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Employees' Motivation during a Robotics Process Automation Implementation
A case study of Swedish Municipalities
Master's thesis in Quality and Operations Management

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[Promoting Autonomous Motivation from three Managerial and Employee Perspectives]

Abstract

Swedish municipalities are currently facing the challenge of meeting an increased demand with low increase in amount of resources. The number of persons in Sweden that is in need of the services that municipalities offers is rapidly increasing, however, the possibility to employ is not in line with the incremental requirement. Due to the demographic changes, Robotics Process Automation (RPA) has become a trend within administrative sectors in Sweden since it enables effective handling of repetitive tasks. This solution allows reallocation of resources to activities adding immediate value to the population. The studied literature focus on the organisational benefits of implementing RPA, however, the employees' wellbeing during the process is somewhat neglected. Therefore, in this study, the main focus is employees' wellbeing, in terms of motivation, during an RPA implementation. Four Swedish municipalities that has gone through this automation change process have been studied by interviewing six managers and five other employees. Additionally, four experts within the field have been interviewed.

The study aimed to increase the understanding for how an automation change process should be conducted in municipalities to promote employees' autonomous motivation. The results from the study indicates that there are some aspects that managers should consider. The main areas are the communication strategy, involvement of employees and the uniqueness of every person. Firstly, concerning communication, managers should have an open dialogue with both the group and every individual to give every person the opportunity understand and reflect upon the new situation. Secondly, it seemed essential to involve everyone early and give them opportunity to take an active role in the implementation. Lastly, an essential aspect for managers to consider is that every employee is unique and therefore has different needs during the process. Thus, it is important for managers to know their employees to be able to adjust the leadership style to meet individual demands. Considering these aspects has the benefit of promoting employees' autonomous motivation.

Key words: Motivation, Self-Determination Theory, Autonomous Motivation, Change Management, Automation, Robotics Process Automation, RPA implementation, Employees, Municipality

Contents

Preface

Writing this master thesis has been very interesting and we have expanded our knowledge within the fields of both automation and motivation. The study has been the final part of our education at Chalmers University of Technology and the insights we have gained will be useful in our future.

Many persons have contributed to this thesis and we would like to give them our thanks. First, we would like to express our gratitude to Ingrid Svensson who has been our supervisor at Chalmers University of Technology. She has supported us during the entire journey by providing us with valuable insights and guided us in the right direction. Moreover, we would like to thank our examiner Pernilla Gluch for showing an interest in our thesis and a willingness to help us whenever needed.

Further, we would like to thank Knowit and mainly our supervision Christina Ceasar for the opportunity to conduct this study in cooperation with them. Additionally, thanks to all co-workers at the office that have always been helpful and welcoming.

Finally, we want to express our appreciation to all interviewees that have participated in this study, both everyone working at the municipalities and the experts. We are thankful for the valuable data you provided us with that enabled this study to be conducted.

Josephine Olsson Hjorth & Elin Sturesson, May 2019

Acronyms

RPA – Robotics Process Automation

SKL – Sveriges Kommuner och Landsting (The Swedish Association of Local Authorities and Regions)

SDT – Self-Determination Theory

1. Introduction

The increasing population in Sweden results in increased demand on the services that municipalities offers. However, today, municipalities are facing the challenge to meet this demand with low increase in amount of resources. Due to these demographic changes, Robotics Process Automation (RPA) has become a trend within administrative departments in Swedish municipalities, enabling reallocation of resources to activities adding immediate value to the population. The RPA is able to complete repetitive work tasks previously performed by employees, resulting in other working conditions. This transition can affect employees' wellbeing in terms of motivation (Gagné & Deci, 2005).

Organisations in majority of industries need to cope with rapid changes due to the fast development of technology (Martarelli, 2018). To stay competitive, it is vital for organisations to adapt and utilize the opportunities that this trend provides, resulting in extensive organisational changes (Kotter, 1995). This phenomenon has been a trend for many years, however, during recent years the pace of the development has increased extensively and the tasks that can be automated today were previously thought to require human intelligence (Sveriges Kommuner och Landsting [SKL], 2019a). Thus, nowadays, automation does not only refer to as physical tasks being replaced by machines, instead, automation often means computerising and robotising tasks that need intellect to be completed. For example, thousand years ago, the human body was the only tool used in agriculture, however, as the years passed by, machines replaced the need for human physical effort (Friedel, 2007). Today, automation does not only refer to this physical replacement, rather, activities requiring intellect and reasoning can be performed by a computer.

The public sector is one of the industries moving towards automation. The Swedish population is rapidly increasing, meaning that more persons need the services offered by municipalities. Thus, more employees are required to manage the continuously increasing amount of work that a growing population means. SKL (2019b) states that the number of employees needs to increase with one percent each year to be able to continue working as today. However, this is twice as much as employment is predicted to increase in Sweden during the next couple of years. Thus, new working methods and processes are needed to be able to continue executing the tasks that are required of them. Automation is one possible solution to this issue since it results in decreased costs and increased efficiency (Wihlborg, Larsson, & Hedström, 2016). This makes municipalities relevant to investigate within this context. Therefore, the main topic in this study is to understand how employees' motivation can be encouraged during an automation change process in municipalities.

Changes of this character often impact the employees and their working situation extensively (Fölster, 2014). Since employees are a vital asset in organisations (Gabčanová, 2011), one could argue that it is of great importance to understand how to manage an automation change process in a way favouring their wellbeing. However, to our knowledge, automation is frequently investigated, but the combination of automation together with employees' wellbeing has not been paid considerable attention. Motivation is one crucial factor influencing wellbeing (Gagné & Deci, 2005), thus, the motivation of employees in automation change processes has been chosen as the research area in this study. More specifically, how to promote autonomous motivation, namely promoting the internal motivation resulting from preforming activities that are in line with personal interest and values (Gagné & Deci, 2005).

1.1 Automation

Automation is currently changing the working landscape in most industries as an increased part of working tasks are being automated (Chui, Manyika & Miremadi, 2015). That is, machines and robots will complete tasks, enabling processes to be performed without human interaction (SKL, 2018b). All businesses are facing a future where jobs and work processes need to be redefined. However, there are different opinions regarding how great the potential of automation is (SKL, 2018b; Chui et al. 2015), ranging from 9 to 60 percent (Arntz, Gregory & Zierahn 2016). The reason why there is such a difference in opinions is due to contrasting viewpoints on whether occupations can be automated in their entirety with existing technologies. Arntz et al. (2016) as well as Chui et al. (2015) argue that few jobs have the potential of being fully automated, instead they mean that certain activities will be automated while other tasks still requires human actions.

Technology is developing rapidly meaning that the automating potential is continuously increasing (Chui et al. 2015). Computers and robots can now perform activities that previously were thought to require human intelligence. Nevertheless, the probability that activities will be automated differs between different industries. SKL (2018b) presents numbers suggesting that activities within service, purchasing, transport and production are likely to be automated in the near future. Professions within healthcare and education, on the other hand, will probably not be affected by automation to the same extent. A general statement is however that activities requiring creativity and social intelligence cannot be replaced with today's technologies (SKL, 2018b; Chui et al., 2015; Arntz et al., 2016). That is, humans will continue to be the source of creative ideas as well as handling activities such as negotiating and caring for others (Arntz et al., 2016). Instead, by automating tasks, more time can be used to utilize these capabilities and, therefore, create more value for the organisations (Chui et al., 2015.)

1.1.1 Automation Technologies

Today, many different automation technologies exist, which can all be utilized within different business areas (SKL, 2018b). In this chapter, production robots, Artificial Intelligence (AI) and Robotics Process Automation (RPA) will be further described. In the industry sector, huge cost savings can be achieved by production robots and machines, since employees can be replaced by more effective technological solutions (Wisskirchen, 2017). Unsafe tasks, as well as monotonous physical jobs, can be handled by robots. Additionally, a robot will never have to eat, sleep, or get ill, nor will it have any children. The robot can work around the clock, during the whole year, and employers will not have to pay for pensions nor give any benefits or gifts (Brougham & Haar, 2018).

Artificial Intelligence (AI) is the ability of a machine to perform work tasks that would involve intelligence if performed by humans (Wisskirchen, Biacabe, Bormann, Muntz, Niehaus, Soler & von Brauchitsch, 2017). Compared to most machines in the industry, AI has the benefit of being able to interpret, judge and perform cognitive activities (SKL, 2018b). AI is based on algorithms, a description or instruction for the program to solve a specific task, and with help from big data, the computer can train itself and make conclusions. This is called machine learning. The computer receives a task where it through learning-by-doing understands the desired outcome and its performance is continuously improving.

At the other end of the spectrum of AI, there is Robotics Process Automation (RPA) (CFB Bots, 2018). RPA refers to preconfigured software robots able to imitate work tasks performed by humans (Moffitt, Rozario & Vasarhelyi, 2018). The robot works in the same interface as the existing one and can for example log in, read emails, make analyses and reports. The system is exclusively able to perform pre-

programmed activities, including those requiring using different softwares, but is not intelligent as AI to make own decisions or take other paths than it is programmed to do (CFB Bots, 2018). Therefore, this program does not assist humans but indeed replaces tasks previously performed by humans (Lacity, Willcocks & Craig, 2015). Tasks that are relevant to automate through RPA are well-defined processes that exist in high volume and are repeatable, such as wages and invoicing (Moffitt et al., 2018). The benefits of RPA are cost reduction, increased compliance, improved quality and decreased operation time (Lacity et al., 2015). This technology is increasingly used in Swedish municipalities, which is the empirical setting that is studied in this report.

1.1.2 Automation in Swedish Municipalities

One industry that is going through automation changes is the public sector in Sweden, more specifically, municipalities (SKL, 2019a). Approximately 15 out of 290 municipalities have gone through the implementation of RPA and the number is increasing continuously.

There are great potentials for municipalities to increase their use of modern technologies (SKL, 2018a). This since many of the tasks that are conducted within the municipalities are administrative and has a repetitive character. Errands such as questions, applications and bills are everyday tasks is the public sector. The use of automation of administrative tasks within the public sector is continuously increasing. There is no official constraint from external parties that municipalities have to automate processes. However, an Analyst at SKL (Analyst at the Department of Digitalisation, SKL, personal communication, 12 February 2019) means that public sectors should use their money as effectively and efficiently as possible. Thus, processes that can be performed more productively should be redesigned, by for example implementing RPA. Further, there are a lot of different internal motives why municipalities choose to automate administrative tasks. Some reasons are improving the quality, decrease the number of misunderstandings and to work more effectively. This means that one of the main motives for implementing RPA is to make time for more value-adding activities (ibid). That is activities adding immediate value to the population such as more employees within health and social care.

RPA is appropriate for municipalities to use since it can complete tasks that means using several different systems, which according to an Analyst at SKL, most of the errands handled by municipal functions require. The studied municipalities in this report have in three of four cases implemented RPA in the department of financial aid, where the robot (RPA) works during the night and suggests decisions on actions, which are then evaluated by employees. The implementation of RPA is often an extensive and difficult journey which affects many persons. To further understand the difficulties and common mistakes during the implementation, experts within the fields' experiences has been summarised below.

1.1.3 Implementing Automation in Swedish Municipalities - Experts' experiences

In the following chapter, data from the expert interviews are presented. Experts' within the field mention several issues that often occur during RPA implementation. The CEO at Bitoreq argue that managers rarely understand the extent of the change beforehand, and therefore do not prepare the employees and the organisation itself to the required extent needed. A change of this character affects the organisation, therefore, proper preparations, in terms of research and communication, is vital. Communication is essential when implementing RPA due to the worries it may result in (CEO, Knowit HRM). The CEO at Knowit HRM have further noticed that this is sometimes neglected, resulting in a negative impact on employees' motivation. Furthermore, as mentioned above, one motive for implementing RPA is to make

time for more value-adding activities. However, an issue discussed by the experts is the fact that there is seldom a plan for what value-adding tasks to include when resources are released, resulting in the time is consumed without adding any value (CEO, Knowit HRM; Head of Intelligent Automation, Knowit Insight Norway; Analyst at the Department of Digitalisation, SKL). The last general issue mentioned is the fact that all employees are different, and thus are motivated by different things. This requires managers to understand the employees' motivational factors to encourage them to participate in the transformation, which can be challenging (ibid). An increased understanding of how employees' motivation is affected when their working situation is changed due to the implementation of RPA is needed.

1.2 Purpose

The study aims to increase the understanding of how an implementation process of Robotics Process Automation (RPA) should be conducted to promote employees' wellbeing, in terms of autonomous motivation.

1.3 Research questions

When going through an automation change process, the employees' working situation change to some extent (Wihlborg et al. 2016). Thus, what the persons know, and feel comfortable with, is jeopardized and the future is instead characterized by unknown elements (Smith & Carayon, 1995). Since the employees are an important asset to organisations (Gabčanová, 2011), it is essential to understand how to conduct the implementation to favour them. Thus, the first research question is:

How can an RPA implementation be conducted to promote employees' wellbeing during the process?

To have autonomously motivated employees is beneficial since it results in increased performance and engagement (Deci et al., 2017; Näslund & Jern, 2015). However, since every person is unique, different aspects are promoting motivation for different persons (Söderfjäll, 2012), which indicates that managers need to understand the connection to enable giving everyone fair working prerequisites. Therefore, the second research question is:

Given that everyone has different motivational factors, how can managers create prerequisites for employees to motivate themselves when implementing RPA?

1.4 Delimitations

The focus in this study will be on increasing the understanding of the implementation of RPA, therefore, other types of automation will not be considered. In this study, automation refers to an activity handled by a machine that previously has been handled manually.

Further, the administrator's perspective is considered, namely their feelings and how their motivation can be promoted. The managers' motivation has not been taken into consideration, however, how managers can act to promote employees' motivation is studied. The employees, sometimes mentioned as administrators, are referred to as the persons receiving the applications in the studied departments and making the decision regarding approval or denial of the request.

The cases chosen are four Swedish municipalities with 30 to 100 thousand inhabitants which are all growing in the population (Official Municipality websites, 2019) and are located all over the country.

The studied departments are Financial Aid as well as Wage and Pension service and are chosen due to the matureness of the RPA implementation in the specific departments in the chosen municipalities. A more thorough explanation of the reason for choosing the different municipalities as well as specific case descriptions will be presented in Chapter 2.

2. Case descriptions

Four municipalities having automated tasks within different functions have been examined in this study. The cases were chosen due to their different approaches and experiences within RPA implementation to provide a broad and general understanding of the automation change process. Municipality 1, 2 and 3 have all automated the same process but faced different complications, making them interesting to compare with each other. Municipality 1 was especially interesting to study since it was the first municipality in Sweden implementing RPA and therefore had the longest experience. Municipality 2 was the second municipality and was likewise chosen due to its experience. Municipality 4 was of interest since the municipality differed from the others concerning the pace of the process. Lastly, the reason why Municipality 3 was chosen was that a different task had been automated compared to the other three, enabling the analysis to be less department-specific.

In all municipalities, the implementation of RPA was part of an extensive change project aiming to use resources more efficiently. To enable the RPA implementation, some activates were needed to be conducted in advance. Firstly, a process map was performed to visualise the process and identify unnecessary steps. This enabled to make the process more effective and gave insights for how to program the activity. Secondly, an e-service was implemented which allowed digital applications instead of time-consuming paperwork. The e-service resulted in that the service desk could be removed. These changes caused some employees to decide on resigning since the new work situation meant less personal contact with applicants, something they did not appreciate. Others were also forced to leave since the workload was reduced.

When these activities had been conducted it was possible to implement the RPA. These changes enabled the tasks to be performed more efficiently which resulted in that the responding time for applicants was reduced. The implementation leads to that some municipalities could further decrease the number of employees. In Table 1, details regarding the municipalities transformations are described.

Table 1. Summary of the case descriptions.

Municipality	Department	Task	Number of Employees	Duration
Municipality 1	Financial aid	Application for financial support	10 → 3	24 months
Municipality 2	Financial aid	Application for financial support	16 → 10	15 months
Municipality 3	Wage and Pension Service	Calculating employees final wage	12	12 months
Municipality 4	Financial aid	Application for financial support	5 → 4	4 months

3. Method

A qualitative study has been conducted using literature review and interviews as the main methods since the aim of the study was to gain an understanding of motivational factors when automating. Firstly, general research questions were formulated concerning the initial scope of the project. Then, a selection of municipalities as well as who to interview was performed by gathering information through studying up-to-date publications and talking to experts within the field. After conducting this general study, the potential cases were reduced due to the great number of municipalities that did not fulfil the criteria of being part of the study, such as having the implementation of RPA performed. The next step was to get in contact with the municipalities fulfilling the criterions, whereof four of them gave their consent to participate in the study. To have the municipalities decided upon made it possible to collect relevant data through literature review and interviews. Next, an iterative process of analysing the data and questioning current research started. The relevance of the initial questions was challenged, and the research questions were reformulated as well as more information regarding the subject was collected. Finally, the findings were compiled, and the conclusions were presented.

The steps above corroborate to the ones suggested by Bryman and Bell (2011), however, rather than following them as proposed, some steps were revised. For example, step two and three were performed iteratively until the selection of municipalities was completed, see Figure 1. Then step three was conducted in more detail.
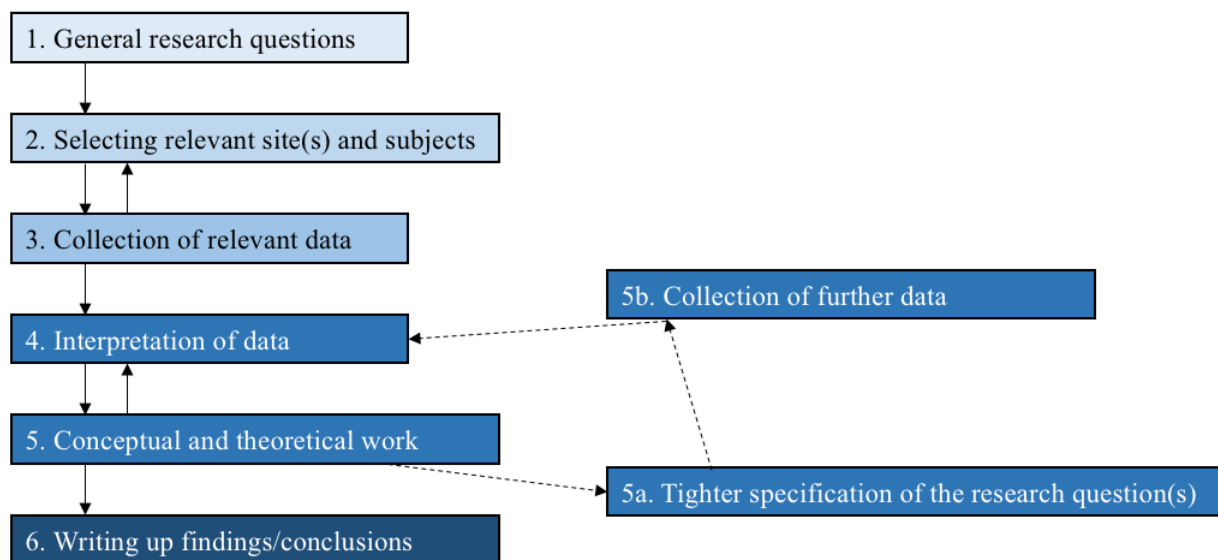
Figure 1. Methodology based on Bryman and Bells (2011) suggested process of a qualitative research.

3.1 Literature review

The literature that worked as the fundamental ground in this report were mainly found through Google scholar and Chalmers library with key words such as *Automation, Motivation, Self-determination theory, Robotics Process Automation, Change Management, Resistance* and *Employees*. Key words were used separately and in combinations as well as in both Swedish and English. Additionally, articles as well as informative texts found on webpages containing technology news were included in the theoretical framework. Experts within the field provided relevant articles and suggested journals that were explored.

In the initial phase of the literature review, a broad literature search was conducted to map existing literature as well as to find gaps within the areas of automation, motivation and change management.

When relevant articles were found, the reference list as well as citation function was used to provide more in-depth information in that specific field. Each article was critically reviewed based on year of publication, journal of publication and authors. In the choice of publications, different criterions were regarded as unequally important depending on the studied area. For automation the year of publication was of importance since the technology was rapidly changing, thus, articles published from 2010 were preferred. In the area of motivation, the objective was to find articles by well-cited authors. Since the studied theories of motivation and change management are still relevant, the year of publication was not considered as important as the authors.

The literature review was continuously examined and developed throughout the project as additional insights were gained through interviews and data analysis.

3.2 Interviews

Interviews with both experts and municipality employees were conducted. Expert interviews were aiming to increase the general knowledge within the field and guide the direction of the study while the employees were interviewed to investigate empirical cases.

3.2.1 Expert interviews

Four persons with different roles and knowledge backgrounds within the field of RPA and change management were interviewed. All interviewees shared their unique experiences and reflections resulting in increased knowledge about cases, potential topics for interview questions and areas which was found to be mainly challenging when implementing RPA. The interviews served as a source for additional insight to the studied literature and a link between theories and observations. These interviews followed an unstructured format and lasted for around 30 minutes. The interviews started with a general description of the studied topic and the interviewees were then asked to share their experiences about the issue. Clarification questions as well as follow up questions were asked when needed. All interviews were conducted by telephone with two researchers present. One researcher focused on asking questions and the other had the main responsibility of taking notes concerning themes considered as relevant for the study. In Table 2, the interviewees are presented.

Table 2. Interviewed experts' role, company and experiences within in the studied field.

Role	Company	Experience within RPA and Change Management
CEO	Knowit HRM	Has been part of change processes when implementing RPA in Swedish municipalities.
Head of Intelligent Automation (Senior Manager)	Knowit Insight Norway	Has been part of change processes when implementing RPA in different companies, both when working for Knowit but also from earlier employers.
Analyst at the Department of Digitalisation	SKL	Studied and complied experiences from municipalities in Sweden who has implemented RPA. Has a supporting function for municipalities planning to implement RPA.
CEO	Bitoreq	Met and supported municipalities implementing RPA during several years. Started a company that offers a technical solution as well as change managers.

3.2.2 Case interviews

Four different municipalities were selected to be part of the study. These were considered as an appropriate group due to their diversity in terms of progress and degree on impact on employees. In each department, one or two managers as well as up to two administrators were interviewed, in total eleven interview were conducted, see Table 3. The reason why both managers and administrators were interviewed was to understand different perspectives of the event as well as gaining insights on coherence between perceived experiences.

The interviews were of semi-structured nature and were performed with employees at the municipalities to enable consistency between interviews at the same time as allowing flexibility (Bryman & Bell, 2011). This technique facilitates the possibility to adopt to emerging topics and to ask follow-up questions. In this way, events, patterns and behaviours were recognized and interpreted.

The method used for creating interview questions followed the guide suggested by Bryman and Bell (2011). Starting with defining the general research area, thereafter, specific research questions were formulated, interview topics were outlined, and interview questions were formulated and reviewed (Bryman & Bell, 2011). The interview questions were based on the main theoretical areas; Kotter's 8 steps, anxiety resulting from change processes and Self-Determination Theory (SDT). The formulation of interview topics and questions was an iterative process where the questions were revised as more information was gathered. Further, two pilot interviews were conducted with researchers within organisational change where novel issues were identified and revised until the final set of questions were determined (Bryman & Bell, 2011). Since interviews were conducted with two different groups, managers/leaders and employees, two different sets of interview questions were formulated. These two sets had some common elements enabling comparing the answers, while other questions were group specific to understand different work situations, see Appendix A, B, C and D.

During the interviews, two researchers were present where one was responsible for asking questions and the other had an observational responsibility. Interviews were conducted through Zoom, a video-based program, and lasted for 40 – 60 minutes. Each interview started with an introduction where information regarding purpose of the study, time limits, confidentiality and general arrangement were presented. The sequence of questions followed a pre-planned order in great extent, however, the interviewee's answers

caused variation. Additionally, all interviews were recorded and the audio recordings were converted into text to support the memory and to enable discovering information not registered during interviews. The conversion of audio into text was performed the same day as the interview or the day after to ensure correct interpretation. Directly after each interview, the most remarkable findings were discussed and written down.

Table 3. The municipality, department and which activity that has been automated as well as the participant's roles

Municipality	Department	Activity	Role
Municipality 1	Financial aid	Handling applications of financial aid as well as making decisions about payments	Manager 1 Manager 2 Employee 1 (Administrator) Employee 2 (Administrator)
Municipality 2	Financial aid	Handling applications of financial aid as well as making propositions about payment decisions	Manager Employee (Administrator)
Municipality 3	Wage and Pension Service	Offboarding - calculating final wage when ending employment.	Manager Employee 1 (Administrator) Employee 2 (Administrator) Process Leader (Manager)
Municipality 4	Financial aid	Handling applications of financial aid as well as making propositions about payment decisions	Development Leader (Manager)

3.3 Data analysis

Bryman and Bell's (2011) and Braun and Clarke's (2006) methodologies for data analysis was the foundation for the data analysis in this study. After each case interview, the written document was read through by both researchers. The most interesting quotes with respect to the research questions were highlighted and comments regarding significant connections were made. Further, the document was then examined again and a second selection of considerable issues was performed. These were written down on post-its, colour coded by municipality with an identification code to enable establishing the right interviewee in a later stage. All post-its were collected on a board and were group together based on common denominators. When the same issue had been identified more than once the group was given a theme name. When possible, the themes were divided into sub-themes. All themes were connected to the literature and the knowledge received from expert interviews.

Thereafter, the themes and sub-themes were revised and the number of themes were reduced. Those post-its with information that did not seem relevant in connection to the new themes and sub-themes were excluded. Thereafter, the final version of the analysis was evaluated and the empirical findings was able to be described. Later, the findings were compared to the studied literature and recommendations were concluded based on the comparison.

3.4 Trustworthiness

Bryman and Bell (2011) argue that using more than one data collection method enables validating the collected data by cross-checking the findings. This is called triangulation and is used in this study through using two different data collection methods; literature review and interviews with both experts and employees working in municipalities. Within the data collection methods, different aspects have been considered to ensure trustworthiness, these will be described below.

To increase trustworthiness of the literature study, some precautions were taken suggested by Bryman and Bell (2011). To avoid misunderstandings and losing the context, it was important to understand to which research area the publications resided in. This was done by carefully choosing search words and having an objective approach when reading literature, aiming to avoid biased interpretations. Further, publications were critically reviewed by considering the year of publication, author and journal of publication. The year of publication and authors were considered differently depending on the topic area, as mentioned earlier. Solely articles in peer-reviewed journals were used. Lastly, primary sources of publications were mostly used to ensure quality. However, when a highly accepted author or article was used, finding the primary source was not considered necessary.

Trustworthiness of interviews was in this study ensured by recording since it decreased the risk of misinterpretation and misunderstanding (Bryman & Bell, 2011). Recording also enabled returning to the original source to support the memory. Lastly, by asking clear questions, that been piloted, and by asking clarifying questions, the risk of misinterpretations of questions and answers were reduced.

To ensure trustworthiness regarding data coding, the recorded interviews were written down into texts within two days after the interview. Additionally, the coding of the written document started as soon as possible as suggested by Bryman and Bell (2011) to prevent losing the context of what had been said and to take sentences out of its context. Further, no interpretations were made at this stage to ensure objectiveness.

3.5 Ethical considerations

Ethical aspects have been carefully considered throughout this project. Bryman and Bell (2011) discuss four different areas involving several issues that are important to take into account during research projects. These are whether there is harm to the participants, lack of informed consent, invasion of privacy and deception (Bryman & Bell, 2011). Firstly, to avoid harming the participants, it was ensured that no interviewee jeopardized their current working position by keeping all respondents anonymous and to a great extent guarantee that it would not be possible to connect a participant to a specific result. This was ensured by making the municipalities anonymous. Furthermore, to avoid participants feeling stress or anxiety as a consequence of taking part in the study the questions were chosen carefully. Also, during the interviews, if there were any signs of inconvenience the questions were adapted to the interviewee. To make sure that there was no lack of informed consent, all participants were provided with enough information to make a decision about their participation both before accepting the request and as an introduction to the interview. Additionally, all interviewees were asked for their permission to record the interview. Further, to avoid invasion of privacy, all participants were told in advance that they were allowed to withdraw from the study at any time or refuse answering questions. Lastly, to avoid deception, the study was not presented as anything other than what it was and what it would be used for.

4. Theoretical Framework

The following chapters will firstly present theories about change management in general followed by concepts regarding change management within automation. Further, motivation theories will be presented, mainly focusing on the Self-Determination Theory.

4.1 Leading People in Change

All industries are facing rapid changes resulting in a need for organisations to continuously adapt to new prerequisites (Martarelli, 2018). These initiatives are challenging and often result in disappointments (Kotter, 1995). One crucial aspect to consider succeeding with transformation initiatives is the individuals in the organization. Change is often associated with feelings such as pain and anxiety (Kotter, 1995; Bovey & Hede, 2001). What that the person knows and feel comfortable with is jeopardized and the future is instead characterized by unknown aspects (Smith & Carayon, 1995). To be forced to face the unknown can cause resistance, which Bovey and Hede (2001) argue is the reason why many transformation initiatives fail. Resistance is a person's effort to delay, alter or stop the change (Waddell & Sohal, 1998; Pardo del Val & Martínez Fuentes, 2003) and may, therefore, create inertia in processes (Pardo del Val & Martínez Fuentes, 2003).

Moreover, low motivation to change is featured as an essential source of resistance. The low motivation has the possible causes in past failures and different interpretations of the need for change between managers and employees (Pardo del Val & Martínez Fuentes, 2003). How people react and perceive modification initiatives is much depending on the personality of the induvial (Bovey & Hede, 2001). Persons seek stability and therefore take on a passive role, Alänge (2018) means that around 80 percent of the workgroup is likely to have this approach. The rest of the group are either against or supportive of the change. Those are the persons that feel a need to act, by actively resisting the change or actively supporting it. It is important to consider resistance and to make an effort to minimize it (Bovey & Hede, 2001) which has been attempted by many authors that have presented models and theories describing ways of coping with change in a successful way (Martarelli, 2018), two of them will be described below.

Lewin presents a model that indicates that change is about unfreezing the current state, changing and then refreezing (Schein, 1996), see Figure 2. Thus, to succeed with such an initiative, firstly, a process of unlearning must be undergone, followed by a procedure of relearning before refreezing the new state.
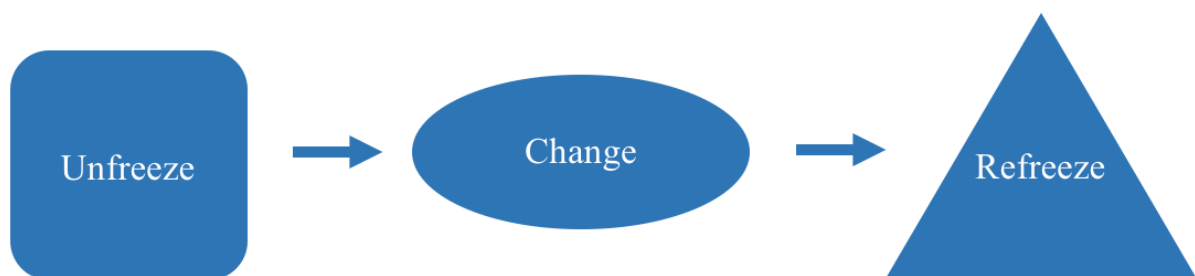
Figure 2. Lewin's change model (Schein, 1996).

Kotter (1995) presents eight critical success factors to consider when dealing with change, see Figure 3. The success factors are; establishing a great sense of urgency, forming a powerful guiding coalition, create a vision, communicating the vision, empowering others to act on the vision, planning for and creating short-term wins, consolidating improvements and producing still more change, institutionalizing new approaches. He argues that to succeed, these eight steps need to be followed in

sequential order (Kotter, 1995). Moreover, Schein (2002) discuss the concept of learning and survival anxiety. He argues that change and relearning often is associated with anxiety and is something that most persons try to avoid. The anxiety prevents learning from happening as long as the feeling of survival anxiety does not exceed it. Thus, to accomplish a transition, one must feel that the option of not changing will have undesirable consequences.

Step 8: Institutionalizing New Approaches

Step 7: Consolidating Improvements and Producing Still More Change

Step 6: Planning for and Creating Short-Term Wins

Step 5: Empowering Other to Act on the Vision

Step 4: Communicating the Vision

Step 3: Creating a Vision

Step 2: Forming a Powerful Coalition

Step 1: Establishing a Sense of Urgency
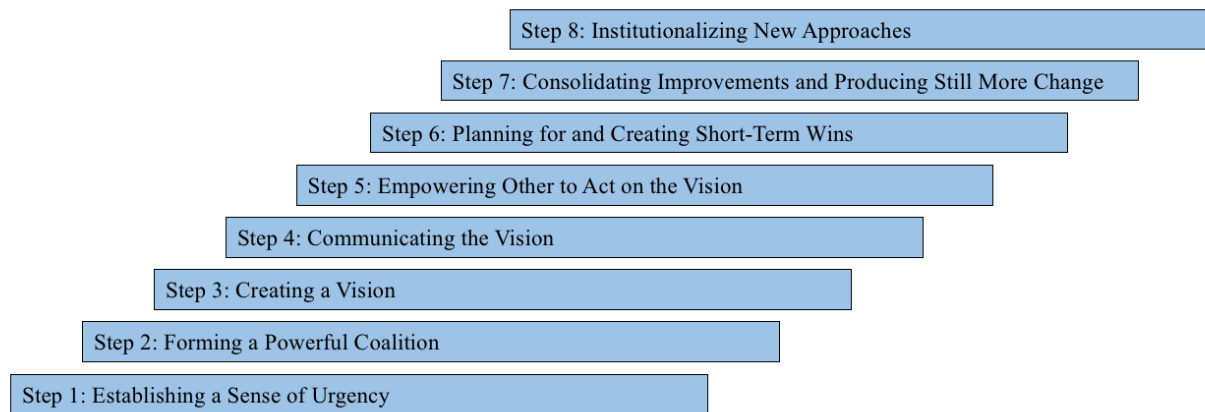
Figure 3. Kotter's 8 steps to transforming an organisation (Kotter, 1995).

Schein and Kotter mean that change processes have different stages which involve critical elements (Schein, 1996; Kotter, 1995; Coutu, 2002). Manage transitions is time-consuming and cannot be accelerated by skipping stages. One can argue that transformation is about going through three different phases, namely an initial phase which occur before the change is implemented, an executing phase where the transformation is happening and a final stage aiming to establish and maintain the change in the long term. In this report, the stages have been divided as in Figure 4. Implementing RPA is often an extensive transformation, thus considering general change management is of great importance while implementing RPA (Smith & Carayon 1995). Therefore, the following chapters will first discuss critical considerations within change management before more specific issues concerning automation change processes will be reflected upon.

Before Transformation	Transforming	After Transformation
Lewin: Unfreeze	**Lewin:** Change	**Lewin:** Refreeze
Kotter: 1. Establishing a Sense of Urgency 2. Performing a Powerful Guiding Coalition 3. Creating a Vision 4. Communicating the Vision	**Kotter:** 5. Empowering Others to Act on the Vision 6. Planning for and Creating Short-Term Wins	**Kotter:** 7. Consolidating Improvements and Producing Still More Change 8. Institutionalizing New Approaches

Figure 4. The change process described by Kotter (1995) and Lewin (Schein, 1996).

4.1.1 Before Transformation

Kotter's first four steps can be considered as beneficial to conduct before the transformation starts. The first step covers identifying potential crisis to create a sense of urgency to change (Kotter, 1995). Without people having a feeling of urgency, there will be no motivation for the change. Additionally, talking about the need for change as often as possible and through several sources may increase employees' progressing the upcoming event (Appelbaum, Habashy, Malo & Shafiq, 2012). Kotter's second step is about building a powerful guiding coalition that can lead the change and encouraging them to work as a team (Kotter, 1995). If the coalition is not powerful enough, the risk is that there will be an opposition group preventing the transformation. Thirdly, for a change to be successful, a vision of the future needs to be developed to allow communicat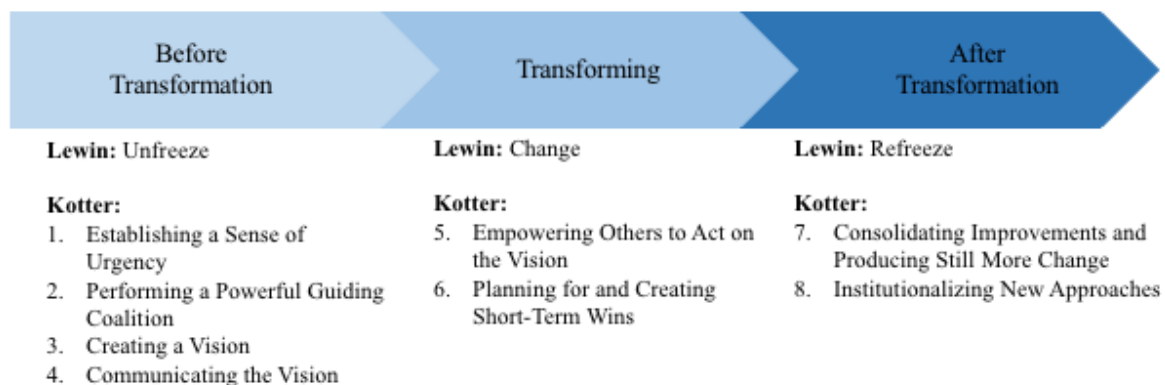ion to stakeholders as well as strategies on how to achieve the vision. If the vision is not clear enough, the change effort can quickly become confusing and inconsistent. The fourth step is about communicating the vision through all existing channels. An effective way is for the manager to become a living symbol for the new vision and being consistent in what is said (Kotter, 1995). Continuous communication between managers and employees increase the positive feeling and allows employees to feel greater involvement (Appelbaum et al., 2012).

Schein (1996) and Schein (2002) are aligned with Kotter's (1995) theory, before the process starts, it is essential to create a feeling of dissatisfaction with the current state and a sense that change is vital. Further, it is essential to get a group of people to agree on that a change is needed and to create an environment where change is encouraged (Hirschhorn, 2002; Schein, 1996; Kotter, 1995; Schein, 2002). The differences arise in the fact that Kotter (1995) highlights the importance of creating and communicating a vision, while Lewin's model instead focuses on creating a safe environment where learning is facilitated and guidance available (Kotter, 1995; Schein, 1996). According to Schein (2002), learning is coercive, either one has no choice or finds it painful to replace knowledge with something new. Schein (2002), as well as Lewin, indicates that there are two anxieties related to change, survival anxiety and learning anxiety. Schein (2002) means that learning anxiety arises in fear of the new tasks to be too difficult. On the other hand, the feeling that if one does not change, the needs and goals will not be met, is called survival anxiety (Schein, 1996). Schein (2002) means that survival anxiety needs to be higher than learning anxiety for the change to happen. To overcome the anxieties, Lewin suggests that psychological safety should be created, by for example working in groups, relieving pressures and creating environments where failure is accepted, learning is inspired and coaching is provided.

4.1.2 Transforming

During the transformation from the current state to the future state, Kotter's fifth and sixth step is applicable. The fifth step is about entitling others to work according to the vision, that is to eliminate obstacles for change. Appelbaum et al. (2012) argue that to accomplish that, communication, as well as training, are vital elements. Kotter's sixth step is planning and creating short-term wins. If not showing evidence on successful performances, there is a risk that persons might become resistant to the transition.

According to Lewin, the transformation is about cognitive restructuring (Schein, 1996). Cognitive restructuring means taking in new information with the effect of learning. When a person is in an unfrozen state and, therefore, motivated to change, the person can see or hear things from a new angle (Schein, 1996). Fundamental to the transformation process is to identify those who had gone through the cognitive shift and use them as role models for new behaviours. To enable this learning process, Schein (2002) argues that an open and trusting environment is required.

4.1.3 After Transformation

After going through a protracted and challenging transformation, most people are eager to put an end to the change and start celebrating after signs of progress. (Kotter, 1995). However, Kotter (1995) means that this is a common and critical mistake. Since as soon as there are indications that the change has come to an end there is a risk that the transformations stop and that old habits return. Instead, the change should continue until both structures and systems are in line with the vision. The final step that Kotter (1995) presents is about adapting the organizational culture to the change. Thus, new ways of working should be rooted in the company's norms and shared values, something which Lewin and Schein also emphasise (Schein, 1996; Schein, 2002). Schein (1996) further argues that as long as the bigger group of people has not modified their behaviours, there is an imminent risk that everyone will fall back to old habits. Thus, to succeed with refreezing new behaviours, the entire group or organization must relearn. Kotter (1995) means that managers need to help employees by showing the positive effect on the new way of working, such as improved performance. This is important since people in the organisations might otherwise create incorrect connections and, thus, do not understand the positive impact that the change has meant. In addition, Appelbaum et al. (2012) argue that for the change to sustain, different sources of communication must be used.

After having presented critical issues in general change management theories, a more thorough description of automation change processes will be presented in the next chapter.

4.2 Implementing Automation

Implementing RPA is favouring the organisation in the aspect of potentially enabling more resources for creative activities rather than routine tasks, which is often appreciated by employees (Asatiani & Penttinen, 2016). However, RPA implementation can cause employees to feel stressed and anxious. Implementation of new technology often results in a great deal of uncertainty and questions concerning the future which can be a genuinely fearsome feeling (Smith & Carayon, 1995). One common concern for employees is that the robots compete for their work. Additionally, employees may fear that they will not be able to develop the skills required to handle the changed work specifications (Smith & Carayon, 1995).

Introducing a digital co-worker, as in the case of RPA, results in new relationships and roles, as well as a need for new competencies (Wihlborg et al. 2016). Necessary is that affected employees have the possibility to develop relevant skills, allowing them to manage more complicated and creative tasks. In a case study conducted at a radio and television program production, it was found that when automating, specific and routine tasks are often replaced by vague tasks (Rintala & Suolanen, 2005). Changes in work tasks can raise doubt in the amount of workload and future employment. With more vague work tasks, the need for information processing is increased resulting in a greater feeling of stress. Correspondingly, a sense of lack of confidence, insecurity and fear could appear. Therefore, introducing automation should be handled in accordance with individual abilities and motivation, and relevant training should be provided (Rintala & Suolanen, 2005). Smith and Carayon (1995) mean that this aspect is often neglected, causing employees to feel incapable of performing a good job resulting in decreased confidence. SKL (2018b) means that it can be challenging for organisations to educate previous routine workers to achieve higher skilled tasks. As an alternative to investment in training, some organisations choose to hire new people that already possess the required skills (Smith & Carayon 1995).

Since there are many critical elements associated with RPA implementation, previous research regarding the process will be presented below. This is to examine possible success factors when going through the change.

4.2.1 Suggested Strategies for Implementing Automation

Earlier studies of automation in the public sector highlight recommendations on how to successfully implement RPA with respect employees (SKL, 2018a). First, it is essential to have proper preparations where the purpose, benefit and cost are established as well as a communication plan. Moreover, it is important to have the right competencies and to establish a process owner who is in charge of the development. SKL (2018a) focuses on the importance of preparing and engaging the co-workers and to communicate that roles might be changed. Further, Smith and Carayon (1995) present how to successfully implement new technical solutions. They mean that it is fundamental that managers and other stakeholders are committed and that there is a clear and outspoken plan for the change. They pinpoint the importance of communication and employee involvement in the transformation. To include the workers in the process has positive effects such as increased motivation and an opportunity to utilize the employees' knowledge and experiences. Since those who work with a specific task often has in-depth knowledge about the process, their insights are useful in the change process. What further supports the argument to involve employees is because there is an enhanced possibility that they will accept the new way of working (Smith & Carayon, 1995).

According to C. Strindmark (CEO, Knowit HRM, personal communication, 8 February 2019), one common issue when implementing RPA is the lack of a plan for what value-adding tasks to introduce after the change process. This problem is related to Parkinson's law, which will be described below.

4.3 Decreased Workload due to Change Initiatives

In 1957, Cyril Parkinson stated with his first law that "*work will expand or contract to fill the time available for it*" and indicates that the work will be conducted during the time allowed (Peters, O'Connor, Pooyan & Quick, 1984; Bryan & Locke, 1967). The phenomena illustrate that the speed for a specific task will be adjusted to fit the allocated time. This further means that employees are not likely to make a more considerable effort than is required to complete a task during the available time (Peters et al., 1984). Parkinson states that the number of employees increases due to managers trying to expand the number of subordinates or the fact that officers create tasks to each other (Forssell & Ivarsson Westerberg, 2000).

People are likely to adapt their effort level to what they are striving to accomplish (Peters et al., 1984; Bryan & Locke, 1967). Therefore, the performance does improve with higher time pressure. However, there is a limit, employees working in long-term stressful conditions perceive a reduced level of performance as well as motivation. Therefore, it is important for managers to estimate the time needed to accomplish a task to ensure that the goals are set on an appropriate level (Peters et al., 1984). The performance is not solely dependent on available time, aspects such as person's perception of the task, own values and how familiar the person is with the task also has a significant impact (Bryan & Locke, 1967). Therefore, it is important to get an understanding of a person's individual goals and intentions to be able to find the right personal reward (Bryan & Locke, 1967).

One of the areas of which Parkinson's law can be applied is in administration. Administration is a growing phenomenon in the public sector and is increasingly using technological solutions (Forssell &

Ivarsson Westerberg, 2000). Administration often refers to tasks related to governing, coordination, controlling and by other means supporting the management of products and services. The result of administrative work is referred to as an increased number of papers. If there is a goal of doing a specific number of tasks for one day, and that quote is almost fulfilled, the pace of the rest of the tasks will be slower, and vice versa (Bryan & Locke, 1967). Moreover, office worker often finds it difficult to estimate the time spent on specific activities since the work tasks generally are interrupted, not performed in a particular sequence and variates from day to day (Hartley, Brecht, Pagerey, Weeks, Chapanis & Hoecker, 1977). Employees are fully capable of describing what activities are performed, but less to outline the time spent on one specific task.

Correlating to Parkinson's law, Jochimsen (2009) suggests that the service quality will not benefit from either an increased number of employees nor increased time. Expanding the staff has the consequence of aggravating the task without leading to improved result for the customer. This since a higher number of persons not necessarily leads to a better outcome but rather that resources will be consumed without adding value. Therefore, to increase efficiency, managers should encourage employees' motivation rather than expanding the team.

Since this study focuses on the employees, and more specifically their motivation during the change process, a more thorough evaluation of the topic will be presented in the next chapters.

4.4 Motivation

The word motivation originates in Latin's *movere*, which means "to move" (Kroth, 2007). Motivation can, therefore, be described as how to make someone act, thus create movement (The Center for Self-Determination Theory, 2019). Söderfjäll (2012) defines motivation as *"Basically, motivation is about energy for action. That is what drives a person to act. Therefore, motivation is foremost about what gives energy for behaviours, but it is also about the directions of those behaviours. "*(Söderfjäll, 2012, p. 13). However, motivation has been described by many authors and their definitions vary (Kroth, 2007).

In this report, motivation will be referred to as the degree to which the needs of competence, autonomy and relatedness encourages performance, wellbeing and engagement. This definition originates from the Self-Determination Theory which will be described later in this chapter. However, to understand the theory, the two concepts extrinsic and intrinsic motivation needs to be described.

4.4.1 Extrinsic Motivation

Extrinsic motivation is based on external incentives, such as pressure from others or an aspiration for something, for example a reward (Näslund & Jern, 2015). Examples of external motivational factors could be status or money (Kroth, 2007). Therefore, an extrinsically motivated person only performs when offered something in return. The personality of an individual determines what factors that motives the most. In organisations focusing on extrinsic motivation, control and reward-systems are common elements.

4.4.2 Intrinsic Motivation

Intrinsically motivated persons perform activities because they find them pleasurable and interesting (Kroth, 2007). It can be exemplified by children playing since they are engaged in activities without getting any reward (Deci, Olafsen & Ryan, 2017). The interest and enjoyment deriving from doing the activity is the reward itself. For adults, the same experience often comes from sports activities, but also at the workplace. High-quality performance and wellness are factors positively related to being intrinsically motivated (Deci et al., 2017). To encourage intrinsic motivation tasks should be adapted to meet personal interests. However, as for extrinsic motivation, it can be challenging to understand which tasks will result in intrinsic motivation since every person has individual needs and interests (Kroth, 2007).

4.4.3 Self-Determination Theory

Self-Determination Theory (SDT) is a motivational theory based on intrinsic and extrinsic motivation (Gagné & Deci, 2005; Deci et al., 2017; Näslund & Jern, 2015). However, what distinguishes this theory from others is the division of extrinsic motivation into four different regulations, where the degree of controlled motivation decreases and the degree of autonomous motivation increases. To increase performance, wellbeing and job satisfaction, autonomous motivation is vital while controlled motivation can result in opposite reactions (Gagné & Deci, 2005). Fundamental to SDT is that motivation is not additive, it is not the amount of motivation that matters but rather which type of motivation it is. Further, persons will not feel autonomously motivated if the three basic needs; competence, relatedness and autonomy are not fulfilled, these will be described later.

4.4.3.1 Autonomous and Controlled Motivation

Fundamental to SDT are the concepts of autonomous motivation and controlled motivation (Gagné & Deci, 2005). Deci et al. (2017) argue that *"autonomous motivation is characterized by people being engaged in an activity with a full sense of willingness, volition, and choice"* (Deci et al., 2017, p. 20). Therefore, autonomous activities are relying on intrinsic motivation. Thus, acting according to personal values and doing activities due to individual interest and goals, that is, motivation coming from inside. Näslund and Jern (2015) argue that to give people freedom instead of controlling and pressuring them often result in a higher degree of this type of motivation. Further, persons that feel as they are in charge of their tasks and are acknowledged by those around them are more likely to have more autonomous motivation. There is a great incentive to increase employees' degree of autonomous motivation as it results in better performance, wellness, engagement, increased learning ability (Deci et al., 2017; Näslund & Jern, 2015), endurance, creativity and ethical considerations (Söderfjäll, 2012). An autonomously motivated person is also likely to feel happiness and a reduced level of stress at work (Söderfjäll, 2012). Additionally, if the activity has a clearly stated purpose, a person tends to have greater endurance when performing the task since it seems meaningful. Having autonomously motivated employees decreases the personnel turnover and results in less absence due to sickness. The reason for the many positive effects of having autonomously motivated employees lies in the fact that an autonomously motivated person finds the activity itself rewarding, and not just the satisfaction of having performed the activity. The activity is in line with personal values and is perceived as fulfilling a higher purpose.

In contrast to autonomous motivation, controlled motivation is constrained by external forces, which means that the motivation is based on pressure from others and often involves reward systems or power

dynamics (Deci et al., 2017). When exclusively controlled motivated (Deci et al., 2017), there is no incentive to do more than is needed and the person will most likely quit performing the task as soon as the rewards are excluded (Svensson, 2018). This results in a lack of work engagement and decreased performance. When controlled motivated, the human brain seems to focus on the reward, such as the wage, rather than on the problem itself (Söderfjäll, 2012). The reward is often a payment, but the controlled feeling can also be a result of managers communicating by statements such as "you should" or "you must". Moreover, a person being controlled motivated have a higher probability of cheating or of taking shortcuts since the motivation lays in being able to receive the reward rather than to keep an ethical approach. The shortcut then makes the person achieve his or her goal at a faster pace than if solving the problem considering ethical aspects (Söderfjäll, 2012).

Whether a person feels autonomously motivated or controlled motivated depends on the situation, the importance lies in which motivation is outweighing over time (Söderfjäll, 2012). However, personal characteristics affect to what extent a person tend to be autonomously motivated or controlled motivated. These personal characteristics are depending on the autonomous orientation, controlled orientation and impersonal orientation. Autonomous orientation is a person's general autonomous attitude, meaning that a person does not feel pressure from external sources or the surrounding, instead feels like the surrounding is supportive. Controlled orientation refers to the feeling of being controlled by the surroundings, that is feeling like having to think, act and feel in specific manners. Lastly, impersonal orientation is a feeling of generally having a lack of motivation, and that the surrounding indicates disability to perform tasks. The presence or absence of these three orientations within different persons result in that some individuals tend to feel more autonomously motivated than others. Furthermore, it indicates that different persons within the same team and with the same manager have different attitudes towards the same task due to the different motivational orientation (Söderfjäll, 2012).

4.4.3.2 Regulations

According to Gagné and Deci (2005), extrinsic motivation can be shown in a sequence where the amount of autonomous motivation is increasing. The first regulation is called *external regulation* and is characterized by a high degree of controlled motivation and the activities are often initiated externally. The activity is exclusively performed to obtain the desired consequence, such as wage, or to avoid an unwanted outcome. Secondly, *introjected regulation* is achieved when internalized from external regulation, that is the process of not only perceiving the motivation as extrinsic but instead seeing the value in performing the activity. Introjected regulation can be identified by contingent self-esteem and ego involvement, that is acting to achieve a feeling of worthiness. Therefore, introjected regulation is associated with controlled motivation (Gagné & Deci, 2005).

Identified regulation and *integrated regulation* are characterised by a higher degree of autonomous motivation. Identified regulation is characterized by individuals behaving according to their self-selected goals (Gagné & Deci, 2005). The behaviours are in line with personal goals and identities and therefore, individuals experience greater freedom and volition. The final level of extrinsic motivation is integrated motivation. This type of extrinsic motivation is based on acting according to personal characteristics and the activity has a high degree of importance for personal goals. The four mentioned regulations are categorised as extrinsic motivation, see Figure 5. Intrinsic motivation is entirely

autonomous and activities are performed only due to personal interest and are performed even though there are no external rewards (Gagné & Deci, 2005).
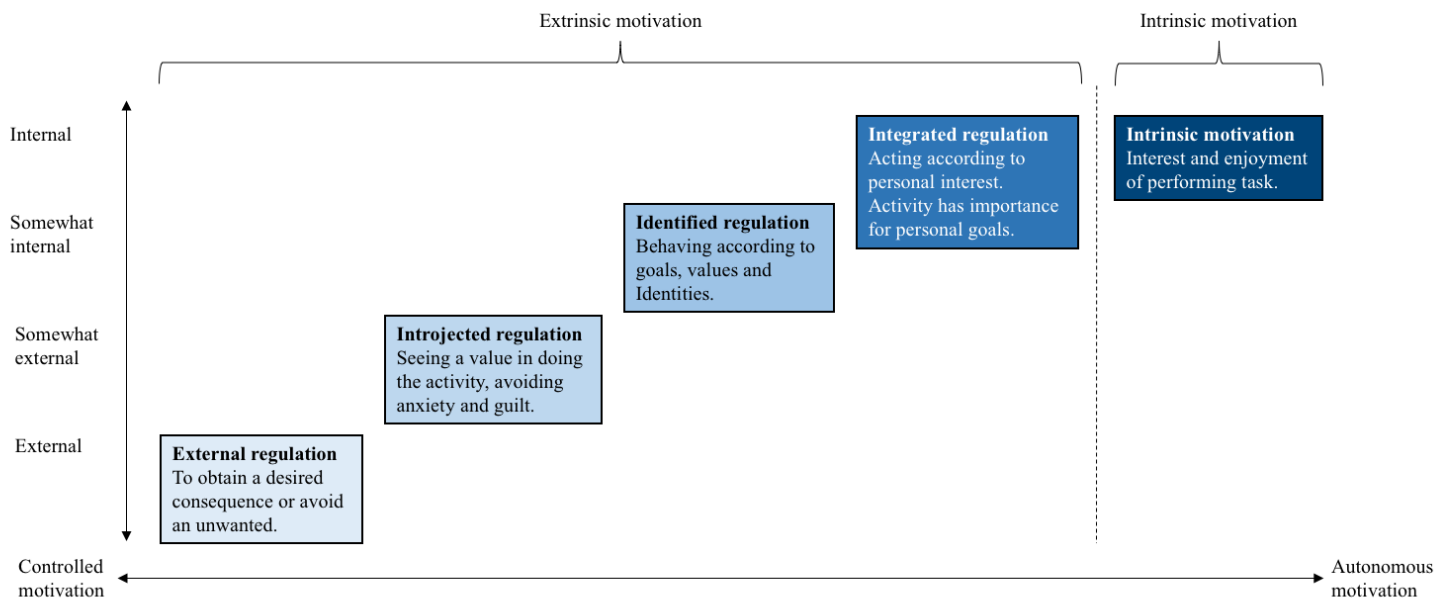

Extrinsic motivation   Intrinsic motivation

Internal

Integrated regulation
Acting according to personal interest. Activity has importance for personal goals.

Intrinsic motivation
Interest and enjoyment of performing task.

Somewhat internal

Identified regulation
Behaving according to goals, values and Identities.

Somewhat external

Introjected regulation
Seeing a value in doing the activity, avoiding anxiety and guilt.

External

External regulation
To obtain a desired consequence or avoid an unwanted.

Controlled motivation   Autonomous motivation

Figure 5. Four regulations sequentially moving towards intrinsic motivation (Gagné & Deci, 2005).

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4.4.3.3 Three basic needs

To achieve autonomous motivation, three phycological basic needs; competence, relatedness and autonomy have to be satisfied (Söderfjäll, 2012). If they are not fulfilled, several negative consequences can be the result, such as phycological suffering and a decreased possibility for self-development (Söderfjäll, 2012). To satisfy them, on the other hand, will benefit the person's wellbeing and he or she will have more energy to work since the focus will not be directed to the unfulfilled needs (Gagné & Deci, 2005).

Competence is a person's willingness and ambition to learn and develop (Söderfjäll, 2012). To feel competent is of great importance for most people as it benefits the confidence that one can manage daily challenges, both at work and privately. The opposite, to feel incompetent, is unpleasant and can harm the self-esteem. Therefore, providing the opportunity for employees to feel competent at work is vital for encouraging their motivation. The risk is otherwise that the person will lose their motivation to work since she or he never feels good enough. A feeling of competence can be achieved by individuals considering themselves responsible for successful performance, by for example completing relatively complex tasks (Näslund & Jern, 2015). Self-monitoring and self-regulation are essential factors for competence advancement as well as performance (Näslund & Jern, 2015) and can be achieved by complicated tasks or tasks requiring effort over an extended period (Gagné & Deci, 2005).

Individuals have a need to feel as they belong to a social context, in SDT called relatedness (Näslund & Jern, 2015). Most people want to be surrounded by others that they care about and have a meaningful relationship with (Söderfjäll, 2012). This creates a feeling of safety and meaningfulness. Since major parts of peoples' days are spent at work, it is vital that one has good relationships at the workplace. Otherwise, a lot of time and energy will be put on worrying and analysing the situation which limits the opportunity to feel motivated to the work itself. This means that it is import to provide employees the

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possibility to build relationships at the workplace and feel a social cohesion (Näslund & Jern, 2015) as well as to have supportive and satisfying social relationships (Stone, Deci & Ryan, 2009).

Autonomy means feeling like having volition and the power to decide on own actions (Gagné & Deci, 2005). Volition implies reflecting on actions taken, why they are performed and what the person wants to do. Feeling autonomy includes the possibility to decide on personal performance goals and the activities of how to achieve them (Näslund & Jern, 2015). Lack of autonomy means that the person feels forced to act on someone else's directives which can result in the person feeling controlled and not able to express ones' opinions (Söderfjäll, 2012). In comparison to competence and relatedness, autonomy does not impact if one feels motivated or not, but instead if the person feels controlled motivated or autonomously motivated. That is, lack of autonomy in combination with the satisfaction of the two other needs result in controlled motivation while the satisfaction of all three promotes autonomous motivation (Söderfjäll, 2012), as visualised in Figure 6.

$$\text{Competence} + \text{Relatedness} - \text{Autonomy} \longrightarrow \text{Controlled motivation}$$

$$\text{Competence} + \text{Relatedness} + \text{Autonomy} \longrightarrow \text{Autonomous motivation}$$

Figure 6. Three basic needs and their effect on motivation (Söderfjäll, 2012).

Due to the significant impact that these needs can have on motivation, it is important to have a workplace that has prerequisites that benefit them (Näslund & Jern, 2015). Näslund and Jern (2015) argue that a good psychological working environment that enables employees to feel valuable is vital. This can be accomplished by creating a climate characterized by support and trust, that is, a place where everyone feels like they are in charge of their responsibilities and can turn to others for advice and guidance (Näslund & Jern, 2015). Stone et al. (2009) support this argument, meaning that employees should be allowed to decide for themselves how to deal with their working tasks. Additionally, Stone et al. (2009) argue that including employees' is vital to fulfil the basic needs successfully. This can be done by inviting to a discussion as well as listening and considering everyone's thoughts and opinions. What managers can do to promote the different needs will be further described in the sections below.

4.4.4 Leadership within Self-Determination Theory

Several benefits with autonomous motivation have been presented in the sections above, both for individuals and the organisation, which indicates that there are great motives for managers to strive to promote it. However, Söderfjäll (2012) argue that it is not possible to motivate someone, instead, leaders should strive to create a working environment and appropriate prerequisites for employees to motivate themselves. What managers can do to accomplish this will be presented below, with respect to the three basic needs.

4.4.4.1 Competence

Managers act as an important source for persons to believe in their ability, resulting in having a feeling of competence (Söderfjäll, 2012). To feel competent, it is essential to have the opportunity to make progress regularly. This should be encouraged by managers by focusing on the advancements by promoting breaking work tasks into small, measurable goals which are followed up by the manager. Favourable performances should be recognised and rewarded, even though they are modest. Secondly,

it is essential that managers encourage step-by-step thinking. Instead of perceiving a disappointment as a failure, managers should try to make employees evaluate the obstacle as if there was not enough training or that another strategy should be used. To concretise, managers should not talk in terms of talent, instead of in terms of development and effort, praise good performances rather than good results and to be patient when employees does not immediately succeed by demonstrating support and encouragement. Another critical aspect to consider as a manager is goal setting. Preferably, goals should be set by oneself to encourage autonomous motivation, otherwise, the motivation might become controlled. When setting goals, managers should consider that goals need to be in line with organisational goals and should be challenging, measurable, limited to a specific time frame, divided into milestones and not contradictive. Further, discussions regarding when goals should be followed up need to be considered as well as that employees should be able to decide on how the goals should be met (Söderfjäll, 2012).

Moreover, an essential task for managers is to give feedback (Söderfjäll, 2012; Kovjanic, Schuh, Jonas, Quaquebeke, & Van Dick, 2012). Even though positive feedback is always lifting, some elements are making the feedback more efficient (Söderfjäll, 2012). The feedback is benefitted by being perceived as spontaneous and unobligated. Another favourable factor is to ask questions making the person give positive feedback to themselves. In this way, the focus will lay on the process rather than on the results. Further, it is beneficial not to use controlling words such as "should", "must" and "does not". Another aspect for managers to consider is making sure there are enough resources for employees to complete and improve their tasks. The engagement and interest will decrease in the very moment that the time, tool, material, information or money are insufficient. Finally, a manager should get to know their employees to deeply understand the wants and desires of that person to be able to give applicable tasks. Individuals have different talents which are something that should be considered. The feeling of competence is enhanced by doing things one is good at as it results in the task becoming easier and more enjoyable. However, there is always a need for training. It is simply impossible to be good at something if not been given the possibility to prepare and practise (Söderfjäll, 2012).

4.4.4.2 Relatedness

To have satisfying relationships with colleagues and managers promotes work engagement, happiness at work and performance at the same time as it decreases absence from work (Söderfjäll, 2012). This indicates that there are great incentives for managers to strive to create a workplace where the employees feel as they have meaningful relationships. To accomplish this, there are several aspects to consider. Firstly, Söderfjäll (2012) and Kovjanic et al. (2012) pinpoints the importance for leaders to be role models. He or she should act in a way that builds trust in the group and demonstrate how persons should act towards each other (Söderfjäll, 2012). In addition, he argues that it is vital to promote good communication. That is, a working environment where everyone feels as their opinions are acknowledged and treated with respect. He means that it is vital to respond to employees in a way that indicates that their thoughts and arguments are valid and considered. To further encourage the feeling of relatedness managers can create a common denominator, something which can unify the employees. This helps to create a social context in which everyone feels included. A common denominator can either be physical such as a similar working uniform or focus on inner attributes. Söderfjäll (2012) means that shared values can be such an attribute, that is, a common concern of what is perceived as good or bad, or right or wrong. It can also be about the future, such as a mutual vision of the future.

As a leader, one often has demands on employees, in terms of what is needed to be accomplished. Söderfjäll (2012) means that the multitude of demands always needs to be reflected in the level of

support offered by the manager. He presents four types of support. The first is emotional support which means that the managers should listen to and show consideration of the employees' feelings. Secondly, informative support meaning that managers should provide the employees with the necessary information, knowledge and resources needed to accomplish the task. Thirdly, instrumental support refers to managers helping employees with their task in urgent situations, for example, when someone is sick. Lastly, coaching support, meaning that the managers should try to support employees in their decision making rather than deciding on their own (Söderfjäll, 2012).

Another aspect that can have a direct effect on the feeling of relatedness is in those situations when employees are forced to leave the workplace (Söderfjäll, 2012). This does not only affect those that are dismissed, also those still hired often react negatively as a result. The consequence can be reduced loyalty among employees towards managers as well as decreased creativity. A typical reaction is that the resistance towards the change increases and that the employees feel anxiety regarding the future. There will most likely be worries about whether more persons will be forced to leave, which will make individuals do everything they can to not be the one leaving, resulting in controlled motivation. Söderfjäll (2012) therefore argue that managers should not fire employees if not absolutely necessary. However, if it is unavoidable, the decision should be presented respectfully and everyone should have the opportunity to discuss the event.

4.4.4.3 Autonomy

Providing persons with the possibility to choose is of vital importance (Söderfjäll, 2012). The awareness of having chosen a task for yourself results in a positive attitude towards it, rather than if somebody else would have given you the same task. The feeling of participation and influence increases the perception of autonomy (Deci et al., 2017; Söderfjäll, 2012). Therefore, it is important for managers to let the employees feel like they were part of the decision making, regardless of if they were or not (Söderfjäll, 2012). Further, it is of essence that employees have the possibility to influence *how* they want to manage the task. Additionally, managers should be aware of the fact that decisions can result in problems for employees and, therefore, respect and humanity need to be shown. Accordingly, it is important to declare the purpose of that decision. To further increase autonomy, managers should not talk in terms such as "should", "must", "demand", neither should they talk in terms of "always"/"never" or "everything"/"nothing". A manager should use open questions to support reflection and creation of new ideas.

How managers act is more important than what managers say. Söderfjäll (2012) argues that suggesting improvements are often positively received, however, no action is taken, even though managers promote creativity and new ideas. Likewise, employees giving feedback to managers are often not embraced. This behaviour results in decreasing engagement among employees. Therefore, for a manager, it is necessary that evaluations and suggestions are considered and processed (Deci et al., 2017; Söderfjäll, 2012). One example is by giving employees the authority to try new ideas by themselves.

To conclude, Söderfjäll (2012) acknowledge the difficulty in achieving all these aspects, however, the consideration of them can result in autonomous motivation.

5. Empirical Findings

To support employees' motivation during the automation change process, three themes to consider were identified, of which each has two or three sub-themes, see Table 4. The themes are focusing on three different perspectives; how managers act towards employees, how managers and employees interact and how employees feel during a change of this character, see Figure 7. The themes and sub-themes were created during the analysis of the data, where the aspects connected to different perspectives were frequently mentioned during interviews. The first theme, Leading an automation change process, deals with how managers act towards employees and are divided into the sub-themes Communication, Culture and Pace. The second theme, Involvement, deals with how managers and employees interact and are divided into the sub-themes Possibility to influence and Possibility to participate. The final theme, Employee, deals with how employees feel during a transformation of this character and are divided into the sub-themes Motivational factors and Relations.

Table 4. The themes and sub-themes identified when analysing the interview data.

Theme	Sub-theme
Manager to Employee: **Leading an automation change process**	Communication
	Communicate results
	Work environment encouraged by managers
	Pace
Interaction between Manager and Employee: **Involvement**	Possibility to Influence
	Possibility to Participate in the implementation process
Employees inner motivation	Motivational factors
	Relations

Implementation of RPA is not an isolated event, it is part of an extensive journey. To enable implementing RPA other changes than solely the automation needs to be arranged. Firstly, the application needs to be handled digitally to enable the RPA to access the information from the applicant, called an e-service. In many of the cases investigated in this study, this process started considerably earlier than the introduction of RPA. This has resulted in a new way of working where the personal contact with the applicant decreased in the initial application stage where it traditionally has been a receptionist gathering all necessary information. In three of the four studied municipalities, the change resulted in a decreased need for employees. Further, some employees did not approve the new way of working leading to them ending their employment. Thus, when referring to the change process in this report, all activities performed from the RPA initiative to the municipalities' current situation, are considered.
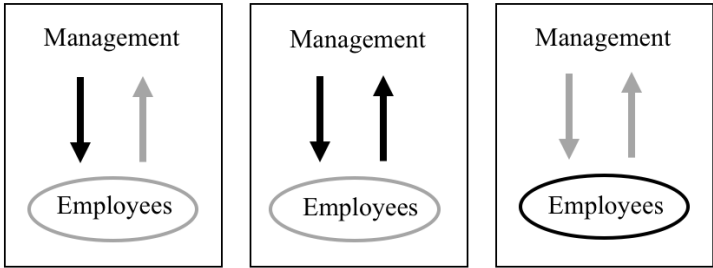
5.1 Leading an Automation Change Process

Even though the studied change is technical, change management rather than IT development that has been emphasised as important. In this chapter, the focus will be on the managers perspective. A transformation of this character has been seen to result in anxiety among employees, both concerning the new technique and employment. Four areas have been identified as essential to consider for managers to minimize employees' anxiety and to increase their motivation; communication strategy, how to communicate results, the organisational culture that managers encourage and the pace of the change process.

Management

Employees
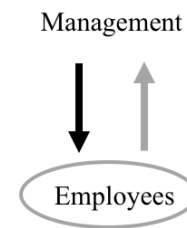
5.1.1 Communication

The main takeaways that will be discussed in this chapter are:

- o Clarify the **purpose**
- o Be **clear** in all **communication**
- o Consider that everyone has **different needs** when communicating

All studied municipalities had the long-term objective of implementing RPA to reallocate resources from administrative work to work within health and social care due to demographic changes. In Municipality 1, 2 and 3, the short-term objective was to reallocate resources to coaching functions to enable a more effective application service. However, in Municipality 4, there was a more urgent need for resources in the health and social care sector, and therefore, had the incentive to achieve the goal at a faster pace. The managers were clear with this information from the start since the implementation would result in employees being forced to leave the workplace. Moreover, the managers seemed to use a very informative communication approach in general.

All studied municipalities have clearly stated the purpose of the implementation of RPA. *"We were very keen to talk about the question `Why?´."* Managers used the purpose of the implementation of RPA as a tool for motivating employees. Several employees indicated their keen interest in helping applicants, pointed out by one manager in Municipality 2 as *"Most of those working with financial aid does it because they want to make a difference for people"*. Since the change aimed to improve the quality and answering rate of the applications, as well as to reduce the workload for employees, there were significant incentives for employees to undergo the change due to the inner volition to benefit applicants and themselves. Therefore, by mentioning the benefits for both applicants and employees, the purpose could act as a motivational factor, according to the interviewees. However, the communication of the future vision was shown not to be as clearly stated as the purpose of the implementation of RPA.

During the interviews, it became clear that anxiety was a common reaction to the change a well as many questions arising. The anxiety was primarily connected to a fear that the robot would take their jobs. Further, some employees expressed worries about if the robot would be able to manage the tasks without making any mistakes. Due to these reactions, it was of great importance that managers worked to decrease the impact of these reactions. Municipality 1, 2 and 3 all tried to do this by both talking to the group as well as having individual meetings with employees. Municipality 2 emphasised the importance of talking to employees individually, *"There is no way of talking that works for everyone."*. Two critical

aspects emphasised during interviews regarding communication, with both the group and individuals, was the importance of giving clear information both verbally and visually. Firstly, all the information regarding matters that possibly could be interesting for someone should be clearly mentioned, otherwise, someone will quietly be asking. The worries that often arise in change processes may decrease by providing information. In municipality 1, a manager clarified *"A safe environment is created by communication. Talk about everything going on so that people know."* As an example of not being straightforward enough was in Municipality 3, the manager mentioned that clear information was spelled out with the notice that no one would have to leave, however, one administrator did not recognize such information. This exemplifies inferior communication and indicates the importance of clarity and the difference in perception that may otherwise occur. Additionally, in Municipality 3, one employee mentioned that persons joked about that the robot was going to take their jobs, which resulted in anxiety since it created uncertainty regarding the level of truthfulness in the statement.

Secondly, according to Municipality 3, the arisen worries when implementing RPA was primarily based on a lack of knowledge regarding what activities the robot could and could not conduct. By showing employees how the robot was working, the distrust of the technology was somewhat decreased and the understanding of the importance of human interaction was increased. By visualizing the advantages and disadvantages of the robot, concerns about losing the job were lowered since employees understood the difference between their role and the role of the RPA, and that the robot was not capable of doing activities requiring intellect. However, some employees found it more difficult than others to understand and trust the technology. One manager in Municipality 3 describes the issue as *"There was a knowledge gap regarding what the robot could do, some persons found it difficult to understand"*.

5.1.2 Communicating Results

The main takeaway that will be discussed in this chapter is:

> o **Show results**

Another aspect that is important to communicate is the result of the change. That is, information regarding the outcome of the RPA implementation. During the interviews, several managers and employees mentioned that being provided with actual evidence that the change had made a difference increased their motivation, both to the work situation in general and to proceed with the process. Municipality 1 and 2 were very keen to show result throughout the process, *"It is very important to show results"*, *"We show numbers on all meetings"*. The employees at the municipality emphasised their gratitude for this and underlined that it enhanced their motivation. In Municipality 2, the employees were involved in the collection and the compilation of data which a manager means has further increased the employees' engagement. Municipality 3, on the other hand, did not collect any information regarding the outcome of the change and had, therefore, no results to present to the employees. One manager had realised that this was a mistake, *"I understand that the employees are not aware that the robot has eased their workload"*. A similar feeling was experienced by an employee that was very involved in the implementation process, *"I would like to show the other employees how much we actually don't need to do anymore."*. Both emphasised that they thought it would encourage the employees' motivation if they could visualise the difference between before and after the implementation of RPA. What further supports the argument that showing results is of great importance is that in two of the municipalities, the robot was shut down for a shorter period resulting in that the employees were forced to go back and do the automated task manually again. When this happened, several employees expressed that they had not realised how much time the old way of working consumed.

Moreover, in all municipalities, the primary purpose of implementing RPA was to make time available for value-adding tasks rather than administrative tasks. However, it differed in what those value-adding tasks were and the quality of the communication of it. When the saved time was not measured, it was difficult for managers to know the appropriate number of tasks that could be added to maintain a reasonable workload. This is described by a manager in Municipality 3 *"We know that performing this task took this amount of time before, then we can think that we need to add approximately this amount of time on doing that."*. Additionally, when not visualising the increased available time, the time was consumed without adding any new value. In Municipality 3 there was a plan for the new value-adding tasks but it was harder to set in action than assumed. *"We knew what to do with the spare time. The challenge is to really do that. "*. Further, the motivational factor for employees of being aware of the increased time spent on value-adding tasks signifies the importance of measuring as well as communicating to employees. In contrary to the other municipalities, Municipality 4 measured the time carefully to be able to calculate the exact number of employees that could be removed in each department.

5.1.3 Managers Laying the Foundation for the Work Environment

The main takeaways that will be discussed in this chapter are:

> o **Openness**
> o Tolerating **culture**

From the interviews, it has been identified that it is essential for managers to attempt to create a culture that encourages employees' motivation during the change. Two of the municipalities, 1 and 2, mentioned the importance of having an open and tolerating culture where there are possibilities to try out and to sometimes make mistakes when implementing RPA. *"Here, one has permission to have new ideas and one has permission to fail"* as mentioned in Municipality 1. The tolerating culture includes managers showing and acknowledging their mistakes to employees. By having such a culture, openness is created where employees feel comfortable to express their thoughts and ideas. Such perception could increase the creativity and the willingness to change, hence increase the motivation. Moreover, in Municipality 2, managers encouraged a culture characterized by openness by giving the employees the possibility to express their beliefs and questions anonymously by adding comments in a digital tool during meetings. These questions and thoughts were visible to everyone and discussed during the meeting. This method opened up the possibility to articulate thoughts and ask questions without being revealed. *"One thing we did was Mentimeter, we thought people might not have the courage to tell their thoughts and feelings otherwise"*.

5.1.4 Pace of the Change Process

The main takeaway that will be discussed in this chapter is:

> o **Protracted implementation** process is appreciated by employees

One aspect that differed between the municipalities was the pace of the transformation process. In Municipality 1 and 3 the processes were relatively slow in comparison to Municipality 2 and 4 where the changes were more radical. In Municipality 4 it took around four months from the time that the e-service was implemented until the RPA was running. In Municipality 1, the same process took two

years. With respect to the employees, a slower pace seems to be more appreciated. In Municipality 1, employees expressed gratefulness for the relatively protracted process as it allowed them to reflect and make small changes rather than everything changing at once. Managers in Municipality 2 supports this argument, *"If I could redo the change, I would allow the process to take more time. In this specific change, the employees would have felt... yes, they would have been more comfortable with the robot. They are comfortable with it now, but it took some extra time."*. In Municipality 4, a similar observation was made, *"The employees would probably have been more engaged and willing to participate if the pace of the change had been slower."*.

5.2 Involvement

During interviews, it was identified that the involvement of employees in the change process has a direct impact on their motivation and feelings. It was established that collaboration benefits managers, employees and the overall change process. Two involvement strategies have been identified, first the opportunity for employees to influence the direction of the change, and secondly, providing the possibility to participate in the implementation actively.
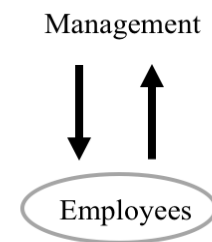
5.2.1 Possibility to Influence

The main takeaway that will be discussed in this chapter is:

> o **Involve everyone** early

The degree to which managers have involved and collaborated with employees throughout the process has differed between the municipalities. This has resulted in a variety of reactions and feelings among the employees. In Municipality 1, the employees have been closely involved throughout the entire process, from the selection of tasks to automate to how the change was going to be executed. One manager expressed it as "*It is really important that the employees are part of it, it is a prerequisite if they should want to work with it*.". She emphasised that participation is vital to succeeding with a change of this character. The employees further explained that the possibility for them to be involved in the projects was a major motivational factor, "*It is fundamental to my motivation that we can influence what changes we want and how they should be implemented*.". In Municipality 2, they choose another approach, instead of involving the employees in the initial phases, such as selecting what task to automate, process mapping and implementing the RPA, managers solely informed them what was going on. Only then, the employees had the opportunity to express their opinions about the decisions. Looking back, the managers regret this approach. *"It was a bad decision to wait with involving them, we could have done it in a better way. You should involve them early to enable the process of learning and accepting to be easier for them. [...] We recommend others to involve everyone as early as possible, there is no reason to wait."*.

Municipality 3 used a similar approach as Municipality 2, where managers focused on informing rather than involving the employees. The decision regarding what task to automate was made by the managers as well as how to execute the change. This resulted in an unwillingness to participate among employees, even in a later stage. At the financial aid department in Municipality 4, the employees have not been involved in the decisions regarding the transformation. They were instead informed after the decision

was made. The development leader expressed that he thought this approach was not appreciated by the employees, *"They did probably feel excluded when all decisions were made without their involvement"*. The reason for not involving employees in the process earlier was that the development time and cost could be decreased by keeping the decision-making to a smaller group. However, the results from the interviews indicate that employees want to be part of a change and that from a management perspective it is advantageously to include them since it simplifies the process. As clarified by a manager in Municipality 2 *"If we had involved them earlier the employees would probably have accepted the robot earlier, now they have but it took some extra time."*. This indicates that even though the initial phase might be more protracted, it is beneficial in the long term to involve the employees.

5.2.2 Possibility to Participate in the Implementation Process

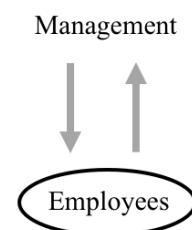The main takeaway that will be discussed in this chapter is:

> o **Engage** those who show an **interest**

When implementing RPA, a process mapping of the activity is needed to be executed to be able to implement the robot. This since the RPA are following a particular sequence of steps. It is, therefore, vital that the persons with the most knowledge about the process are engaged in the change process. Those are often the administrators since it is their tasks that are being automated, meaning that when implementing the robot, active participation from some employees is needed. In Municipality 3, managers decided to involve the employees that were positive towards the change and thought the initiative was exciting. In Municipality 4, it has, despite the anxiety and somewhat negative feelings, been possible to engage employees in the project, *"Even though the change is scary for the employees they are somewhat excited at the same time, it is some kind of hate-love."*. In Municipality 2, only one employee was actively working with the process mapping together with the manager, which she seemed satisfied with. This indicates that, when there is a genuine interest in the transformation, managers should take advantage of this engagement rather than forcing employees who are striving to keep the current situation.

During the interviews, it became clear that the employees that were not at all willing to accept and participate in the change decided to leave early in the process. Those who decided to stay were able to come to terms with the implementation and willing to engage and actively participate in the process. When hiring new employees, a positive attitude towards the change and a willingness to participate was identified as a criterion and was supported by an employee from Municipality 1 *"If it had been a more traditional work situation, I would not have sent in a working application."*.

5.3 Employees inner motivation

This chapter will focus on the employees' inner feelings during a change, mainly the motivational factors and relationships at work. It was identified that every person reacts differently to the change, which partly depends on their personality. This indicates that managers should consider individuals inequalities to encourage everyone's motivation.

Management

Employees

5.3.1 Motivational Factors

The main takeaways that will be discussed in this chapter are:

> o   Persons are **motivated** by **different tasks**
> o   **Different interest** of **development** among employees
> o   Formulate **individual goals**

The personality has shown to affect the willingness to change, some persons are positive to new technologies while others are more sceptical. The personal attitude towards the working situation also seemed to reflect the enthusiasm towards the change.

In three of the cases, the implementation of RPA was planned an increased possibility to spend time on value-adding activities. The interview data shows that most people choose to work in their department because they wanted to make a difference for others, not to spend time on strictly administrative work tasks. Therefore, the possibility to spend the time differently due to the automation was a motivational factor for several employees, as described by an employee as *"We, administrators, feel greater meaningfulness at work when working with non-administrative tasks"*. Another employee had a similar feeling, *"I think it is very positive that we now have time to help applicants in a more valuable way, as we were meant to do from the start, but the administrative tasks were too time-consuming."*

Additionally, development at work is a motivational factor for some employees and managers, both in the development of the organisation and the possibility for self-development. In Municipality 2, the managers had a general interest in improving the department, and to do it together with the employees. In Municipality 1, considerable effort was invested in breaking down the overall organisational goals to individual goals, which was discussed and supported by managers. A manager mentioned that *"Good atmosphere is based on the possibility for self-development"*. In contrary, some persons thrive with doing administrative tasks and feel honour and pleasure in performing those, accordingly, they did not appreciate the new way of working and was not interested in further development. When talking to managers, it became clear that most of them did not consider this aspect, solely a manager in Municipality 4 mentioned this aspect *"You also have to respect that some persons may have chosen to work with financial aid since they like these administrative tasks [...] everyone may not like these consulting tasks."*.

What has further been identified as a motivational factor in Municipality 1 was that the employees could set individual goals. In Municipality 1, a strategy where the municipalities' goals were broken down into department-specific goals was used. Every employee then formulated individual goals which benefited the higher-level goals. *"Every employee has an individual goal that they work towards, and everyone gets support from their manager, team and the whole organisation to achieve. However, it's your own. To enable personal development and not stagnate in progress."* To ensure that everyone could achieve the goals, all employees had individual coaching meetings with managers monthly. The interviewed employees expressed gratefulness for this possibility and were satisfied with the opportunity.

5.3.2 Relations

The main takeaways that will be discussed in this chapter are:

> o **Relationships** at work are **important**
> o Consider **group dynamics** when going through an **organisational change**

During the studied processes, all teams have changed to some extent resulting in adjustments for both the group as well as individuals. In Municipality 1, a group previously consisting of ten employees became three, and in Municipality 4, they went from five to four. This had a direct impact on those staying and everyone seemed to react differently. In Municipality 1, where the reduced team was claimed to be a result of natural retirements the employees did not express any negativity toward the change. They instead were satisfied with their relationships within the small group, saying that *"We feel like a family here."*.

In Municipality 4, there have been negative feelings towards the implementation, of which some is a result of employees having to leave the workplace. A development leader at Municipality 4 means that this can affect those that might have a slightly positive attitude towards it, *"It can be somewhat forbidden in a group to think that the change is good if some will be negatively affected due to it."*. When going through a change like this it, therefore, it seems essential to consider both the group as an entirety and the individuals within it. The feeling expressed by one person could be a result of the others' reactions. Further, the relationships at the workplace were emphasised as an important reason for why many of the employees thrived at their job. Therefore, when going through a transformation resulting in adjustments in the group, the strong relationship among employees should be considered, as described by a manager as *"Both those that have to leave and those staying can feel sadness due to the change"*.

The findings from the interviews are summarised in Table 5.

Table 5. Summary of the findings.

Theme	Sub-theme	Findings
Manager to Employee: **Leading an Automation Change Process**	Communication	• Clarify the purpose • Be clear in all communication • Consider that everyone has different needs when communicating
	Communicate Results	• Show results
	Managers Laying the Foundation for the Work Environment	• Openness • Tolerating culture
	Pace of the Change Process	• Protracted implementation process is appreciated by employees
Interaction between Manager and Employee: **Involvement**	Possibility to Influence	• Involve everyone early
	Possibility to Participate in the Implementation Process	• Engage those who show an interest
Employees Inner Motivation	Motivational Factors	• Persons are motivated by different tasks • Different interest in development among employees • Formulate individual goals
	Relations	• Relationships at work are important • Consider group dynamics when going through an organisational change

6. Discussion

In the sections below, issues identified during the interviews will be examined in-depth in relation to the literature study. First, concerns regarding how the managers should act in a change of this character will be debated, followed by a discussion of how and when employees should be included in the process. Finally, issues concerning the employees' inner motivation in the change will be reflected upon. The discussion will conclude what managers should consider during an automation process to promote the three basic needs as described in SDT and, therefore, employees' autonomous motivation. To debate about the validity of the study, a chapter with potential shortcomings with it will also be presented.

6.1 Leading an Automation Change Process to Promote Autonomous Motivation

The approach which managers use when leading the automation change process has been identified to have a significant impact on the employees' feelings and attitude towards the change. Four aspects for how to drive the process from a manager perspective in connection to motivation will be further discussed below.

6.1.1 Communication

During interviews it was identified that managers should communicate clearly throughout the entire change process. Firstly, to communicate the purpose and vision of the implementation has been ambiguous in the studied municipalities, as explained in Chapter 5.1.1. The purpose has been clarified in all municipalities, however, the vision has been inferior communicated. To make all employees feel motivated to change, it is crucial to have a clearly stated purpose and transparency in communicating the future vision, as suggested by Kotter (1995), see Figure 3. Not fulfilling these aspects may decrease the feeling of autonomy since this strategy generates a perception of controlled motivation (Söderfjäll, 2012). However, as mentioned earlier, the purpose of the implementation was clearly communicated in all studied municipalities, which was perceived as positive. Being aware of the purpose increased the feeling of autonomy since the studied employees had a genuine interest in fulfilling the purpose, namely improving the service quality for applicants. Thus, the purpose is aligned with the employees' intrinsic motivation (Kroth, 2007). Therefore, since the purpose benefitted both the employees and the applicants, firstly in being able to have an eased workload and secondly to improve the service quality for applicants, the purpose was a motivational factor for considerable parts of the studied employees. This confirms that the empirical findings are in line with the studied literature.

In Municipality 1, 2 and 3, both individual and group meetings were performed. Individual sessions facilitate employees to express opinions and worries, and for managers to decrease the impact of employees' anxieties and lack of understanding for the technology. During the interviews, it was identified that all individuals have different pre-knowledge as well as experience and interest for the technology, resulting in different need for support. Since some persons are favouring technical development and changes in general, while others tend to have a negative attitude, managers will, by having individual conversations with all employees, know how much support and what kind of support that specific individual will need during the change process. Söderfjäll (2012) and Bryan and Locke (1967) supports the individual communication strategy, meaning that it is vital to support the individual needs and give personal feedback. This is fundamental to make employees feel relatedness at work, employees need to feel as their manager acknowledging them and care about them (Söderfjäll, 2012). Talking individually further increases the possibility to get to know the employee in a more profound

level enabling the manager to know in what way the person can be autonomously motivated as well as which motivational orientation that person holds (Söderfjäll, 2012). When going through a change of this character, individual differences are essential to take into consideration to enable overcoming resistance (Bovey & Hede, 2001) and encouraging motivation (Rintala & Suolanen, 2005). Additionally, since there is no way of talking that works for everyone, it is essential for managers to know their employees to be able to communicate in ways that make everyone understand, thus increasing the feeling of competence.

Worries regarding what the robot could and could not perform was identified as a common issue during interviews. This seemed to mainly be due to an insufficient visualisation of how the robot worked according to an employee in Municipality 2. This insufficiency lead to a feeling of incompetence which, according to Söderfjäll (2012), can result in impaired self-esteem and motivation to work. According to Smith and Carayon (1995), the implementation of RPA can result in a feeling of stress and anxiety among employees. Often, employees appear to be afraid that they lack the ability to obtain the right skills needed for new work tasks. Kotter (1995) states in his fourth step that to succeed with a change, communication through all existing channels are needed, which seems not to be the case in the studied municipalities, where there is a lack of visualisation. Further, Schein (2002) describes the notion of learning anxiety which refers to the fear of a new task being too tricky, which during interviews seems to be the case when not getting enough information. Accordingly, there is a need of clear communication, both in information regarding the purpose and future vision and in what the robot can and cannot perform to decrease the employees' anxiety and to encourage a feeling of competence and autonomy.

6.1.2 Communicating Results

All municipalities used different approaches concerning how they decided to provide the employees with information regarding the result of the RPA implementation. Namely, what impact the new technology had on their working situation. Municipality 1 and 2 were keen to continuously provide the employees with numbers demonstrating the difference between before and after the implementation, while Municipality 3 neglected this aspect. A positive connection between showing results and the employees' attitudes was identified during the interviews. In those municipalities where the results were presented, the employees expressed gratitude and argued that to see what difference they had accomplish promoted their motivation. In the municipality where the opposite approach was used, Municipality 3, both a manager and an employee had realised that it was a mistake. They argued that the team did not realise the decreased workload and continued to use all the available time to complete their tasks. This is in line with the Parkinson's law, namely that workers are likely to adjust their working pace to the time available, which is a common phenomenon within administration (Bryan & Locke, 1967). However, in Municipality 3, the employees' workload was remarkably high before the implementation and there was, therefore, a great need for more time to complete the work. So, the main problem was not that the time was consumed but rather that the employees did not realise that they had more time available, and therefore did not see the value of the new technology. Söderfjäll (2012) argue that it is a requirement for managers to make sure that there are enough recourses to enable promoting employees' need for feeling competent. Since the RPA implementation resulted in more available time, managers accomplished this and therefore promoted the need. However, since this was not visualised in Municipality 3, they could not demonstrate the difference and the employees feeling of having too high workload remained. Kotter (1995) further supports this, meaning that showing progress is vital to increase employees' motivation to proceed with the change process and to get them to understand the benefits of it. This argument is strengthened by the fact that during a short period, the RPA was out of

order in Municipality 3, resulting in a realisation among employees concerning the eased workload. This further indicates the importance of showing results.

Another identified aspect, closely connected to showing results, is that as long as it is not explicit how much time that is saved due to the RPA implementation, it is difficult to plan for what to do with the newly available time, which is supported by Peters et al. (1984). Everyone that was interviewed mentioned that the RPA aimed at giving time for more value-adding activities rather than administrative tasks. However, it became apparent during the interviews that as long as it was not decided in beforehand what these activities would be, the time was consumed by adding time to complete the administrative task, as Bryan and Locke (1967) indicates. To be able to spend more time on working with value-adding activities was mentioned in the interviews to be of great importance for the employees. This, therefore, supports the feeling of autonomy since they perform tasks that are more in line with their internal motivational factors (Deci et al., 2017). Thus, indicating, that there are great incentives for measuring and showing results as well as to plan for what to do with the newly available time. This since it works as motivational factors for employees to see what a difference the change has resulted in a well as when they are allowed to spend time on more value-adding activities.

6.1.3 Managers Laying the Foundation for the Work Environment

In Municipality 1 and 2, managers and employees emphasised the importance of having an open and tolerating culture to enable a successful change process. A manager in municipality 1 means that to have a culture of this character, managers need to set an example. They should be honest with their mistakes and shortcomings and create a feeling in the group that everyone is respected despite imperfection. This argument is strengthened by Söderfjäll (2012), who means that managers should act as role models promoting a working climate characterised by trust and mutual respect and support. A culture of this character seems to be of major importance during an automation process as shown during interviews. Several interviewees expressed that the change resulted in feelings such as anxiety and uncertainty regarding both the technique and the future. Mainly, they worried about if they would be able to keep their jobs and if the robot would be able to manage the tasks, which are common reactions when implementing RPA according to Smith and Carayon (1995). To enable having an open and valuable discussion regarding the worries demands a workplace where everyone feels comfortable expressing their thoughts and opinions without the fear of being judged or rejected. Söderfjäll (2012) means that it is about managers acknowledging the employees and respectfully considering their thoughts and opinions. This is further fundamental for employees to feel relatedness at work (Söderfjäll, 2012). In Municipality 2, employees had the possibility to anonymously express concerns and questions, which could be an excellent chance to start encouraging such a culture. This since it allowed managers to demonstrate that all opinions are equally important and not judged.

In Municipality 1, one manager further argued that a working environment where employees feel safe is created by communicating as much as possible. She means that the worries that often arise during change processes can be reduced by providing everyone with as much information and support as possible, something which Shein (1996) supports. He means that to minimise learning anxiety, managers need to create a feeling of psychological safety by for example supporting the employees in the process (Schein, 1996; Näslund & Jern, 2015). In three of the municipalities, Municipality 1, 2 and 3, they did this by having a continuous dialogue with the employees. They all pinpointed the importance of talking to the team together as well as having private discussions where everyone could talk about their concerns.

Söderfjäll (2012) means that to provide employees with an appropriate level of support is vital when demanding things from them, such as when forcing them to take part of a change. He presents four types of support; emotional, informative, instrumental and supportive which are all vital in order for employees to feel safe and prosperous. During the interviews, it was identified that the managers at the municipalities differed some in their use of the different supports. Municipality 1 seemed to use three of them to some extent. They continuously provided the employees with information about the process and gave them emotional support when raising concerns. Further, the employees at the municipality all had the possibility to set individual goals that the manager continuously supported them to achieve, thus providing coaching support (Söderfjäll, 2012). That is, they had the opportunity to achieve them based on personal accomplishments with the support of managers, something which they were positive about. Näslund and Jern (2015) means that to provide this kind of support is of great importance to make employees feel valued. In addition, they argue that being able to decide on personal goals and how to achieve those is fundamental for being able to be autonomously motivated.

In Municipality 2 and 3, however, focus seemed to be on informative support rather than coaching support. In these municipalities, they continuously informed the employees about what was happening and tried to reduce their anxiety by having informative dialogues with those individuals expressing worries and a lack of understanding. This further indicates that emotional support also was provided to them, since they were able to discuss their concerns with someone who acknowledged their feelings. However, noticed during interviews was that one employee in Municipality 3 was actively involved in the implementation process and collaborated with managers. This implies that she was given more coaching support than the rest of the team that was not as included in the process, something which she seemed satisfied with. Municipality 4 also distinguished themselves from the rest of the municipalities in their extensive use of informative support. They were clear from the beginning about what was going to happen which gave all employees the possibility to understand how their future would look like.

It has been identified that the corporate culture, or more especially, the working environment encouraged by managers, have a close connection to the feeling of relatedness within the team. To enable a change process where employees feel safe, managers must demonstrate that everyone is trusted and allowed to express their concerns and opinions and that an appropriate level of support is provided. What an appropriate level of support is, is, however tricky to define, it seems to depend on the personalities in the team as well as the situation. However, in Municipality 1, where managers supported their employees is most types of ways, the employees expressed a lot of gratitude and positivity towards the change. This indicates that employees appreciate a great degree of support.

6.1.4 Pace of the Change Process

The time for implementation of the e-service, as well as RPA in the studied municipalities, was noticeable various, from a few months in Municipality 4 to two years in Municipality 1. According to the interviewees, employees preferred the more protracted pace since it gave them the possibility to reflect and to make small changes repeatedly instead of one significant transformation. Additionally, in Municipality 4, the development leader expressed speculations that more employees would have been engaged if the pace would have been slower. According to Gagné and Deci (2005), the feeling of competence can be achieved by performing a task requiring effort over an extended period, which is in accordance to the protracted strategy of implementing RPA. Further, Söderfjäll (2012) means that a step-by-step approach is encouraging personal development and that managers should be patient with employees not succeeding with the new task immediately to encourage the feeling of competence. In a protracted process, it is common that persons want to end the change as soon as the initial goal has been

achieved. However, the process should continue until the structures are in line with the vision for the change to be maintained (Kotter, 1995). Nevertheless, there was no indication from interviews that the process should be excessively protracted, rather, the process should not be rushed enabling employees getting used to the technology as well as adjusting to the new work situation. Accordingly, a protracted implementation is recommended, both from literature and data collection, to encourage the feeling of competence.

6.2 Involving Employees in the Change Process to Promote Autonomous Motivation

All municipalities used different approaches concerning the degree which they involved the employees during the change. It differed in both in the decision-making process and the active participation of employees in the implementation process.

6.2.1 Possibility to Influence

The possibility to influence the change process has been identified as an important motivational factor, as stated in Chapter 5.2.1. Municipality 1 engaged all employees in the entire change process, resulting in positive attitudes and increased their motivation. The municipalities involving employees in a later stage, such as Municipality 2, have stated their regrets in doing so since the acceptance process of the implementation became protracted. Appelbaum et al. (2012), SKL (2018a) and Smith and Carayon (1995) pinpoint the importance of involving employees from the beginning of the transformation to promote motivation as well as increasing the possibility for employees to accept the new way of working. As stated in Chapter 5.2.1, the advantage of not including everyone from the beginning is due to time and economic gains, however, this is contradictive to Kotter´s (1995) five first steps, see Figure 3. Kotter (1995) suggests that a feeling of urgency to change the existing situation is needed and that it is essential to create and communicate a vision as well as empowering employees to work in accordance to that vision. By not involving employees in an early stage, all these steps are denied resulting in a lack of motivation (Kotter, 1995). Söderfjäll (2012) further argues that the feeling of autonomy is strengthened by the knowledge of having chosen the task by oneself. In Municipality 1, the employees had the possibility to be part of choosing the task to automate, as well as how the change process was going to be executed, which was appreciated by the employees. This is in line with Söderfjäll (2012) but in contrast to the other municipalities where the employees could not influence the selection of process that was going to be performed by the RPA. Additionally, as noted from interviews, when not involving employees from the introduction of the change, the time that in a later stage needed to be added to convince the employees of the advantages of the RPA implementation and to get them accept the change process seems to be greater than the financial benefits of not allowing them to be involved from the beginning. This is supported by Kotter (1995), Appelbaum et al. (2012), SKL (2018a) and Smith and Carayon's (1995) theories.

In Municipality 2, 3 and 4, the management chose to mainly involve the persons showing most interest in the change, which is supported by Schein (1996) and his description of Lewin´s model of cognitive restructuring. He means that it is fundamental for the transformation process to identify those who had gone through the cognitive shift and use them as role models for the progress of the implementation. Cognitive restructuring refers to the phase following the unfreezing stage, where the person can see something from another angle than before and, therefore, be motivated to change (Schein, 1996). Then, this person can be used as a role model for the new behaviour. Often, this person tends to be somebody with an autonomous orientation with a feeling of support from the surrounding (Söderfjäll, 2012).

Further, as mentioned in Chapter 5.1.3, creativity and willingness to change is increased by the possibility to feel as being able to participate in decisions regarding the transformation, which is encouraged by Söderfjäll (2012). Söderfjäll (2012) highlights the importance of employees feeling as being a part of making the decision, regardless of if they were or not. He further pinpoints that an employee should be able to decide on how to achieve the goal or decision. Noted during interviews, employees who were not involved from the beginning had a feeling of being overrun and did not want to engage themselves in the implementation of RPA even in a later stage. This feeling was most likely due to a perception of not owning the implementation and the decisions made, therefore, feeling incompetence and a lack of autonomy. To conclude, the literature and findings from interviews are in accordance, highlighting the importance of involving everyone from the beginning, both to encourage the feeling of autonomy and competence, but also to decrease the time and cost that the threshold otherwise can form.

6.2.2 Possibility to Participate in the Implementation Process

While giving employees the possibility to influence mainly promoted the feeling of autonomy, the possibility to participate seems to fulfil the need of feeling competent to a greater extent. To enable automating a process, knowledge about the task is required. Therefore, all municipalities needed the employees' competence during the change process. Thus, one or several employees were actively involved in the preparatory work as well as in the improvement work after the RPA was implemented. This allowed the employees to use their skills and expertise within the field to accomplish the work, something which the employees' seemed satisfied with. The positive attitude towards the possibility to participate could be linked to the fact that it promotes the need for feeling competent. Näslund and Jern (2015) argue that when people feel as they can contribute with their skills and accomplish relatively complex tasks, the basic need for feeling competent is encouraged. However, all employees in the studied municipalities were not part of this work. Only a few, which all had a positive attitude towards the change, were involved, resulting in that those already accepting the implementation were given the opportunity to promote their feeling of competence. According to Smith and Carayon (1995) the introduction of automation should preferably be handled in accordance with individual abilities and motivation, which indicates that the municipalities used an appropriate approach. They did not force anyone who did not feel comfortable with the change to take an active role in the preparation work. Instead, as Söderfjäll (2012) suggests, the managers let those who felt comfortable and competent do the work. This is further in line with the recommendation that controlling words should be avoided not to make employees feel controlled motivated to do the task (Söderfjäll, 2012). Instead, those who felt a willingness to participate were included, thus promoting autonomous motivation (Gagné & Deci, 2005). However, what further supports having more persons involved in the process is that the whole organisation has to relearn to sustain the new habits, suggesting that not only a few persons in the organisation should be involved in the change process (Schein, 1996; Schein, 2002). Thus, one could argue that there is a dilemma that must be considered when deciding on participation, see Figure 8. On one hand, by only involving those who show willingness, no one feels controlled, however, only a small part of the group will promote their feeling of competence and autonomy. On the other hand, by forcing everyone to be involved, those who are doubtful about the change will feel a lack of autonomy during the process, since it is not in line with their interest. However, their need of feeling competent will be promoted. This is a challenge that managers need to consider and evaluate with respect to the specific situation and group.
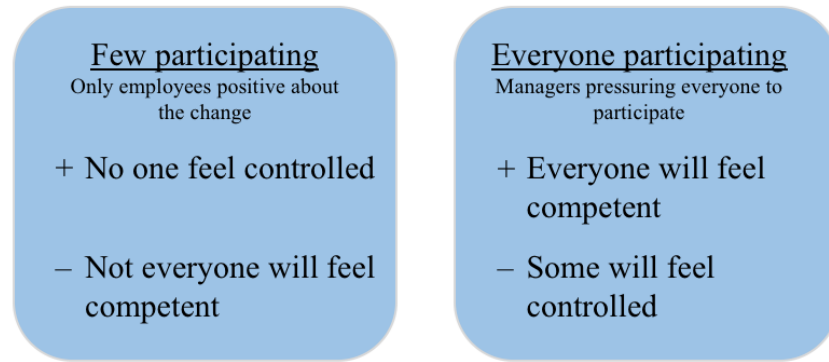
Figure 8. The dilemma that managers are facing regarding participation of employees.

6.3 Employees inner motivation

During the interviews, it was identified that individuals have different motivational factors and relationships within the team which affected the employees' feelings during the implementation process. Motivational factors seemed to affect the perception of autonomy while relations have a close connection to the feeling of relatedness.

6.3.1 Motivational factor

As mentioned in Chapter 5.3.1 and 5.1.1, it was identified that employees in municipalities are working in the departments of financial aid as well as wage and pension because they want to make a difference for others. The purpose of the implementation of RPA was to increase the possibility to work with value-adding tasks to a greater extent resulting in more effective application services, which increased the employees' feeling of meaningfulness. According to Söderfjäll (2012), working with tasks that are perceived as meaningful can increase autonomous motivation. Since all persons have different motivational factors, it is essential for managers to know their employees to enable providing them with relevant tasks (Söderfjäll, 2012).

In the studied municipalities, the implementation of RPA resulted in less personal contact with applicants. While some employees appreciated this change, others preferred the old way of working. The latter did not find the implementation of RPA as motivational, somewhat contradicting the motives of working at those departments since their interest lay in the possibility to work closer to the applicants with for example coaching tasks. The possibility to work closer to the applicants decreased with the introduction of the e-service and the RPA leading to modified working conditions, which was not appreciated by all employees. This could be due to that the change not being in line with their intrinsic motivation, meaning that the new activities are not based on individual values and interests (Deci, Olafsen, & Ryan, 2017). However, observed during interviews was that those persons being positive about the RPA implementation had a positive attitude in general. This could be connected to Söderfjäll (2012) who means that every person has different motivational orientations, some persons have a greater potential to feel autonomously motivated and some persons tend to be controlled motivated. Therefore, the underlying reason why some employees have a positive attitude towards the change could either be due to that the new tasks are in line with the individual's interests or its motivational orientation. Furthermore, as identified during interviews, the interest in technology, as well as the general enthusiasm towards the change, was highly variable. Therefore, it is natural that some employees feel

greater motivation towards an RPA implementation, while some employees prefer the old way of working with papers and pens. Alänge (2018) suggests that 5-10 percent will be against the change, and 5-10 percent will support the transformation. This phenomenon has been identified in during interviews as some employees choosing to end their employment at the beginning of the change, without even giving it a chance. To conclude, some persons are in favour of the implementation of RPA, while others are against the change. It may depend on technical interest or age, but rather it seems to depend on different orientations, that is, natural differences in personality. Accordingly, to encourage autonomy, managers should know their employees enough to hand out relevant tasks, let employees be part of the decision-making process and be aware of the different motivational orientations that persons have.

In Municipality 1, employees have expressed their speculations of not being as positive towards the implementation of RPA if not being able to decide on what value-adding tasks to add, which according to Söderfjäll (2012) increases the feeling of autonomy. As suggested by Gagné and Deci (2005), extrinsic motivation is divided into four regulations; external regulation, introjected regulation, identified regulation and integrated relation, see Figure 5. The first regulation is related to motivation based on receiving a rewarding consequence or avoiding an unwanted consequence, therefore, the person is extrinsically motivated (Kroth, 2007). The second refers to identifying value in performing the activity, and identified and integrated regulation approaches autonomous motivation based on the task being in accordance with personal values and interest. In the latter cases, the reward is abstract and fulfilling a personal value rather than monetarily value, moving towards being intrinsically motivated (Deci et al., 2017; Kroth, 2007), see Figure 5. This further indicates the importance of working with tasks that are of personal interest and fulfilling the feeling of volition, and therefore, the sense of autonomy.

In Municipality 1, every employee had the possibility to set personal goals with the fundamental base in the overall organisational goals. By formulating their own goals, the employees could decide on personal targets that were in line with their interests and values. These goals were encouraged by managers through individual meetings where the needed support to achieve the goals were discussed. As mentioned in Chapter 6.1.3, the employees appreciated this opportunity. Choosing individual goals encourages autonomy, and by getting support in achieving those, the feeling of meaningfulness is increased (Näslund & Jern, 2015). Therefore, setting individual goals is a way to encourage autonomy.

6.3.2 Relations

Relationships in the teams have been identified to affect the employees' feelings toward the working situation as well as how they perceive the change process. This implies that relationships within the team should not be neglected. In the studied implementation processes, the working groups in Municipality 1, 2 and 4 was reduced. As presented in Chapter 5.3.2, the feelings that this resulted in varied between the employees in the different municipalities. In Municipality 4, the reactions within the group were relatively negative. Söderfjäll (2012) means that this is a normal reaction when employees are forced to leave the workplace. Both those having to leave and those staying normally react negatively in these situations (Söderfjäll, 2012). This was the case in Municipality 4, no one in the team seemed comfortable expressing any positivity about the change. The manager in the municipality thought that this was mainly due to sympathetic reasons, that those allowed to stay avoided talking positively about the decision due to their co-worker's situation. This implies that, when going through a change of this character, managers must consider that the employees' reactions and attitudes towards the transformation could be a result of their relationships with others in the team.

However, in Municipality 1, where the team also was reduced, it did not seem to result in any negative feelings among the employees. The main difference between the two cases was that in Municipality 4 several people were forced to leave immediately when the RPA was implemented while in Municipality 1, people left due to natural causes and were not replaced. This somewhat indicates that it is advantageously to use a similar approach as Municipality 1. Söderfjäll (2012) supports this, he means that organisations should avoid dismissing employees whenever possible not to have to deal with all the adverse reactions it results in, such as resistance towards the change. Pardo del Val and Martínez Fuentes (2003) mean that resistance often complicates and slows down the change process. Further, Söderfjäll (2012) means that a common reaction when people are forced to leave is that those who are allowed to stay will become controlled motivated, resulting in lack of work engagement and decreased performance. However, although these consequences are not desirable, the overall purpose in the municipalities was often to enable moving resources from performing administrative work to working within health and social care (SKL, 2018a). Thus, from an overall perspective, it might be unavoidable to fire employees to enable increasing the resources within the health and social care sector where there is an urgent need for more employees. However, on the other hand, from a manager and employee perspective, the approach used by Municipality 1 seems advantageous. This since it will not affect the employees' feelings towards the workplace and the change initiative negatively. One could, therefore, argue that it is a trade-off between the different objectives, which managers must take a stand about.

Söderfjäll (2012) further argue that in those situations when it is necessary or unavoidable to fire people, it should be done respectfully. In Municipality 4, they announced what was going to happen as soon as the decision was made, which gave the employees time to find a new job before they would be forced to leave. This approach also made it possible to discuss the event for everyone involved, which is in line with Söderfjäll's (2012) suggestions. To use an ethical and sympathetic approach it these situations seems to be the most important thing. Managers should make sure to prioritise the employees' feelings, both those leaving and staying, and have a willingness to respond to the reactions humbly.

6.4 Promote autonomous motivation

From analysing the findings in relation to the studied literature, a connection between the three perspectives; Leading an Automation Change Process, Interaction between Employees and Managers and Employees Inner Motivation, has been identified. Namely, the perspectives could not be considered in isolation, rather, all of them must be regarded in relation to each other to promote the three basic needs and, therefore, autonomous motivation, see Figure 9.
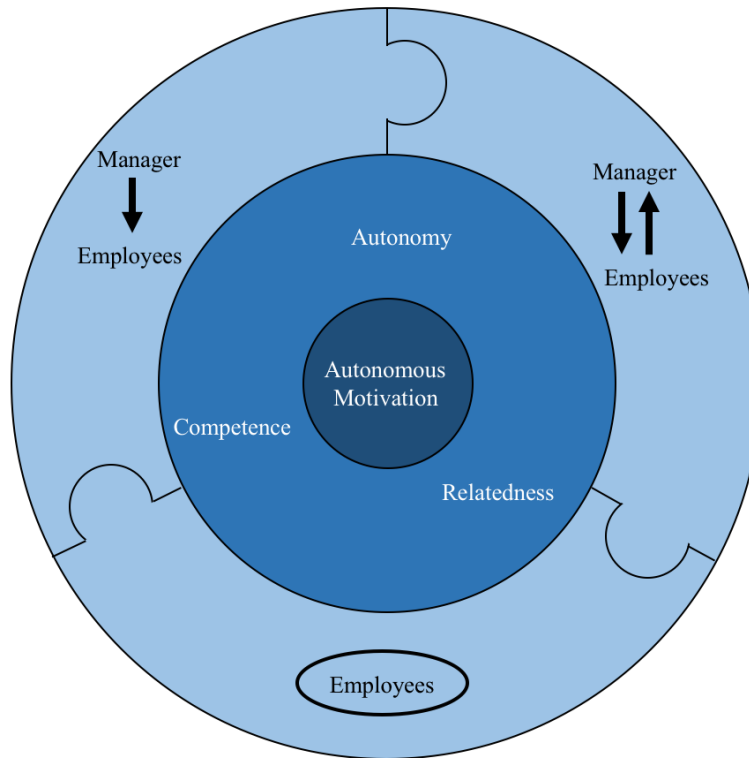
Figure 9. The relation between the three perspectives, the three basic needs and autonomous motivation.

The results from examining the effect of the change process from the three the three different perspectives have resulted in a few aspects to consider with respect to the three basic needs, described in Chapter 5. These are essential to consider in the implementation process of RPA. Favouring those aspects has the potential of promoting employees' autonomous motivation, as presented in Figure 10.

To have a positive effect on employees feeling of competence, the following aspects should be considered: communicate what the robot can and cannot do, do not rush the change, let employees use and develop their competence during the transformation and show results, see Figure 10. Those are related to competence since they provide the opportunity for employees to feel capable and confident during the change (Söderfjäll, 2012). The feeling of relatedness can be encouraged by: promote an open and tolerating culture, support individuals based on their needs, consider relationships within the teams and be clear from the beginning about retirements. These aspects increase the feeling of meaningfulness and safety as well as feeling included, thus, increases the perceived feeling of relatedness (Söderfjäll, 2012). Finally, to fulfil the need for feeling autonomy, the following aspects should be considered: be clear in all communication, plan for value-adding tasks before implementation, involve employees early and consider that everyone is different. These aspects increase the feeling of volition and decreases the feeling of being excluded from the decision-making process during the change (Gagné & Deci, 2005; Näslund & Jern, 2015). As described in Chapter 4.4.3, the feeling of competence, relatedness and autonomy results in autonomous motivation.
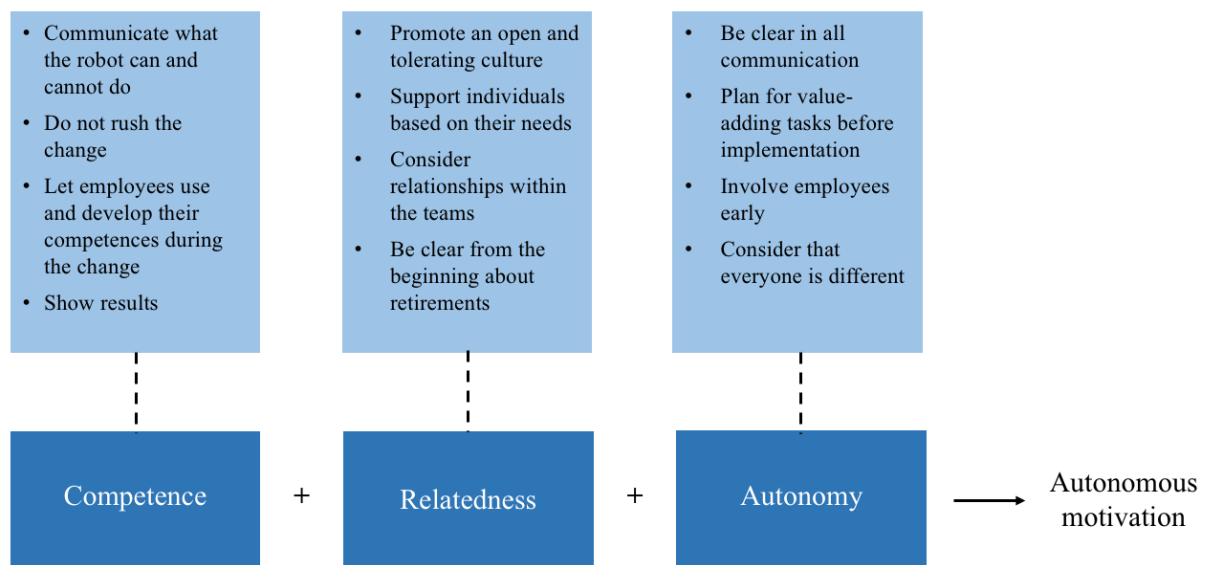
Figure 10. Promoting the aspects results in fulfilment of the three basic needs, which in turn results in autonomous motivation.

6.5 Validity of the study

This chapter will be a critical examination of the study and focus on potential shortcomings. Further, the section will mention the biased parts of the study. However, due to the rigours method, with concerns regarding trustworthiness and ethics, the results can be considered as reliable.

Firstly, the investigated cases are municipalities with high ambitions and economic possibilities to purchase the new technology. Additionally, these municipalities are ones often catching trends. Secondly, managers choose which employees that were going to participate in the study, resulting in a potentially biased reflection of the situation. During interviews, it was observed that all interviewed employees had a positive attitude towards the implementation of RPA, and changes in general, and that when asking about their colleagues, it seemed like not everyone in those departments were as positive. Additionally, interviews have only been performed among those employees that were able to stay also after the implementation. If being able to talk with someone that chose to retire or was forced to leave, another version of the situation might have been identified.

The interviews have been performed via a video-aided program, therefore, observations that could have been noticed by being in the same room as the interviewee has not been able to be intercepted, which is supported by Bryman and Bell (2011). Further, Bryman and Bell (2011) suggest that interviews performed by telephone have some other disadvantages, such as often being shorter than face-to-face interviews and that interviewees are less likely to reveal sensitive issues, such as negative aspects about working conditions. Those aspects seem to apply to the video-aided interviews that were performed in this study. Moreover, all interviewees have not been performing the interviews in quiet rooms, which is contradictive to Bryman and Bell's (2011) suggestion. This could have resulted in that interviewees might not confess opinions that they hold due to the risk of being overheard. Lastly, by not physically visiting the offices, the culture in the departments have not been experienced. This, in combination with that the most positive employees have been interviewed, might have created a biased understanding of the situations.

7. Conclusion

The aspects that have been identified as vital to consider during an automation change process, from the findings as well as the literature, are summarised below. From a managerial perspective, more hands-on suggestions are presented for how to handle the identified considerations during a change process successfully. These suggestions attempt to increase the employees' wellbeing and encourage their autonomous motivation during the RPA implementation.

To promote the need for feeling competent:

→ **Communicate what the robot can and cannot do** was identified as a way for managers to decrease anxiety among employees. This can be achieved by visualising instead of only describing how the RPA works. Additionally, since every employee is different, repeated and individualised communication could be needed.

→ **Do not rush the change** to give the employees the opportunity to engage in the process. This can be achieved by providing the employees the possibility to get used to the new technology and adjust to the new working situation. Therefore, it is not about making the process protracted, but rather to let everyone take part in the implementation to increase the understanding and acceptance.

→ **Let employees use and develop their competences during the change** to make them feel as they are capable and contributing to the implementation. Depending on the situation and team, managers should evaluate if a few persons from the team should participate in the implementation or if everyone should be encouraged to take part.

→ **Show results** to make everyone understand what has been accomplished and how the work situation has improved. This can be achieved by collecting data from the start and visualising the progress, such as how much time that is saved due to the change.

To promote the need for feeling relatedness:

→ **Promote an open and tolerating culture** to enable all employee to feel safe to express thoughts and opinions. This can be achieved by managers acting as role models demonstrating that everyone is respected despite imperfection.

→ **Support individuals based on their needs** to make every employee feel as have the prerequisites to achieve personal and organisational goals. This can be achieved by managers individualising the support in order to meet specific needs. This requires managers to have individual meetings with all employees, both in order to get to know them and to give feedback.

→ **Consider relationships within the teams** since those could reflect the employees' reactions to the change. This can be achieved by being aware of the relationships among co-workers. Spontaneous reactions to the transition might be due to reduced teams and not a negative attitude to the change in general, which is essential for managers to be aware of not to take unnecessary actions.

→ **Be clear from the beginning about retirements** to decrease unnecessary worries and to give employees time to find new employments if needed. This can be achieved by being clear and transparent in communication from the start.

To promote the need for feeling autonomy:

→ **Be clear in all communication** to get a common understanding of the purpose with the change process and to decrease worries and misinterpretations. This can be achieved by giving all existing information and having both individual and group meetings.

→ **Plan for value-adding tasks before implementation** to make sure that they will be performed after the change. This can be achieved by calculating the time that will be possible to use for more value-adding tasks after the implementation. Further, let the employees be involved in the decision-making of these tasks.

→ **Involve employees early** to increase their feeling of being part of the change as well as be provided the opportunity to learn and accept the technology. This can be achieved by having an open and continuous dialogue about the change and considering the employee´s opinions. Further, everyone should be given the opportunity to take an active role in the process.

→ **Consider that everyone is different**, both in terms of personal values, interests and pre-knowledge about the technology. This can be achieved by getting to know the employees and to be aware of their differences as well as motivational orientations.

A summary of the findings and suggested solutions for a successful automation change process is described in Figure 11.
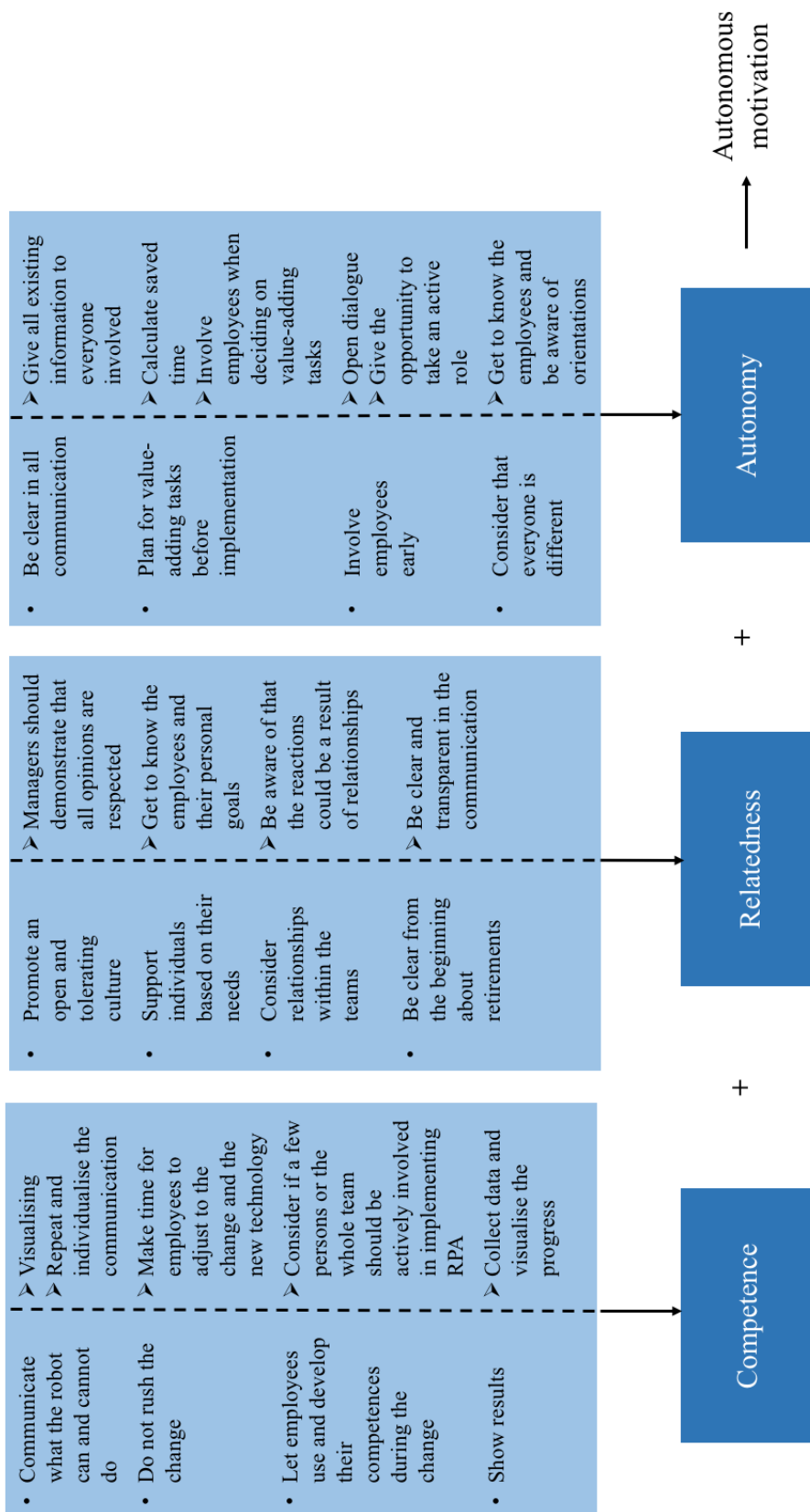
Competence

- Communicate what the robot can and cannot do
- Do not rush the change

  ➢ Visualising
  ➢ Repeat and individualise the communication
  ➢ Make time for employees to adjust to the change and the new technology

- Let employees use and develop their competences during the change

  ➢ Consider if a few persons or the whole team should be actively involved in implementing RPA

- Show results

  ➢ Collect data and visualise the progress

Relatedness

- Promote an open and tolerating culture
- Support individuals based on their needs

  ➢ Managers should demonstrate that all opinions are respected
  ➢ Get to know the employees and their personal goals

- Consider relationships within the teams

  ➢ Be aware of that the reactions could be a result of relationships

- Be clear from the beginning about retirements

  ➢ Be clear and transparent in the communication

Autonomy

- Be clear in all communication

  ➢ Give all existing information to everyone involved

- Plan for value-adding tasks before implementation

  ➢ Calculate saved time
  ➢ Involve employees when deciding on value-adding tasks

- Involve employees early

  ➢ Open dialogue
  ➢ Give the opportunity to take an active role

- Consider that everyone is different

  ➢ Get to know the employees and be aware of orientations

Competence + Relatedness + Autonomy → Autonomous motivation

Figure 11. Suggestions for how to successfully handle the identified considerations during a change process.

7.1 Future Research

During the progress of this study, a few areas have been identified as interesting for future research. Three of them will be described in this chapter.

In this study, the time aspect considering the three phases; before the transformation, during transformation and after transforming, was examined in the literature study concerning general change management. However, the recommendations for succeeding with an implementation of RPA did not consider this time aspect. Therefore, one suggestion for future research is to investigate when the different issues identified in this study should be considered. Namely, in which order should they be handled. This examination could be performed by suggesting a sequence and testing that hypothesis on Swedish municipalities that are facing an implementation of RPA.

Another aspect that was not considered in this report was the organisational structure within the municipalities, such as centralisation and decentralisation. This aspect was mentioned during interviews as an aspect that possibly could have an impact on the outcome of the change process. It was considered as something that could have a close connection to the degree of engagement during the process among employees. Therefore, a suggestion for future research is to investigate how the structure affects the employees' when going through the change. Namely, how different organisational structures impact the reactions during the change as well as the motivation to change. This can be conducted by comparing municipalities with centralised and decentralised organisational structures during RPA implementation.

Lastly, to apply the model on municipalities facing an implementation of RPA to understand the real effect that the approach has is a suggestion for future research. That is, to let municipalities base their implementation strategy on the recommendations from this study. After that, a similar study as this could be conducted on private companies or international municipalities to investigate the impact on employees' motivation in those sectors. This could increase the understanding of if the model is generalisable.

References

Alänge, S. (2018). *2018-10-15 Change Management – 2pp.pdf* [PowerPoint-presentation]. Retrieved April 1, 2019 from
https://chalmers.instructure.com/courses/194/files/folder/Study%20Week%207?preview=17525

Arntz, M., Gregory, T., & Zierahn, U. (2016). The risk of automation for jobs in OECD countries. *Journal of OECD Social, Employment and Migration Working Papers,* 189.

Asatiani, A., & Penttinen, E. (2016). Turning robotic process automation into commercial success–Case OpusCapita. J*ournal of Information Technology Teaching Cases, 6*(2), 67-74.

Appelbaum, S. H., Habashy, S., Malo, J. L., & Shafiq, H. (2012). Back to the future: revisiting Kotter's 1996 change model. *Journal of Management Development, 31*(8), 764-782.

Bovey, W. H., & Hede, A. (2001). Resistance to organisational change: the role of defence mechanisms. *Journal of managerial psychology, 16*(7), 534-548.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3*(2), 77-101.

Brougham, D., & Haar, J. (2018). Smart Technology, Artificial Intelligence, Robotics, and Algorithms (STARA): Employees' perceptions of our future workplace. *Journal of Management & Organization, 24*(2), 239-257.

Bryan, J. F., & Locke, E. A. (1967). Parkinson's law as a goal-setting phenomenon. *Organizational Behavior and Human Performance, 2*(3), 258-275.

Bryman, A. & Bell, E. (2011). *Business research methods* (Third edition)*.* New York: Oxford University Press Inc.

CFB Bots. (2018). The difference between Robotics Process Automation and Artificial Intelligence. Retrieved 2019-02-19 from https://medium.com/@cfb_bots/the-difference-between-robotic-process-automation-and-artificial-intelligence-4a71b4834788

Chui, M., Manyika, J., & Miremadi, M. (2015). Four fundamentals of workplace automation. *McKinsey Quarterly, 29*(3), 1-9.

Deci, E. L., Olafsen, A. H., & Ryan, R. (2017). Self Determination Theory in Work Organizations: The State of a Science. *Annual Review of Organisational Psychology and Organisational Behaviour, 4*, 19-43.

Forssell, A., & Ivarsson Westerberg, A. (2000). Administrera mera. *Organisationsförändring och administrativt arbete. Stockholm: Stockholms centrum för forskning om offentlig sektor, Stockholms universitet (Stockholm Center for Organizational Research, Stockholm University).*

Friedel, R. D. (2007). *A culture of improvement: Technology and the Western millennium*. Cambridge: The MIT Press.

Fölster, S. (2014). Vartannat jobb automatiseras inom 20 år–utmaningar för Sverige. *Stiftelsen för strategisk forskning, Stockholm.*

Gabčanová, I. V. E. T. A. (2011). The employees–the most important asset in the organizations. *Human Resources Management & Ergonomics, 5*(1), 30-33.

Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational behavior*, *26*(4), 331-362.

Hartley, C., Brecht, M., Pagerey, P., Weeks, G., Chapanis, A., & Hoecker, D. (1977). Subjective time estimates of work tasks by office workers. *Journal of Occupational Psychology, 50*(1), 23-36.

Hirschhorn, L. (2002). Campaigning for change. *Harvard business review*, *80*(7), 98-106.

Jochimsen, B. (2009). Service Quality in Modern Bureaucracy: Parkinson's Theory at Work. *Kyklos, 62*(1), 44-64.

Kotter, J. P. (1995). Leading change: Why transformation efforts fail. Boston, MA: Harvard Business School Publishing.

Kovjanic, S., Schuh, S. C., Jonas, K., Quaquebeke, N. V., & Van Dick, R. (2012). How do transformational leaders foster positive employee outcomes? A self-determination-based analysis of employees' needs as mediating links. *Journal of Organizational Behavior, 33*(8), 1031-1052.

Kroth, M. (2007). Maslow - Move Aside ! A Heuristical Motivation Model for Leaders in Career and Technical Education. *University of Idaho, 44*(2), 5–36.

Lacity, M., Willcocks, L. P., & Craig, A. (2015). Robotic process automation at Telefonica O2. *The outsourcing Unit Working Research Paper Series,* 15/02.

Martarelli, M. (2018). How Can Businesses Adapt To A Rapidly Changing World? Retreived 2019-02-08 from https://www.forbes.com/sites/quora/2018/01/05/how-can-businesses-adapt-to-a-rapidly-changing-world/#546ca8a55930

Moffitt, K. C., Rozario, A. M., & Vasarhelyi, M. A. (2018). Robotic Process Automation for Auditing. *Journal of Emerging Technologies in Accounting, 15*(1), 1-10.

Näslund, J., & Jern, S. (2015). *Organisationspsykologi.* Lund: Studentlitteratur.

Pardo del Val, M., & Martínez Fuentes, C. (2003). Resistance to change: a literature review and empirical study. *Management decision, 41*(2), 148-155.

Peters, L. H., O'Connor, E. J., Pooyan, A., & Quick, J. C. (1984). The relationship between time pressure and performance: A field test of Parkinson's Law. *Journal of Occupational Behaviour, 5*(4), 293-299.

Rintala, N., & Suolanen, S. (2005). The implications of digitalization for job descriptions, competencies and the quality of working life. *Nordicom Review, 26*(2), 53-67.

Santos, C., Mehrsai, A., Barros, A. C., Araújo, M., & Ares, E. (2017). Towards Industry 4.0: an overview of European strategic roadmaps. *Procedia Manufacturing, 13*, 972-979.

Schein, E. H. (1996). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Systems practice, 9*(1), 27-47.

Schein, E. H. (2002). The anxiety of learning. Interview by Diane L. Coutu. *Harvard Business Review, 80*(3), 100-6.

The Center for Self-Determination Theory. (2019). Theory. Received 2019-01-31 from http://selfdeterminationtheory.org/theory/

Smith, M. J., & Carayon, P. (1995). New technology, automation, and work organization: stress problems and improved technology implementation strategies. *International Journal of Human Factors in Manufacturing*, *5*(1), 99-116.

Stone, D. N., Deci, E. L., & Ryan, R. M. (2009). Beyond talk: Creating autonomous motivation through self-determination theory. *Journal of General Management, 34*(3), 75-91.

Svensson, I. (2018). *Self Determination Theory (SDT) (Självbestämmande teorin).* Unpublished manuscript.

Sveriges Kommuner och Landsting (SKL). (2018a). Automatiserad Ärendehantering. Retrieved 2019-02-11 from https://webbutik.skl.se/sv/artiklar/automatiserad-arendehantering.html

Sveriges Kommuner och Landsting (SKL). (2018b). Automatisering av arbete. Retrieved 2019-02-19 from https://webbutik.skl.se/sv/artiklar/automatisering-av-arbete.html

Sveriges Kommuner och Landsting (SKL). (2019a). Automatisering i välfärden. Retrieved 2019-04-22 from https://rapporter.skl.se/automatisering-i-valfarden.html

Sveriges Kommuner och Landsting (SKL). (2019b). Så styrs en kommun. Retrieved 2019-02-11 from https://skl.se/demokratiledningstyrning/politiskstyrningfortroendevalda/kommunaltsjalvstyresastyrsko mmunenochlandstinget/sastyrskommunen.735.html

Söderfjäll, S. (2012). *Behovsanpassat ledarskap* (First edition). Visby: Nomen förlag.

Waddell, D., & Sohal, A. S. (1998). Resistance: a constructive tool for change management. *Management decision, 36*(8), 543-548.

Wihlborg, E., Larsson, H., & Hedström, K. (2016, 5-8 January). " The Computer Says No!"--A Case Study on Automated Decision-Making in Public Authorities. *In 2016 49th Hawaii International Conference on System Sciences (HICSS)* (p. 2903-2912).

Wisskirchen, G. (2017). Digitalization and Automatization and Their Impact on the Global Labor Market. *IADC Comittee Newsletter*, 1.

Wisskirchen, G., Biacabe, B. T., Bormann, U., Muntz, A., Niehaus, G., Soler, G. J., & von Brauchitsch, B. (2017). Artificial intelligence and robotics and their impact on the workplace. *IBA Global Employment Institute,* 2012-2017.

Oral References

CEO, Knowit HRM. Telephone interview 2019-02-08.

CEO, Bioreq. Telephone interview 2019-02-18.

Analyst at department for digitalisation, Sveriges Kommuner och Landsting. Telephone interview 2019-02-12.

Head of Intelligent Automation, Knowit. Telephone interview 2019-02-13.

Appendix

Appendix A Intervjufrågor till enhetschefer - Svenska

Före

<u>Generella frågor</u>

Vill du börja med att berätta lite om dig, din bakgrund och vad din roll är.

Vem bestämde att förändringen skulle genomföras? (Tog initiativet)

        När?

Hur kände du för förändringen? (Inställning)

Förstod du att det fanns ett behov av förändring?

Vad var syftet med förändringen?

        Varför?

Hur förmedlades beslutet om förändringen till medarbetarna?

        När?

Vem ledde förändringen?

        Interna eller Externa?

        Vem gjorde vad?

<u>Frågor kopplade till Kotters teorier</u>

Hade de anställda möjlighet att påverka vilka uppgifter som skulle bli automatiserade?

Fanns det ett långsiktigt mål med automatiseringen?

Har ni en plan för hur den långsiktiga målbilden ska uppnås?

Om målet var att frigöra tid, hade ni en plan för hur den frigjorda tiden skulle användas?

<u>Frågor kopplade till Motivation</u>

Visste du innan förändringen påbörjades att människor skulle bli av med sina jobb till följd av förändringen?

Hade de anställda möjlighet att påverka sina nya arbetsuppgifter?

Under

<u>Frågor kopplade till Motivation</u>

Hur mycket fokus var det på varje enskild individ under förändringen?

Deras individuella behov?

Fokuserade ni något på medarbetarnas relationer till varandra under förändringen?

Hur gav ni anställda stöd under förändringen?

Gav ni dem möjlighet att gå utbildningar? (Påtvingade eller erbjöd)

Fanns det något motstånd till förändringen?

Hur hanterades det?

Frågor kopplade till Ångest

Hur arbetade ni för att skapa en trygg miljö under förändringen?

Kan du beskriva dig själv som ledare?

Frågor kopplade till Kotters teorier

Vad gjorde ni för att få med de anställda på förändringen?

Belönade ni de anställda som uppmuntrade förändringen?

Hade ni några delmål under förändringen?

Efter

Hur används den frigjorda tiden?

Fokuserade ni något på de anställdas kompetenser när ni omfördelade resurser?

Vad var ITs roll i förändringen?

När du ser tillbaka på förändringsprocessen, vad tycker du hade kunnat gjorts annorlunda?

Vad var era framgångsfaktorer?

Är det något mer du vill tillägga?

Appendix B Interview questions for managers – English

Before transformation

General questions

Could you start by telling us about yourself, your background and your role?

Who decided that the RPA implementation was going to be performed?

When?

How did you feel about the change?

Did you understand the need for the change?

What was the purpose of the change?

Why?

How was the decision about the change communicated to the employees?

When?

Who was in charge of the change?

Internal or external persons?

Who was in charge of what?

Questions connected to Kotter theories

Did the employees had the possibility to influence what tasks was going to be automated?

Were there any long-term goals of the automation?

Is there a plan for the the achievement of the long-term goal?

If the goal was to make time available for other tasks, how would this time be used?

Questions connected to Motivation

Did you know before the implementation started that employees would lose their jobs due to the change?

Did the employees had the possibility to affect their new working tasks?

During transformation

Questions connected to Motivation

How much focus was spent on every individual during the change?

How much focus was spent on their individual needs?

Did you focus anything on the employees relations to each others during the change?

How did you support the employees during the change?

Did you give them the opportunity to educate themselves?

Was there any resistance to the change?

How was that handled?

Questions connected to Anxiety

How did you encourage a safe environment during the change?

Can you describe yourself as a leader?

Questions connected to Kotter theories

What did you do to get the employees to engage/ be involved in the change?

Did you reward the employees that encouraged the change?

Did you have any milestones during the change?

After transformation

How do you use the new available time?

Do you focus anything on the employees' competences when you allocate the resources?

What was ITs role in the change?

When you look back on the change, what do you think could have been done differently?

What was your successfactors?

Is there something else you would like to add?

Appendix C Intervjufrågor till anställda - Svenska

Kände du att du var medveten om vad syftet med införandet av RPA var?

Vad var dina huvudsakliga arbetsuppgifter före införandet av RPA?

Hur länge hade du de arbetsuppgifterna?

Berätta om dina känslor kring dina tidigare arbetsuppgifter.

Vad gjorde att du kände som du gjorde?

Var du stolt över ditt arbete?

Hur var din arbetsbelastning?

Har du en utbildning som var relevant för dina tidigare arbetsuppgifter?

Hur har dina arbetsuppgifter förändrats efter implementeringen av RPA?

      Hur känner du för dina nya arbetsuppgifter?

Upplever du att du får stöttning?

Individuell stöttning?

Upplever du att du får tillit att utföra dina nya arbetsuppgifter?

Kan du berätta om din tidigare relation till dina kollegor/din chef? (basic need: samhörighet)

Vad är anledningen till att du kände så?

Upplever du att din chef stöttade dig?

Hur förändrades gruppen när två fick gå?

Hur trivs du med dina (nya) kollegor/din chef?

Kände du att du hade möjligheten att utvecklas i ditt arbete? Förklara!

Kände du att du kunde påverka din arbetssituation?

På vilket sätt?

Känner du att du har möjlighet att påverka din arbetssituation?

Vad motiverade dig att utföra dina arbetsuppgifter? (Endast belöning eller också intresse?)

Vad motiverar dig att utföra dina arbetsuppgifter?

Upplever du att du har möjligheten att utvecklas i ditt arbete?

Känner du dig motiverad att alltid göra ditt bästa?

Om anledningen till RPA är att frigöra tid:

Vilka planer fanns det kring hur man skulle utnyttja den frigjorda tiden?

Vad gör du med din frigjorda tid?

Har du haft möjlighet att påverka vad du gör? /Önskar du att du fick chansen att påverka?

Gör du det du vill?

   Har din arbetsbelastning förändrats?

Hur fick du först höra om förändringen?

När?

Hur kände du då?

Frågor kopplade till Kotters teorier

Hur motiverade cheferna/initiativtagarna anledningarna för förändringen?

Förstod du behovet av förändring?

Fanns det något långsiktigt mål med automatiseringen?

Hade du möjlighet att vara involverad i beslutet om automatisering och förberedelserna?

Hade du möjlighet att påverka din egna framtid? (arbetsuppgifter)

Gjorde du något för att påverka förändringens riktning?

Hur kommunicerades framgångarna under förändringen?

Frågor kopplade till Ångest

Behövde du ny kompetens för dina nya arbetsuppgifter?

Fick du relevant utbildning?

Hur upplever du att dina kollegor uppfattade förändringen?

Påverkade deras reaktioner dina känslor?

Berätta om din tillit till organisationen efter förändringen.

Strävar du efter att uppnå en högre position?

Mer eller mindre än förut?

Upplever du att du har möjlighet att ta karriärsteg om du skulle vilja?

Upplever du att du har en ökad/minskad möjlighet att ta karriärsteg än innan?

Om förändringen skulle göras igen, vad hade du önskat gjordes annorlunda?

Har du någonting annat som du skulle vilja dela med dig av?

Appendix D Interview questions for employees – English

Did you feel as you were aware of the purpose with the RPA-implementation?

What was your main working tasks before the implementation of RPA?

For how long have you had those working tasks?

Can you tell us about your feelings for your previous working tasks?

What made you feel as you did?

Were you proud of your work?

How was you workload?

Do you have a education that is relevant for your previous work tasks?

How have your work tasks been changed after the implementation?

How do you feel about your new work tasks?

Do you feel as you are provided with the support you need?

Do you feel like you are trusted to conduct your new work tasks?

Can you tell us about your previous relationships with your colleagues at work?

Why did you feel that way?

Do you feel as your manager supports you?

(How did the group change when some employees were forced to leave?)

How do you thrive with your new colleagues?

How do you thrive with your boss?

Did you feel that you had the possibility to develop in your work?

Did you feel as you could affect your working situation?

In what way?

Do you feel like you can affect your current working situation?

What motivated you to perform your working tasks?

What motivates you to perform your working tasks?

Do you feel as you have the possibility to develop at work?

Do you feel motivated to always do your best?

If the reason for implementing RPA was to make time for other activities:

What planes were there concerning how to take advantage of the new available time?

What do you do with the new available time?

Did you have the opportunity to affect what to do with the available time?

Do you feel as you are doing what you want?

Has your work load changed?

How did you hear about the change?

When?

How did you feel?

Questions connected to Kotter theories

How did the managers/ initiviaters of the change motivate the reason for the change?

Did you understand the need for the change?

Was there a long-term goal for the change?

Did you have the possibility to be involved in the decision-making of the automation

Did you have the possibility to be involved in the preparation work?

Did you have the opportunity to decide on your own future?

Did you do anything to affect the direction of the change?

How were the successes/progress communicated during the change?

Questions connected to literature conserning Anxiety

Did you need any new competence to be able to handle your new working tasks?

Did you get relevant training?

How do you think your colleagues perceived the the change?

Did their reactions affect your feelings?

Tell me about your trust for the organisation after the change.

Do you strive to reach a higher hierarchical position in the organisation?

More or less than before?

Do you consider yourself having the possibility to reach a higher hierarchical position in the organisation?

Do you feel as you have a decreased or increased possibility to reach a higher hierarchical position in the organisation now than before?

If the change would be conducted again, what do you wish would be done differently?

Do you have anything else you would like to share with us?