' wellbeing. (DeCelles, DeVoe, Rafaeli, & Agasi 2019, 50–51) Aggressivity of the customers can create a more stressful work environment, which can lead to e.g., higher employee turnover, emotional exhaustion, burnout, job dissatisfaction and therefore to a lower performance. (Bi & al. 2021, 2)

The change in tasks and job design in the customer service due to the automation can also have an impact on the motivation and satisfaction of the employees. (Kortmann, Simonson, Vogel & Huxhold 2021, 577) Research shows that job content is one of the main motivators for the employees (Hemakumara 2020, 25).

3.2.2 Automation and fear of job loss

Uncertainty during change, such as fear for job loss, can have negative impact on various organisational and work-related factors, such as job satisfaction, commitment to the organisation and work and trust in the organisation. It can also have negative impact on the employees' health by causing stress, for example. (Cullen & al. 2014, 271)

Previously, when there has been automation and workplace disruption, it has had a great impact on the workforce. When humans have been substituted with machines at work, it has freed up the employees to concentrate on higher-value tasks or enhanced the creation of completely new tasks. (Muro & al. 2019, 13)

One of the concerns related to automation is that workers, whose jobs are directly affected by automation, have to upgrade their skillset or move to new roles at work. (Muro & al. 2019, 13) Therefore, the organisations need to create a safety net for their employees by preparing their staff for future skill requirements with education and training. (Zaharia & Pietreanu 2018, 98)

According to research by Muro & al. (2019, 5) all occupational groups have tasks, which will be affected by automation and AI in the future, but the intensity of the effects will vary from occupation to occupation. They also state that approximately 25 percent of the jobs will face high exposure to automation in the next decades. Not all automation is a threat to the human workforce. Ideally the role of technology is to assist the human employees, not replace them. (Newman & Blanchard 2019, 7–8) Still, many employees fear that there will be loss of jobs due to digitalisation.

Muro & al. (2019, 14–15) suggest that the following are the general tendencies, how automation will impact human workers:

- Automation replaces labour
- Machines replace tasks, not jobs
- Automation complements labour
- Automation can create jobs by increasing demand
- Automation can stimulate innovation
- Technological possibility is not technological reality

However, of course technology is capable of replacing some of the jobs and tasks of human employees. There is a difference between automation of jobs and automation of tasks. Many tasks can be automated, but most of the jobs cannot. If the jobs consist only of a few limited tasks, it is possible, that the job can be automated. More complex jobs are very difficult to be automated. Therefore, it is more likely that the contents of jobs will change due to automation, instead of the complete job being replaced by technologies. (Newman & Blanchard 2019, 12–13)

Also, the research of Muro & al. (2019, 5) suggests that predictable routine tasks will be most likely to be automated in the future. They list for example the following jobs as vulnerable to automation:

- Office administration
- Food preparation
- Transportation
- Production

The following jobs are classified more secure (Muro & al. 2019, 5.):

- Creative occupations
- Technical roles with higher educational requirements
- Personal care requiring interpersonal emotional intelligence and social skills.

Even if their job is most likely to be complemented by technology and not completely lost, most of the time individuals experience fear when facing change. This includes changes in tasks and roles at work. (Hycklak & Kolchin 1986, 144)

3.2.3 Issues related to the implementation of new technologies

There are several important factors and issues that companies need to consider when implementing new technologies. The readiness to accept new technologies is affected by the positive and negative belief that the people have related to technology. These beliefs are different from individual to individual and they have an impact on the attitude, which the individual has towards new technologies. These beliefs can be divided in four categories: optimism, innovativeness, discomfort, and insecurity. (Kumar, Renjith, & Nimal 2019, 13)

According to Zaharia & Pietreanu (2018, 99) there is a gap in the training of the employees when it comes to facing the challenges related to implementing new technologies at the airports. Staff with a higher seniority could face more difficulties with the new technologies. Therefore Bueechl & al. (2021, 2759) recommend tailored trainings for specific employee groups to meet their specific needs. According to previous studies, change initiatives often fail due to inadequate instructions and training given to low level employees (Alas 2007, 28)

Smooth implementation of new technologies is also a critical factor. If there should be any difficulties with the new technologies, employees will become irritated and dissatisfied. Management should act as a role model and therefore use the new technologies and digital products themselves. It is also crucial, that the digital products are always up to date. (Bueechl & al. 2021, 2759) Since not only customers, but also employees interact with the self-service technologies, companies should take into account also the employees' perspectives, when designing and implementing new technologies. (Di Pietro & al. 2014, 849)

4 Change management

The new norm is to lead diverse and multigenerational workforce. This together with other changes in the working environment such as the digitalisation, has brought great challenges to the leaders and managers. (Wilén 2018, 26) Change is inevitable in today's world and it affects both organisations and individuals.

Pathak (2012) defines change as “an alteration in the existing field of focus which tends to affect the equilibrium”. Change can be seen as a learning process, because significant change can only happen, if new ideas, skills, values and ways of behaviour are learned. The learner may experience difficulties during the process, and therefore should receive help from the organisation.

Change management aims to help the individuals who are influenced by the change to adapt, engage, and use the change. Compared to project management, which revolves around the technical side of the change, change management concentrates on the people involved. Change management can be defined as “application of a structured process and set of tools for leading the people side of the change to achieve a desired outcome.” (Prosci s.a.)

According to McKinsey (2002) in order to be effective, change management must involve all levels of an organisation, including the frontline employees. In their study, one of the reasons for failure was confusion and a lack of training of the employees, but also lack of commitment and project-management skills of the management.

4.1 Organisational change

Pathak (2012) defines organisations as “mechanism or a basic framework enabling persons to work together effectively and achieve the set goals through integrated group efforts.” The organisational structure describes the way, in which the job tasks in an organisation are divided, but it also defines the hierarchy of the organisation, span of control as well as level of formalisation and centralisation.

The type of structure can be defined by how the jobs within the organisation are grouped. They can be grouped for example by function, by product or service, by a geographical location or they can be mixed. One example of mixed structure is the matrix structure, which combines product or project-based form with a functional form. (Smith & al. 2012, 136)

Jasinska (2020, 1) presents the following definition for organisational change: “Organisational change is the transition of an organisation from one state to another, clearly different from previous one; making permanent correction or modification in the relations between goals, tasks, people

and apparatus in the dimension of time and space regardless of the nature of its effects.” Organisational change typically refers to organisational-wide changes, such as restructuring operations, mission change, merger, new technologies and major collaborations. Organisational transformation is a term which refers to a fundamental reorientation in the organisation’s operations. (Pathak 2012)

Organisations must adapt to the global changes in order to avoid threats and take advantage of new opportunities, which emerge from the transforming environment. Organisational change is the response of an organisation to these processes and phenomena in the external environment. Organisational changes happen intentionally and consciously, and their aim is to ensure the survival of the organisation by adapting the internal organisation to external conditions, but also to use any possible development opportunities. (Jasinska 2020, 1)

Organisational development and organisational change are strongly related. Organisational development can only happen through organisational change. It may cover the whole management system or some of its elements (e.g., financial, technical, economic or social subsystems), structure or processes (e.g., introducing new technology), various levels of an organisation (scale can vary from individual positions to entire organisation) or take the form of operational or strategic changes. (Jasinska 2020, 1)

The forces driving change in an organisation can be external or internal forces. The external forces of change can be roughly divided in five categories (Pathak 2012; Smith & al. 2012, 160):

1. Economic environment (e.g., changes in global markets)
2. Technological environment (e.g., changes in technology)
3. Political and governmental environment (e.g., new legislation)
4. Socio-cultural environment (e.g., changing values of the customers)
5. Operating or task environment (e.g., direct actions of the stakeholders)

Internal forces of change include following six categories (Pathak 2012):

1. Organisational objectives
2. Machinery and equipment management
3. Methods and procedures of work
4. Work standards, personnel, and organisational adjustment
5. Inter and intrapersonal relationships
6. Insufficiency of executives

Some triggers for change can be hard to categorise to external or internal category, as they can be driven by both (Smith & al. 2012, 160).

4.1.1 Organisations as metaphors

Gareth Morgan (1986) developed the concept of organisations as metaphors. This is a starting point for understanding the various beliefs about change. Most companies use a combination of approaches. (Cameron & Green 2012, 99) The eight metaphors identified by Morgan are:

- Machines
- Organisms
- Brains
- Cultures
- Political systems
- Psychic prisons
- Flux and transformation
- Instruments of domination

Cameron & Green (2012, 99) argue, that the most useful and most often used of these are organisations as machines, organisations as political systems, organisations as organisms and organisations as flux and transformation.

Organisations as machines sees organisations as rational enterprises, which have been designed to achieve predetermined goals. This metaphor implies routine operations, clearly defined structures and roles and efficiency inside and between the parts of the machine. There are clear standards, which are expected to be followed. This approach highlights behavioural views, such as individuals being managed by objectives, teams representing efforts of the individuals summed up, employee discipline, controlling management and specific work roles. There are several key beliefs linked to organisational change as well. For example, it can be assumed that the change can only occur through those in positions of authority and that resistance is inevitable and needs to be managed. Change is defined by the senior management and the change programme is executed from top down. Also, the assumption is that change can succeed if it is well planned and controlled. (Cameron & Green 2012, 100–106) The downside of seeing organisations as machines is, that often the human element can be lost, if the managers focus mostly on the efficiency of the operations (Smith, Yellowley & Farmer 2012, 9). Therefore, this view may work well when the situation is stable, but if change is approached with this view of the organisation, it may result to encountering resistance (Cameron & Green 2012, 101).

If the organisation is viewed as a political system, the important roles of power, competing interests and conflicts in organisations are empathised. One of the key beliefs of this metaphor is, that it is impossible to stay out of the politics in the organisation. Also, teams are less important than

coalitions between individuals. This metaphor highlights the importance of power, influencing and negotiation in organisations. Therefore, the assumption regarding to change is, that it can only work, if powerful individuals support it. Also, the more supporters there are, the better. Understanding, who will be the winners and losers of the change is important. The negative aspect of this metaphor is, that it can lead to political conflicts, if it is assumed that in any change there are winners and losers. (Cameron & Green 2012, 101–102; Smith, Yellowley & Farmer 2012, 9).

The metaphor of organisations as organisms sees organisations as living systems that need to adapt to their environment, like biological creatures. Therefore, different environments lead to different types of organisations and understanding the environment is the key to success. This view suggests that organisations are open systems combined of sub-systems which are balancing the requirements of the individuals and groups with those of the environment. Also, health of the organisation, including individuals and groups, is seen as a vital factor for success. The whole system can only function if the organisation is designed to meet the needs of individuals, groups and the environment. Therefore, it can be assumed, that there is no one best way to manage an organisation, but the management needs to be adapted to the needs of a specific organisation, considering the environment it exists in. (Cameron & Green 2012, 103; Smith, Yellowley & Farmer 2012, 9) When it comes to change, this metaphor suggests that changes respond to change in the environment instead of an internal focus. It also vital that the individuals and groups have a psychological awareness of the need for change, otherwise they cannot adapt. Therefore, participation and psychological support are key strategies for successful change. However, there are several limitations to this metaphor. There is the danger, that this metaphor can become an ideology, which requires that the personal needs of individuals can be met through the organisation. It often includes unrealistic views of coherence and flow between departments and also, in the reality organisations seldom are completely at the mercy of their external environment but are also able to shape the environment themselves. (Cameron & Green 2012, 103–104)

Viewing organisations as flux and transformation embraces both permanence and change. Unlike organisations as organisms, this metaphor sees the role of organisations in actively influencing their environment and therefore them also as part of the environment. The organisations are naturally capable of self-renewing and changing. This metaphor sees the formal structure of an organisation only as one dimension of organisational life. When it comes to change, this metaphor suggests that change cannot be managed, as it emerges naturally. The managers are part of the environment, not managing the system from the outside. They act as enablers for the individuals to exchange views. When change appears, it is seen natural and useful, that there are conflicts and tensions. The limitation of this metaphor for the managers for change is, that it suggests that there is no predicting of the process of change, and it can be understood only afterwards. (Cameron &

Green 2012, 105–106; Smith, Yellowley & Farmer 2012, 9) This metaphor embraces the chaos and complexity of the change in a realistic way.

The metaphor, through which the organisation is viewed, impacts the managerial style and the organisational behaviour. Also, which models of organisational change are used, depend on the assumptions that are made of how the organisations work. Flexibility is a key skill for managers, when choosing the appropriate model or approach for a specific situation. Sticking with one model or metaphor will lead to one-dimensional leadership. (Cameron & Green 2012, 133–134)

4.1.2 Types of organisational change

Change can be planned or unplanned. According to Pathak (2012, chapter 3) planned organisational change can be divided to four different types of change:

1. Strategic change: change in missions or basic objectives of an organisation
2. Structural change: change in the internal structures of an organisation
3. Process-oriented change: change due to technical developments, automation and data processing
4. People-oriented change: change targeting performance improvement and employee engagement

Automation falls in the category of process-oriented change.

4.2 Individuals and change

Individuals often experience change as stressful and have feelings of insecurity due to change. These may include uncertainties about the future job role, career outcomes and job security and they can lead to resistance to change, job dissatisfaction, stress, health issues, or withdrawal from the organisation. (Bordia & al. 2004, 359)

Maslow (1954) argued that people are aiming to fulfil five need levels: Physiological needs, safety needs, needs of belonging and love, esteem needs, and self-actualisation needs. He argued that only if the lower levels of needs are satisfied, an individual is motivated to fulfil the needs on the higher levels. Change can only happen, if the individuals are motivated to change, therefore Maslow's hierarchy can be connected to organisational change as well. The levels are visualised in Figure 2 below.

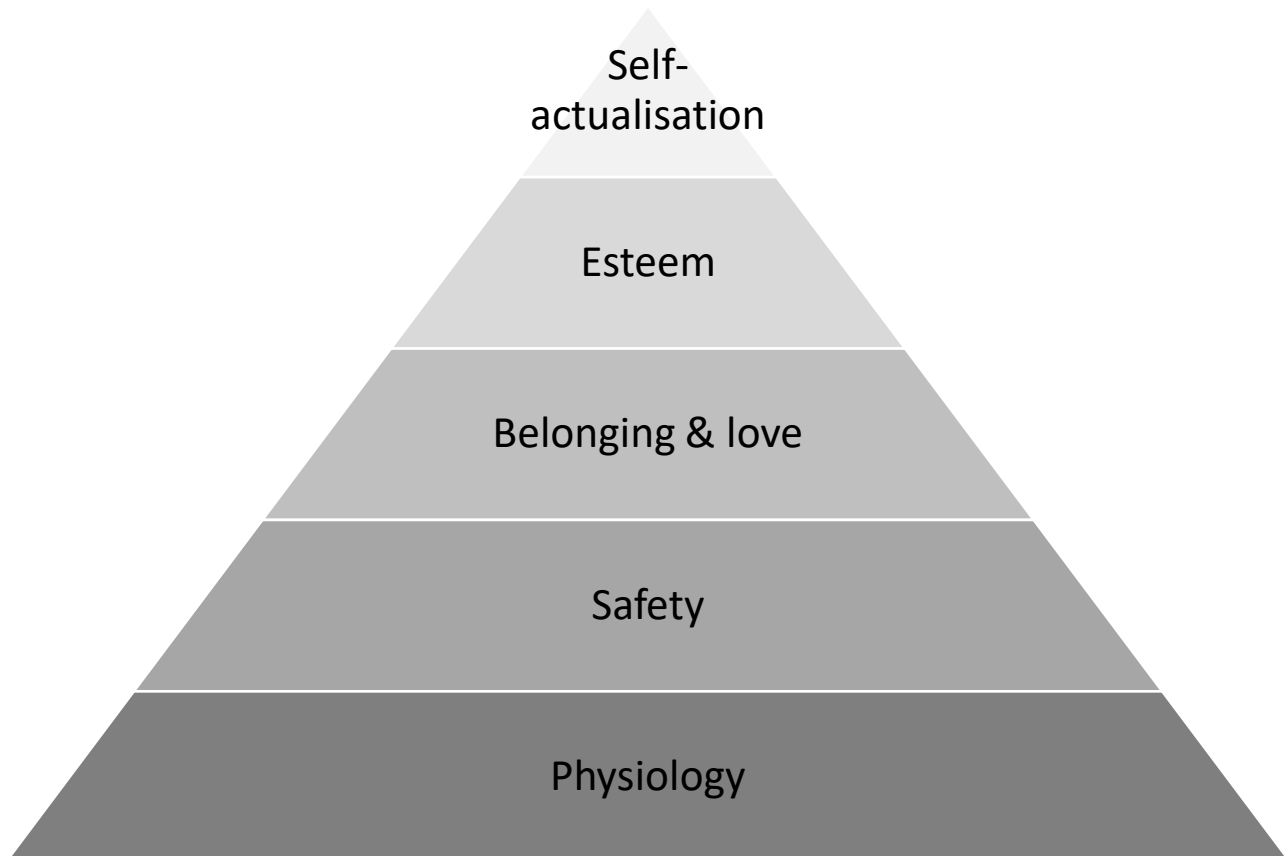


Figure 2. Maslow's hierarchy of needs (1954)

When organisational change occurs, the individuals need to know how the changes will affect them and their salaries, for example. Sufficient wages are needed to satisfy the employees' physiological needs. When it comes to the need for safety, it is crucial, that the individual's relationship with their superior is steady and they can trust the managers and their decisions. This will help to fulfil the need for security during a change process. A strong organisational culture helps to satisfy the need for belonging. The need for esteem is related to a positive self-image and self-respect, which often requires recognition by others. In the change process participation in decision-making is the key tool to help to maintain a positive self-image, as through participation the individual will feel a sense of accomplishment. Self-actualisation needs during a change process include learning new behaviours and skills. (Alas 2007, 31)

The Table 1 leans on Maslow's hierarchy of needs (1954) and lists the needs of the people who are participating in the change process and the necessary level to satisfy them. The success of the change depends on the acceptance of the participants and their readiness to behave in a way, which supports the change process. Needs of the individuals involved in the change play a key role in this process. The situation of change can decrease or increase the ability to meet the needs of the individuals. (Jasinska 2020, 3)

Table 1: Human needs in the process of change (adapted from Jasinska 2020, 3)

Expected level of meeting needs due to changes	
Less	Increased
Physiological needs	
More work Limited development chances	Increased salary Additional benefits Improved working conditions
Safety needs	
Job insecurity Disturbed stability of the work scope Uncertainty of principles of the assessment	Formal guarantees Impact on the extent of the change Promotion
Needs of belonging	
Losing the job Working in an unfamiliar team	Cooperation with authorities Impacting on the change
Needs for esteem	
Loss of position Limiting permissions	Promotion Increased salary Increased permissions
Need for self-actualisation	
Limiting autonomy Reducing responsibility	Increasing autonomy Increasing responsibility

There are various typical feelings that individuals often experience when facing change. These can include for example feeling angry, powerless, insignificant, intimidated, frustrated, disenfranchised, cheated, fearful, helpless, tired, stressed and threatened. (Dinwoodie, Marshall, McCallian, Sereno, Shields & Zhao 2013, chapter 1) These may lead to resistance to change, which will be examined more in detail later in this thesis.

4.2.1 Approaches

Understanding the difference between changes experienced internally by the individuals and changes managed in the external environment is a key issue which needs to be understood by those who lead and manage change. The approaches to individual change can be divided in four approaches, which are the behavioural, the cognitive, the psychodynamic and the humanistic psychological approaches. (Cameron & Green 2012, 13–14)

The behavioural approach focuses on how a person can change the behaviour of another person by using reward and punishment in order to achieve the intended result and if the result is not achieved, studying the individual's behaviour will provide insight what is causing the failure to achieve the result. In the context of organisational change, a behavioural approach focuses on changing the behaviour of the employees and managers. As the goal is a change of behaviours, there might be no attention given to process or relationship improvement or increasing involvement. Reward strategies and behavioural analysis are associated to the behavioural approach. (Cameron & Green 2012, 19–20)

Financial reinforcement includes bonus payments, prizes and other tangible rewards. Financial enforcement can only be effective, if the rewards are clearly linked to the behaviour and performance which the company wants to encourage. (Cameron & Green 2012, 22) Feedback about individual's performance on specific task can be a type of non-financial reinforcement. The more detailed the feedback is, the more effective it is in encouraging the desired behaviour. In a coaching feedback conversation desired behaviours can be encouraged, and undesired behaviours are discouraged. Also, alternatives for undesired behaviours can be generated. (Cameron & Green 2012, 22) Another type of non-financial reinforcement is social reinforcement. It focuses on interpersonal actions and communications of a positive or negative nature. Compliment, recognition, praise and attention can be used as a positive reinforcement to encourage desired behaviours. Social reinforcement can be useful not only when it comes to an individual's performance, but also when the organisational culture is undergoing a change. The approval or disapproval of a group can be a key factor in defining which behaviour is acceptable or unacceptable within the culture. (Cameron & Green 2012, 22–23)

The cognitive approach is more interested in the internal processes of an individual and how changing their thought processes can affect how they response to situations. The use of goals is a key factor in the cognitive approach. It is assumed that it is more likely to reach an achievement, when the goal is as clear as possible. There are several techniques related to cognitive approach, which can help the individuals change their beliefs in order to improve their performance. These include positive listing, affirmations, visualisations, reframing, pattern breaking, detachment, anchoring and resource states and rational analysis. The critic to this approach is, that it does not recognise the emotions of an individual and the impact that it can have when attempting to manage change. (Cameron & Green 2012, 25–31)

The psycho-dynamical approach revolves around the idea that when an individual is facing change in their environment, they experience various internal psychological states. This includes the Kubler-Ross model (1969), which suggest that when individuals face change, they will go through five stages as they are coming to terms with the change. The stages are denial, anger, bargaining, depression and acceptance. (Cameron & Green 2012, 32; Hayes 2018, 270)

Management research has added stages to the original five stages. For example, Adams, Hayes and Hopson (1976) present following stages: shock and/or surprise, denial, anger, bargaining, depression, acceptance, experimentation and discovery. They are visualised in Figure 3 later in this chapter. These stages include the following:

- Shock: Disbelief, denial and panic
- Denial: refusing to accept the change, belief that it is not really happening and hope that it will go away, clinging to the past
- Anger: feeling angry and frustrated
- Bargaining: trying to get control over the situation, usually involves conversations with themselves, might involve panic
- Depression: when the reality of the change becomes inevitable, includes sadness, apathy, unresponsiveness, experiencing lack of control, change starts to feel stressful
- Acceptance: the individual accepts the situation
- Experimentation: the individual tries out new ways of behaviour, trial and error
- Discovery: the individual might discover that the change was not only a bad thing

(Cameron & Green 2012, 34–38; Hayes 2018, 270–272)

Research also suggests that these stages may as well overlap, or the individual might get stuck in one of the stages or not go through the whole cycle. They might also go back to a previous stage at any given time. Also, if the change is seen as an opportunity to begin with, the individual might

jump over stages such as anger and depression. The psycho-dynamical approach can be useful for the managers when trying to understand what is going on inside the employees during a change process and why they react the way they do. Also, it is important for the leaders and managers to keep in mind that they are always probably at a different stage than rest of the members of the organisation. Also, it is vital to understand that the cycle usually cannot be avoided, but the leaders and managers are responsible for facilitating the way of the others through it. (Cameron & Green 2012, 34–38; Hayes 2018, 270–272) The facilitating progress and interventions will be more closely reviewed in the sub-chapter 5.3.

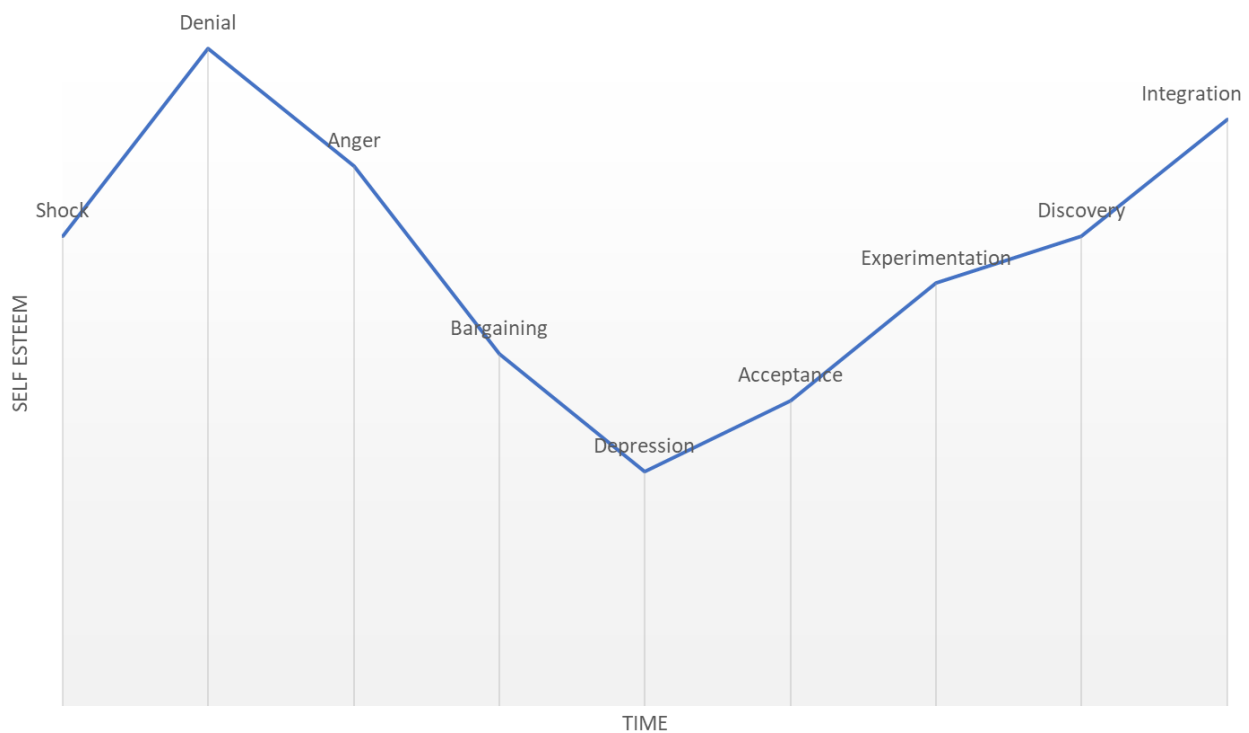


Figure 3. Stages of facing change (adapted from Adams, Hayes & Hopson, 1976)

The humanistic psychology approach to change combines the previous three approaches and while developing its own approach. Some of the key areas of focus in humanistic psychology are holistic approach (significance of an individual as a whole entity), the importance of taking responsibility (there is at least an element of choice in how one thinks, feels and acts) and the importance of subjective awareness as experienced by the person. (Cameron & Green 2012, 40–42)

Carl Rogers was one of the founders of the humanistic movement. Based on his studies on the path to personal growth, several theories related to change management have been generated. One of his own theories revolves around change agents and how they can encourage growth and development within individuals. Change agents are individuals, who take the responsibility for

introducing and managing change initiatives within an organisation. They are often managers, but that is not strictly necessary. (Pathak 2012 chapter 5) There are three introduces crucial conditions for change agents to be successful: Genuineness and congruence, which means that the change agent must be aware of their own emotions, they must be real and authentic. Next condition is unconditional positive regard, which means that the change agent must genuinely allow the individual's process to continue and accept all types of feelings going on inside them. Empathetic understanding is also a key condition. (Rogers 1979, 98–99)

Several important concepts that emerge from the works of Carl Rogers, which can be seen important when managing organisational change on an individual level. Creating a facilitating environment through authenticity, positive regard and empathic understanding will help growth and development to occur. When the facilitating environment and correct attitude of the change agent are given, the individuals can surface and work through their possible negative feelings about the change. When the facilitating environment and correct attitude of the change agent are given, the thinking and feeling of the individuals will be able to move from rigid to fluid, which allows more creativity and risk-taking. When the facilitating environment and correct attitude of the change agent are given, the individuals will move towards acceptance of more self-responsibility for their situation, which enables them to have more options to choose from. (Cameron & Green 2012, 46–47)

According to Cameron & Green (2012, 54–55) there are five factors that impact the response to change. Changes can be for example externally imposed or generated internally, evolutionary or revolutionary, routine or one-off, mundane or transformative, expansion or contraction related. The nature of the change might provoke different behaviour and attitudes. The consequences of the change is also impacting the reponse, the main question being, who will benefit from the change? This also impacts the behaviour and responses. The organisational history and how the organisation has handled changes in the past will also impact the response to change. The personality type of the individual also has a big impact and includes also the individual's motivational forces. Lastly, the history of an individual is also a key factor impacting the reponse and includes for example previous responses to change, the level of knowledge, skills and experience of the individual, stability of their life and the stage of their career. These factors are visualised in Figure 4 below.

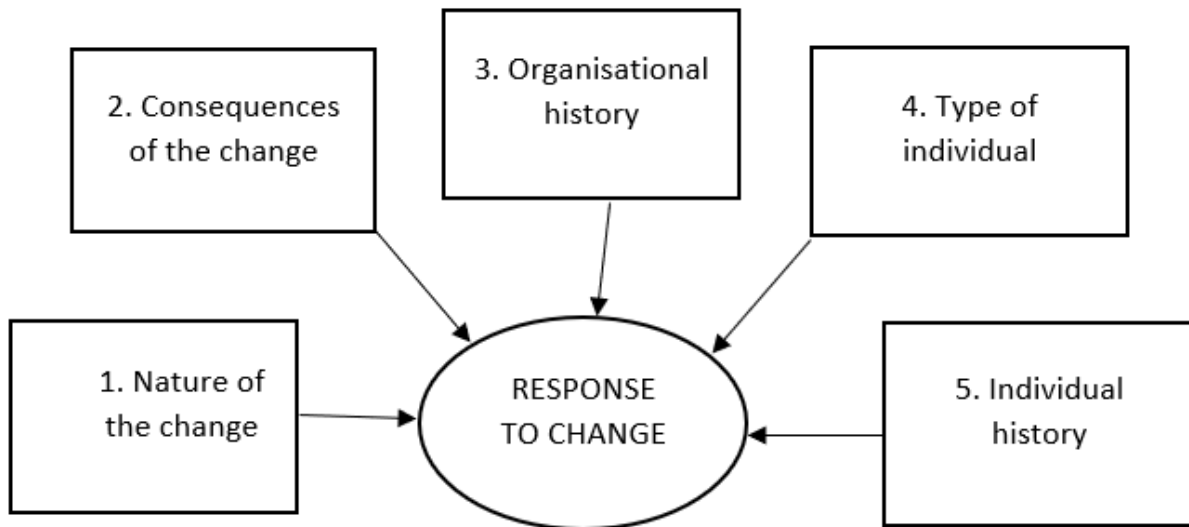


Figure 4. Five factors in responding to change (adapted from Cameron & Green 2012, 54–55)

Managers and employees must have detailed information about what they are expected to do and what performance is expected from them, the desirable behaviour needs to be clearly defined. The cognitive perspective suggests that the managers need to use strategies which link organisational and individual goals as well as motivation. Additionally, continuing coaching should be provided throughout the change process in order to overcome obstacles and resistance. From the psychodynamic perspective managers need to adapt their managerial style and approach to suit the emotional state of the implementers of the change. The humanistic perspective suggests that the individuals are able to respond to change, but they will need structures and strategies which enable them to do so. Open and honest communication and a positive consideration for the employees will help to create an environment, in which they can grow and develop. (Cameron & Green 2012, 59–60; Pathak 2012, chapter 9)

4.2.2 Perceived organisational support and change

Perceived organisational support means the employees' perception of to which extent the organisation values their contributions and well-being. It also includes the perception, to which extent they feel supported by the management of the organisation. (Cullen & al. 2014, 273). The individuals form perceived organisational support as an explanation for perceived positive or negative treatment in the past in order to predict future treatment (Eisenberg, Shanock & Wen 2020, 102). The organisational support theory also concerns the perception of the employees, how likely the organisation is to reward them for their performance and help them during difficult times, such as change process. (Cullen & al. 2014, 270)

Employees, who perceive the received organisational support as strong, feel like their socio-economical needs are met and are therefore likely to have more positive attitude towards their job as well as report more job satisfaction. Also, they are likely to repay the perceived organisational support by performing their jobs well and caring about the organisation. If they feel like they do not receive sufficient support from the organisation, they may withhold their effort, which results to decreased performance. Their job satisfaction is also likely to decrease, and they are more likely to report negative job attitude. (Cullen & al. 2014, 270)

Eisenberg & al. (2020, 114–115) mention that several studies have discovered positive relationships between perceived organisational support and perceived quality of service by the customer. Employees working in customer service may respond to favourable treatment by treating customers better and perceived organisational support can help to improve their emotional performances required for their work. Also, perceived organisational support is positively linked to adapting new technologies, as it helps to decrease the fear of failure, for example.

Change often causes stress for the employees due to the uncertainty they perceive concerning changes in the workplace. When organisations want to reduce the employees' sense of uncertainty, they need to improve the perception of support. Limiting unnecessary changes, clear communication, giving employees voice and encouraging them to provide inputs will help to increase the level of perceived organisational support. (Cullen & al. 2014, 277) Various studies suggest that perceived organisational support can help to reduce the employees' cognitive or emotional burden in distressing situations at the workplace (Eisenberg & al. 2020, 116).

4.3 Managing change

Leaders of the change are at the centre of the three dimensions of an organisational change. They need to be able to balance these three dimensions in order to create successful and sustainable change. The three dimensions of an organisational change are:

- Outcomes: development and delivery of outcomes
- Interests: mobilisation of power, authority and influence
- Emotions: helping the culture and people to adapt to change.

Although one specific dimension may be at the centre at any time, it is the duty of the leaders to keep the other dimensions in view at all times as well. If the leaders are not paying attention or are not aware of all three dimensions throughout the change process, the change be more likely to fail. (Cameron & Green, 2012, 5–6)

Cameron and Green (2012, 131) suggest that the leaders should be realistic about the change and consider running a pilot for any larger scale change as well as keeping the goals realistic. Also, it is

important, that the managers stay close to the change and communicate the purpose and mission of the company openly. Wakeman (2020) also adds that the leaders should understand that they can never please everyone and that they should work with those employees, who are not resisting the change and reward them.

Cameron and Green (2012, 60) suggest the following management interventions through the change process in chronological order:

- Minimising shock, transparent and early communication about the change
- Discussing the implications of the change, paying attention to individuals' needs and concerns, patience
- Listening, empathy and support, no suppressing of conflict, views and emotions, helping the people and recognising that the change can trigger off the individuals' past experiences, remembering that the employees are not attacking the managers personally
- Helping others to complete, acknowledging an end of an era, allowing others to take responsibility, encouraging, creating goals, coaching
- Encouraging taking risks, fostering open communication, creating opportunities for development
- Discussing meaning of the change and the learning process, reflecting, celebrating successes
- Preparing to move on

Leaders and HR organisations also need to help employees prepare for the new world of work by creating a culture of learning. Examples of this are lateral job movements, spot-coaching, rewards, real-time feedback and opportunities for lateral job movements. Challenging employees to take on new responsibilities will make them more engaged and therefore more willing to learn as much as possible for their new role. (Wilén 2018, 12).

As the individuals move through the stages of transition, Hayes (2018, 273–276) suggests the following interventions for the managers to help to facilitate others' journey through the transition. The suggestions are presented in Table 2. These interventions help the managers to help the individuals to accept and understand the necessity of the change and reduce their desire to hold on to the past. (Hayes 2018, 273)

Table 2. Suggestions for change managers (adapted from Hayes 2018, 273–276)

Stage	Suggestions for change managers
Shock	Preparing the ground for the announcement by creating a receptive climate, timely and transparent information, creating opportunities to get involved in the decision making, showing empathy and understanding, planning the announcement carefully, allowing the individuals to digest the new information and to share their feelings with others
Denial, bargaining and anger	Diagnosing what is being denied, gentle and supportive confrontation, repeating the message, drawing attention to the evidence that demonstrates that the change is really happening (e.g., timetable with milestones), ensuring that the individuals have to engage with the reality of the change, early action, getting the individuals to do practical things related to the change
Depression	Listening and providing support, non-critical and acceptive reaction to feelings expressed by the individuals, providing space for grieving and possibilities to vent, gently confrontation and challenging, providing information of the change, helping to see benefits and options related to the change, helping to focus on things that can be influenced and providing opportunities that allow them to influence the change
Acceptance	Explaining the necessity of the change and its benefits, providing targets, eliminating past symbols at work, marking the end of an era by ceremonies and rituals, letting the individuals to take mementoes
Experimentation and discovery	Encouraging experimentation, risk-taking, networking and creativity, creating space for experimentation, helping the individuals to identify their options, avoiding punishing because of mistakes, creating new tools to help the individuals to experiment, mentoring, giving feedback, celebrating and rewarding success, eliminating drivers of old behaviour
Integration	Supporting reflecting and learning e.g., with workshops, formal reviews of the implementation, encouraging the individuals to share their experiences

4.3.1 Resistance to change

Resistance to change is an issue, which tends to impact even well-planned change initiatives. Resistance to change often includes emotional elements, such as fear and anxiety. Often the leaders and managers do not have enough knowledge to deal with resistance to change. This is in many cases due to lack of focus on people management which leads to management not recognising the importance of people-focused skills, but often concentrating on business-related topics, such as marketing, legislation and accounting. (Hayes 2018, 253; Willis, Burrows & Coleman 2017, 124)

Resistance is a term, which covers a variety of ways which show hostility towards change, active opposition to change as well as focus and energy diverted to other priorities. In many cases there is no active opposition to change, and the individuals may even sincerely have a commitment to the change, but they concentrate on other commitments, such as daily operations and other objectives most of the time instead. (Willis & al. 2017, 124–125) It is also vital to recognise, that not all negative feedback should be seen as a resistance to change, but resistance to change should be seen as valuable feedback to the change process (Hayes 2018, 263).

According to Hayes (2018, 263) there are various factors which impact the people's willingness to support change. These include lack of trust, lack of tolerance to change, different assessments about benefits and costs, self-interest and past experiences of change.

The psychological contract can be defined as “an unwritten set of expectations between all organisation members and those who represent the organisation and incorporates concepts such as fairness, reciprocity and a sense of mutual obligation.” In case the employees start to feel like the company has failed to keep their side of the contract, they might start to redefine their side of the contract, which can lead to less involvement and effort, less motivation and a negative attitude towards changes. (Hayes 2018, 262–263)

Relevant managerial skills and tools can help to reduce the resistance to change. According to Ming-Chu & Meng-Hsiu (2015, 182) these include for example communication skills, rewarding and coaching. Hayes (2018, 251–255) presents various practices, which leaders can use to help reduce the resistance to change.

- Education: rational arguments and evidence to educate the employees about the need and justification for change.
- Persuasion: appealing to the employees' emotions and increasing the appeal of change e.g., through emphasizing the benefits of the change or creating a feeling of dissatisfaction with the situation before the change.
- Involvement: creating a sense of ownership through participation.

- Support and facilitation: listening and emotional support help the employees to deal with difficult emotions such as fear and anxiety and help them to think more objectively about the change.
- Negotiation: rewarding wished behaviour.
- Manipulation: biasing messages to influence others to change.
- Explicit and implicit coercion: power of granting or withholding valued outcomes in order to motivate others to change.
- Goal setting: setting attractive goals for the employees to increase their attention and involvement.

Cameron & Green (2012, 57–58) quote Edgar Schein's model of transformative change and how it relates to resisting change. Schein suggests that change happens in three stages. The first stage is unfreezing and it refers to generating motivation to change. The second change is learning new concepts and new meanings for old concepts. The third phase is refreezing, which refers to the internalisation of new concepts and meanings.

During the first stage the individuals need to unlearn some things before they can concentrate on new learning. According to Schein, there are two forces within every individual facing change. The first is learning anxiety and the second is survival anxiety. A transformative change can only succeed and work if the survival anxiety is greater than the learning anxiety. Schein suggests that it is not useful to attempt to raise the sense of the survival anxiety, but rather to reduce the individual's learning anxiety. This can be done by increasing the individual's sense of psychological safety through e.g., involvement of the individual, compelling vision of the future, formal and informal training, practice fields, coaches, feedback, positive role models, consistent structures and systems, support groups and imitation and identification. (Cameron & Green 2012, 56–58)

A study by Willis & al. (2017, 131) suggests that the key reasons why change fails, are both related to the people management issues. Approximately 75% of business change initiatives fail and the two major reasons are poor communication and poor leadership. Therefore, it is clear that the people aspect is critical for the success of change initiatives.

Willis & al. (2017, 131) present the following three components of change effort:

- Change design: having the right scope and the right business case.
- Change psychology: managing the people aspects.
- Change implementation: managing the milestones of the delivery and risk logs.

Most of the companies tend to prioritise the components of change design, although the studies show that the key issues lie within the change psychology aspects.

4.3.2 Importance of communication

When managing change, it is important to understand the importance of different communication styles and that even relatively small changes can trigger emotional reactions in the employees. Effective communication can help to prevent conflicts, to ease the change process, to generate positive emotions and increase employee engagement and motivation. (Harikkala-Laihinén 2022, 392)

Communication is especially critical during change process. It can help the individuals with the feeling of uncertainty. Effective communication is clear, considerate, true, educational, motivating and delivered through various channels. When it is done right, it can help to manage the reactions of the employees and to help them to perceive the change in a more positive way. If the communication fails, it can lead to lower commitment. (Harikkala-Laihinén 2022, 376–377) Also, lack of communication or its ambiguity will lead to experiences of uncertainty and confusion for the employees. They might begin to have doubts regarding to the impact of change for them. (Cullen & al. 2014, 271)

McCalman, Paton & Siebert (2016, 20–21) also stress the importance of communication. They define five guidelines how to communicate change events. The first recommendation is to customise the message. In order to ensure that the message is understood, it is important to know the audience and tailor the message to fit their needs and their knowledge. Setting an appropriate tone is also crucial. Not only is the content of the message important, but also the tone will impact how the message is interpreted. Therefore, it is important to consider the tone, but also the chosen wording, the chosen medium as well as non-verbal messages, such as body-language and dressing. Building in feedback is also a key factor. Maintaining a dialogue is crucial for change initiatives. The sender must consider, how responses of the recipients can be done and how they will be noted. Also, it is essential, that the managers ensure that the message was received, believed, accepted and understood. Therefore, two-way communication is vital. Setting the example is also recommended. The sender must act as an example and be consistent in order to motivate the others to respond to the communication. The last point is ensuring penetration. By choosing the right media for the communication it can be ensured, that the message will penetrate the whole organisation.

Open communication will provide the grounds to create positive climate around change. Communication can be either traditional top-down communication or engaging interactive communication. Both types of communication are necessary, but they have different uses. Top-down communication can be used for sharing information and it can help to reduce worries, but engaging interaction is a critical factor in creating positive emotional input. Also, it is crucial that the communication and messages are tailored to the employees' needs, for example by increasing the communication

when the employees report that they are having feelings of uncertainty. Studies show that interaction helps to build unity and collaboration and triggers positive emotions and will therefore increase employee engagement. (Harikkala-Laihinén 2022, 389–392)

Smith & al. (2012, 72) also stress the importance of communication as a key driver for employee engagement. They argue that it is critical, that the employees are informed but also given voice. They must have opportunities to give feedback and suggest ideas. If the employees feel that they are listened to, their level of engagement can increase as they feel more valued. A culture of knowledge sharing, informal meetings with the management, using multiple different channels for informing the employees, suggestion schemes and workshops are some of the suggested communication schemes to include in the strategy in order to increase the engagement. Successful communication strategies have one key concept in common: the employees must have an opportunity to feed their ideas upward.

The managers should not interpret questions and complaints as resistance, but see it as valuable feedback, which can be used as a resource. If the management sees all feedback of the employees as resistance instead of resource, or they do not receive feedback from the employees at all, vital information about effectiveness of the change initiative and need for adjustments can go lost. (Hayes, 2018, 295) This stresses further the importance of an interactive communication.

Effective communication assists overcoming both ignorance and resistance to change. Also, if the organisation does not manage the communication, for example rumours will fill in the void. (McCalman & al. 2016, 22) Rumours often tend to exaggerate the negative features of the change, which will then lead to resistance to change. Also, if the organisation fails to manage the communication, employees might learn about the change from external instead of internal sources, such as media, which may increase their uncertainty and reduce their trust in the organisation. (Bordia & al. 2004, 347)

Transparent and timely communication helps to maintain the employees' trust. Announcing change will often lead to uncertainty, especially if the change significant. Therefore, it is important to increase the trust in order to decrease the perceived uncertainty. Otherwise, if the trust decreases, the people are more likely to block or reject change. (Alas 2007, 31) According to research by Bordia & al. (2004, 358) well-managed communication can reduce uncertainty and increase employees' sense of control over their personal circumstances concerning the change. The main reasons for this are:

- Acquiring more knowledge related to change will make them feel more prepared to cope with the change.

- Well-managed communication includes employee participation, which increases their feeling of control.

4.3.3 Employee engagement

Research shows that employee engagement is one of the key factors for successful implementation of change initiatives (Swarnalatha & Prasanna 2013, 1). Employee engagement is a concept, which studies to which degree the individuals form an attachment to the organisation. Employee engagement goes further than motivation and job satisfaction. Shuck (2020, 8) defines employee engagement as “the maintenance, intensity, and direction of cognitive, emotional, and behavioural energy”. The maintenance of energy means that employee engagement is active, steady, and stable. The intensity of the experience of employee engagement varies based on individual experiences and their interpretation. Employee engagement is directed intentionally towards a target, which can be something, someplace or someone. Employee engagement is linked to job satisfaction, job involvement and organisational commitment, but they are not synonyms. (Shuck 2020, 51)

In the cognitive dimension, engaged employees feel that their skills are used appropriately in the work they do. They are psychologically and mentally involved with their tasks and concentrated and attentive at work. When the cognitive dimension is given, it leads to emotional and behavioural engagement. (Shuck 2020, 27–31; Smith & al. 2012, 70)

Engaged employees feel valued and involved at work. They enjoy doing the work they do and feel connected with their peers at work. This is the emotional dimension of engagement. (Smith & al. 2012, 70) The emotional dimension of engagement can only be reached, if the employees perceive the situation meaningful, which means that they have made cognitive appraisals of the situation on the previous level. Belief, pride and accomplishment are drivers of emotional engagement. (Shuck 2020, 31–32)

The last of the three dimensions is the behavioural dimension. In that dimension engaged employees are willing to increase their performance by putting in more effort than required. (Smith & al. 2012, 70) The behavioural engagement is a visible dimension of engagement. As the name suggests, this form of engagement is observable behaviour of an engaged employee. (Shuck 2020, 33–34)

Elliott & Corey (2018, 4) suggest that an employee is engaged when they:

- Understand the direction the organisation is going and believe in it.
- Understand how their role impacts the purpose, mission and objectives of the organisation and how it contributes to it.

- Genuinely want that the organisation will have success.

According to Shuck (2020, 52) and Elliott & Corey (2018, 5–6) engaged employees are:

- More profitable
- More productive
- Healthier
- More innovative
- More discrete
- Less likely to leave the organisation
- Less likely to be absent
- More helpful
- Creating more customer satisfaction
- Generating more revenue
- More likely to make better decisions

Elliott & Corey (2018, 13) introduce the Engagement Bridge which consists of elements, which helps to create suitable conditions for employee engagement in an organisation. There are five parts, which include total of ten elements. The elements and the key themes connected to them are presented in Table 3 below.

Table 3: Engagement Bridge (adapted from Elliott & Corey 2018, 13)

Elements	Key themes
Open and honest communication	Foundation of engagement Closely linked to employee trust and the psychological contract
Purpose, values and mission	Clear direction and purpose Consistent behaviour
Leadership and management	Keeping promises Authentic culture
Job design, recognition and learning	Meaningful output Sense of achievement

Elements	Key themes
	Recognition Autonomy Accountability Development and progress
Pay, benefits, workspace and well-being	A starting point Fairness

4.3.4 Employee participation

Zink (2007, 3) defines participation in an organisational context as direct, official and regulated participation of employees in decision-making. By direct, it is meant that the participation occurs by the employee themselves and not through employee representatives. Employee participation offers the employees the possibility to influence their workplace and especially any changes to it.

Many failures of organisational change initiatives occur because of ineffective employee participation (Alas 2007, 28). Direct participation means, that the employees and teams can directly participate in decision-making processes about the organisation's operation and implementation of processes. Direct employee participation can be individual or in a group form. It can vary in the qualitative features, such as intensity, scope, content, range, reality of impact and degree of formalisation. It can be passive or active. The passive form includes for example employees' right to information and the active form includes for example employees' right to consent and object. (Jasinska 2020, 2)

As stated previously, employee participation will help to increase the employee engagement and to create positive emotions. Organisational change can only succeed, if all staff across the company is participating in the change process. (Adams & Straw 2016, 41) Allowing employees to actively participate to the change process will also create a sense of ownership, which will increase the employee involvement and engagement. (Harikkala-Laihinen 2022, 20) Hayes (2018, 273) states that involving the employees in designing the part of the change that impacts them, helps them to accept the change as it develops a sense of regaining control. Participation also satisfies the need for closure and achievement (Alas 2007, 29).

Hodges (2019, 2) argues that many organisations forget to involve the stakeholders to the change process, although they are the ones directly affected by the change. This is often due to the fast speed of the change. Still, it is crucial to involve the stakeholders, such as employees, in order for the change to be effective and successful. Employees that are more engaged, are usually more likely to support the change and are also more resilient when facing changes. Participation and involvement will create a sense of ownership and help the employees to feel positive towards the change and experience less lack of control. In addition, employee participation will increase their motivation as well as help to come up with better ideas and decisions due to the wider input. Also, it will make the change more sustainable. (Hayes 2018, 251)

Internal crowdsourcing is a good method to come up with new ideas and methods. It maximises the creativity of the employees. (Wilén 2018, 26) Encouraging lower-level staff to drive the change or to tackle issues related to the change can be done for example by creating pioneering teams. These teams can for example come up with ideas, from which the organisation can choose the best ones to prioritise. (Adams & Straw 2016, 41) Employees are the task implementers and therefore they understand and know the internal processes best. The employees know which potential opportunities the processes have and what type of improvement they need. The opinions and ideas of the employees should be listened to and considered throughout the decision-making process. Employees have unique information, experience, skills and knowledge, which managers can have access to, if the employees are allowed to participate. (Jasinska 2020, 1–2)

For an effective direct employee participation during a change process, Jasinska (2020, 2) argues that the following conditions need to be met:

- Employees must be willing to participate in change and have the courage to voice their opinions, even if they differ from their superiors' opinions
- Managers must recognise the benefits of employee participation and be willing to listen to the opinions of the employees
- Managers must have adequate sense of security to invite the employees to cooperate in the change initiative including its development and implementation
- Managers must be flexible and open-minded when it comes to the views of the others
- Managers must be able to adapt their management style to the situation

A study by Bueechl & al. (2021, 2759) recommends, that as the digitalisation will impact the staff directly, the employees should be involved in the process of digitalisation, but also their concerns and fears should be heard and be taken into consideration. Communication strategies are crucial in letting the employees participate to the change. If the communication is only information sharing

and not interactive, employees feel that they do not have the ability to participate actively in the change but are only passive recipients (Harikkala-Laihinén 2022, 389).

Employees will perform and develop better, if they are allowed and encouraged to participate in defining decisions which involve organisational change. Also, it is important, that this happens before the changes are implemented. (Alas 2007, 32) It is crucial, that employees are involved to the change process rather in longer than shorter periods, preferably from the first to the last stage of the change process. (Jasinska 2020, 2)

4.3.5 Employee well-being and job satisfaction

According to Bueechl & al. (2021, 2754) job satisfaction can predict the organisational effectiveness. In that context, it means more the attitudes within organisation than the behaviour. It can be described as various environmental, physical and psychological factors, which lead the employees to the conclusion, that they are satisfied with their job. Also, satisfaction cannot be created by financial rewards only, but the work should be varied and interesting. Additionally, a chance to individual design possibilities and access to training programs should exist. In service jobs job satisfaction increases the employees' respect for the customers and their motivation to provide higher quality service, which directly impacts the customer experience. (Bi, Choi, Yin, & Kim 2022, 5)

Alas (2007, 29) argues, that willingness to participate in the organisational change process and job satisfaction are positively correlated and job satisfaction is strongly correlated to leadership. Satisfaction with the leaders and managers during a change process will affect the job satisfaction. Therefore, it is crucial, that the change is managed carefully. Cullen & al. (2014, 271) argue, that poorly planned changes will lead to higher level of uncertainty related to change and uncertainty will negatively impact job satisfaction. As presented in Figure 5, according to Alas (2007, 32) if the employees are satisfied with the leadership, they will participate in the change process, which fosters job satisfaction, which leads to increased participation, which, in turn, leads to increased life satisfaction.

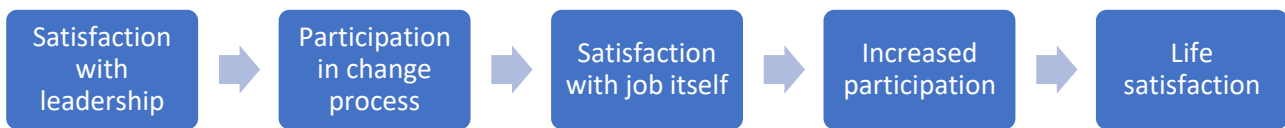


Figure 5. Connection between job satisfaction and employee participation (adapted from Alas 2007, 32)

4.4 Summary of the theoretical framework

Digitalisation is an ongoing megatrend, which is shaping the society. New technologies have changed the workplaces and this trend will continue also in the future. Automation is one of the many forms of digitalisation, which will impact especially the jobs of the frontline employees.

Airlines and airports are investing in new technologies for many reasons such as improving efficiency, reducing costs, and increasing profits. Several passenger handling processes have already been digitalised. Self-service check-in and baggage drop-off is one of the implementations already widely in use and the change has had a great impact on the daily work of the frontline employees. The Covid-19 pandemic has accelerated the pace of the automation.

For smooth operations it is crucial that the self-service devices are well-designed, easily usable error-free and reliable. If that is not the case, the passengers will get frustrated, which will affect the frontline employees. Also, forcing the passengers to use the self-service devices can have negative effects, such as resistance.

Automation is changing the customer service jobs in many ways. Jobs can disappear and the content of the jobs can change which means that the employees are required to learn new skills.

The research shows that emotional labour in the customer service can increase the level of exhaustion among the frontline staff and the changed interactions with the passengers and aggressivity due to resistance to the new technologies can increase the amount of emotional labour needed in the daily work. An airport can be a stressful environment to the customers already without the change and when added the new technologies, there is potential for aggressive behaviour. This can lead to decrease in the motivation of the staff, emotional exhaustion and even burnout.

As automation has led to elimination of jobs in the past, the employees whose jobs are affected by the automation, can have concerns about job security, although most jobs will most likely be complemented by new technologies instead of disappearing completely.

Change management aims to help the employees to adapt to the change. The research shows that the change management can only be successful when all organisational levels are involved. The employees tend to experience change as stressful and have insecurities and concerns about it. They might have for example feelings of anger, powerlessness, intimidation, frustration and helplessness, which can lead to resistance to change. Research shows that when individuals go through change, they will experience different psychological states and they will need different types of support during these states. The individual's reaction to the change will be impacted by the nature of the change, the consequences of the change, the organisational history, the personality of the individual and their personal history. Therefore, managers should take these aspects in consideration when planning and implementing the change. Perceived organisational support and trust can also have an impact on the individual's attitude to the change.

Research has several recommendations for managing successful change. Timely and transparent communication, paying attention to concerns and showing empathy are some of the suggestions. The managers should provide the employees with enough information about the change and its consequences and benefits. Also, they should encourage and coach the others and celebrate successes. The employees should be provided opportunities to learn new skills for their future.

Dealing with the resistance to change is one of the issues, which managers often must face. They often seem to have problems with that, as they lack the knowledge about the topic. Relevant managerial skills and tools, such as communication skills and coaching may help to reduce the resistance to change.

Communication is one of the most critical factors leading to successful change. Effective communication will help the individuals in many ways during change and create a positive climate around the change. In order to be effective, the communication must be clear, considerate, customised, educational, motivating and delivered through the right channels. Also, two-way communication is especially critical for change initiatives. Interactive communication will increase the employee engagement.

According to the research, employee engagement is one of the most crucial factors for the success of change initiatives. Engaged employees understand and believe in the direction of the organisation, understand how they can contribute and genuinely want their organisation to be successful. Employee participation is also crucial for the change to be successful, as it increases the employee

engagement and commitment to the change. Still, research shows that many organisations forget or fail to involve all stakeholders in the change process, even those directly affected by change. Employee participation can also help to generate new ideas and provide useful feedback. Frontline staff can have unique knowledge as they are the ones implementing the change. Research recommends that especially when it comes to digitalisation-driven changes, the frontline employees should be involved in the development of the change.

Change initiatives can also impact the well-being and job satisfaction of the employees. Managers should take this in consideration when managing the change as job satisfaction during the change is strongly linked to the satisfaction with the change leaders and managers. Also, if the change is planned poorly, it will have a negative impact on the job satisfaction of the employees.

5 Methodology

This chapter will present the methodology of the thesis including the chosen approach and the research methods as well as justification for choosing these methods. This also includes the description of data gathering and analysis methods. Additionally, the steps of the research process will be presented.

5.1 Steps of the research process

First, a comprehensive literature review was written from September 2022 to January 2023 in order to have deeper understanding about previous research done about the topic. The data gathering was done in the spring of 2023. The interviews were planned and implemented between February and April 2023, and they were analysed during April 2023. The online survey was open for almost two weeks in the end of April 2023 and the data was analysed immediately after that. The development suggestions were written in the beginning of May 2023. Figure 6 illustrates the steps of the research project.

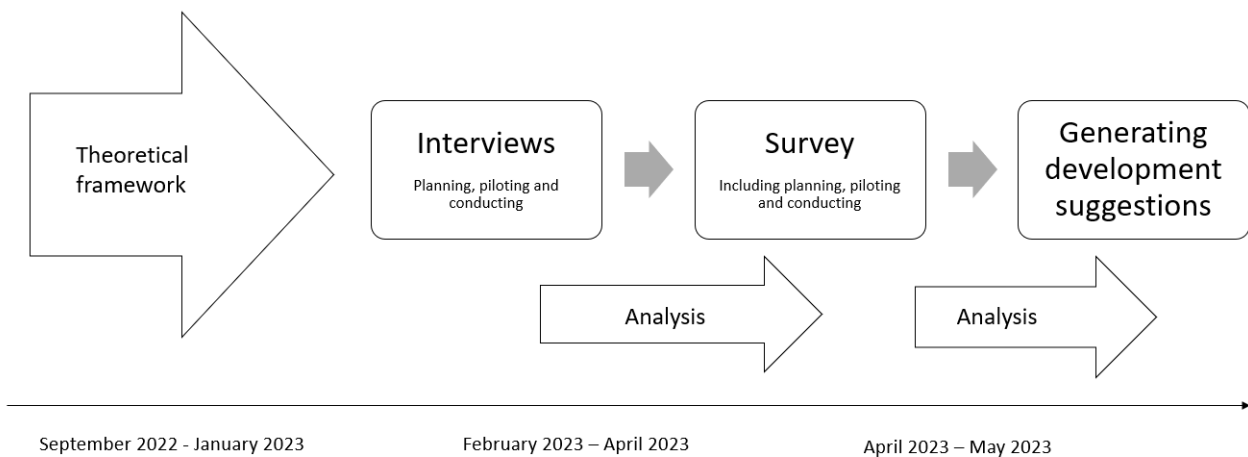


Figure 6. Steps of the research process

5.2 Approach

The research approach of this thesis is a case study. A case study is useful for exploring an organisational phenomenon within a specific context through several data sources, and therefore it is one of the most often used methods in qualitative development research. (Rashid, Rashid, Sabir,

Warraich & Waseem 2019, 1) Case studies investigate contemporary phenomena within its real-life context (Buchanan 2012, 353).

A case study approach is suitable when the aim of the research is to do research for the purpose of producing development suggestions. They do not aim to produce concrete changes, but recommendations for solving problems that occur in real-life environment. Using different data collection methods is typical for case studies, as the aim is to gain a holistic and in-depth picture. (Moilanen & al. 2022, chapter 2) Case studies are often used in traditional research, but they can be quite useful for development work, when the goal is to come up with development suggestions. It is characteristic for case studies to produce detailed in-depth knowledge about the current situation in the case company. The target of a case study can be a company or its department, its services, products, operations or processes. (Moilanen & al. 2022, chapter 3) A case study can be used to study individuals, organisations, change processes, decision processes and events (Buchanan 2012, 354). It is not the purpose of a case study to make statistical generalisations but gain deeper knowledge about a restricted target. The main goal is to create new knowledge, which supports the development work. Also, case study can help to understand employee relationships as well as behaviours, which might be complex. (Moilanen & al. 2022, chapter 3) Figure 7 illustrates the main phases of a case study. This case study explores digitalisation in the context of passenger services of the case company and its impacts on the frontline staff and evaluates the change management of the case company.

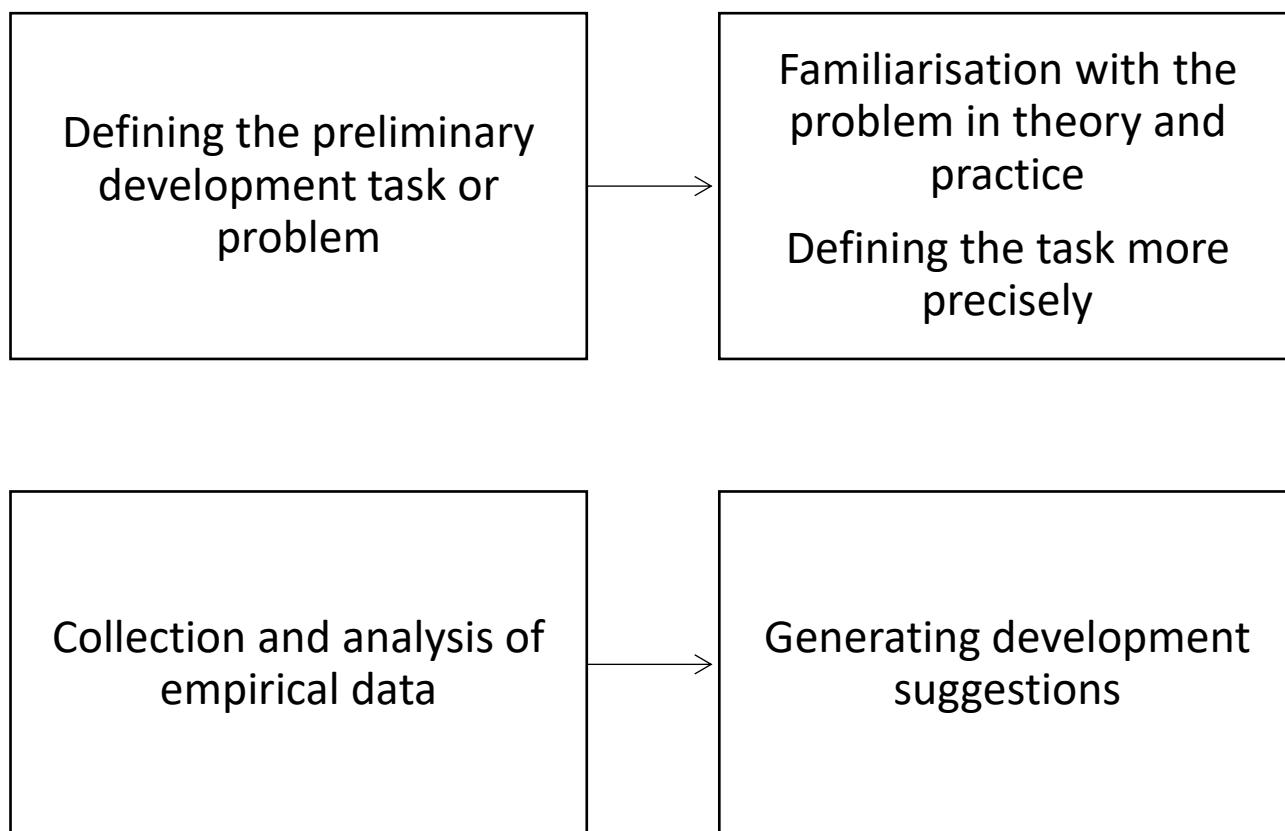


Figure 7. Case study phases (adapted from Moilanen & al. 2022, chapter 3)

5.3 Data collection

Traditionally, data collection methods are divided into two groups, which are qualitative and quantitative methods. Qualitative methods are often used in order to understand the studied topics better and to gain more knowledge and a deeper understanding of a limited target. The purpose of quantitative methods is to test a theory and see if the hypotheses is verified. The collected data is analysed with statistical methods and the results can be generalised to the whole population. (Moilanen & al. 2022, chapter 4)

The methodology chosen for this thesis is mixed methodology, which means that both qualitative and quantitative methods were used in the data collection in order to find answers for the research questions. Advantages of mixed method studies include gaining a greater comprehension of the topic, increasing the credibility of the findings and aiding in development of the project. (Hesse-Biber 2010, 3) In development work, the versatility of methods is important and different methods can supplement each other. A mixed methodology is especially important for case studies, as they aim to obtain a holistic, in-depth picture of the situation. (Moilanen & al. 2022, chapter 2)

The data collection methods chosen for this research were interviews and a survey. In case studies, quantitative research methods are often preceded by an explorative phase with qualitative research methods. The reason for this is, that the reliability of the results will increase, if different the results of different data collection methods are compared. Either, the results can be similar, which increases the reliability, or discrepancies in the results can help the researcher to determine any inconsistency in the results. (Farquhar 2012, 80) Inductive approach involves developing a theory based by moving from particular to general, in this case from the perceptions of the interviewees to general opinions of the employees in the case company. Inductive approach is necessary when trying to advance comprehension and to develop new theories. (Woiceshyn & Daellenbach 2018, 6) In this research, the purpose was not to find universal solutions, but to generate suggestions for the case company based on the data and therefore this methodological order was chosen. The results of the interviews helped to create the survey, which is one of the advantages of a mixed methodology. (Hesse-Biber 2010, 5) Also, as a qualitative data collection method the interviews allowed collection of in-depth data. Both data collection methods and their analysis methods will be explained in detail in the next subchapters.

5.4 Interviews

Interviews are one of the most common methods used in research and development work as they allow gathering in-depth information rather quickly. Interviews are a suitable method, when the focus of the research is on the individuals. Also, interviews allow the researcher to gather data about subjects that have not been researched a lot. When doing development work, interviews are typically combined with other methods. (Moilanen & al. 2022, chapter 4)

There are several types of interviews, which all have their advantages. Usually, the interview types can be differentiated according to the level of structure of the interviews. They are typically categorised as structured, semi-structured and unstructured. Structured interviews include a list of questions, which are presented in the same order in order to ensure consistency. Semi-structured interviews also include a predefined set of questions, but the questions can vary according to the answers of the interviewees, which gives the interviewer the opportunity to ask for clarification or follow-up on issues, which rise during the interviews. Unstructured interviews typically have a theme on which the discussion is focused, but there are none or only few pre-defined questions, which allows the interview to go in any direction depending on how the interviewee or interviewer interpretate the topic. (Cassell 2019, 5)

The interviews for this research followed the thematic format and were conducted as exploratory semi-structured interviews with open-ended questions. These kinds of interviews are suitable for exploring organisational issues from various perspectives, which is appropriate for a case study.

(Cassell 2019, 9) In theme interviews the themes are predetermined, but the semi-structured form gives the interviewees some freedom. If necessary, certain questions can be expanded, if interesting responses, which have not been expected, come up. Also, the emphasis, formulation and order of the questions can vary. (Moilanen & al. 2022, chapter 2) For the purpose of this thesis, the main focus of the interviews was on asking the participants to share their experiences and perspectives, and therefore the interviews can be categorised as respondent interviews (Alvesson & Ashcraft 2012, 241).

The interviews with the employees were conducted face-to-face at a meeting room at the company's facilities and in a café. The interviews were audio-recorded with consent of the interviewees and transcribed into text afterwards by using the transcribe tool of Microsoft Word. The transcribed texts were saved in separate files in order to ensure the anonymity of the interviewees.

The data from the interviews was used to answer the research questions, to create the questionnaire for the survey and together with the data from the questionnaire to generate development suggestions.

5.4.1 Sampling

The interviewees were selected by using purposive sampling. Purposive sampling is a non-probability sampling technique, which means that the participants are chosen due to the qualities the participants possess. It is often used in qualitative research in order to select the most information-rich cases. It involves selecting the individuals that are well-informed about the topic. Also, key factors are the willingness to participate in the research and the ability to communicate their opinions and experiences in an expressive and reflective manner. (Etikan, Musa, Alkassim 2016, 2–3) Purposive sampling is often used in case studies (Saunders & al. 2016, 301).

The purpose was to select interviews with varied backgrounds and experience, in order to represent the employees better. Seniority in the company was one of the main selection reasons, in order to ensure participants with varied experiences in the company. Also, the type of their contracts was taken into consideration and employees with both full-time and part-time contracts were chosen for the interviews. Also, one of the participants was chosen, because they had recently switched to a different department due to the change to self-service check-in.

In order to ensure anonymity, the interviews were coded. The interview coding is presented in Table 4.

Table 4. Interview coding

Code	Age	Seniority	Contract type	Date	Length in minutes
P1	41 years	10 years	Full-time	20.3.2023	36.36
P2	41 years	12 years	Part-time	23.3.2023	15.08
P3	31 years	8 years	Full-time	1.4.2023	15.56
P4	35 years	6 years	Full-time	1.4.2023	19.27
P5	34 years	9 years	Part-time	2.4.2023	13.34
P6	29 years	10 years	Full-time	3.4.2023	17.47
P7	30 years	9 years	Full-time	5.4.2023	13.13
P8	39 years	17 years	Part-time	10.4.2023	12.13

5.4.2 Questions

All interviewees were asked the same questions in the same order, but altered when necessary during the interview. The interview questions were created based on the framework gained from the literature review and divided in seven thematic categories with a help of a mind-map. The categories are presented in Table 5 and the questions can be found in Appendix 1. The interview questions were tested beforehand with a former employee. This test interview was also clocked in order to be able to inform the interviewees about the time needed for the interviews. In the beginning of the interview the interviewees were informed about the topic and aim of the research, the data collection methods, how the data will be used and stored as well as when and how the results of the research will be available. They were also informed, that the participation is voluntary and anonymous.

Table 5. Themes of the interview questions.

1	Demographic questions
2	Attitude towards new technologies

1	Demographic questions
	<ul style="list-style-type: none"> • Difference between general attitude towards new technologies vs. attitude towards automation at work • Change in attitude towards automation
3	Concerns and impact of change <ul style="list-style-type: none"> • Concerns and fears related to the change • Impact of the change on the daily work and tasks
4	Support from company during change <ul style="list-style-type: none"> • Training • Communication
5	Impact of change in the interactions with customers
6	Technological issues
7	Well-being and job satisfaction

5.4.3 Data analysis

The transcribed employee interviews were evaluated using thematic analysis. Thematic analysis methods are often used in qualitative business research, as it is a useful and accessible approach when analysing qualitative data as they can be applied to various qualitative data sets. There are different types of thematic analysis approaches, but in all of them the main focus is on “identifying, organising and interpreting themes in detailed qualitative data to highlight and convey key messages.” (King & al. 2018, 180)

First, the transcripts of the interviews were read several times. This helped to get familiar with the data and to find patterns and themes. In the next phase the texts were printed, and the printed text was coded with different colours which represented different codes. Also, notes were made in the printed transcripts. In the next step, similar codes were grouped together in categories. The coding helped in defining the re-occurring themes in the interviews. The themes were developed from the

initial codes and code categories, for example the codes software issues and hardware issues were combined into the theme technological issues and the codes passenger resistance, aggressivity and emotional labour were combined to form the theme challenges with interactions with the passengers.

In the process of analysing the interviews, a member check was done with one of the interviewees in order to ensure, that the key points of the answers were understood correctly. Member checking is a key part of creating validity in qualitative research. Member checking means that the researcher asks one or more participants of the study to check the accuracy of the interpretation of the data. The findings are taken back to the participants, and they are asked about the accuracy of the interpretation of the data. Member checking helps to ensure that the participant voices are portrayed accurately and gives the participants the chance to confirm or deny the accuracy of the interpretation of the data, which increases the credibility of the qualitative research. (Candela 2019, 619–621) The participant confirmed, that their main points were understood correctly and agreed with the citations chosen to be presented in the paper.

5.5 Survey

Survey is a method of data collection, which is designed to collect information from the respondents for a pre-established research objective. In a survey information is gathered with a structured questionnaire, which is given to the respondents. (Bajpai 2018, chapter 7)

Surveys are useful for asking a large number of people many questions, which allows the researcher to collect comprehensive data quite fast. The results of a survey are usually figures, which allows them to be processed statistically with the help of statistical analysis programs, such as Microsoft Excel. Surveys can be conducted for example face-to-face or online. Surveys should be applied to research, when there is already previous information about the topic available, otherwise it is difficult to draft the questionnaire. (Moilanen & al. 2022, chapter 4)

The objective of the survey was to gather quantitative data on the topics that came up during the interviews. This was done in order to determine, which development suggestions were most important for the majority of the employees, which answers the research question Q3.

The platform used for the online questionnaire was the digital survey tool Webropol. The questionnaire was open from April 15th to April 27th. The survey was tested beforehand by three employees in order to ensure that the length of the questionnaire was suitable and that the questions were easy to understand. The testers found the questionnaire clear, so only some spelling mistakes had to be corrected.

5.5.1 Sampling

Often it is not possible to gather data from the whole population, for example from all employees of the company, and therefore a sample of the population is chosen for the research. Sampling can be divided into probability sampling and nonprobability sampling. Probability sampling is recommended, as it helps to represent the whole population. If nonprobability sampling is used, the results cannot be generalised on the whole population. (Moilanen & al. 2022, chapter 4). As soon as the target population has been defined, the researcher determines the sampling frame, which includes a list of subjects forming the target population. After that, an appropriate sampling technique is chosen. The next step is choosing the sample size, which is the number of elements included in the research. The size depends on various things, such as the nature of the research, resources, time and sample sizes of other similar studies. When these steps are done, the sampling process can be executed. (Bajpai 2018 2018, chapter 5)

The sampling process is visualised in detail in Figure 8.

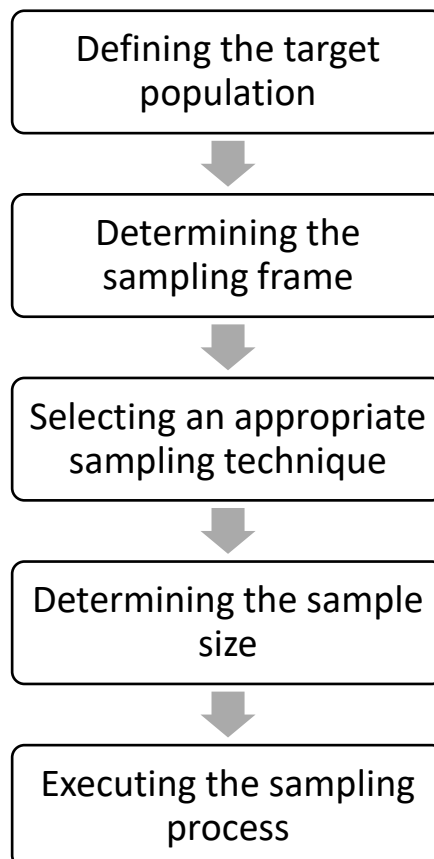


Figure 8. Steps of a sampling process (adapted from Bajpai 2018, chapter 5)

As this research is exploring the perceptions of the frontline employees, the observation units for this research are the employees working in the passenger services. Due to the lack of resources

such as availability of the necessary data for probability sampling, a nonprobability sampling method was used. The method was voluntary sampling, which can be described as follows: “A voluntary sample is made up of people who volunteer to take part in the survey. Typically, these respondents have a strong interest in the survey topic.” (Cint 5 February 2022)

The link to the online questionnaire was sent via e-mail to all employees working in passenger services. The email included a short description of the research and the questionnaire, with similar content than the cover letter of the survey. The email was sent in the main working language of the company and the translated email is included as Appendix 2. A reminder about the questionnaire was sent to a closed social media group of the employees in order to ensure, that also those employees, who did not read the email, were reached. 121 employees completed the survey, which represents approximately 40% of the target population.

As the target group was those employees, who had started before June 2020, which was time until the most changes in the check-in setup had taken, it was mentioned in the e-mail invitation to the survey that only employees, who have started in the case company before June 2020, should answer the questions. Also, the first question of the questionnaire was designed to ensure that the participants belonged to the target group.

5.5.2 Questions

Cover letter is an important part of the survey. It informs the participants what the survey is about and inspires trusts and increases the motivation to participate. (Moilanen & al. 2022, chapter 4)

The cover letter of the survey for this thesis is attached in Appendix 3 together with the questionnaire and it included the following information:

- Description of the research
- Name of the author
- For what purpose the data will be used
- Target group description
- Statement of anonymity
- Statement of importance of every answer as well as thanking the respondents
- Length of the survey

There were 13 questions in the online questionnaire. The questions were based on the themes that were found in the theoretical framework and in the qualitative data.

The first question of the questionnaire was “When did you start working for your current employer?”. If the participant chose the option “After June 2020”, the questionnaire ended. This was done in order to ensure, that the questionnaire was completed only by the target group.

The second category included demographic questions about the gender and age of the participants, as well as their work experience in the case company and the type of their work contract.

The third question category included three questions, which explored the participants’ attitudes towards new technologies, including the attitudes towards new technologies in general and the attitudes towards the automation of the check-in and baggage drop-off before the implementation and in the present.

The next category concerned the change in the daily work and tasks and if the change has been experienced as positive or negative.

The fifth category included one question and it was related to the concerns that the employees have had due to the change. This question was a multiple-choice question, which also included a text field for the input of additional answers.

The sixth category explored the communication related to the change and it included two questions. The first question concerned the aspects of the communication and the second question focused on the interactivity of the communication.

The last category explored the development suggestions and included one question about what would have helped the participants to adjust to the change. This question was a multiple-choice question but also included a text field for the input of additional suggestions.

5.5.3 Data analysis

Quantitative data is analysed with statistical methods, which include basic methods (e.g., average figures, deviation figures and correlation) as well as multivariate methods (e.g., cluster analysis, factor analysis and analysis of variance). (Moilanen & al. 2022 chapter 4) Statistics are used as a tool in research to analyse the data and draw conclusions from it in order to estimate the values of the population (Kothari 2004, 131).

The quantitative data was analysed with the help of the platform Webropol and with Microsoft Excel and both the text and some visualisations, such as various charts, derived from the data are presented in the next chapter.

6 Outcomes

In this chapter the outcomes of both data collection methods will be presented. First, the outcomes of the interviews will be presented including representative citations. Further, the outcomes of the survey will be presented including visualisations created from the gathered data.

6.1 Outcomes of qualitative research

In this subchapter the outcomes of the semi-structured interviews will be presented. The outcomes will be presented according to the themes that came out of the thematic analysis of the qualitative data.

6.1.1 Attitudes towards new technologies

The interviewees were asked to rate their general attitude towards new technologies, their attitude towards the self-service check-in and baggage drop-off when it was announced and their attitude towards it today. All interviewees rated their attitude towards new technologies in general more positively than their attitude towards the self-service check-in and baggage drop-off. Also, all interviewees stated that their attitude towards the self-service check-in and baggage drop-off is more positive today, than it was in the beginning.

The interviewees stated several reasons why their attitude towards the self-service technologies were rather negative. They were sceptical if the technologies would work as well as hoped and if the passengers would be able and willing to use the self-service devices. They feared that the implementation would be rather chaotic than structured and well-planned.

"My general attitude towards new technologies is very positive, as they tend to make life easier. My attitude towards the self-service check-in and baggage drop-off when it was announced was very negative because I could not imagine how it should work, because I could not imagine the passengers using it correctly and that I would imagine a more chaotic outcome than it would be beneficial. Today my attitude towards the self-service check-in and baggage drop-off has improved." (P3)

Several reasons for the change in the attitudes towards the self-service devices came up during the interviews. One of the reasons was, that the attitudes of the passengers towards the new technologies have improved, which has a positive impact on the job of the frontline employees. Also, the software and the hardware for the self-service devices has been improved from the beginning.

6.1.2 Technological issues

All eight interviewees stated that the new technologies were not working well in the beginning, and that although they are working better today, there is still room for a lot of improvement. The

interviewees criticised both the hardware and the software. They stated that they felt that there would have been better solutions for both, and that they have seen better solutions at other airports.

"We still have a lot of technical issues, for example the devices are not working at all, or it is not understandable for the passengers what they have to do, even by reading the text on the screen. The instructions are not clear. Another software could have helped, because I have seen myself other airports and the software they have. And it is much more user friendly, than ours" (P4)

They felt that both the hardware and the software are outdated, and that the software is not very user-friendly. They felt that this increased their workload and made it harder for them to convince the customers to use the new technologies. Some examples of the issues were hardware problems such as touchscreens not working, but mostly issues related to the software, such as problems with codeshare tickets, the input of regulatory data or the software simply crashing repeatedly during the check-in process.

The interviewees suggested that the technological solutions should have been more modern and that they should have been tested more with different scenarios before being implemented in the daily operations.

6.1.3 Infrastructure of the airport

Another issue, that came up during the interviews, was that the infrastructure of the airport limits the usability of the self-service devices and the passenger experience, which has an impact on the workload of the frontline staff.

"The infrastructure could be better. I mean, all they did was attach a self-service device to an already existing check-in counter. They didn't change the infrastructure in any major way, so it still looks like a regular check-in counter with just a machine attached to it. And it is very confusing for the passengers because they constantly stand in front of them and wait for somebody to come." (P3)

Lack of space, unclear signs and the appearance of the self-check-in area and devices were some of the issues, which the interviewees felt are in the need of improvement.

"The setup at this airport is terrible, because we do not have enough space. The signage is terrible. Passengers who do not fly frequently, do not know where to go and what to do." (P2)

6.1.4 Digital dependency and safety concerns

Some of the interviewees also had concerns about the dependency on the digital solutions and how it can have an impact on safety. They were worried about cyber threats and attacks and their impact on the operations, because they felt that because of the automation especially newer

employees, who are not so familiar with the staffed check-in process would struggle if it was suddenly necessary to resume to staffed check-in only.

"I think the problem is that we forget how to do things and I think in this environment, in this job it is really important that you know how to do things manually. And this is a problem, because if the system ever fails, then we have a problem and I am not talking about if it fails for one or two hours, I am talking about what if it really does not work for a week? Due to some ransomware attack or whatever. And that is not so far-fetched. It happens to the best. So why should it not happen to this airport? Why should it not happen to our company? And then you have a lot of staff who have a very limited idea how to do things manually." (P1)

The interviewees recommended more refresher training for the employees in order to be able to switch completely to the staffed check-in process when necessary and they also wished that the company would address their concerns about safety issues with providing more information.

6.1.5 Challenges with interactions with passengers

All of the interviewees highlighted the issues related to the changes in the interaction with passengers as well as the change in the passengers' behaviour due to the change to self-service check in. They felt that the self-service check-in reduced the quality of the passenger experience and that they blamed the frontline staff for their negative experience and that aggressive behaviour increased due to the change. They found especially exhausting, that passengers were constantly commenting the digitalisation with lines such as "You are going to lose your job because of the automation!". This added to their concerns about automation of the check-in process.

"The most challenging thing was convincing our customers that it is not a reduction in service." (P5)

"They lose a lot of service, they lose a lot of direct contact to us, and they are overwhelmed. And I think it is a lot to ask from the passengers. If the passengers have any questions, they can't get hold of any real people anymore. The passengers are very aggressive towards us now, because they think the self-service is our idea." (P8)

They felt that the behaviour of the passengers had changed in a negative way, and that those who resisted the change were showing aggressive behaviour towards the employees.

"The more aggressive one became more aggressive by far. People who were looking for a fight now have a whole new field how to find a fight." (P1)

They felt exhausted by the new check-in setup and tasks involving interaction with the passengers. One of the interviewees even stated that it had such a negative impact on their mental health and job satisfaction, that they decided to change to a different department within the passenger handling unit, which includes less tasks involving self-service devices.

"It was hard to be the centre of the attention of all the passengers in my uniform and to be literally attacked by them. It was difficult to be there for hundreds of passengers instead of a few of them at the time at the check in counters. I had fears about my mental health actually, because standing in front of the self-service kiosks and being the focal point of attention for the passengers was affecting my mental health. So that is why I switched apartments in the end. I think the behaviour of the passengers in general has become more aggressive over the years. It is still becoming more aggressive, and I don't think it is going to change anytime soon. And with automation comes along new potential for frustration and the passengers cannot take it out on the machines, so they will take it out on the employees." (P3)

Another interviewee stated that dealing with the emotions and the resistance of the passengers has increased the workload of the frontline staff.

"For those who are willing to use the self-service devices, in that case the staff has less work, but as I said, if the devices are not working or the passenger is not willing to use them, we have even more work and we also have to deal with the emotions of the passengers." (P4)

The interviewees suggested that they would have needed more information and support from the company in order to handle the interactions with the passengers.

"They could have communicated with us, what to do when we get overwhelmed." (P3)

Soft-skill training and workshops were frequently suggested solutions to help them to cope with the new situation.

"They could have done some workshops with us. Maybe they could have given us some perfect wordings which we could use." (P8)

"They could have told us a few lines that we could use on typical sentences or reactions that we get from the passengers." (P7)

The interviewees also suggested that it would have had a positive impact on the passenger experience and their behaviour, if the company would have informed the passengers about the new check-in process and its advantages.

"I think they could have done more in terms of maybe some positive marketing, like TV advertisement showing how easy and fast it is to check-in and depart from the airport or send out more e-mails. Just to make it a bit more visible, so the passengers know what they can expect." (P5)

"After every booking they could have sent the passengers an e-mail informing them about the new automated check-in process. They could have sent videos, pictures, even just text describing what to do, so the passengers would have been prepared." (P3)

Another topic, that came up repeatedly in the interviews, was that the employees felt, that making the usage of the self-service technologies voluntary for the passengers would have made the transition easier. One of the interviewees answered the question "What kind of support would you have wanted from the company during the change?" with the following statement:

"Better planning as step-by-step introduction and voluntary introduction for those who want to be the first adapters among the passengers. There is always a group of passengers who want

to do everything themselves. They want to be fast and not talk to anyone but there is also a big group of passengers, who want to have someone to talk to, to have a person to talk to about their concerns and their questions. For me, the voluntary factor is what is missing.” (P2)

The interviewees also suggested that the interactions with the passengers, when assisting them with the self-service devices, were exhausting to them emotionally and therefore, it would have been helpful, if the task lengths would have been shorter.

”Seeing your daily schedule, that you gave to stay there for like 2,5 hours, then you have a short break and then you stay there for another hour, it is kind of frustrating. And you don’t want to do it because you know you get in contact with all those people and they don’t keep any distance, they touch you all the time, they scream at you, they pull you, they push you and so on. It would have helped to not have to do it so often and doing it for shorter times. Maximum, I’d say 30 to 45 minutes, that would be optimal, I think.” (P8)

”I had to be around the self-service devices around 3 hours per day, often consisting of two halves of 1,5 hours each and it is just a lot when all these people are coming for you, and they all want something from you, and they start touching you and you just need to be at hundred places at the same time.” (P3)

6.1.6 Concerns about the job content and job security

Most of the interviewees were not afraid of immediate job loss due to automation, but acknowledged, that it would take time until the technology would be mature enough to replace the frontline staff completely.

”I felt like we will need less frontline staff in the future, but I still felt like there are enough things that we still have to do. So, I had no fear of losing my job. But I did think that maybe there are going to be less new people or less people will be replaced when older colleagues are leaving.” (P7)

However, most of them had concerns related to the change in the job content and daily tasks.

”The most challenging thing about the change was watching my beloved previous tasks to disappear and dissolve themselves. My concerns were huge. I was concerned about how my job would change and if I could even keep my job.” (P3)

”I was not afraid to lose my job. I was sure that there will still be the need for us, but I feared that our day-to-day work life becomes boring.” (P5)

”They should have listened to the fears of the people more. Not only in terms of job security, but also in terms of, is this still a job that I want to do.” (P1)

The interviewees also noted that the automation of check-in and baggage drop-off has partially shifted the workload to the boarding gates, where the time and resources to solve issues is rather limited. This makes the work at gate more stressful.

”There are a lot of things that used to be done at check-in earlier and are now shifted to the gate, which is a big issue. For example, passengers who are affected by an overbooking and go to the gate and have no idea about it.” (P5)

The employees felt that the concerns about job security would have been hard to eliminate in the beginning and that time was the main factor that helped to overcome the concerns. However, they were hoping that the company would have provided more information how the future of their daily work would look like.

6.1.7 Communication

The interviewees described the communication related to the change as insufficient. They felt that information was provided on too short notice and that there was not enough information, which caused uncertainty and impacted their trust in the management and the company.

"I feel they thought that they gave us enough information, but I also think that they were not aware how much was actually missing." (P1)

"The communication could have been more frequent, and it could have contained more information and it could have prepared us a bit more for what's to come and how to cope with that better. There seemed to be a lot of uncertainty even on the management level and I think we as employees felt that we were part of that big confusion and there was no guided and firm way of doing things." (P3)

The interviewees wished that the communication would have been more detailed, more transparent and provided earlier. Most of them were satisfied with e-mails being the main channel of communication for providing information about the change. However, they would have wished for more visual information about the self-service devices, such as pictures or videos.

The employees agreed that they were offered a way to give feedback, but only via e-mail, which was not the most suitable solution, as their workstations at the check-in and at the gates did not have an internet access. Therefore, they felt that many employees did not provide feedback, although they faced issues with the change. Also, all eight interviewees stated that they felt that their feedback about the change was not heard or taken seriously.

"I had to send them an e-mail during my break or otherwise I would have had to do that in my free time at home. And I did actually, just like many colleagues as well, but I never really got a direct answer to any of my e-mails, so I just had the feeling that my feedback was not heard". (P4)

"They said we can write them an e-mail, but I thought if I don't send the e-mail, it would be the same" (P6)

"They were at least asking us to give feedback, but I don't think that it was taken seriously, at least I never saw any results of any feedback that we gave" (P5)

"We were actually encouraged to give feedback if something would not work, but we never got any feedback for our feedback, if it reached anybody or if anything would change because of it. Nothing changed." (P8)

They suggested that there should have been more responses to their feedback and that it should have been easier to send the feedback, for example by providing access to the internet from the check-in and gate workstations.

6.1.8 Employee participation

All interviewees stated that they did not feel included in the decision making or development of the change.

"They should have included some of the people working in the front in the decision-making. Just maybe do one of those workshops they usually do for different issues. And listen to the concerns of the people who work with the passengers." (P2)

"They should have been listening to us. Listening to the expertise that we have in terms of the daily operations and the problems that arise and how to fix these problems." (P1)

They recommended that they should have been included in the development of the change, because they would have an idea, what would work in the daily operations. They felt that their expertise and experience from the frontline could have been useful for the development of the change and ensuring seamless operations and better passenger experience. Some suggestions for improving the participation included workshops including the frontline employees, employee surveys and interviews.

"They could have done workshops with those working in the front, asking them what they think would work out and what the passengers might want and what they think would make it easier for them. But I felt it was just people who never really work in that scenario, who made all the decisions." (P5)

They felt, that not only would it have helped their adjustment to the change, but also improved the passenger experience for example through a better software design. Also, as mentioned previously, they suggested that there should have been more piloting before the introduction of the new technologies to daily operations. They felt that the employees could have been included to the piloting phase, where several different scenarios should have been tested in order to eliminate or minimise any issues. They felt that the frontline employees could have been a useful asset in this phase.

"They should have included us in the development of the software and the hardware, in what it says on the screen, we would have been a great help, I think, because we would have told them do it like this because we are the ones who are working with it" (P8)

6.1.9 Support and training

All eight interviewees acknowledged that the support from the company was almost non-existing and there was also a lack of training. They described the training as almost non-existing, they received a manual via e-mail how to use the self-service devices, but there was no actual training.

Some of the interviewees felt, that the management did not realise, how big the change was for the frontline employees and what issues they could be facing. Therefore, not enough support was offered.

"There was really little support from the company. But I think the people who planned the change probably went in this project with all good intentions and they knew it worked somewhere else and they had this clever plan how everything should work and then it did not work out that well. There were many things we had to find out ourselves." (P1)

The interviewees stated that they would have needed a support person especially in the beginning of the change to be constantly present at the check-in area in order to deal with possible issues immediately and to provide answers to any questions that appeared during the daily operations.

"I think if there would have been someone responsible for the devices supporting us in the check-in area, then they would have seen what happens at some points and maybe they could have chosen to do something differently." (P8)

The interviewees felt that they were thrown into the new situation with little to no training and had to find out themselves, how the new technologies were working. They criticised especially the fact that it had to happen in front of the passengers.

"I would have liked to have like a testing environment where I can test certain scenarios and try it by myself instead trying it in front of the passenger or with the passenger." (P2)

The interviewees suggested, that at least web-based training or tutorial videos should have been offered. Also, as already mentioned previously, they stated that soft-skill training would have helped them to deal with the passenger resistance towards the new technologies.

"I would have appreciated some soft-skill training, so that we know what we should tell the customer or how we can make them feel more comfortable with the system at least." (P4)

However, the interviewees stated that the company has provided training for the employees for new skills that will be useful for them in the future, when their tasks and job content change. They have for example been offered training in order to switch to other departments and tasks, which helps to improve their job security.

"The whole usage of workforce is changing, and it is becoming more flexible and then there are things like getting training for ticketing service. So, you can rebook people. Or you can go to work in the lounge or arrival services. Stuff like this." (P1)

6.2 Outcomes of quantitative research

In this subchapter the results of the survey will be presented.

In total 135 employees participated in the survey. 121 of them answered that they had started working in the case company after June 2020 and continued to finish the questionnaire. This represents approximately 40% of the target population.

6.2.1 Demographic questions

The demographic questions included four questions, which concerned the gender, age, work experience in the case company and contract type of the participants.

79% of the participants were female and 21% male. 14,1% of them were 20 to 30 years old, 28,9% were 31 to 40 years old, 37,2% were 41 to 50 years old and 19,8% were over 50 years old.

38% of the participants were working full-time and 62% had part-time working contracts.

12,4% of the participants had worked in the company less than five years. 26,4% had started working in the company 6 to 10 years ago, 12,4% 11 to 15 years ago and 9,1% 16 to 20 years ago. 39,7% had been in the company for over 20 years.

The demographic questions were used as comparison tools in closer examination of the findings from the other questions.

6.2.2 Attitude towards new technologies

The participants rated their attitude towards new technologies in general more positive, than their attitude towards the self-service check-in technologies. However, their attitudes towards the self-service devices had improved from the beginning of the implementation to today. Similar result was derived from the interview data. Figure 9 visualises the responses.

16% of the respondents rated their general attitude towards new technologies very positive and 61% positive. 21% chose the option neither positive nor negative. Only two participants rated their attitude as negative and only one person chose the option very negative.

When it came to the attitudes towards the self-service check-in and baggage drop-off in the beginning of the change, only 3,3% of the participants rated their attitude very positive and 23% as positive, which was clearly less than in the previous question. 42% stated that they had neither a positive nor a negative attitude towards the automation. 27% stated that their attitude had been negative then and 5 % rated their attitude as very negative.

Today, already 14% stated to have a very positive attitude towards the self-service check-in and 46% rated their attitude as positive. 22% of the participants felt that their attitude is neither positive nor negative. 15% still had a negative attitude towards the new check-in setup and 2,5% stated that their attitude is very negative.

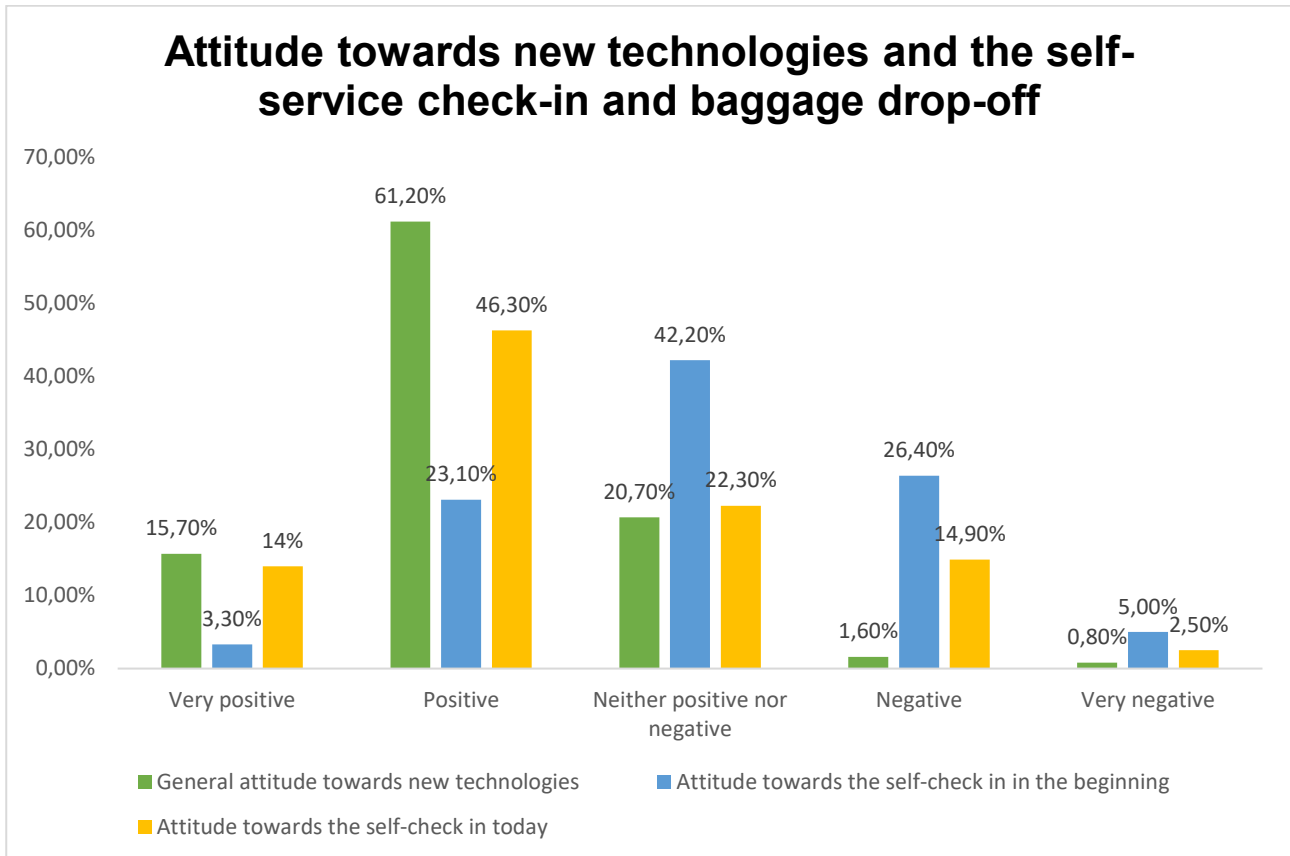


Figure 9. Attitude towards new technologies and the self-service check-in and baggage drop-off

None of the 20–30-year-olds rated their attitude towards self-service check-in and baggage drop-off neither before the implementation nor today very negative. Also, none of them rated their attitude very positive when the implementation was announced and only 6% rated their attitude very positive today.

None of the over 50-year-olds rated their general attitude towards new technologies negative nor very negative. However, 12% of them rated their attitude towards the self-service technologies in the beginning negative and 8% very negative. Today, none of them had a very negative attitude towards the new technologies, but 17% stated that their attitude was still negative.

When compared by work experience, only participants from the groups with work experience up to 5 years and over 20 years rated their attitude very positive when the implementation of the self-service devices was announced. Today, the group with 16 to 20 years work experience had the highest number of votes for very positive.

6.2.3 Impact of the change on daily work and tasks

Only 6% of the participants felt that the change in their daily work and tasks had been very positive due to the automation of the check-in. However, 36% rated their perception as positive. 35% of the participants felt that their daily work has changed neither in a positive, nor in a negative way. 20% felt that there has been a change to negative and 2% felt that the change has been very negative. The results are presented in Figure 10.

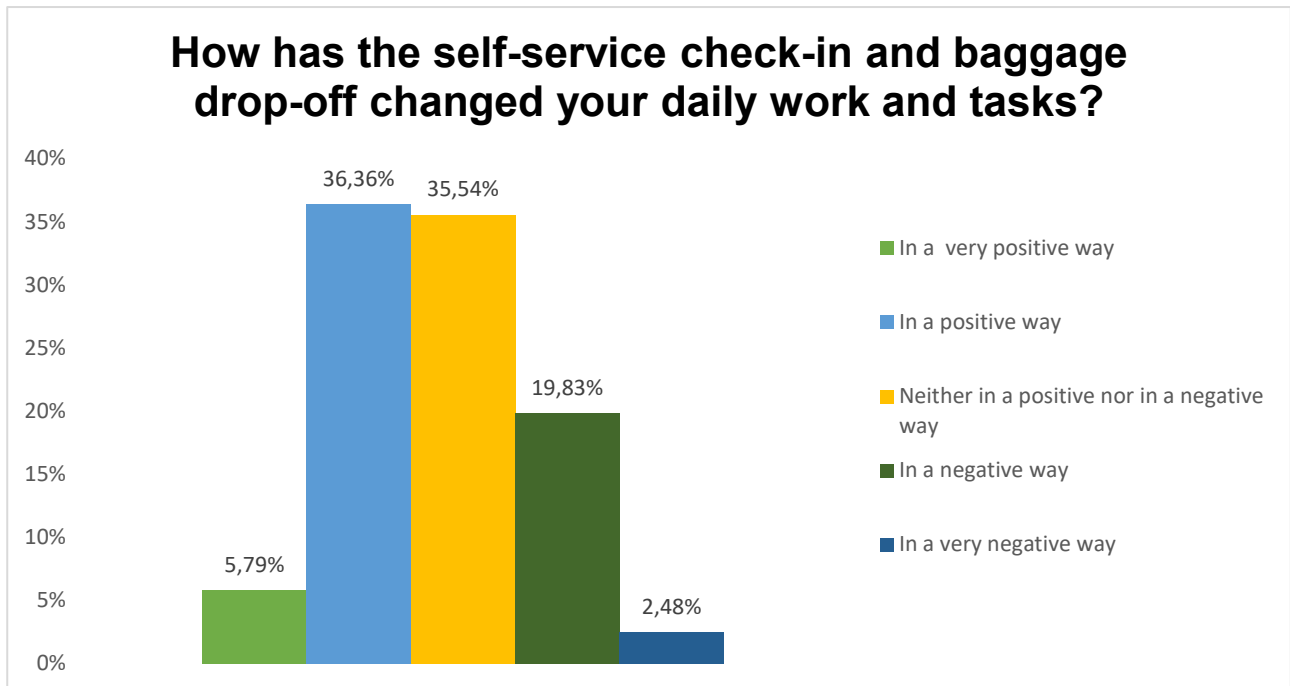


Figure 10. How has the self-service check-in and baggage drop-off changed your daily work and tasks?

When comparing the answers by the age, interestingly the younger employees in the age group of 20 to 40 years old felt more that the change in the daily work and task had changed in a negative or very negative way, while the over 41 years old employees felt that the change had been positive or very positive.

20 % of the employees who had been in the company for up to 5 years, felt that the change in task had been positive, 40% felt that the change was neither positive nor negative and 40% felt that the change had been negative. None of them chose the options very positive or very negative. 3 % of the group of employees with 6 to 10 years work experience felt that the change in daily work had been very positive and 22% chose the option positive. 25% of them felt that the change had been negative and none of them chose the option very negative. Over 50% of those employees who had been in the company for 11 to 15 years felt that the change had been rather positive. 20% of them

rated the change as negative or very negative. 9% of the group of employees with seniority of 16 to 20 years chose the option very positive and 27% positive. Also 27% of them chose the option negative. 9% of them felt that the change had been very negative. The group with the most experience in the company saw the change as quite positive. 10% of them chose the option very positive and 48% positive. Only 12% of them stated that the change had impacted their daily work in a negative or very negative way.

Most of those, who had generally a very positive attitude towards new technologies felt that the change in the daily work had been rather positive than negative. However, over 60% of those, who had generally a positive attitude towards new technologies, felt that the change in the daily work had been rather negative than positive.

Over 80% of those, who felt that the daily work had changed in a negative or very negative way, disagreed or strongly disagreed that their feedback had been taken seriously. From those, who felt that the change in daily work had been positive, only 43% felt the same way about the feedback.

6.2.4 Concerns related to the change

76% of the participants felt that they had the most concerns about dealing with the resistance of passengers. 69% also had concerns about a negative change in passenger behaviour. Nearly 58% stated that they had concerns about technical issues with the self-service technologies. Over 38% were concerned about unattractive tasks. 26% feared that they might lose their job and 13% had safety concerns. 5% chose the option other and left a comment in the open text field. The answers highlighted unattractive tasks, bad usability of the software of the self-service devices, fear of machines replacing human employees and passenger behaviour. Figure 11 illustrates the answers.

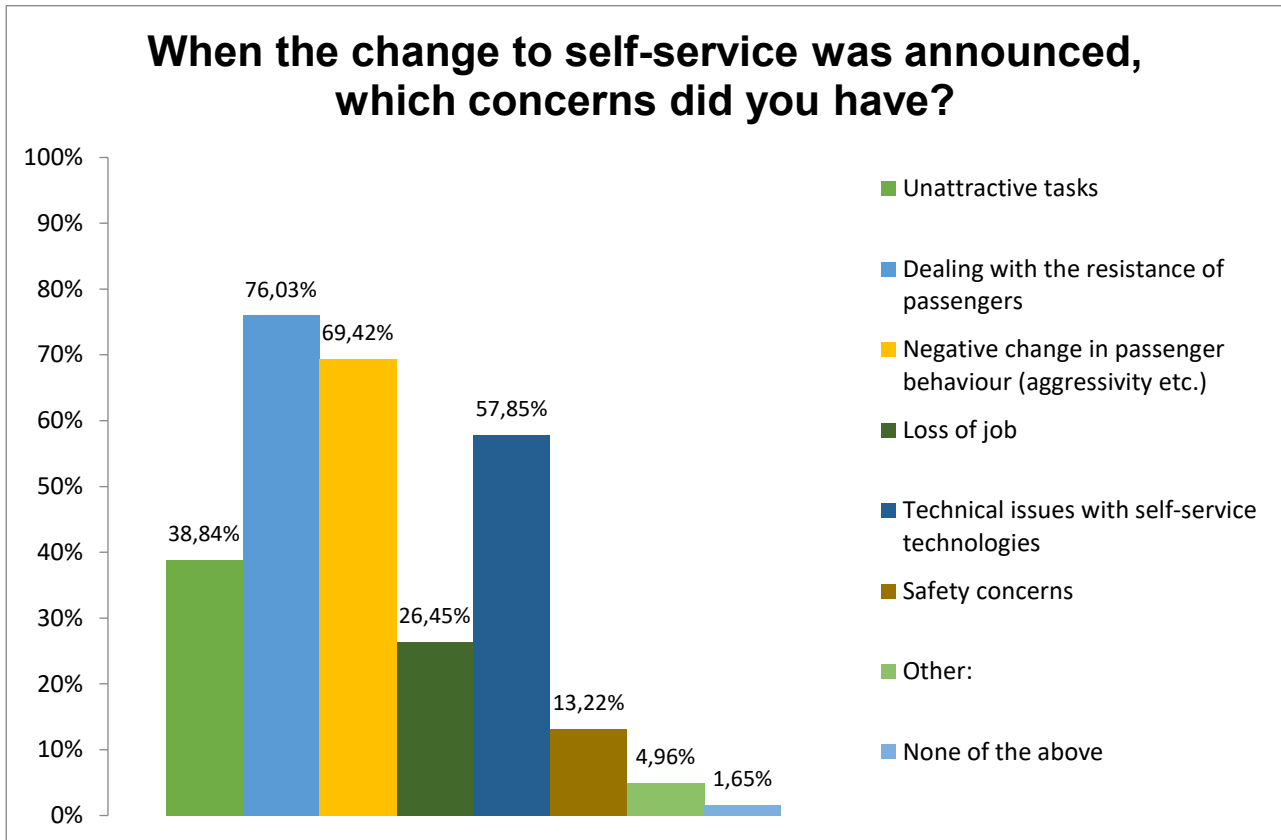


Figure 11. When the change to self-service was announced, which concerns did you have?

Younger employees were more concerned about unattractive tasks, dealing with the resistance of the passengers, negative change in passenger behaviour and technical issues with the self-service technologies. The youngest age group also had the least concerns about job loss, but the 31 to 40 old participants were the ones who were the most concerned about losing their job. They also had most of the safety related concerns. The 1,65% who answered that they did not have any of the mentioned concerns, consisted solely of over 41-year-old participants.

6.2.5 Communication of the change

This question concerned the communication related to the change and the respondents were asked to rate five communication related statements on a Likert scale from strongly agree (1) to strongly disagree (5).

Transparency of the communication was rated on average as 2,9. The timing of the communication received an average of 3,0. The communication channels were rated on average 2,7. The amount of information provided was rated 3,1. The interactivity of the communication received an average rating of 3,3. The responses are visualised in Figure 12.

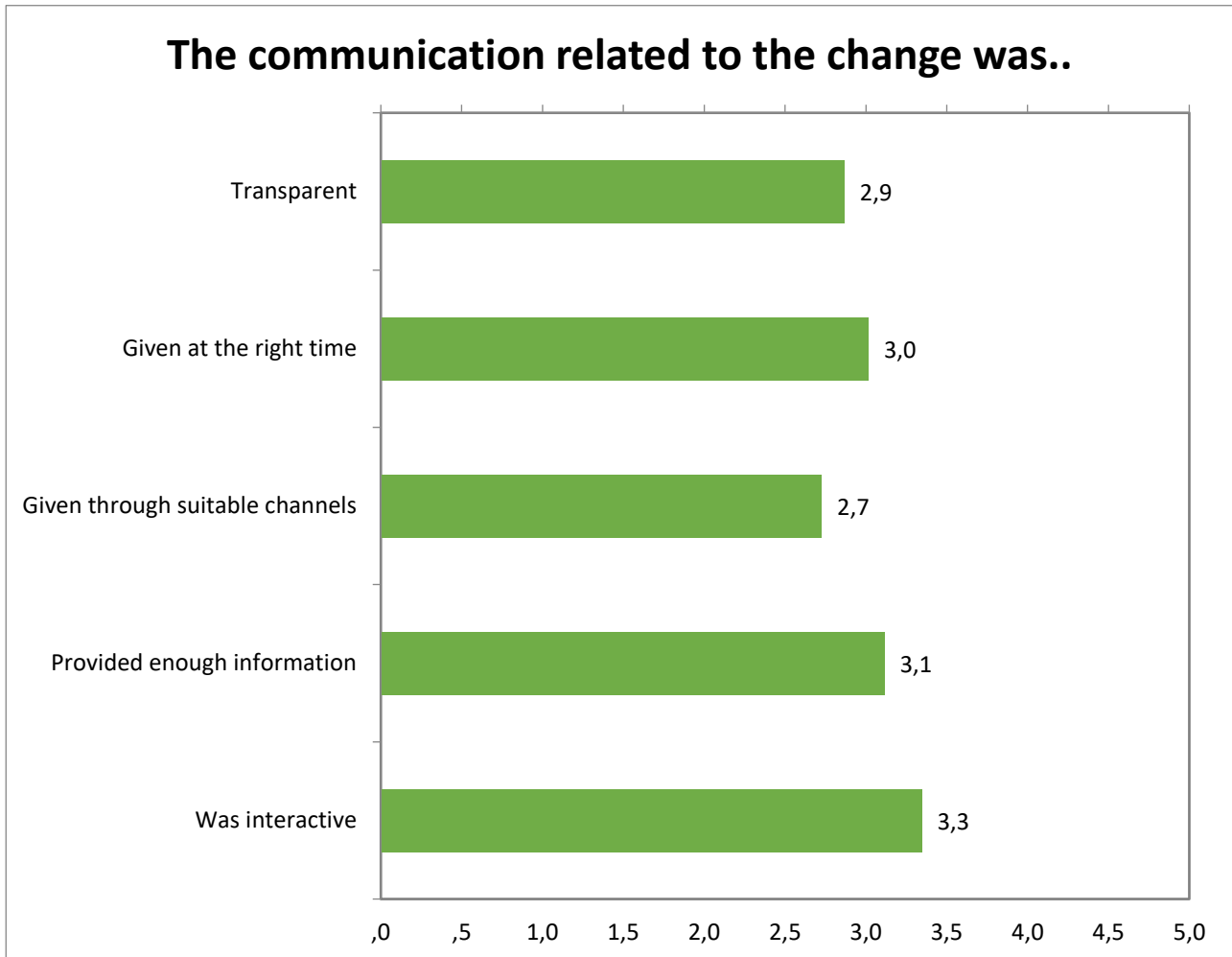


Figure 12. The communication related to the change was...

The answers were very similar in all age groups, however, the 31 to 40 years olds disagreed somewhat stronger in the question concerning the interactivity of the communication.

6.2.6 Feedback

In this question the employees were asked to rate three feedback related statements on a Likert scale from strongly agree (1) to strongly disagree (5).

The statement "I was offered a way to give feedback about the change" was rated with an average of 3,1. The statement "Giving feedback was made easy" received an average rating of 3,2. "I felt that my feedback was taken seriously" received an average of 3,6. The responses are visualised in Figure 13 below.

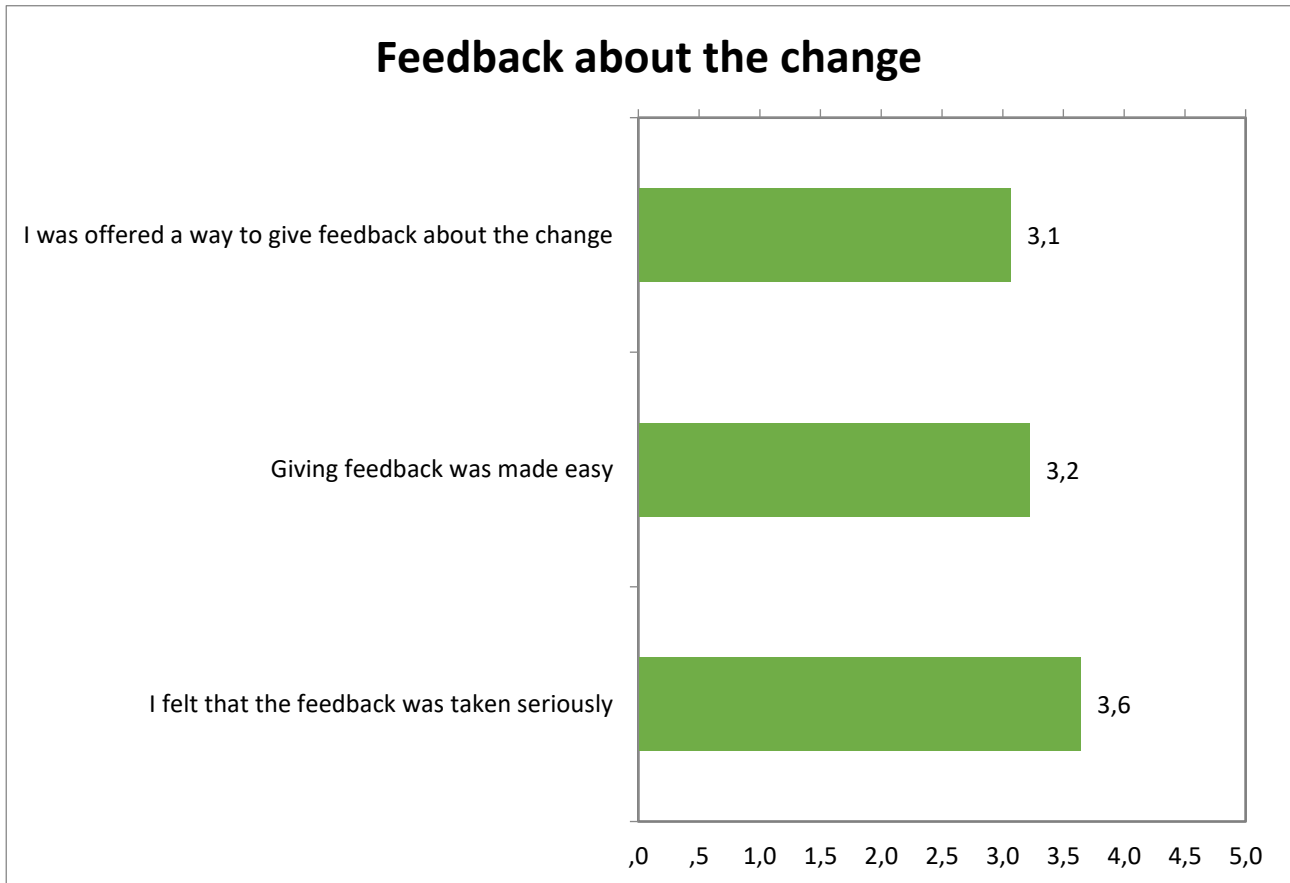


Figure 13. Feedback about the change

There were no big differences between the answers of different age groups.

6.2.7 Development suggestions

Over 80% of the participants felt that improved technologies would have helped them to adjust to the change, so it was by far the most important thing for them. 57% of them felt that shorter task lengths involving self-service devices would have been useful for them. Nearly 49% stated that it would have helped them, if using the self-service would have been voluntary for the passengers. 43% of the participants would have wished for more information about the self-service devices, for example for troubleshooting. Training for facing passenger reactions and a support person available at the check-in area would both have helped 35% of the participants. 28% felt, that being included in the development of the change would have made adjusting to the change easier. 25% of the participants would have wished for improved ways to give feedback about the change. 4% chose the option "Other" and left their input in the text field. They suggested that the passengers should have been informed more about the new check-in process, for example with the help of tutorials. Also, it was clarified that the self-service check-in should be voluntary until the users get used to it. One of the participants also stated, that they did not understand, why the passengers

are offered assistance at the self-service devices, when it is called self-service. The answers can be seen illustrated in Figure 14.

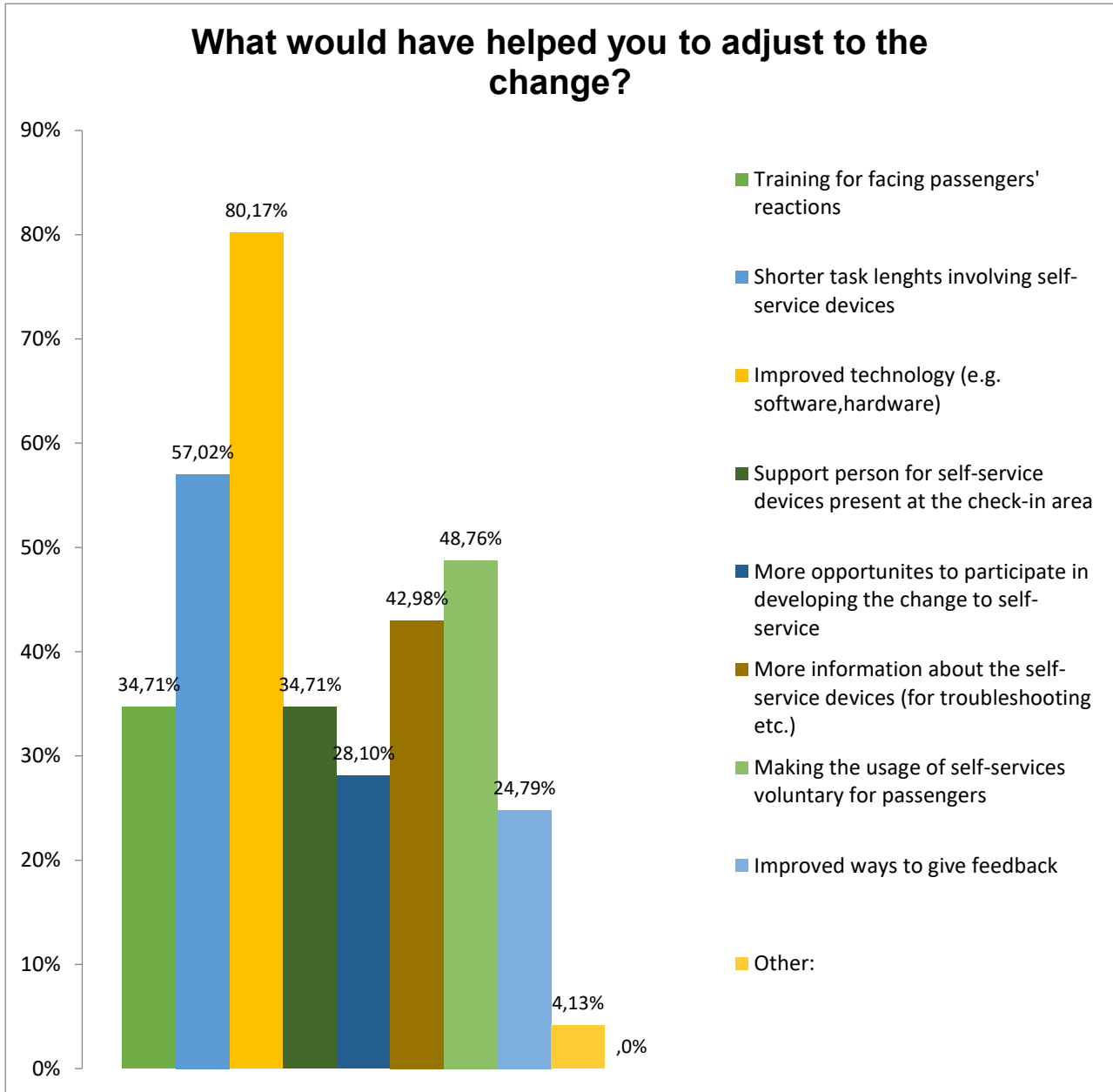


Figure 14. What would have helped you to adjust to the change?

The youngest age group consisting of 20 to 30 year rated shorter task lengths and improved technologies the most important for them, followed by training for facing passengers' reactions and making the usage of self-service devices voluntary for the passengers. The need for support person in the check in area was the least voted option.

The 31- to 40-year-olds felt that improved technology would have helped them the most, followed by shorter task lengths and voluntary usage of self-service technologies. Improved ways to give feedback was the least attractive option for them.

The 41- to 50-year-olds also chose the improved technology to be the most crucial thing for them, followed by shorter task lengths. They would have been much happier about improved ways to give feedback than their younger peers. The least important option for them was having more opportunities to participate in the development of the change.

The over 50-year-olds also voted improving the technology to be the most crucial thing for them, followed by hoping for more information about the self-service devices and shorter task lengths. For them too, improved ways to give feedback was the least attractive option.

When sorted by the seniority in the company, the differences in the answers were similar than when compared by the age group. This is most likely due to similar age groups having in many cases similar seniority in the company. The comparison by work experience in the company is visualised in Figure 15.

What would have helped you to adjust to the change? Sorted by work experience

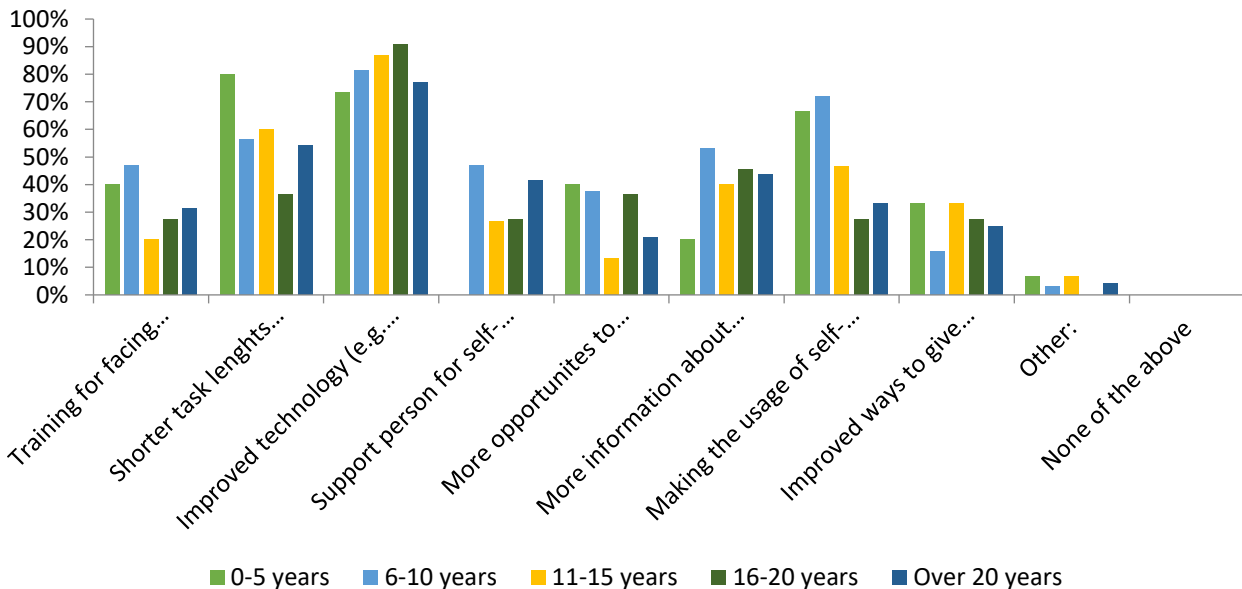


Figure 15. What would have helped you to adjust to the change? Sorted by work experience.

7 Development suggestions

Undoubtedly, there will be new technologies in the future, which will again re-shape the work of the frontline employees in the passenger services. The aim of this thesis is to provide concrete suggestions, how the frontline employees can be supported and helped to adjust to this type of technology-driven change in the workplace in the future. The suggestions are presented below and in the Table 6 and they are based on the interviews, the survey and the theoretical framework.

Issues with the self-service technologies included issues with both hardware and software, which impacted the usability of the devices and led to increased workload for the frontline employees. Testing and piloting phases were also insufficient. Therefore, it is recommended for technology-driven change initiatives, that the software and hardware are improved, including the user interface of the software. Also, more testing and piloting is recommended, and the frontline employees should be included in this step in order to gain unique information and insights in the daily operations and therefore the usability of the technologies.

Dealing with the passenger behaviour related to the change was one of the issues that came up repeatedly. The issues included passenger resistance towards the new technologies, which in some cases led to aggressive behaviour towards the employees and increased the emotional labour needed. Therefore, soft-skill training for the employees is recommended. This training should also include useful phrases and wordings, which the employees can utilise when dealing with passenger resistance. Also, making the usage of the self-service devices voluntary for the passengers is recommended, as it helps to decrease the passenger resistance. Also, as the employees perceived the emotional labour exhausting, it is recommended that the lengths of the tasks involving assisting the passengers with the new technologies are kept short in order to ensure that they are able to cope with the amount of the emotional labour.

Lack of participation opportunities was also seen as an issue. Therefore, it is recommended that the frontline staff is included in the decision making and development of the change. Some options could include for example workshops, discussions, surveys, interviews and including frontline employees in the piloting phase.

Also, it is recommended that the communication is improved in the future. The issues related to the communication included untimely communication, lack of interactivity and lack of information, especially when it came to the new technologies. Therefore, it is recommended, that the communication related to the change should occur earlier and it should provide more information, preferably with the help of videos, pictures and similar visualisations. The interactivity should also be improved for example by offering the employees internet access from their workstations in the front,

which would improve their access to giving feedback. Also, it is recommended, that when feedback arrives, it should be proven to the employees that it has been taken seriously, for example with further communication such as follow-ups.

Table 6. Development suggestions

Issue	Suggestion
Issues with technology <ul style="list-style-type: none"> • Hardware • Software • Lack of testing/piloting 	Improved hardware Improved software Improved usability of the user interface Piloting with various scenarios
Dealing with passenger behaviour <ul style="list-style-type: none"> • Passenger resistance • Aggressive behaviour • Emotional labour 	Soft-skill training including useful wordings when dealing with passenger resistance Making the usage of self-service technologies voluntary for the passengers Shorter task lengths when assisting passengers with the self-service devices
Lack of participation opportunities	Including the frontline staff in decision making and development of the change <ul style="list-style-type: none"> • Workshops • Discussions • Interviews • Surveys • Piloting phase
Communications <ul style="list-style-type: none"> • Untimely communication • Lack of interactivity • Insufficient information about the new technologies 	Communicating changes earlier Offering the employees easier ways to give feedback for example by enabling internet access from the frontline workstations Proving that the feedback is taken seriously for example with follow-ups

Issue	Suggestion
	Providing more information about the new technologies with the help of visualisations such as videos and pictures

8 Discussion

This chapter consists of four sub-chapters, which include summary of the results, discussion about the reliability of the research, research limitations including recommendations for future research and an evaluation of the thesis process.

8.1 Summary of the results

In order to summarise the results, the answers to the research questions are presented in this sub-chapter.

Q1. Which are the key issues the employees currently face or expect to face in the future, concerning the digitalisation of the passenger services?

According to the findings from the interviews and the survey, the employees faced several issues concerning the digitalisation of the passenger services. The biggest issue for them concerned dealing with the resistance of the passengers, followed by the negative change in passenger behaviour due to the implementation of the self-service check-in and baggage drop-off. The third biggest issue was the maturity of the new technologies, including technical issues with the self-service devices, with both software and hardware. Also, unattractive tasks and change in job content concerned the employees. Some of the employees also had concerns about the job security due to the automation as well as safety concerns. The issues were mostly aligned with the literature framework, although the employees did not seem so concerned about the job security as the theoretical framework suggested.

Q2. What kind of support do the employees need from the company in order to adapt to the digital transformation?

The results of the interviews and the survey suggest that the employees would have found it easier to adapt to the change, if the new technology would have been working better. This included improving the usability of the software and the hardware. Improved technology would have made it easier for them to deal with the passengers when assisting them with the self-service devices.

Also, as dealing with resistance of the passengers increased the amount of emotional labour needed for the daily work, they would have appreciated shorter task lengths involving the self-service devices as well as training for facing the reactions of the passengers. Forcing the passengers to use the self-service devices was also an issue, which increased aggressive behaviour towards the frontline employees and could have been minimised by making the usage of self-service devices voluntary for the passengers.

The employees felt that they were not included in the decision-making and that giving feedback was not made as easy as they would have wished. They felt that they could have been useful assets in developing the change as they had unique knowledge about the daily work. Therefore, improved ways to participate in developing the change and giving feedback were requested. Also, they wished that their feedback would have been taken more seriously and that they would have received feedback for their feedback.

The employees also wished for more information about the change and the new technologies which they had to work with. Training and more information about the self-service devices would have helped them to adjust to the new situation. Also, a support person available at the check-in area at all times in the beginning of the implementation would have helped them to gain more information about the new technologies whenever needed as well as provided an uncomplicated opportunity to give feedback about any issues immediately.

The findings are mostly aligned with previous studies, although the importance of usability of the technologies was highlighted in this case study more than in the literature. The reason for this might be, that there were so many issues with the technologies in the case company.

Q3. Which of the possible measures do the employees find the most important?

The results of the survey suggest that the most important thing for most of the employees would have been improved self-service technology. The second most important thing would have been shorter task lengths involving the self-service technologies in order to be able to cope with the reactions of the passengers. The third most important measure, which was voluntary usage of the self-service devices, was also closely related to the exhaustion due to the resistance of the passengers. Therefore, the findings suggest that solutions, which can help the employees to cope with their daily workload and the amount of emotional labour needed, were the most important for the employees.

8.2 Reliability and ethics of the research

Both ethical rules of business life and scientific research are important in development work (Moilanen & al. 2022, chapter 2) Ethical research practices ensure that the participants take part in the research voluntarily and free from any coercion. Research must be designed, evaluated, and managed to ensure quality, transparency and integrity. Participants should be informed about the aim of the research as well as the methods used and how the collected data will be used. Anonymity must also be ensured. (Farquhar 2012, 56) In all phases the research and development work were done in an honest and careful manner. The participants of both qualitative and quantitative research were informed, that the participation is anonymous and voluntary. The anonymity of the

interviews was ensured by storing the transcripts in separate files and by only referring to the interviewees with a pseudonym. In the web-based questionnaire, no data was collected, which would endanger the anonymity of the participants. Bajpai (2018, chapter 7) states that surveys conducted face-to-face might be biased due to the researcher, unlike web-based surveys. Also, perceived anonymity is higher in an online survey. Therefore, the survey was conducted as an online questionnaire.

When conducting interviews, it is important to remember to use familiar and understandable language, allow space for clarifying answers and conducting interviews in neutral grounds in order to ensure reliability of the results. (Farquhar 2012, 74) These factors were taken into consideration for example by testing the interview questions with a former employee first, by using semi-structured interviews, which allow space for follow-up questions and by conducting the interviews in safe and neutral spaces, such as closed conference room and cafés. Also, in order to increase the reliability of the results of the qualitative data collection, a member check was done to ensure that the collected data was analysed correctly, and the main messages of the interviewee were understood correctly.

During master's studies, students often research their own organisations, and, in many cases, they are in management positions, which can impact the relationship of the researcher and participants, as the power of the relationship is unevenly balanced. (Farquhar 2012, 59) However, in this case study this was not an issue as at the time of the research project, the researcher was not in a higher position than the participants.

8.3 Research limitations and recommendations for future research

Previous research was mostly conducted from the viewpoint of customer experience, or it concerned employees in other fields than aviation. There was a lack of data for organisational change in the context of airport, so some of the literature used was benchmarking from other industries, such as retail or hospitality industry. Therefore, the unique environment of airports could not be fully taken in consideration in the theoretical framework.

As there was no commission from the company, not all useful data could be accessed. Also, it was therefore not possible to evaluate the result of the research. Due to the lack of data, it was not possible to use random sampling or other probability sampling methods in the quantitative research. Therefore, voluntary sampling was used. A probability sampling method would have increased the reliability of the results and they could have been generalised to the whole population.

For this research project, a case study method was chosen due to the lack of resources. A larger study including several organisations could be useful in determining, if the issues and development

suggestions are useful in general or if they only apply to the case organisation. Also, comparing two or more organisations could give interesting insights in the issues and what impacts for example the size of the company, leadership style, culture and other factors have on the results.

It would be interesting to research the differences in the perception of the issues and the need of different generations of employees, as they have different experiences, expectations, and skills. Companies do not fully understand the value of multigenerational employees although both employees and customers appreciate multigenerational workforce. (Wilén 2018, 15)

Also, in this research it was found out that there are employees, who switch to another department due to the impact of digitalisation on their daily work. It would be interesting to take a closer look at the employees who have done this or even resigned due to the change and their motivations to do so and what could have been done to make them stay.

Of course, it would also be interesting to test the generated development suggestions in a real-life scenario.

8.4 Evaluation of the thesis process

The thesis project was very challenging, especially because it had been seven years since my bachelor's thesis when I started the master's thesis. However, writing in an academic style became soon easier again when the project proceeded and that was very rewarding to notice. Also, the topic was very interesting for me as an airline employee, so the personal interest helped with finding motivation for the project.

The time management part of the thesis project was especially challenging due to limited time resources due to full-time work and other courses. Also, I feel that I underestimated the amount of time needed for writing the theoretical framework, especially because I thought there would be more previous research related to this topic, which was not the case. The first timetable for the project was quite ambitious, but therefore it also allowed some flexibility when "life happened". Still, the initial deadline for the thesis project was met.

All in all, I am rather satisfied with the results of the thesis, because for me it was important to find concrete development suggestions, not just on a conceptual level, and also to give the employees a possibility to voice their concerns and suggestions. However, next time I would choose to do the development work with a commission of the company, as it would give me access to more data.

For me personally the most rewarding part of the thesis project was collecting data from the interviews and starting to see patterns in the gained data. Also, it was quite interesting to analyse the

results of the survey and create visualisations of the data. I definitely learned the most when conducting the interviews, as this was the first time for me to conduct qualitative research.

Overall, this project taught me a lot and the insights I gained in digitalisation and change management will be useful for me in the future, when there will be new technological solutions impacting my daily work and I hope I will be able to help to support the employees better when the next change comes along.

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Appendices

Appendix 1. Interview questions

Topic	Question
Demographic questions	<p>Age</p> <p>Gender</p> <p>How long have you worked for the case company?</p> <p>Are you working full-time or part-time?</p>
Attitude towards digitalisation	<p>How is your general attitude towards new technologies on a scale from 1 to 5?</p> <p>How was your attitude towards the automated check-in and baggage drop-off when the planned implementation was announced? 1-5</p> <p>How is your attitude towards the automated check-in and baggage drop-off today? 1-5</p>
Change in daily work and tasks	<p>How has the implementation of the self-service check-in and baggage drop-off impacted your day-to-day work and tasks?</p> <p>Is the change positive or negative?</p>
Concerns and issues related to the change	<p>What concerns did you have when the company announced the automation of the check-in process?</p> <p>What concerns do you have today regarding the automation of the check-in process?</p> <p>What was the most challenging thing about the change for you?</p>

<p>Support during the change</p>	<p>How would you describe the support you received from the company during the change from staffed check-in and baggage drop-off to automated self-service?</p> <p>What kind of support would you have wanted during the change from staffed check-in and baggage drop-off to automated self-service?</p>
<p>Clarifying questions</p>	<p>a) Uncertainty</p> <p>Did you have feelings of uncertainty before and during the change?</p> <p>Did you have fears about the change?</p> <p>How could the uncertainty and fears have been avoided?</p> <p>Did you have fear of losing your job?</p> <p>b) Training</p> <p>What kind of training did you get to adjust to the new situation?</p> <p>What kind of training would you have needed?</p> <p>c) New reality of the customer service</p> <p>How would you describe the change the self-service check-in and baggage drop-off has had on the customer experience?</p> <p>How did the behaviour of the customers change due to the self-service check-in and baggage drop-off?</p> <p>Did the company prepare you for the change in interactions with the customers? How?</p>

	<p>What could have been improved?</p> <p>d) Participation in the decision making and in the development of the new process</p> <p>Were you included in the decision making and the development of the change?</p> <p>How could the participation have been improved?</p> <p>e) Digital maturity of the new technologies</p> <p>Was the implementation of the new technologies smooth?</p> <p>Were the new technologies working well from the beginning?</p> <p>What kind of problems have you faced with the technology?</p> <p>What could have been done differently?</p> <p>f) Communication</p> <p>How was the change communicated?</p> <p>How much beforehand were the changes communicated?</p> <p>What communication channels were used?</p> <p>Did you feel that you received enough improved?</p> <p>Were you offered a way to give feedback about the change? How?</p> <p>g) Well-being and job satisfaction</p> <p>Did the change impact your job satisfaction and well-being at work? How?</p>
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	What would have improved your job satisfaction and well-being during the change?
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Appendix 2. E-Mail invitation to the survey

Dear passenger handling team!

I am currently writing my master's thesis and I need your help.

I am researching the topic Self-service check-in and baggage drop-off and its impact on the front-line staff.

Therefore, I kindly ask all employees who have started working in this company before June 2020 to participate in my survey. It takes only 5-10 minutes, and it is completely anonymous. I am truly grateful for your help!

Here is the link to my survey:

Thank you for your support!

Best regards,

Henna Jalkanen

Appendix 3. Questionnaire

I am writing my master thesis about the change from staffed check-in to self-service check-in and baggage drop-off and I am interested in finding out, what can help the frontline staff to adjust to this kind of technology driven change.

The participation will only take 5-10 minutes and it is completely anonymous. If you have any questions about the survey, do not hesitate to contact me: henna.jalkanen@myy.haaga-helia.fi

Thank you for your help!

Best regards,

Henna Jalkanen

1. When did you start working for the company?

- Before June 2020
- After June 2020

2. Gender

- Male
- Female
- Other

3. Age

- 20-30
- 31-40
- 41-50
- 50+

4. Are you working

- Full-time
- Part-time

5. How long have you been working for the company?

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 20+ years

6. How is your general attitude towards new technologies?

- Very positive
- Positive
- Neither positive nor negative
- Negative
- Very negative

7. How was your attitude towards the self-service check-in and baggage drop-off, when it was announced?
- Very positive
 - Positive
 - Neither positive nor negative
 - Negative
 - Very negative
8. How is your attitude towards the self-service check-in and baggage drop-off today?
- Very positive
 - Positive
 - Neither positive nor negative
 - Negative
 - Very negative
9. How has the self-service check-in and baggage drop-off changed your daily work and tasks?
- In a very positive way
 - In a positive way
 - Neither in a positive nor in a negative way
 - In a negative way
 - In a very negative way
10. When the change to self-service was announced, which concerns did you have?
- Unattractive tasks
 - Dealing with the resistance of passengers
 - Negative change in passenger behaviour (aggressivity etc.)
 - Loss of job
 - Technical issues with self-service technologies
 - Safety concerns
 - Other:
 - None of the above
11. The communication related to the change was... (1 strongly agree, 5 strongly disagree)

- Transparent
- Given at the right time
- Given through suitable channels
- Provided enough information
- Interactive

12. Feedback about the change (1 strongly agree, 5 strongly disagree)

- I was offered a way to give feedback about the change
- Giving feedback was made easy
- I felt that my feedback was taken seriously

13. What would have helped you to adjust to the change?

- Training for facing passengers' reactions
- Shorter task lengths involving self-service devices
- Improved technology (e.g. software, hardware)
- Support person for self-service devices present at the check-in area
- More opportunities to participate in developing the change to self-service
- More information about the self-service devices (for troubleshooting etc.)
- Making the usage of self-services voluntary for passengers
- Improved ways to give feedback
- Other:
- None of the above

Thank you for participating!