CHALMERS
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A Transition to Improve Service Quality
-A Case Study at a Logistics Software Service Provider

Master's Thesis in the Master's Program
Quality and Operation Management

LOVIS GÖTHBERG
LOUISE KROOK

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LOUISE KROOK

Department of Technology Management and Economics
Division of Service Management and Logistics
CHALMERS UNIVERSITY OF TECHNOLOGY
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Abstract

In a logistics market that is characterized by digitalization, booming e-commerce and customer centricity, the ability to meet the growing demand to deliver both quantity and quality of services is vital for service providers - A challenge that puts pressure on the customer services of logistics software service providers due to an increasing number of incidents. To be able to meet this demand companies turn to reorganizing their customer services to accommodate expert knowledge for solving incidents by dividing the customer service into customer specific segments. The purpose of this thesis was therefore to study how organizational changes at a logistics software provider affects the quality, provided through the incident management, that the customer service performs. A secondary purpose is to evaluate how the changes would lead to improved service quality and indicate further improvements.

This thesis is based on a single case study of the customer service at a logistics software service provider. A qualitative approach was used, consisting of unstructured and semi-structured interviews accompanied by a literature review performed in parallel. In total, 17 interviews were held with employees, managers and customers of the studied company accompanied by an observational study of the workflow of the customer service employees and shadowing of meetings between employees, managers and customers. Interviews were aimed at evaluating the customer satisfaction, hence service quality, along with identifying factors of incident management practices affecting the service quality, such as employee satisfaction. The results showed that the service quality was perceived as low in terms of reliability, due to the SLA measurements, which demonstrated an inability to deliver according to the service promise. However, the perception of the responsiveness was exceeding the expectations due to shown willingness to help. The changes in the organization of incident management, partially solve the identified factors leading to poor service quality but only to a certain extent, leaving room for improvements. The following improvements to enhance the service quality are suggested:

- Re-design SLA to include collaboration and reflect the customer satisfaction
  - Consider double-loop learning when developing quality measurements
- Improve leadership in India and the US
  - Introduce local team leaders
  - Design cross-cultural teams and training programs
  - Appoint career mentors to present clear career paths
- Introduce stand-up meetings with Customer Service and Delivery Teams to build their collaboration
- Document practices to maintain expert knowledge and ensure knowledge

The thesis can conclude that the change open doors to cultivate knowledge and resources for improving the service quality. The potential difficulties when trying to implement customer-centric changes to improve quality measures were also shown, as there are many factors of the organization to consider. Quality measures, such as SLA, should not be substituted but rather complemented with other qualitative measurements to incorporate collaboration and create a better understanding of the customer satisfaction.

Keywords: Service quality, IT incident management, customer service, customer centric, customer satisfaction, change management

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1. Introduction

In the following section, the background and problem description of the thesis are presented. Furthermore, the purpose and corresponding research questions are introduced along with the delimitations of the thesis.

1.1 Background

Digitalization is transforming the market of logistics today when new digital-native logistics services emerge with technological innovations that enable agility and customer centricity (Bamberger, Nansé, Schreiber & Zintel, 2017). The evolution of Information and Communication Technology (ICT), Internet of Things and Industry 4.0 have presented new challenges in the logistics domain such as aligning the organization with the patterns of this paradigm change. With the growing demand for high quality and highly individualized services, logistics providers must adapt to this changing environment (Barreto, Amaral & Pereira, 2017).

Third-party logistics service providers (3PLs) handle outsourced procurement, transportation and distribution functions for client companies. The demand for logistics services is greatly influenced by e-commerce and considering how the area of e-commerce has grown into a €14.2 billion business-to-business market globally, it is not surprising that 3PLs have been increasing investments to expand their capacities (Laudon & Traver, 2016; Yu, Wang, Zhong & Huang, 2017). However, not all logistics service providers are able to manage the competition (Min & Joo, 2006). A survey conducted by Langley and Capgemini (2007) indicated that many business users are dissatisfied with the services provided by their logistics service providers and that they fail to deliver a trustworthy relationship and meet their quality promises (Wong & Karia, 2008). Most firms agree that the customer service quality to a great extent affects the global business performance (Hung, Huang & Chen, 2003). The service quality thus becomes a crucial component of a business strategy for firms to stay competitive and can act as a catalyst for growth (Grönroos, 1984; Barrett, Davidson, Prabhu, & Vargo, 2015). Considering the increasingly competitive logistics market, it is of uttermost importance to provide excellent service quality and thereby increase customer satisfaction (Hapsari, Clemes & Dean, 2017; Orel & Kara, 2014).

In the global branch of software business, there has been an increased attention around the IT service management, with the goal to define, manage and deliver IT services that support customer needs (Winniford, Conger & Erickson-Harris, 2009). Commonly businesses determine their service quality improvement strategies based on customer satisfaction measures, which intends to identify quality attributes. Identifying customers' perceptions of the provided service quality can facilitate the design of appropriate improvement strategies by indicating strengths and improvement areas (Chen, Yang, Lin & Yeh, 2007).

1.2 Problem Description

In a digitalized logistics market, software providers must uphold a service quality that corresponds to the demands following the growth of e-commerce. The software systems that enable the logistics are integrated with multiple applications, by different service providers along with an immense number of carriers worldwide. The complexity of the systems has created an opportunity for companies to provide software solutions to manage this. However, the complexity presents a challenge even for these types of software service providers. The demands include an increasing volume of incidents related to upholding the services, causing service quality to suffer. When service quality promises are not reached, the service providers

run the risk of losing loyal customers and aligning the organization to the increasing demands of the market becomes inevitable. To improve service quality companies often turn to optimizing their products and processes, making customer service a secondary priority. Change has been slow to arrive in the practice of customer service in general (Dixon, 2018). Evaluating how to meet the challenges with an increasing volume of complex incidents, while delivering a high service quality, therefore presents an urgency.

1.3 Purpose

The primary purpose is to study how organizational changes at a logistics software provider affect the service quality, provided through the incident management, that the customer service performs. A secondary purpose is to evaluate how the changes would lead to improved service quality and indicate further improvements. In order to fulfill the purpose of the thesis, three research questions (RQs) have been formulated:

_RQ1:_ _What factors of incident management practices affect service quality?_
The service quality is dependent on several factors related to the organizational context such as the service setting, situation and customer expectations that change over time (Seth, Deshmukh & Vrat, 2005). Consequently, this creates a need to thoroughly evaluate performance from the customers' point of view and investigate what factors within the organization can be reflective on the service quality. Hence, RQ1 is focused on investigating the factors of current incident management practices and further analysis how the service quality is affected by these factors. Thus, acting as the foundation for RQ2 and RQ3.

_RQ2:_ _To what extent can a change towards a specialized customer service solve the identified factors leading to poor service quality?_
Market pressures that demands organizational changes, intended to boost quality, can generate poor outcomes by adoption of changes that fails to yield desired benefits (Lewis, 2011; Kotter, 2007). To be able to sustain and continuously evolve potential improvements of organizational changes, it is important to reflect upon whether the change initiatives are achieving their intent by analyzing how and why organizational changes would improve factors leading to poor service quality. Hence, enabling identification of areas with potential for further improvements. Therefore, RQ3 is formulated as following:

_RQ3:_ _How can the service quality be further enhanced?_

1.4 Delimitations

This thesis will be a case study focusing on one specific company. It will be delimited to studying the service quality of this company's incident management for one of their specific customers. The limitation of studying one specific customer is due to the customer's significant contribution to the annual turnover of the studied company.

All data was collected before the change was implemented. Two of the research questions concern a change, a reorganization, that the company is undergoing in parallel to this thesis being conducted. However, the complete reorganization will not be fully implemented, nor the effects measurable, within the time frame of the thesis. Definitive results of the reorganization will therefore not be presented, and the change will be analyzed against theory instead. Furthermore, as the implementation phase of the reorganization was performed in parallel to this thesis, the results from interviews with customer representatives could be biased due to their positive expectations on the upcoming changes.

2. Methodology

In the following chapter the chosen methodology for the thesis is presented. The research setting is described to establish the context of the study along with the research approach. Furthermore, the data collection, analysis processes of the data and literature review are addressed followed by the trustworthiness and ethical considerations of the thesis. All methods used were qualitative to uphold the trustworthiness by delivering a rich context (Yin, 2014).

2.1 Research Setting

The company that comprises the research setting of this thesis is for anonymity reasons named as "Alpha" or "company Alpha". Alpha is a logistics software service provider offering a cloud-based software for transport administration towards customers within the areas of retail, e-commerce, logistics, wholesale and manufacturing. The company Alpha is a medium-sized enterprise based in Sweden, founded in 1998. Alpha has 230 employees worldwide, including the United States, India and Sweden. The company Alpha is conducting business in 125 countries with over 2000 customer sites. They deliver services to over 200 customers which are medium to large enterprises with multiple sites, and therefore in need of complex logistics solutions.

The company Alpha's core business consists of facilitating transport administration and processes of sending shipments through an integrated system that manages different transport carriers. Instead of having to go through separate steps in separate systems, the solution enables the customer to go through the same steps with all their systems connected to company Alpha's cloud solution which communicates with all carriers the customer hires. Alpha's extensive knowledge and experience with several hundred carriers make it easier for the customer when they want to add new carriers to their selection of transport options. Besides the core business of transport administration, company Alpha also offers a bundle of ad-on services including: E-commerce enablement which includes different delivery options, logistics visibility which includes shipment tracking and finally financial services such as invoice controls.

The company Alpha had a yearly turnover of 200 million SEK in 2017, out of which one specific customer, a large Swedish retailer henceforth referred to as customer *Kappa* (for anonymity reasons), represents a significant contribution of the turnover since 2007.

The company Alpha is characterized as a flat organization, with few management levels. The company has been ranked as one of the best workplaces in Sweden by an independent and international institute that evaluates customer satisfaction and company culture from an employee and management perspective.

Over the recent years the company Alpha has grown substantially, both in organizational size as well as having an increase in number and size of customers. With this comes a requirement for an organizational structure that can deliver supporting services according to a promised standard. In late 2018, company Alpha identified a need to reorganize the customer service to provide customized service offerings and deliver according to their service promises.

2.2 Research Approach

The research of this thesis will first and foremost take the approach of a case study of a single company. The initial approach used was inductive to allow for exploration of the complex organizational environment and guide the direction of the investigation. An inductive

approach formulates theory based on the findings and is considered trustworthy in supplying evidence. To further ensure academic rigor, the approach shifted towards being abductive. An abductive approach is considered valid since the study is taking a stand in existing theory while moving between theory and empirical findings (Bryman & Bell, 2015).

The use of case study research offers an opportunity to gain insight into a specific case and enables the researcher to gather data from a variety of sources using different methods. The approach helps the researcher to answer "how" and "why", while considering how a phenomenon is affected by the context in which it is situated (Baxter & Jack, 2008). This thesis was therefore conducted as a single case study design to focus on answering "how" and "why" questions. A case study research also offers in-depth understanding of contextual conditions relevant to the phenomenon of the study (Yin, 2003; Yin 2014). In the case of this thesis the context is a company that faces growing demand for logistics services, in which the phenomenon of an organizational change takes place.

One key approach guiding the case study methodology is described by Yin (2003, 2006), which is based on a constructive paradigm. Constructivists claim that truth is relative and that it is dependent on an individual's perspective. This paradigm "*Recognizes the importance of the subjective human creation of meaning but doesn't reject outright some notion of objectivity. Pluralism, not relativism, is stressed with focus on the circular dynamic tension of subject and object*" (Miller & Crabtree, 2000, p. 10). A significant advantage of this approach is that through a close collaboration between the researcher and participant, stories describing the reality can be told to enable the researcher to better understand the participant's actions (Baxter & Jack, 2008).

A characteristic attribute of the case study research is the utilization of multiple data sources, a strategy that also enhances data credibility (Patton, 1990; Yin, 2003). Potential data sources may include, but are not limited to: Documentation, interviews, direct observations, and participant-observation (Baxter & Jack, 2008). Compared to other qualitative research approaches, researchers can in a case study collect and integrate qualitative survey data. This enables a holistic understanding of the phenomenon being studied and the obtained data can be used in the analysis process instead of just handled individually. This convergence adds strength to the findings as the various strands of data are braided together to promote a greater understanding of the case (Baxter & Jack, 2008). However, one must be aware of the danger of managing multiple data sources. Collection of large quantities of data require management and analysis, which can cause the researcher(s) to lose themselves in the data.

2.3 Empirical Data Collection and Analysis

The collection of data consists of qualitative research in the form of unstructured and semi-structured interviews, first person observations and shadowing. Access to data compiled by the studied company also contributed to the general comprehension of the case, as presented in chapter *4.2.5 Managerial Perspective on Factors Affecting the Service Quality*.

2.3.1 Interviews

Both unstructured and semi-structured interviews were used as qualitative methods, and the presented data in chapter *4. Result* is based on insights gained from both methods.

In qualitative interviewing there is a greater interest in the interviewee's point of view, according to Bryman and Bell (2015). Furthermore, qualitative interviews are best rewarded when exploring complex phenomena such as emotions, experiences, complex issues that requires an understanding of how things work as well as obtaining information from key

players (Denscombe, 2014). Qualitative interviews were therefore chosen to gain insight from the perspective of the key players of the organizational context, by obtaining rich and detailed answers conveying their experiences and emotions. The interviews held followed the methodology depicted in Figure 1 below.

Figure 1 *Research time line*

Table 1 below presents all the interviewed subjects. Altogether 17 interviews were held, seven interviews were held with employees, six with managers and four with customer representatives. One interviewee represented both a managerial and employee perspective due to this person's unofficial leader role.

Table 1 *Table of interview respondents*

Position	Perspective of	Anonymous code	Location	# of interviews
Application Specialist	Employee	A	Sweden	1
Application Specialist	Employee	B	Sweden	2
Application Specialist	Employee	C	India	2
Application Specialist	Employee	E	US	1
Application Specialist	Employee /Managerial	D/A	India	1
Delivery Manager	Managerial	B	Sweden	2
Delivery Manager	Managerial	C	Sweden	2
Delivery Manager	Managerial	D	India	2
Manager	Customer	X	Sweden	2
Manager	Customer	Y	Sweden	1
Manager	Customer	Z	Sweden	1

Unstructured interviews use a brief set of prepared topics allowing the interviewee to respond freely and the interviewer to ask follow-up questions, similar in character of a conversation (Bryman & Bell, 2015). Denscombe (2014) describes how unstructured interviews allow questions to change from one interview to the next based on information given in previous interviews. The initial interviews were therefore unstructured (two with Manager B & C and one with Application Specialist B) in order to gain insights into the organizational structure and processes at the case company. Thus, facilitating the creation of the questions for the following semi-structured interviews.

Bryman and Bell (2015) describe the semi-structured interview as an interview where the interviewer has prepared questions beforehand, but some additional questions can be added along the way, depending on the interviewee's answers. Semi-structured interviews were used as it allows for flexibility by letting the interviewee develop their ideas and speak about the issues raised by the interviewer (Denscombe, 2014). Three types of semi-structured interview guides were prepared, each focusing on the perspective of the interviewee being either the manager, employee or customer.

Interviews with the managers contained general questions to get a wide perspective of practices that they believed to affect the service quality (See Appendix I). All managers that have responsibility of the delivered service quality were interviewed. The interviews to obtain the customer's perspective were held with customer representatives who are working closely with the incident management processes at company Alpha. The questions were created to evaluate the customer satisfaction and service quality, based on theory about service quality and customer satisfaction (Appendix II). Two of the interviews also contained questions aimed at understanding the incident management processes of the customer that may affect the service quality (See end of Appendix II). Employee satisfaction is an important consideration to improve service quality and customer satisfaction (Yee, Yeung & Cheng, 2008; Malhotra & Mukherjee, 2004). Interviews with employees were therefore specifically designed to create an understanding of the employee satisfaction and the employees current work situation by considering the subjects of workload, communication, feedback and motivation (See Appendix III). The employees chosen for these interviews represent all of the company's worldwide locations and their work experience range from two months to four years at the company.

2.3.2 Observations

Observations are commonly used to gather information while observing the natural state and behavior of the research subject. Unstructured observations were used to record details and describe the used processes and the workflow of the employees during a normal day at work. One unstructured observation was performed with an Application Specialist, the result of which is depicted by the process flow chart of incident management in chapter *4.2.2 Internal Process Flow for Solving Incidents*. The role used was observer-as-participant to allow for the researchers to ask questions and act as interviewers. In contrast to a complete observer, where the researcher would instead not interact at all with the subject of the observation (Bryman & Bell, 2015).

Another applied method was shadowing which can be described as a type of participant-observation. The method of shadowing is defined by McDonald (2005) as a technique which involves a researcher following a member of the organization over a certain period of time, for example shadowing the subject at meetings and time spent at their desk. This can be used as a stand-alone method, but it bears similarities with participant observations (Bryman & Bell, 2015). One of the advantages is that it enables the researcher to view the behavior directly, rather than relying on the individual's account of their role in the organization

(McDonald, 2005). This technique was used in the thesis by participating in meetings in order to be able to understand the current state and reasons for reorganizing. In total two different subjects (one Application Specialist and one Manager) were shadowed while they were separately attending three different meetings. Before the meetings research about the organization was done and during the meetings notes were recorded on paper, as described by McDonald (2005).

2.3.3 Analysis of data

As in any typical qualitative study the collection of data and the analysis of it occurred in parallel (Baxter & Jack, 2008). To initiate the analysis, the data was inspected from different angles while searching for patterns, insights or concepts that seemed promising, as recommended by Yin (2014). Data can be analyzed by making a matrix of categories, placing the evidence within such categories as well as juxtaposing interview results to each other (Yin, 2014; Miles & Huberman, 1994). Results from different interviewees were thus arranged in categories and juxtaposed by comparing e.g. the customers perception and expectations, the employee satisfaction results between the global sites as well as the managerial perceptions with what was expressed by employees. It is important to consistently keep in mind to focus on the frames of the set scope and not analyze data outside of the research questions, as described by Yin (2003). To gain a holistic view and understand the overall case and not the individual features, the focus lied on merging all the collected data and analyzing it together, a method supported by Baxter & Jack (2008).

2.4 Literature Review

To gain knowledge about relevant theory and tools a literature review was conducted, including topics such as *service quality*, *change management*, *incident management*, *customer- and employee satisfaction* and *customer centric models*. The literature study was conducted in an iterative manner, thus was the theoretical framework dynamic throughout the process and developed in parallel with the empirical data collection. Along with the construction of interview questions and the analysis of the results, literature describing theoretical models to explain the findings were searched for, such as SERVQUAL and the context-content-process model of change, described in the theoretical framework.
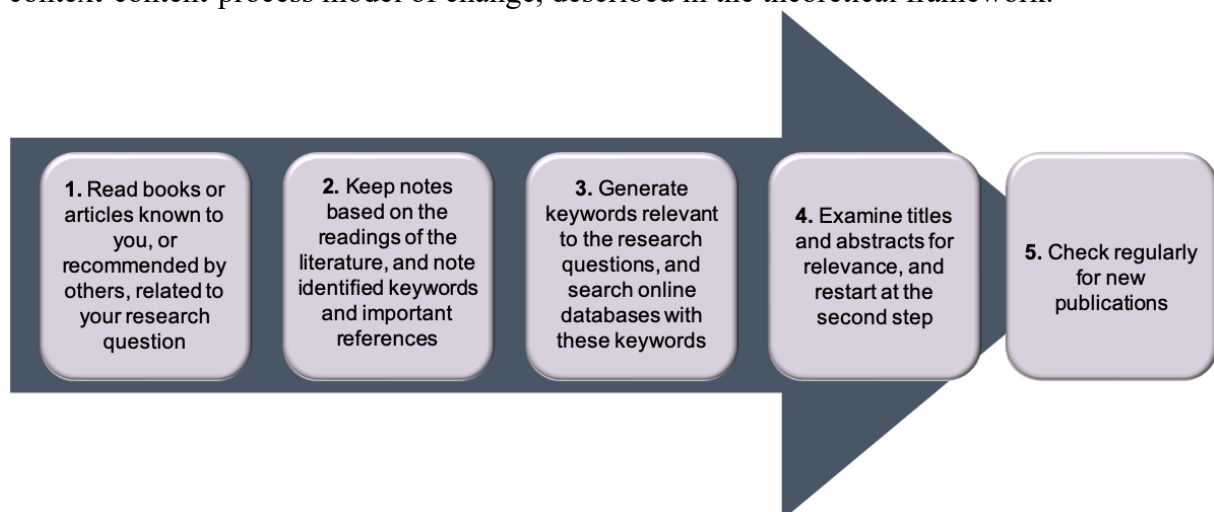
Figure 2 The five-step method by Bryman & Bell (2015).

The literature study was conducted following the *Five-Step method* by Bryman & Bell (2015), depicted in Figure 2. During the reading, notes were developed, potentially useful references were noted, and keywords related to the research questions were created. Examples of potential keywords were: "incident management in service organizations", "change

management", "service quality" and "service management at logistic providers". Academic articles and books were accessed through electronic databases, such as the Chalmers library database, Google Scholar, and Emerald Insight. References were also recommended by the supervisor at Chalmers University of Technology.

2.5 Trustworthiness

In order to ensure the quality of research, the three criteria of reliability, replication and validity are mentioned for evaluation (Bryman & Bell, 2015). However, the suitability for qualitative studies of these criteria have been debated due to its critical view that there are absolute truths, which is more applicable to quantitative studies. Guba & Lincoln (1994) suggests trustworthiness as an alternative criterion for assessing qualitative studies. Trustworthiness consists of criteria for credibility, transferability, dependability and confirmability (Bryman & Bell, 2015).

Credibility refers to how believable the findings are and if they are carried out according to good practice. Two common practices used to ensure credibility in this thesis were *respondent validation* and *triangulation*. Findings were validated with respondents by confirmation through e-mail and follow-up Skype meetings. Triangulation was used by converging evidence from interview data with several customer representatives, employees, managers and utilization of internal documents as additional sources. Transferability refers to whether or not findings hold in other contexts while dependability refers to how well proper procedures are being followed. Rich descriptions of the social context studied were produced to ensure transferability to other contexts and reflections on how findings can be applicable to other companies are provided in chapter *6. Conclusion*, a method described by Guba & Lincoln (1994). By having a solid documentation processes where data is collected, stored and presented, the research of this thesis can ensure transferability as well as dependability. Conformability was established by ensuring that the researchers have acted in good faith by not allowing personal values to impose on the research. Confirming that these criteria have been applied will give transparency which will increase the trustworthiness of the study (Bryman & Bell, 2015; Yin, 2014).

Furthermore, risks that may affect the quality of research and its trustworthiness were considered, including the practices of case studies, interviews and observations. A concern presented by Yin (2014) deals with the notion of generalizing and to what extent this can be done from a single experiment, since generalizations in science usually are based on multiple experiments. This concern is met with the answer that case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes (Yin, 2014). In the context of this thesis, the findings obtained from the case study will thus be generalized in relation to the theoretical framework, as presented in chapter *5. Discussion*.

All interview guides contained a standard introduction of the researchers and the thesis as well as standard questions for the interviewee regarding their position and areas of responsibility. The structure of the questions asked started with more general easy-to-answer questions, easing into more complex questions. Leading questions were avoided, and statements were made to sound as unthreatening as possible to further ensure the trustworthiness of the interviews, as described by Bryman & Bell (2015). By both appearing neutral and stating the researcher's neutrality of the discussed topic, the so-called interview effect was avoided, meaning not letting the researchers' identity affect the amount of information that the interviewees are willing to share (Descombe, 2014). Creating a 'reactive effect' during observations can also affect the generalizability of the findings (Bryman & Bell, 2015). If so, the observed person becomes too aware of them being observed which

affects how they respond in the situation. However, the risk of the reactive effect was assessed as low, since the studied subject was very experienced and comfortable in their performance as well as accustomed to being observed. Results were also confirmed both with the subject and with other employees in similar positions.

2.5.1 Ethical considerations

When interviewing, observing and interacting with informants to the study, it is important to consider ethical aspects. Aspects to consider, as described by Bryman and Bell (2015), are mainly lack of informed consent, invasion of privacy and deception. In this thesis, interviews were the key method of collecting data and to avoid lack of consent the purpose of the research was clearly stated along with how the data was going to be analyzed, managed and to whom and when it would be presented. With an understanding of the study and the possible results of it, the interviewees were in a better situation to make the decision to participate in the study or not. To avoid the issue of invasion of privacy, all participants were given the right to deny the interview or not to answer a question. Before recording the interview, all participants were asked for permission and ensured the recording would not be distributed to anyone outside the research team.

Furthermore, sources in the research need to be presented in an ethical way, meaning crediting the rightful author of the information used.

3. Theoretical Framework

The theoretical framework presented in the following chapter will provide the basis for the analysis that will be performed to answer the RQ's and fulfill the purpose of the thesis. Firstly, a definition of quality is presented in order to create the frame for the analysis. Derived from this, definitions of service quality along with customer satisfaction and models of quality measurements such as SERVQUAL are introduced. Thereafter, employee satisfaction and its link to service quality is addressed followed by theory on incident management to form an understanding of the current organizational structure and upcoming reorganization. Furthermore, communication and knowledge transfer is introduced as challenges related to customer service. Further on, change management theory and Pettigrew's context-content-process model of strategic change is presented to provide the core theoretical framework for RQ2. An overview of the theoretical models used to cover the theoretical framework is presented in Figure 3 below.

SERVQUAL

Context-Content-Process Model

Service Quality
Customer Satisfaction
Incident Management
Employee Satisfaction
Communication & Knowledge Transfer

Change Management

Result & Analysis
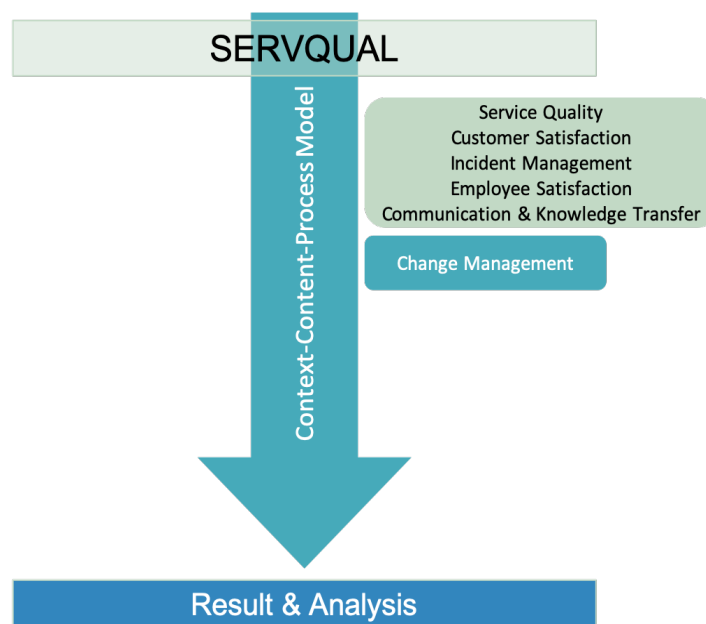
Figure 3 The theoretical framework for the thesis.

3.1 Definition of Quality

Quality is a perceptual and subjective attribute which may be interpreted in different ways by different people (Parasuraman, Zeithaml & Berry, 1985). It is defined by Oxford Dictionaries as *"The standard of something as measured against other things of a similar kind; the degree of excellence of something"*. The perception of quality is defined by Zeithaml (1987) as *"the consumer's judgment about an entity's overall excellence or superiority"*. Overall one can say that the quality of a service or a product is its ability to satisfy, or preferably exceed, the needs and expectations of the customers (Bergman & Klefsjö, 2010).

Lagrosen (2001) argued for the importance of defining quality by the specific industry characteristics that create customer satisfaction. Within the service industry, customer satisfaction is considered a crucial factor of perceived quality as well as a means of measurement difference between customers' perceptions and expectations. A satisfaction-based definition of quality is therefore appropriate for service organizations (Wicks & Roethlein, 2009). The definitions of quality that this thesis will focus on are the *perceived quality* and the *expected quality* which together will evaluate the customer satisfaction.

3.1.1 Service Quality

The definition of service quality is debated; however, it is indisputable that it is of importance to firms due to its strategic benefit (Parasuraman, Zeithaml & Berry, 1985). The term "quality" is often used as if it were a variable itself, even though it is a range of activities and resources. According to Parasuraman, Zeithaml and Berry (1985) service quality is an abstract and elusive construct because of its unique properties as a service: Intangibility, heterogeneity, and inseparability of production and consumption. Intangibility means that one does not receive a physical product, heterogeneity means that one cannot offer exact the same service each time due to differences in human behavior while inseparability means that it is produced at the same time as it is consumed. These are the critical determinants that influence the perceived service quality, meaning that the service has to be well defined in order to understand the perceived service quality (Parasuraman, Zeithaml & Berry, 1985). Asubonteng, McCleary and Swan (1996) define service quality as *"the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received"*.

Perception and Expectation

Parasuraman, Zeithaml & Berry (1988) describe the perceived quality as a form of attitude, related to satisfaction, and that it is a comparison of expectations and perceptions of performance. This is along the lines of what Grönroos (1984) describes in his Service Quality Model, which is dependent on the two variables: Expected service and perceived service. The perceptions and expectations of the customers are predominantly associated with services (Wicks & Roethlein, 2009). The perceived service is the current perception that the customer has of the service itself (Grönroos, 1984). Parasuraman, Zeithaml & Berry (1985) conducted interviews illustrating that respondents could feel satisfied with a service but at the same time lack the impression of the service being of high quality. This was seen as an indication that satisfaction over time result in the perception of service quality. The expectation is codependent on the promises of performance given to the customers. However, the expected quality is also closely related to previous experiences and the word-to-mouth communication. Knowing the expectations and perceptions of the service is a means of evaluation of the service quality and through that evaluate customer satisfaction (Wicks & Roethlein, 2009).

Customer Satisfaction

Customer satisfaction is partly defined as the fulfilment of a need or want (Merriam Webster's Dictionary). However, the definition of satisfaction also lacks consensus and it differs depending on its setting (Giese & Cote, 2000; Wicks & Roethlein, 2009). The definition of quality based on satisfaction, is investigated by Wicks & Roethlein (2009). According to their study, customer satisfaction is a result of a process evaluating the received product or service. Other studies have also shown that customer satisfaction is associated with performance that fulfills expectations. If a product or service perform as expected, or better, this will result in a satisfied customer (Swan & Combs, 1976). The service quality increases when the customer satisfaction and retention increase (Asubonteng, McCleary and Swan, 1996). Understanding the customer and knowing to what extent the company's performance meets customer expectations are the key when finding areas of improvements (Hill & Brierley, 2017). The purpose of evaluating customers' satisfaction is not only to measure the actual satisfaction level, it can also highlight strengths and areas for improvement. Continual improvement actions can increase customers' satisfaction and raise profits (Wicks & Roethlein, 2009).

3.2 Measuring Service Quality

Organizations have for a long time recognized the need for evaluating performance from the customer's point of view. The construction of valid tools for a systematic evaluation of organizations' performance and how to measure quality, more specifically service quality, has therefore been a frequent topic in management literature (Parasuraman, Zeithaml & Berry, 1988; Grönroos, 1984; Cronin & Taylor, 1992). The SERVQUAL instrument developed by Parasuraman, Zeithaml & Berry (1985; 1988), is widely applied across a variety of industries and contexts but has been subject to criticisms. Despite the criticism of the approach, along with modifications, it has become one of the most common tools used in current research of service quality (Ladhari, 2009). It is useful in the context of this thesis due to the qualitative measurements and that it will help to gain a better understanding of the customer's perceptions and expectations to evaluate and improve the provided services.

3.2.1 SERVQUAL

SERVQUAL is an instrument for assessing customer perceptions of service quality in service and retailing organizations developed by Parasuraman, Zeithaml & Berry (1985; 1988). The instrument is based on the idea that the customer's assessment of service quality is paramount, and the assessment is pictured as gaps between the customer's expectations and perceptions. Ideally the customer's expectation would equal the perception. The customer's perception is entirely subjective and based on the experience with the product or service. The gap between perceptions and expectations is measured in consideration of five service quality dimensions (See Table 2) defined by Parasuraman, Zeithaml & Berry (1988): Reliability, assurance, tangibles, empathy and responsiveness.

Table 2 Definitions of the dimensions of service quality (Parasuraman, Zeithaml & Berry, 1988).

Dimensions	Definition
Reliability	The ability to perform the promised service dependably and accurately
Assurance	The knowledge and courtesy of employees and their ability to convey trust and confidence
Tangibles	The appearance of physical facilities, equipment, personnel and communication materials
Empathy	The provision of caring, individualized attention to customers
Responsiveness	The willingness to help customers and to provide prompt service

There is a correlation between the quality dimensions according to Parasuraman, Zeithaml & Berry (1988), which also implies that improvements of one dimension may only be achieved at the expense of another (Garvin, 1987). This presents a challenge of deciding on a balanced combination and positioning where highly concentrating on one dimension can provide the appropriate strategy, although it might result in disaster (Garvin, 1987; Haywood-Farmer, 1988).

The service quality model by Parasuraman, Zeithaml & Berry (1985) is based on gap analysis of the following five gaps (Seth, Deshmukh & Vrat, 2005):

- Gap 1: Customer expectation-management gap, the difference between consumers' expectations and management's perceptions of service quality.
- Gap 2: Management perception-service quality specifications gap, i.e. improper service-quality standards.
- Gap 3: Service quality specification-service delivery gap, the difference between service quality specifications and service actually delivered, i.e. the service performance gap.
- Gap 4: Service delivery-external communication gap, i.e. whether promises match delivery.
- Gap 5: Expected service-perceived service gap, the difference between consumer's expectation and perceived service. This gap depends on size and direction of the four gaps associated with the delivery of service quality on the marketer's side.

Potential Applications and Properties

SERVQUAL was designed to be applicable on a wide range of services and as such, it provides a fundamental framework through its expectation versus perceptions format. The framework can, when found necessary, be customized and adapted to suit the characteristics or specific research needs of a particular business or organization (Parasuraman, Zeithaml & Berry, 1988). SERVQUAL can provide an overall measure of the service quality as well as help pinpoint areas that require special attention and actions of improvement. To gain meaningful responses to the perception statements, respondents must have some knowledge of or experience with the organization being researched and SERVQUAL is thus limited to current or past customers of that organization.

Using a gap model as an analytical tool enables management to identify service quality gaps between several variables that affects the quality of the service offering (Seth, Deshmukh & Vrat, 2005). SERVQUAL is most useful and valuable when it is conducted periodically to monitor service quality trends and is combined with other forms of service quality measurements. Parasuraman, Zeithaml & Berry (1988) suggests that this complement preferably is an employee satisfaction measurement since it will result in a thorough understanding of the perceived service quality.

Reliability & Validity

In a review of SERVQUAL, Buttle (1996) points out that the most serious faults of the instrument are concerning face- and construct validity, and thus argued that the research instrument actually captures *satisfaction* rather than *service quality*. Doubts are also brought up regarding whether customers routinely actually assess service quality in terms of expectations and perceptions. Cronin and Taylor (1992) questioned the measurement of customer expectations and claimed a lack of theoretical and empirical evidence to support the theory behind SERVQUAL. Carman (1990) also put SERVQUAL under scrutiny and conducted further testing and replication of the five service quality dimensions to determine if these could act as a valid measure of the perceived service quality. It was found to be stable but not entirely generic and that the biggest issue was the measurement of expectations.

"A major shortcoming of the SERVQUAL procedure as presented by Parasuraman, Zeithaml and Berry concerns the treatment of expectations. There appears to be serious problems with the value of the expectations battery as proposed, the ability to administer it, and the factor analysis of the difference between perceptions and expectations" (Carman 1990, p. 51)

Despite of the criticisms, SERVQUAL is widely used by industry practitioners (Asubonteng, McCleary and Swan, 1996).

3.3 Employee Satisfaction and Motivation

Evidence of links between employee satisfaction and customer satisfaction has been shown in several studies (Chi & Gursoy, 2009). Yee, Yeung & Cheng (2008) provide evidence that employee satisfaction has a considerable impact on customer satisfaction, especially in enhancing operational performance of organizations in high-contact service sectors. Furthermore, their study suggests it to be crucial for managers to consider employee satisfaction when improving service quality.

Hackman & Oldman (1974) developed a model (Figure 4) on how to redesign and evaluate existing jobs for improved employee motivation. The basic distinction of different types of motivation is intrinsic and extrinsic motivation (Ryan & Deci, 2000). Intrinsic motivation is described by Amabile (1998) as a personal sense of challenge, emerging from the individuals themselves. Extrinsic motivation arises from the outside of the individual, for example financial rewards when succeeded or threats of losing the job if failing (Amabile, 1998). The model by Hackman & Oldman (1974) evaluates the overall level of motivation and employee satisfaction as well as motivating potential of existing job and the readiness of employees to change. One of the intended uses for the model is to diagnose existing jobs and use as input to planned job redesign (Hackman & Oldman, 1975). Hackman & Oldman (1975) recommend using it under anonymous conditions.
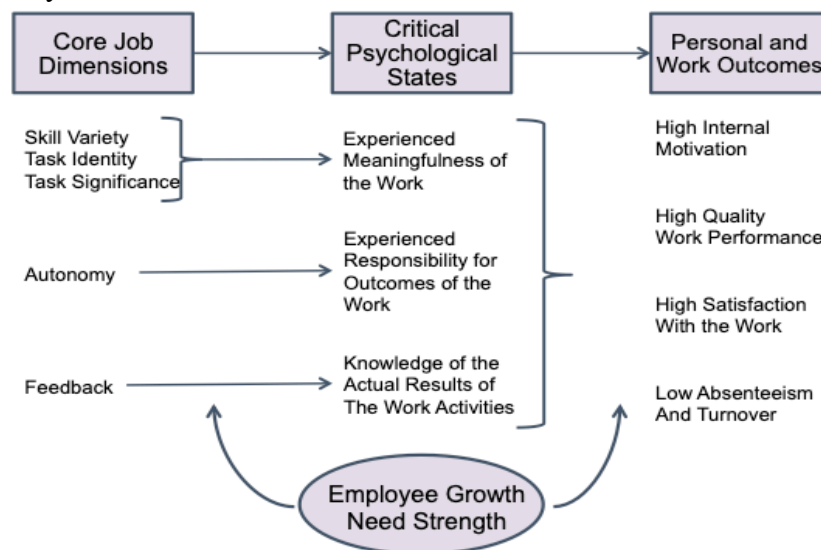
Figure 4 *Theoretical model of employee satisfaction by Hackman & Oldman (1974).*

The model consists of five core job dimensions, three critical psychological states and through positive interaction of these the result is high internal motivation, high quality performance, high work satisfaction and high work efficiency. The three critical psychological states are comprised by the following: 1) Experienced Meaningfulness of Work 2) Experienced Responsibility for Work Outcomes 3) Knowledge of the Actual Results of the Work Activities. These states are created by the presence of the five core job dimensions. The first state is affected by the presence of *Skill Variety* meaning that the employee is being challenged to utilize a variety of their skills. *Task Identity* represents doing the job from beginning to end with visible outcome and *Task Significance* is the degree to which the employee experiences that their job has an impact on other people. The second state is affected by the level of job autonomy meaning that the more freedom the employee

experiences when carrying out the job the more responsibility they feel. The third stage is affected by feedback meaning to which degree the employee is receiving information about their job performance (Hackman & Oldman, 1974).

3.3.1 Employee Satisfaction in Flat Organizations

Many companies tend to be organized in layers of horizontal management structures, however some firms have introduced new methods of work characterized by a flat organizational structure with fewer management layers (Krüger, 1997; Powell, 2002). A flat organization does not provide any obvious hierarchy to climb, leaving career- oriented workers frustrated because of the lack of opportunities for promotion, little internal competition and no opportunities to shine. Managers in flat organizations tend to have more people reporting to them which may result in a leadership vacuum (Krüger, 1997). Despite these risks, a flat organization offers more teamwork, better communication, less bureaucracy and a greater job satisfaction. The effectiveness of a flat organization critically depends on the perceptions and attitude of its employees (Powell, 2002).

3.4 Incident Management

Incident management is the process of restoring normal service operations after a a service disruption (Bartolini, Stefanelli, & Tortonesi, 2008). It is a subdomain of service management as seen in Figure 5 below. Figure 5 highlights incident management, since the thesis will focus on this area. Incident management is the specific process of dealing with all incidents concerning the product or service offering and creates value by mitigating the impact of incidents (Sansbury, Brewster, Lawes & Griffiths, 2016).

Service Delivery Processes

Capacity Management   Service Level Management   Information Security Management

Service Reporting

Service Continuity and Availability Management   Budgeting and Accounting For IT Services

Control Processes
Configuration Management
Change Management

Release Processes   **Resolution Processes**   **Relationship Processes**
Release Management   **Incident Management**   Release Management
Problem Management

Figure 5 Illustration from ISO/IEC 20000-1 within IT Service Management (Galup, Dattero, Quan & Conger, 2009).

The Information Technology Infrastructure Library (ITIL) is a framework which is a source of good practice in service management (Sansbury, Brewster, Lawes & Griffiths, 2016). ITIL defines incidents as deviations from the expected operation of the system, which causes a disturbance to the quality of the service. Examples include hardware failure or unavailability of services. The goal is to restore the service as fast as possible using the appropriate means including temporary fixes and workarounds. The incident management process is therefore essential to mitigate the impact of incidents which might cause deterioration of the quality of the service (Bartolini, Sallé & Trastour, 2006).

3.4.1 Organization of Incident Management

Bartolini, Stefanelli, & Tortonesi (2008) state that the complexity of many IT support organizations makes it hard to assess the performance. Potential improvements in incident

management therefore require an accurate modeling of the IT organization by identifying parameters at organizational, structural and behavioral levels. Bartolini, Stefanelli, & Tortonesi (2008) continue with describing how incident management in IT support organizations typically consists of a network of support groups divided into different support levels which are usually located in different geographical regions to ensure prompt response to incidents. Each level deals with separate issues, ranging from rudimentary issues to more complex and time-consuming tasks. The illustration by Bartolini, Stefanelli, & Tortonesi (2008) of the levels can be seen in Figure 6. The first level is the Help Desk (Level 0 in Figure 6) which represents the interface for customers reporting the incidents. Incidents are then assigned to specific support groups; however, incidents might be reassigned to other support groups.
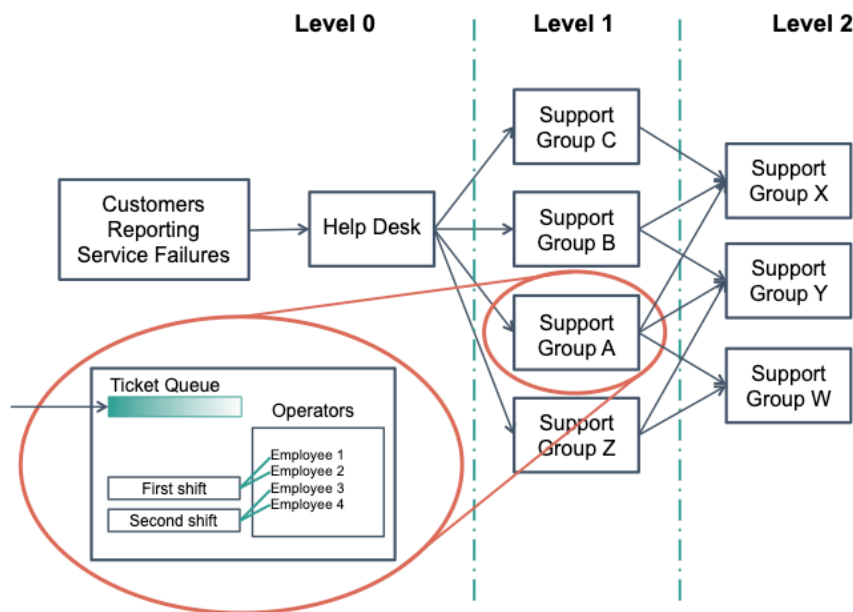
Figure 6 Conceptual model of incident management organization by Bartolini, Stefanelli, & Tortonesi (2008).

3.4.2 Service Level Agreement

The process of incident management contains the means of classifying, prioritizing and escalating incidents. The process is usually defined through a Service Level Agreement (SLA). The SLA defines mutual understandings of the service, between the service provider and service consumers (Jin, Machiraju & Sahai, 2002). The SLA is output-based and defines the expected level of service and thus what the customer is expected to receive. The SLA documents state commitments of the service provider and the service receiver and by doing so it specifies the responsibilities when delivering the service (Larson, 1998). Larson (1998) states that it should be used to form the service provider's desired behavior rather than to render penalties. It should also be flexible enough to allow for the changing service needs for all parties.

The performance measurements of the SLA include a set of Service Level Targets (sometimes referred to as Service Level Objectives) which present one or several metrics. These are typically measured as a time of service delivery duration, defining to which extent deviations from the service definition will be tolerated (Larson, 1998). A breach of these targets might make the service providers subject to financial penalties or other repercussions (Bartolini, Sallé & Trastour, 2006). According to Jin, Machiraju & Sahai (2002) a web service generally interacts with many other web services and each interaction could be governed by an SLA. Due to potential monetary implications of violating SLAs, the SLA needs to be designed to

consider the service providers' capabilities. Therefore, it is crucial to design the SLA to balance between risk and benefits for all parties, based on an understanding of its impact on business processes on both service providers and customers (Jin, Machiraju & Sahai, 2002).

3.4.3 Customer Centricity

Traditionally the terms *customer-centric* and *customer-focused* refer to the implementation of customer relationship management strategy (Kotler, 2003; Osarenkhoe, 2006), meaning that a customer-centric organization is aligning their actions with a sustainable customer relationship strategy. The majority of organizations accept the importance of customer focus (Hill & Brierley, 2017) and providing customers what they want. However, due to the focus on the *wants,* a customer-focused company's actions are often designed to only sell more products instead of getting a deep understanding of what the customer actually *needs* and thus being more customer centric. Customer centricity is more than just giving the customers what they want and provide good service, it is about offering a great experience before and after the purchase in order to achieve customer loyalty and profits (Galbraith, 2005). Companies are increasingly going towards a customer-centric structure, organizing business divisions around customer groups rather than product categories (Homburg, Workman & Jensen, 2000). According to Galbraith (2005) there are five core elements of organizational design to focus on to achieve a customer centric organization: Strategy, structure, people, process and rewards.

3.4.4 Expert Teams

In 2015, T-Mobile made the decision to take action and make an extensive reorganization of their customer service and reinvent their way of working. This revolutionary change towards a high performing customer centric customer service is described by Dixon (2018). T-Mobile had noticed how their self-service had relived the customer service of the basic transactional calls, however the more complex and varied issues put stress on the customer service. Therefore, T-Mobile wanted to empower the service representatives with knowledge to be able to handle thorny problems and with that decrease the employee turnover. By doing this the company would also be differentiated in a competitive market.
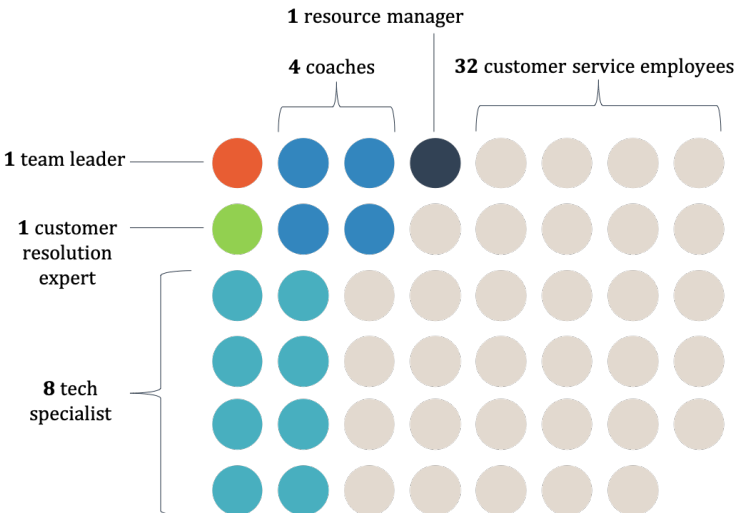
Figure 7 T-Mobile's organization of Team of Experts (Dixon, 2018).

The customer service was rearranged into so called *expert teams* (see Figure 7) who managed a specific pool of customer accounts. This was executed with T-Mobile's existing talent. The teams were acting as small businesses and instead of focusing on metrics like handle time they focused on how to solve the customers' problems in the best possible way, thus focusing on improving customer satisfaction and loyalty. The operation time of the teams were aligned with the business hours of the communities that they supported. With the expert teams it

became easy for the customers to quickly reach the correct support staff who could provide reliable help. The results of the reorganization were seen in several areas, among them being: A drop from 42% to 22% in employee turnover, the lowest cost to serve in the company's history, record levels of customer retention, a reduction from 2.9% to 2.0% of calls escalated to supervisors. T-Mobile also received the highest score ever rewarded in a ranking of customer-service quality.

However, they learned some lessons along the way. The importance of co-location and physical layout being one of them, since they initially failed when trying to achieve collaboration only in virtual teams. Another one being to consider the cultural readiness within the company when it comes to giving employees more responsibility over decision-making.

3.5 Communication and Knowledge Transfer

In the rush to adapt to market needs, firms often sacrifice effective communication. For communication to be effective, everyone must be up to date and aware of the rationale and strategies behind the goals set by management. Poor communication within an organization can be costly, impacting the bottom line directly and indirectly through ripple-like effects (Messmer, 2004). Bjarnason, Wnuk & Regnell (2011) states that gaps in communication lead to failure to meet the customers' expectations, quality issues and wasted effort. A balanced flow of information reduces the risk of misunderstandings and limits expensive mistakes. Additionally, employees feel a greater sense of connection with their supervisor and coworkers, they are able to adapt to changes more rapidly and they can offer targeted insights, ideas and perspectives. As a result, supervisors and staff work smarter, not just harder (Messmer, 2004).

An active communication facilitates the transfer of knowledge, either by communicating what one knows or actively consulting others in order to learn what they know (Van den Hooff & De Ridder, 2004). Transfer of knowledge has emerged as one of the most important and widespread managerial issues (Shin, Holden & Schmidt, 2001). A significant part of the knowledge that organizations acquire, especially in service organizations, is embedded in individual employees and needs to be shared or coded to maintain its existence (Starbuck, 1992). Furthermore, Shin, Holden & Schmidt (2001) state that to reward knowledge sharing and to prevent staff turnover, organizations need to evaluate costs and benefits of how knowledge is owned within the organization and establish a control of the knowledge flow e.g. through portfolio of assets. To share knowledge and facilitate communication, face-to-face or other open means of communication are most efficient. However, this might be inhibited by geographical locations or separation, where companies are working in different cultural environments (Nonaka, 1991; Barson et al., 2000). Hauptman & Hirji (1999) investigated the impact of coordination in cross-functional teams and indicated that the geographical distance and time difference can negatively influence how the power of project leaders is perceived by employees. Zakaria (2017) conducted a study showing how cultural values of team members influence decision making and communication. The study suggested, as a managerial implication of this, to conduct cross-cultural training programs to prepare people for effective performance in virtual collaborations.

3.6 Change Management

Change management is the practice of guiding the organization through an organizational change, often with the fundamental goal of adapting and improving in order to meet more challenging market environments (Kotter, 2007).

3.6.1 Context-Content-Process Model of Change

Pettigrew's model of change (1987) is useful in the context of this thesis to have a framework to proceed from when evaluating the organizational change of customer service. The context-content-process model of strategic change proposed by Pettigrew (1987), is widely used to analyze change and is focused on three 'essential' dimensions of change (Stetler, Ritchie, Malone, Schultz & Charns, 2007). These dimensions are the *why* of the change related to the context, the *what* of the change related to the content and the *how* of the change processes. The goal is to explain the achievements of change objectives by linking the context, content and processes of change (Pettigrew, 1990). Analyzing the link between organizational change and the context of which it occurs is highly emphasized by Pettigrew (2012).

When analyzing change over time the task is to identify the causes and explore under which conditions and context the change occurs. The context refers to both external (outer) and internal (inner) context. External context implies the economical and the competitive market in which the company operates, while the internal context refers to the structure, corporate culture and political context through which the ideas for the change have evolved. The *why* of the change is therefore usually derived through analysis of the external and internal context while the *how* of change can be interpreted by analyzing the processes (Pettigrew, 1987).
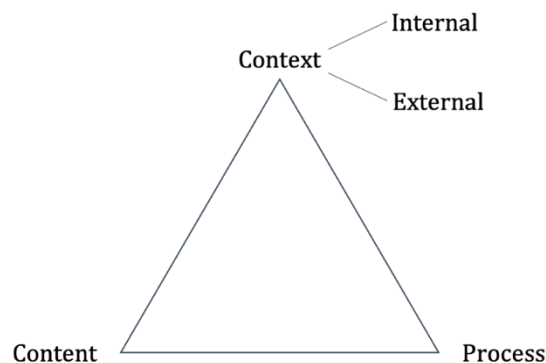
Figure 8 *The context-content-process model of change by Pettigrew (1987).*

The context-content-process model in Figure 8 has evolved since Pettigrew first introduced it in 1987. Different views have been expressed concerning the interpretation of three dimensions (Stetler, Ritchie, Malone, Schultz & Charns, 2007). McCormack, Kitson, Harvey, Malone, Titchen & Seers (2002) stated that the term "context" does little to reflect the complexity of the concept and that it lacks clarity.

The characteristics of each dimension are therefore described in Table 3 below along with corresponding elements of this thesis.

Table 3 A description of the dimension of the Context-Content-Process Model of Change.

Dimension	Related Elements in RQ2
WHY (Context) Related to the motivation for implementing change	**External:** Competitive pressure Customer Satisfaction **Internal:** Employee Satisfaction Quality Measures
WHAT (Content) Related to organizational elements and processes changed to enhance services	Organizational structure Process Flow Responsibilities Communication
HOW (Processes) Related to methods, strategies or implementation interventions are used	Time plan Training for employees Hiring new employees Communication

3.6.2 Implementation of Change

The implementation of change is described by Richard Beckhard and Reuben Harris (1977) as a movement from a current state towards a desired future state, passing through a transition state. The effective management of change through these three states involves developing an understanding of the current state along with an image of the desired future state and then implementing by moving the organization through the transition state (Nadler & Tushman, 1997).

Kotter (2007) describes how the change process goes through a series of phases that each are crucial for achieving a satisfying result and consequently takes their time. These phases are summarized in Figure 9 below.

1 Create a Sense of Urgency
2 Forming a Powerful Guiding Coalition
3 Creating a Vision
4 Communicating the Vision
5 Empowering Others to Act on the Vision
6 Planning for and Creating Short-Term Wins
7 Consolidation Improvements and Producing Still more Change
8 Institutionalizing New Approaches

Figure 9 Eight steps of change (Kotter, 2007).

One major setback in change management is often a lack of urgency. The first step of creating a sense of urgency is crucial for establishing a motivation among individuals and groups within the organization, employees as well as managers. Successful change is often initiated by an investigation into the company's competitiveness, market trends or the anticipation of a potential revenue drop. Pinpointing exactly why the change is necessary can create a common goal and drive people out of their comfort zones (Kotter, 2007). This corresponds to what is described by Coutu (2002) as "survival anxiety", which is the realization that change must happen in order to make it through. Anxiety can inhibit learning although it is necessary if learning is going to happen at all. About 75 % of the company's management has to have a sense of urgency and be convinced that the current state is unsustainable (Coutu, 2002).

3.6.3 Cultural Differences

When implementing change in a multinational organization, differences in the cultural environment need to be considered since the organization faces the dilemma of whether to adapt to local culture or change it (Hofstede, 1980). Hofstede (1980) defines culture as a collective mental programming of the mind, distinguishing one group from another due to cultural influences. A relative comparison of countries can be made based on criteria for national culture in four dimensions, as developed by (Hofstede, 1980):

- Power distance: Extent to which a country accepts that power in organizations is distributed unequally.
- Individualism - Collectivism: The degree of interdependence a society maintains among its members
- Masculinity - Femininity: The extent to which the dominant values are masculine (wanting to be the best) as opposed to being feminine (caring for others e.g. through involvement of employees in the decision making).
- Uncertainty Avoidance: The extent to which a society feels threatened by uncertain situations.

These patterns of thinking can be reflective of why people behave as they do and what motivates them. However, there are considerable differences between individuals and conclusions based on the law of big numbers and comparisons (Hofstede, 1980). A comparison between India, the United States and Sweden can be found in the tool by Hofstede ("Compare countries - Hofstede Insights", 2019), see Figure 10.
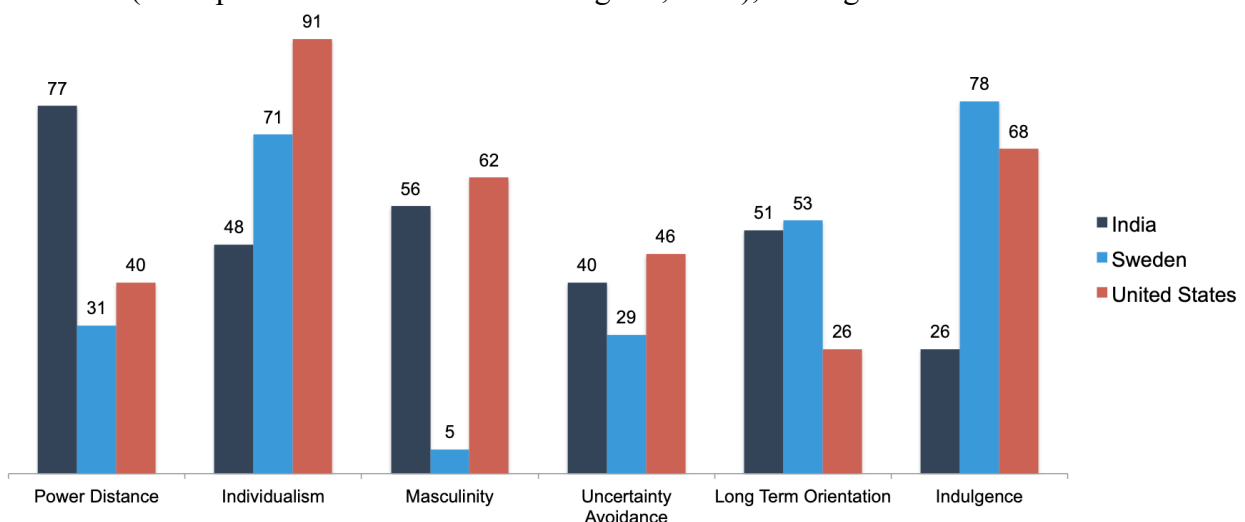
Figur*e 10 A relative comparison of cultural differences ("Compare countries - Hofstede Insights", 2019)*

3.6.4 Single- and Double-Loop Learning

Behavioral change is considered a criterion for effectiveness where single- and double-loop learning are required by all organizations (Argyris, 1992). Single-loop learning is described as learning where the underlying guiding values are unchanged, only changing something in the process or system by fixing the specific issue. Whereas double-loop learning results in a change of the values, as well as in its strategies and assumptions (Argyris & Schön, 1996). Whenever an error is detected and corrected without questioning the underlying values of the system, it is considered the single-loop learning. Most organizational activities are single-loop, comprising complex tasks into simpler ones which produces expected results (Argyris, 1992). When responding to detected errors by investigating factors influencing and modifying the strategy to keep organizational performance within the range of existing organizational values, the values and norms remain unchanged, hence being the single-loop learning (Argyris & Schön, 1996). Argyris (1977) states that it may lead to disaster for organizations that do not double-loop learn since they might be taken over.

3.7 Summary

An integration of the theories and concepts previously described allows to explore the service quality delivered by logistics service providers going through an organizational change. The theories are summarized in a conceptual theoretical model (see Figure 11). Through SERVQUAL, the service quality within incident management and an understanding of the current customer satisfaction emerges. Furthermore, using Pettigrew's (1987) model of change allows for evaluation of the planned organizational changes.
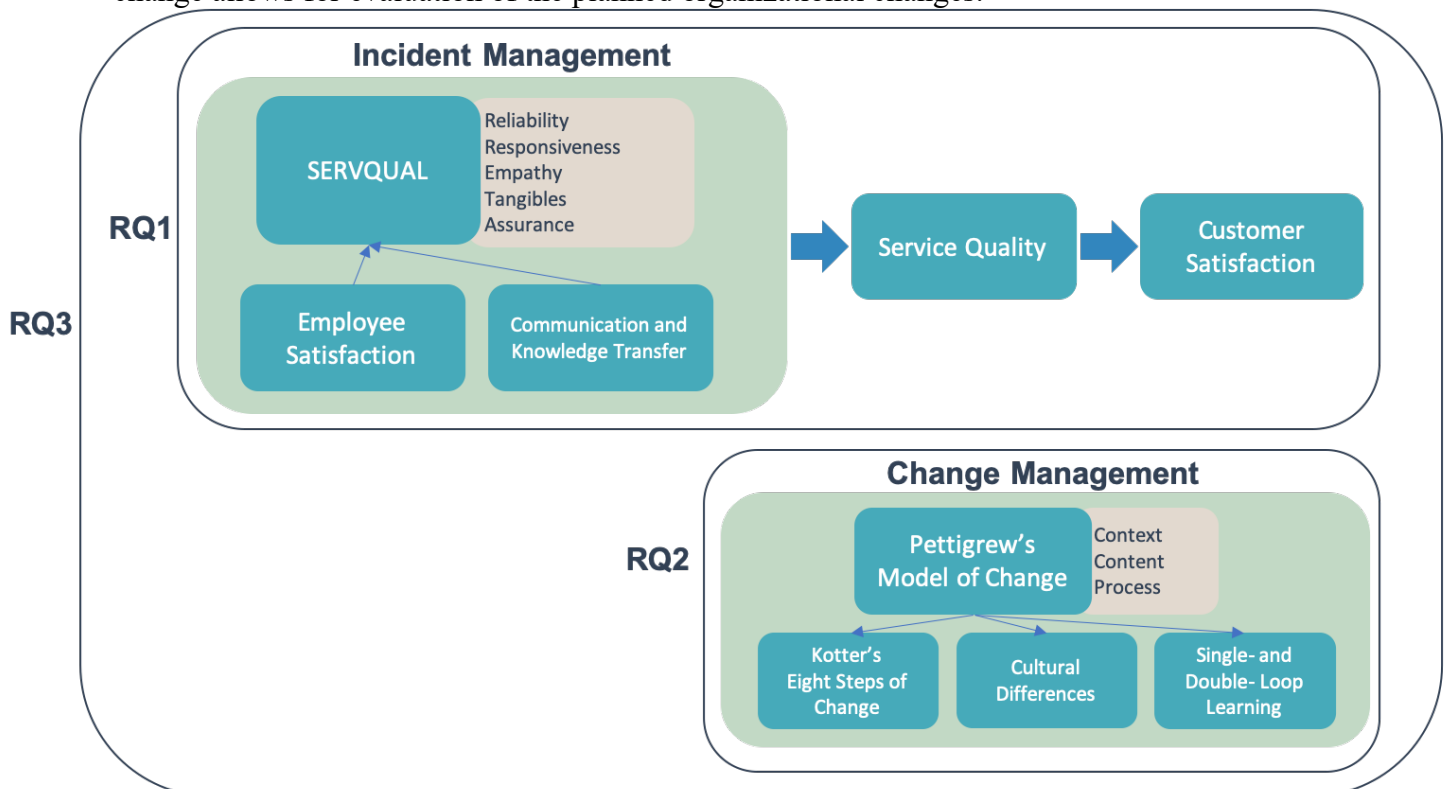
Figure 11 *Conceptual model for analysis and discussion*

4. Results

In this section the result and analysis of the data collection through interviews, observations and shadowing will be presented. First, the current service quality based on interviews with customer representatives is presented, providing a foundation for the following results. Thereafter, the practices of incident management are presented followed by the description of the reorganization, all of it derived from interviews with employees and managers. Finally, a summary of the results is presented.

4.1 Current Service Quality

The following section describes the current compliance to the Service Level Agreement, as well as the customer's impression of the services provided by Alpha. This is presented in order to evaluate the current service quality and establish a baseline for the following results.

4.1.1 Compliance to Service Level Agreement

The Service Level Agreement (SLA) is an external contract between company Alpha, the service provider, and customer Kappa, the end user. It is stated how quickly different types of incidents are expected to be solved, depending on a specified criticality level decided by customer Kappa. The support promise for incidents stated in the SLA is 90%, meaning that 90% of the incidents have to be solved within the specified time limit. Incidents that are not solved within this time frame are marked as breached.

Figure 12 shows statistics from 2018 concerning the number of incidents and to which extent they were solved according to SLA-time. Due to a large rollout in India, for the customer Kappa, during the summer of 2018 the number of incidents increased heavily during the fall. During 2018 the SLA goal was only reached one out of twelve months and with an average solving rate of 76%. The number of incidents has since then increased steadily along with the number of breaches, with the exception of September and December where the number of breaches decreased.
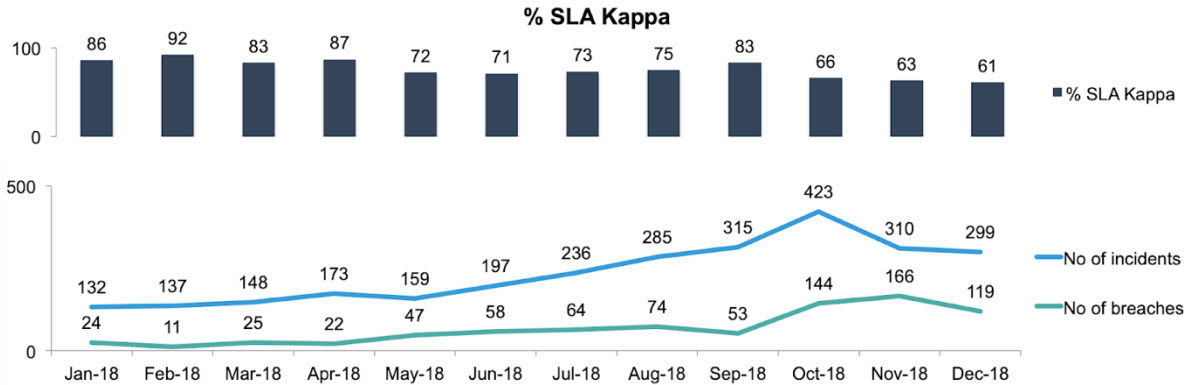
Figure *12 SLA measurements of support promise to Kappa.*

4.2.1 Customer Satisfaction

The following section describes the customer satisfaction regarding the customer service provided by company Alpha. Customer Kappa's perceptions and expectations of each dimension of service quality according to the SERVQUAL model are presented, these being the Reliability, Responsiveness, Empathy and Assurance & Tangibles. Table 4 below presents a summary of customer Kappa's perceptions and expectations of each dimension. The areas of assurance and tangibles showed no direct problematics and will thus not be explained further than what is presented in Table 4.

Table 4 A summary of customer Kappa's perceptions and expectations according to SERVQUAL service dimensions.

	Perception	**Expectation**
Reliability	Service goals are rarely reached Delivered service is reliable	Stability in meeting SLA
Responsiveness	High transparency Versatile and quick response High willingness to help	High transparency Quick response Uphold Kappa's services
Empathy	Caring with individualized attention	Caring with individualized attention
Assurance & Tangibles	Knowledge that goes above and beyond	Trust in Alpha's capabilities

Reliability

Only looking at the SLA, customer representatives from Kappa cannot say that they are completely satisfied since the goals rarely are met. The biggest challenge is to uphold the support promises stated in the SLA which is currently not being achieved. However, they describe that they understand the reasons behind, one of them being that Kappa themselves has a constant backlog of high priority incidents. There is an increase in incidents, mainly due to that Kappa constantly is expanding their business and involving Alpha to a greater extent. One Kappa representative explains that Kappa needs to revise their own methods and amount of resources dedicated to the tasks.

"It's rare that we [Kappa and Alpha] meet the promised 90% [in the SLA], so if you only look at that then we are not satisfied. But I know the reasons behind, there are a lot of them. /.../ I don't think the SLA is entirely reasonable, we promise our business more than what we are able to deliver" - Kappa Representative Y

One of Kappa's representatives expressed a doubt to whether the SLA was reasonable in regard to Alpha. The representative also mentioned the lack of penalties and that 85% instead of 90% would be a more reasonable level due to the growing amount of end users using the application, which have not been taken into consideration in the SLA.

"The strange thing about the SLA is that we are making an agreement stating that we have to provide service within a certain time frame and at a certain quality, but there's no

punishment if you don't follow it. Yes, it's a contract but in reality it's nothing more than a fluffy handshake."
- Kappa Representative Z

One Kappa representative described how the increased number of tickets has made it difficult for Alpha to balance quantity and quality. The delivered quality is described as satisfactory and reliable, but the increase in incidents makes it difficult to deliver according to the SLA.

Responsiveness

The Kappa representatives' perception is that Alpha shows willingness to help and describes the relationship to be satisfactory. The two parties rarely find themselves in a dispute and are always discussing how to improve and make things work more smoothly. One Kappa representative expressed that Alpha gives the impression that Kappa is a valued and important customer.

"We have always seen a great willingness to help and always feel they want to do their best"
- Kappa Representative Y

The speed of Alpha's provided solutions is described as adequate and their flexibility is of high value according to the Kappa representatives.

"I think that is the good thing about Alpha that they are very versatile and quick to acknowledge problems and present solutions" *-Kappa representative Z*

Another challenge described is for Alpha themselves to know who to contact at Kappa. Kappa has thousands of service level teams which is making it difficult to contact the right people and time is lost, consequently causing incidents to breach.

One Kappa representative expressed a wish that Alpha would also work more long term. In general, change is being applied quickly but larger improvements take longer time to implement.

"The team takes time chopping the wood, I wish they had time to sharpen the axe"
- Kappa Representative X

One Kappa representative described a bottleneck regarding the communication about escalating incidents. Kappa is not supposed to contact individual persons at Alpha directly and instead go through the incident management system. However, Kappa often find themselves in a situation where they need to get in contact with an expert at Alpha. When information is channeled outside the official road it is not accessible for everyone to see and learn from. Still, cross functional work is described to be encouraged and both the official and unofficial channels are important to use.

Empathy

The individualized attention that Kappa perceives is that Alpha has a willingness to attend to incidents outside their own services, belonging to Other Service Providers.

"Even though the SLA doesn't take the increase in growth of the application into account, Alpha has shown significant improvement and willingness to dedicate extra resources to the problems /.../ they go the extra mile to help" *- Kappa Representative Z*

The different service providers that Kappa works with are independent, having only to adhere to what is stated in their own SLA with Kappa. The volume of incidents is high and the workload for Alpha is extensive, as described by Kappa Representative X:

"It is understandable that they [Alpha] have less time to reach out to the neighbors and ask for a helping hand. I do not blame or hold Alpha accountable for that approach and it is up to all of us to try to find efficiency and create space that allows people to partner up"
-Kappa Representative X

According to Kappa, the SLA states that Alpha only need to help their own service. The current contract is therefore perceived to somewhat obstruct the partnership.

"The contract we have is a bit in the way of that [the partnership]. It's like there's a wall between us, makes it harder to get the partnership to go in a good way /.../ I wish the partnership would find a way into the contract since helping each other out is helpful for both sides"
-Kappa Representative X

One reason behind the hardship of achieving a good partnership is that the service Alpha delivers to Kappa differs from Other Service Providers that Kappa works with. Alpha's service is created, hosted and serviced by Alpha whilst other services are created by Kappa. The Kappa representatives described this difference to be a substantial challenge to handle.

"It's quite difficult for our IT service desk to keep up [with the classification of Alpha incidents], there is more than 700 applications we deliver to the Kappa business. Our agents aren't touching Alpha applications so often - hard to educate them and make them understand the issues"
-Kappa representative Z

4.2 Practices of Incident Management

This chapter describes the practices of the current incident management. These are the organizational structure of incident management, the process flow for solving incoming incidents, the process flow of the customer and the incidents related to Other Service Providers as well as the employee satisfaction. The managerial perspective of current incident management affecting the service quality is also presented to provide an overall view.

4.2.1 Organizational Structure of Incident Management

The current organizational structure at company Alpha is flat and divided into three clusters, within which there are several sectors, which in turn contains several teams. Figure 13 below shows an illustration of the teams and sectors working with customer Kappa, both as customer service teams and development teams.
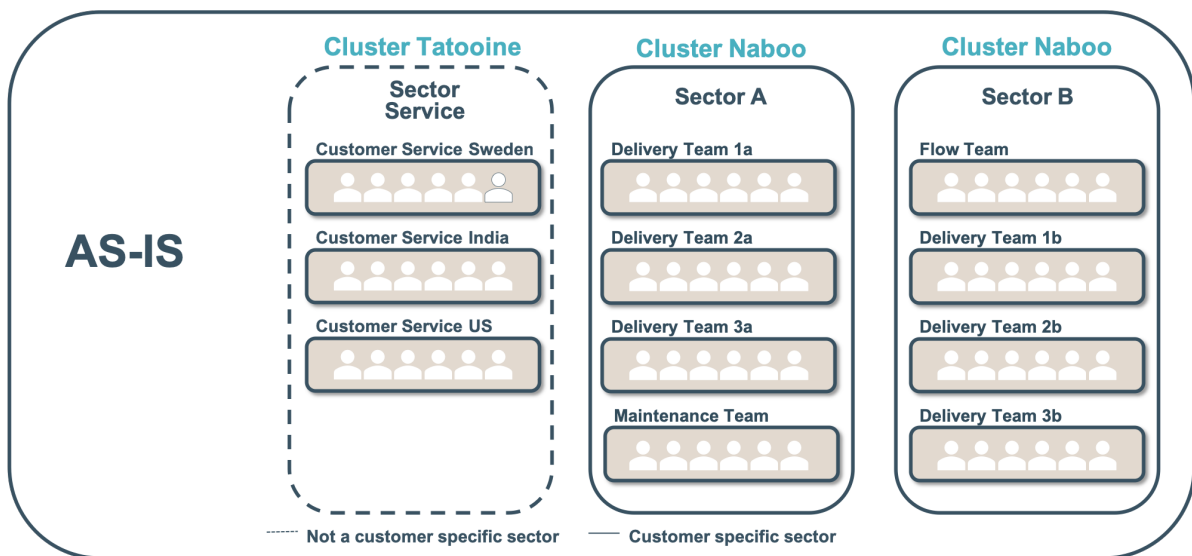
Figure 13 Organizational structure of teams working with incidents towards Kappa.

All teams that are included in Figure 13 have work tasks that can involve solving incidents from customer Kappa. One of the sectors in the cluster called *Tatooine* contains all the three Customer Service teams, located in three different sites worldwide. These teams cover the 24/7 Customer Service by working in shifts in different time zones. This sector therefore works with all types of customers, not only Kappa. However, in the Swedish Customer Service team there are two persons with main focus on solving incoming incidents from customer Kappa. The cluster *Naboo* contains sectors A and B, both of which are working towards customer Kappa. Sector A contains Delivery Teams and a so-called maintenance team while the B sector contains Delivery Teams along with the so-called *Flow Team*. The purpose of the different teams is listed below.

- The Flow Team is specifically created to solve incidents solely from customer Kappa. Team members from the Delivery Teams are also involved as "experts" in solving incidents, although they have no ownership of the incidents.
- The Delivery Teams are project teams which are responsible for the development of solutions and actual service offerings.
- The Maintenance team is a maintenance team whose function is to maintain the cluster and drive software improvements within the cluster.

4.2.2 Internal Process Flow for Solving Incidents

The main information flow for solving incoming incidents is depicted in Figure 14 below, illustrating which parts of the information flow that are external (performed by customer Kappa) and internal (performed by company Alpha). Information is processed in the customer's internal service system, to which both parties have access. This chapter will continue by describing the internal process flow within Alpha. The external process flow, as described by Kappa, is presented in the next chapter (*4.2.3 External Incident Handling*).
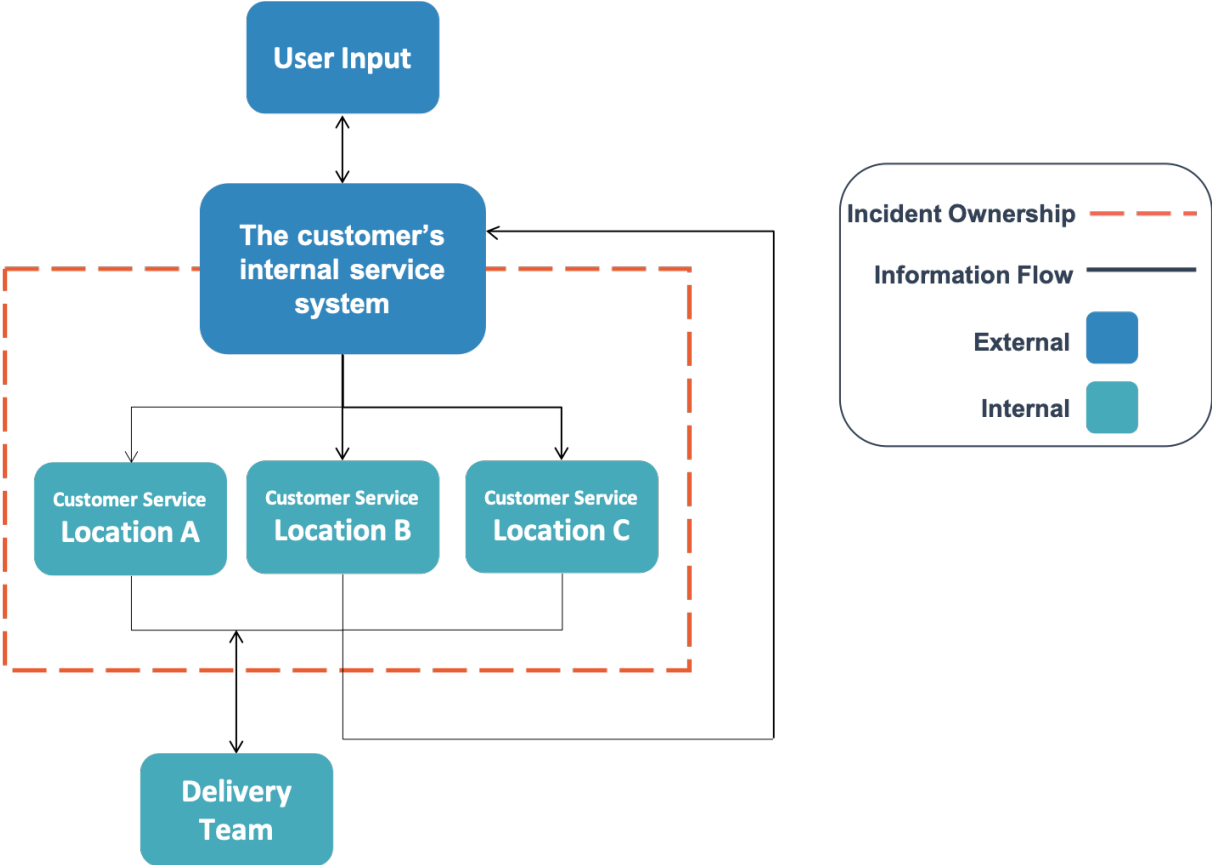
Figure *14 Principal information flow of the incident management with customer Kappa.*

The title of the employees in all Customer Service teams is *Application Specialist*. The Application Specialists of the Customer Service teams are owners of the incoming incidents towards all customers and responsible for assigning and solving incoming incidents. The workflow of solving incoming incidents performed by the Customer Service Application Specialists is visualized in Figure 15 below. This process is intended to happen within the time frame stated in the SLA. The main process of solving incidents is run several times during the workday in order to solve as many incidents as possible. The unofficial directive is to check the incoming incidents as often as possible, to be able to keep up with the constantly incoming incidents and tackle the most urgent ones immediately.
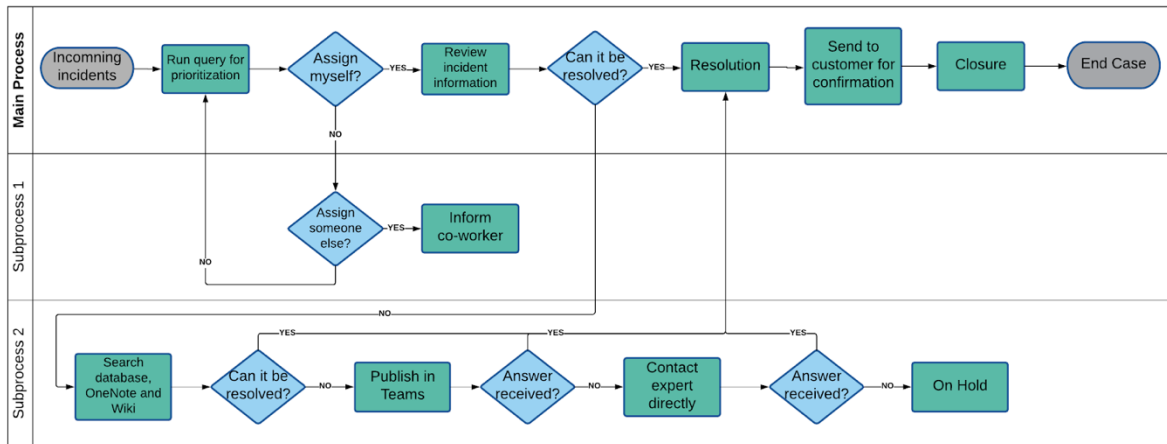
Figure 15 Process flow chart for solving incidents.

The process *Run Query for Prioritization* means checking to see which incidents are most urgent. The Application Specialist then decide whether to assign themselves or someone with more knowledge. During the process of *Review Incident Information* it is decided if the incident is solvable based on existing information. If not, the process *Search Database* is initiated, searching in the database or consulting the shared knowledge in the virtual library. If the incident remains unsolved, the incident is published in the virtual communication channel (*Teams*). Everyone from Customer Service and the Delivery Teams are responsible for answering published incidents. If a solution is absent, an "*Expert*" from a Delivery Team is contacted directly. The case is put on hold until a solution is found. If any of these processes reach a solution, the solution is applied under the process of *Resolution*. The solution is then confirmed with customer Kappa and the case is ended. The incidents of high impact and urgency, unsolvable for the Application Specialists, are handled separately by the Flow Team, which acts as a special task force working on the incident until it is resolved.

4.2.3 External Incident Handling

The part of the incident management processes owned by customer Kappa, but involving Alpha, is presented in the Figure below. This process is also included in the time frame for the SLA, meaning that when the incoming incidents are reported by the user, the time frame of the SLA starts ticking. All the processes and decisions depicted in the process flow below (Figure 16) are performed by Kappa's Service Desk within the internal service system.
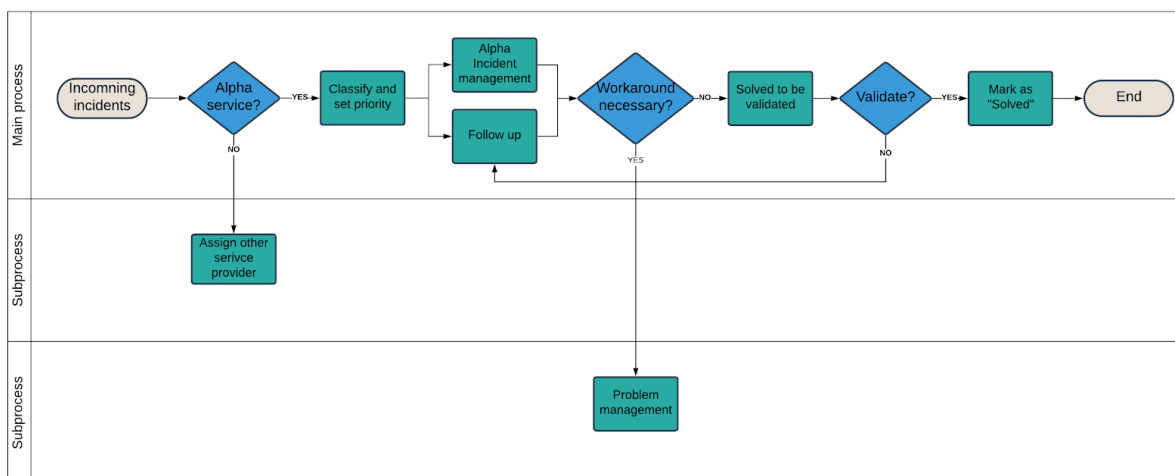
Figure 16 External process flow chart of handling incidents performed by Kappa.

The incoming incidents are not categorized; therefore, the first decision is to assign Alpha or any Other Service Providers in order to decide what category that is suitable. The incident is then classified, and priority is set after company Alpha has been assigned. The classification and priority are set according to the SLA between Alpha and Kappa. The process of Alpha's own incident management is then initiated (Described in *4.2.2 Internal Process Flow for Solving Incidents*). When the incident is solved by Alpha it is sent back to Kappa to be verified. If the incident is *Marked as Solved* by the Service Desk, the SLA time stops ticking.

Incidents Related to Other Service Providers

The customer Kappa has approximately 270 Other Service Providers in their logistics chain. These service providers are either in-house, such as Kappa's internal system for order management, or external carriers. Company Alpha is the "final destination" and collector of all information available regarding transports and deliveries. Therefore, the Other Service Providers are an integrated part of the information flow and are also eager to keep the effects of incidents to a minimum. Many incidents that occur are related to, closely intertwined or sometimes even confused with Other Service Providers' incidents.

4.2.4 Employee Satisfaction

Table 5 below shows a summary of how Alpha's employees have described their satisfaction regarding different areas that affect their work performance.

Table 5 The Employee satisfaction at Alpha.

Area	Personal and Work Outcomes
Workload	Lack of resources when extra support is required Feel dependent on others
	Manageable stress level
	Varying work tasks
Communication	Bottleneck to reach the Delivery Teams
	Flat structure enables communication
	Feeling "left out of the loop"
Un-/Motivational Factors	Encouraging, friendly and helpful environment
	Opportunities to both utilize skills and learn
	Feeling of helplessness with unsolved incidents piling up and new coming in

Workload

Customer Service employees express that there are not always adequate resources present, such as personnel, to solve the incidents. Usually there is help to get from the Delivery Teams when faced with an unsolvable incident. However, when the Delivery Team do not answer, the Customer Service employees feel as if they cannot move forward and have to leave the incident unsolved until they can get help.

One employee described the documentation as lacking, making it hard to form an understanding of the process flows for new recruits. Especially concerning incidents that involve Other Service Providers.

"We don't have a 100% picture over how all the flows are working, for example concerning 'Other Service Providers' /.../ A lot of improvement could be done with improving documentation and clarifying the process flows" - Application Specialist A

The work tasks are described to be varying enough to be enjoyable. However, with breached incidents piling up and new ones constantly coming in, there is a constant flow of tasks to handle, which was described as stressful but manageable. Doing frequent queries of incoming incidents was also described as difficult, since they might be busy solving other incidents.

"It's a shame when we don't have enough time to work on the incidents and have to hurry to come up with a solution. If we would have had more time, we often feel we could have done a better job, but you have to adapt to the time you have" - Application Specialist B

The quality goals in the SLA are described to be somewhat reachable, although dependent on whether the incoming incidents reach Alpha's customer service immediately or if they are passed around between Other Service Providers before.

"The incident can jump around between Other Service Providers and it doesn't arrive to us, resulting in a breached incident. Meaning that we get for example 6 hours to solve the incident when it should have been maybe 2 days. "- Application Specialist A

Communication

The communication within the Customer Service teams is described as friendly and encouraging. It is also stated by several employees, that they are actively working on improving communication through continuous meetings and follow-ups. The communication with the Delivery Teams, however, is described as a gap that affects the Customer Service employees negatively. The answer to the more complicated incidents is held by employees of the Delivery tTams, making customer service employees dependent on their extensive knowledge about the product.

"Sometimes we have communication gaps, for example we asked something yesterday and have not yet received an answer today" - Application Specialist C

Although some employees mentioned that the flat organizational structure simplifies the process of contacting the Delivery Teams.

"It is easy to communicate within the organization since it is flat" -Application Specialist A

The online communication channel used, to communicate with both Delivery Teams and other application specialists, is described to have improved the communication and generally people respond in time. However, one problem is that frequent posting causes an overflow of information.

"It becomes too much information to take in which might result in that people stop caring" -Application Specialist C

Several employees expressed that they sometimes feel as if they are "left out of the loop" when it comes to information concerning new rollouts. Resulting in frustration when

employees miss out on information valuable when solving incidents. An example described was when the Delivery Teams are integrating new transport providers, this information sometimes stay within the Delivery Teams and do not reach the Customer Service employees. On the other hand, there is an understanding that the Delivery Teams are often not aware of whether their new releases will contribute to new problems occurring.

"...if there are critical issues this usually goes directly to the Delivery Teams meaning that they want to solve it immediately so that it doesn't affect the customer. But at the same time, we [Customer Service] receive incidents on the same issues, resulting in us both working on it in parallel"- Application Specialist B

Motivational Factors

The opportunity to learn and being challenged with new tasks was described as a motivational factor, both the personal learning journey as well as sharing knowledge and being able to help others develop. Several employees explicitly mentioned that they found joy in teaching and helping other people to grow and develop their skills. The work environment was also mentioned by some as a motivational factor and described it as being relaxed and open.

A few factors were expressed as demotivational. Firstly, due to company Alpha being a flat organization, some of the employees expressed that it could be demotivating not having a leadership figure guiding the path forward. Stating that if one is unfamiliar with this kind of organizational hierarchy it might take some adjustment.

"I think we need more bosses to lead the path forward. Sometimes it's difficult to know how to advance for some people" - Application Specialist D

"There's no superior to tell you what to do, which sometimes leads to collective neglect" - Application Specialist E

Secondly, the constant flow of incidents can be quite overwhelming and give the employees a feeling of hopelessness; there is always a backlog of incidents. The employees have the chance to divide responsibilities among themselves and the three sites, but in general there is not much room to decide what to work on since the incidents that continuously come in have to be dealt with.

"Sometimes it feels as if we are not making a difference, even though I know that we are, since there are always new incidents to solve" - Application Specialist B

4.2.5 Managerial Perspective of Current Practices

Each sector has a Delivery Manager who is responsible for the sector's performance and ultimately responsible for the reported SLA. The Delivery Managers provide supervision, feedback and coaching to the team members. The exact tasks vary depending on which sector is involved. The Delivery Manager of the sector Tatooine is the process owner of incident management. Presented below are the Delivery Managers perspective on factors affecting the service quality such as communication with Other Service Providers and within the company, the reorganization as well as their conclusions based on previous employee satisfaction measurements.

Communication Within Company Alpha

The lack of information for Customer Service regarding new updates or changes by Delivery- and Rollout Teams was described as creating confusion and leaving the Customer Service unaware of how to deal with incidents from recent changes in the software.

> *"It is difficult to transfer competence between the Applications Specialists that has created the systems and the ones maintaining them and providing service" - Manager C*

The management acknowledges that it is impossible for all of the employees to possess all of the knowledge necessary to solve incidents, and communication is therefore of utter importance. This is described to be a greater challenge in the US and India locations since they have the time difference working against them, making it harder to ensure that the necessary information is received at the right time. The time difference and distance also make it harder for direct communication.

Dependency on Other Service Providers

All of the managers mentioned a specific challenge concerning customer Kappa, namely the number of actors involved. As mentioned previously, customer Kappa has Other Service Providers who are both internal to the customer's company and external such as carriers.

> *"The big headache is that there are a lot of other parties involved /.../ we have communication gaps and not enough collaboration" - Manager C*

This, in combination with the different locations with time differences is perceived to present a challenge. There is a lot of information that needs to be transferred between all the actors and locations. The Customer Service employees need complete information concerning the incidents. For example, where it comes from and who has worked on it previously.

> "It is *not always easy to know what's behind the problem. Sometimes the ticket goes to us [Alpha] first, we investigate and send it back if the problem is in other Service Providers' systems. A lot of back and forth in these types of incidents." - Manager D*

Some incidents that are assigned to company Alpha belong to the Other Service Providers, but it is perceived to be in the interest of everyone to solve them as fast as possible. It also works the other way around, meaning that the Other Service Providers receive company Alpha's incidents and it is not until a later stage of the SLA time frame that it arrives to company Alpha.

> *"It is hard to solve a case when you are dependent on another party and do not receive the necessary information" - Manager D*

These scenarios put a time pressure on both company Alpha and the Other Service Providers according to the managers. Reasons for these scenarios can for example be that not enough information is included, and it can be hard to tell the difference of who actually owns the incident. Another issue related to this is that the Other Service Providers have a lower SLA than company Alpha. If they have an SLA of 75% and the information is integrated in Alpha's systems, they might not pass it on to Alpha fast enough, but it still makes Alpha accountable for the last 15%.

> *"If we look at the full picture we won't reach 90% even if we had 150 people working on it, because of how the SLA is measured" - Manager B*

The diagram below (Figure 17) illustrates the types of incidents solved by Alpha's customer service, whereof 33% are types originating from Other Service Providers.
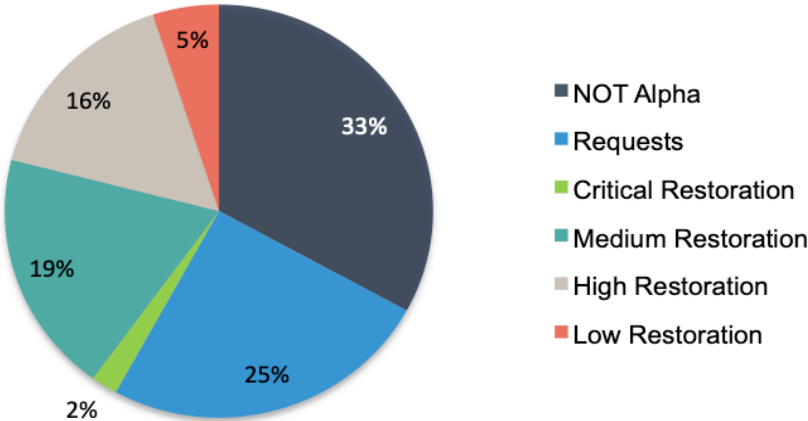
Figure 17 Data on types of incidents solved. [Figure from Company Alpha].

Conclusions From Previous Employee Satisfaction Survey

One of the managers mentioned results from a global employee satisfaction survey from last year (2018). Company Alpha has been ranked among the top places to work when it comes to employee satisfaction. However, even though the employee satisfaction survey showed great results overall, it also indicated that employees working with customer service as well as employees located in India were the least satisfied parts within the company. The managers expressed that this was likely due to them being responsible for the SLA results, even though they are dependent on getting information from experts in Delivery Teams.

"The discontent in customer service probably comes from that they feel that they have to take the blame even though other people are doing wrong" - Manager C

Background to the Reorganization

The customer service has remained unchanged the last few years and the managers acknowledge that improvements are necessary since the number and size of customers have grown. Manager C also foretold about an article published in Harvard Business Review which inspired the reorganization (Presented in chapter *3.4.5 Expert Teams*). The collective view among all managers is that a customer that pays extra for service 24/7 should be prioritized before a customer that only pays for the standard service level. In relation to this, a conflict of interest that the managers experienced is concerning the distribution of resources between these teams and the ones working broader towards several customers.

"The significantly larger customer Kappa is often prioritized" - Manager C

Customer Kappa's incidents were initially separated from incidents from other customers when the Flow Team was created, this is described as a step in the right direction to remedy this conflict of interest. One manager expressed that there was a noticeable increase in motivation to solve incidents from other customers among the rest of the Customer Service when the Flow Team was created.

"The flow team became a catalyst to differentiate the customer Kappa cluster from the rest. Everyone is screaming for resources, but Kappa gets all the attention /.../ By removing Kappa we also remove the challenge of the psychological pressure of seeing a huge backlog of incidents." - Manager B

4.3 The Reorganization

In this section, the content and processes of the reorganization will be presented, following the context-content-process model of change by Pettigrew (1987), along with expectations on the new organizational structure expressed by Alpha's employees and customer Kappa.

4.3.1 The Content of the Reorganization

The main purpose of reorganizing customer service is to improve the SLA measurements and service quality through creating expert knowledge for solving incidents by dividing the customer service into customer specific segments. The changes include the creation of a new first line of customer service, a *Frontline,* and a reorganization of the sectors as depicted in Figure 18.
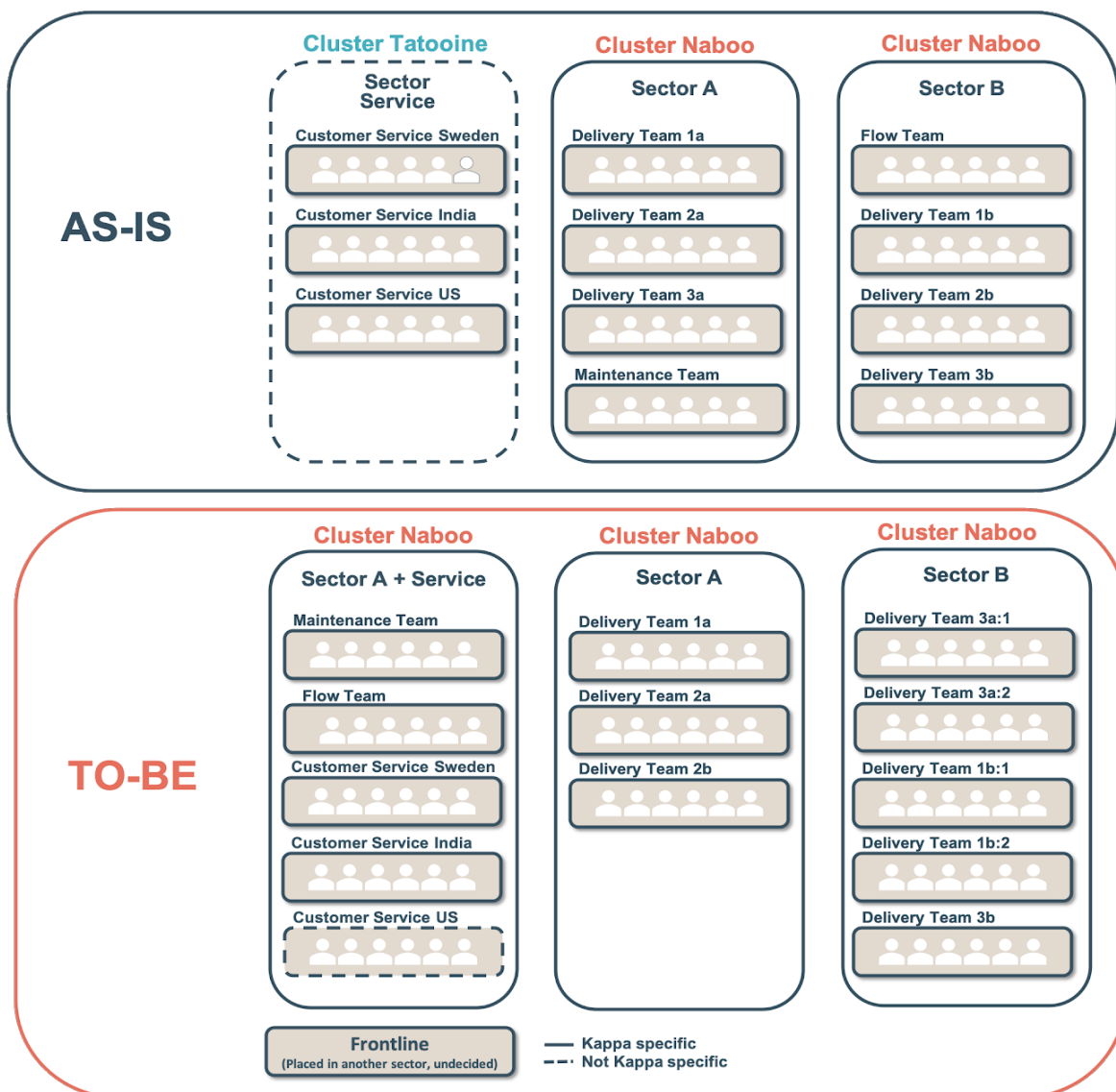

Figure 18 The current and the new organizational structure of all the teams and sectors that will be working towards customer Kappa.

A summary of the new features implemented in the change and why they are implemented can be seen in Table 6 below.

*Table **6** Summary of the change*

What	Why
Creation of Frontline	Enable Customer Specific Sectors, remove distractions
Customer Specific Sectors	Create expert knowledge, facilitate communication
Division of Responsibility	Remove bottlenecks, facilitate communication, make the Delivery Teams a part of customer service
Bi-weekly Meetings with Other Service Providers	Improve Communication

A Frontline will be created in India, and which sector this will belong to is still undecided. The Frontline's main task will be to receive and assign incidents to the relevant Customer Service team as well as solve the simpler, more straightforward issues. The Frontline will work 24/7 every day of the week and will handle all types of incidents from all customers, among them customer Kappa's incidents. The current Customer Service will therefore dissolve and staff within today's Customer Service will be split up and moved into the new "Sector A + Services" (See Figure 18). This sector will consist of Customer Service personnel, Maintenance Teams and the Flow Team. This sector will work closely with the Delivery Teams in other sectors. The sectors depicted as TO-BE will all focus only on customer Kappa. The responsibility over incident solving and the SLA will be distributed between all of these. The responsibility and ownership of the incidents will be equally shared. Even though the Customer Service employees will belong to their own sector they will, at least in Sweden, physically have their work desks next to the Delivery Teams in other sectors (note that there will be Customer Service in other sectors with focus on other customers, these are not illustrated or discussed further since it is out of scope).

Alpha has recently introduced bi-weekly meetings between Customers Service, a representative from Kappa along with one of the Other Service Providers which also is a software provider. During this meeting they go through incidents that affect all of the parties and discuss how to best solve these incidents.

4.3.2 Managers' Expectations on the Reorganization

The managers are the change leaders of the reorganization, actively taken part in initiating and designing the new organization. All of the employees have been informed about the changes, but only a few have been directly involved in the design of the reorganization. The managers' overall perception is that the employees are positive towards the changes but there might be some worries about getting more work tasks and responsibilities, specifically among the Delivery Teams which have not had that kind of responsibility previously. As of today, solving incidents are viewed as a secondary task for the Delivery Teams. This risk is described as following by one of the managers:

"There might be an issue for Delivery Teams since they will have to spend more time on solving incidents and that will slow down the deliveries /.../ that could be one challenge /.../ we have to create a balance of this" -Manager A

It is expected to be a tough start for the persons in the Delivery Teams, since they will have to take on responsibility for solving the incidents and thus have an increased workload. This is stated by the managers to be only temporary. When the new changes are fully implemented, and everyone has gotten comfortable with their new work tasks, the workload should instead decrease. The downsides of giving more responsibility to the Delivery Teams is believed to be outweighed by the potential improvements in communication and collaboration. The cooperation with the Delivery Teams is expected to be improved when they have a more customer specific focus and responsibility for the outcome of the incidents. Consequently, this is expected to create the capability of solving incidents within the frames of the SLA.

"It [the new organization] brings you closer to the customer and increase the interest in offering the customer a total experience" -Manager B

The Frontline is created to remedy the problem of employees having a wide array of tasks and help Customer Service to focus.

"One of the goals of the reorganization is to remove the noise [for helpdesk] that surrounds incident management and give Customer Service employees more time to focus on the incidents." - Manager C

4.3.3 Alpha's Employees' Expectations on the Reorganization

In general, the employees have a positive view of how the reorganization is going to change and improve the way incidents are managed. The main expectation is that the workload will decrease and the communication with the Delivery Teams improve. The expectation is that the Frontline will be a big aid in taking calls and assigning incidents, thus leaving the Customer Service team with more time to focus on solving the more complex incidents. Also, the Frontline is expected to be able to notice patterns and spot recurring incidents since they will have a better overview of all incoming incidents.

"We will be able to focus more on our job; I feel a lot of things we have to deal with now is just noise" - Application Specialist E

There are few risks being mentioned, one that was touched upon is that the Frontline will consist of partially newly recruited people lacking knowledge that will need time to adapt and learn.

"I think it is very important with good and concrete documentation for their [frontline] work tasks" - Application Specialist A

*"We have to train the new people [for the Frontline]. They are going to work on the weekends and will have to do all the monitoring. We are planning on giving them knowledge and documentation but in the starting phase they might miss something"
- Application Specialist C*

4.3.4 Customer Kappa's Expectations on the Reorganization

The customer welcomes the change and expects that it will remedy some of the quality issues (regarding communication and SLA) they have experienced in the collaboration with Alpha. Kappa is expecting to see a decrease in breached incidents and that the KPIs in terms of meeting the support promise stated in the SLA are improved. Regarding the Frontline it is expected that it will help easing the workload, for Alpha as well as for Kappa. The importance

on carefully onboarding the new people was emphasized, as well as bringing knowledge about not just the main product but also leadership and coordination skills.

In parallel to this, the previously mentioned wish for increased collaboration was expressed in terms of expectations for the upcoming reorganization. An attitude change regarding collaboration, to "reach out for a helping hand when needed" and that Alpha needs to work together with some of the Other Service Providers to solve problems was expressed as an important part of what was expected.

> *"As soon as an incident becomes more complex the criticality goes up and people need to work together, I'm hoping the attitude regarding this is improved. That the incidents we are both faced with, and are critical, get better support promise" - Customer Representative X*

Thus, it is expected that the new organization will be able to meet the needs of more complex situations, for instance where many actors are involved.

4.3.5 The Process of the Reorganization

An overview of the planned implementation process is visualized in Figure 19, the goal was to have the whole change process finished before the summer and when employees leave for summer vacation. The planned start of the implementation process was in the beginning of March 2019 starting with the cluster Naboo, thus affecting the teams working with customer Kappa. The reason behind for doing so is customer Kappa's significant size and the extent to which it affects the whole customer service activities. New employees are to be hired in preparation for the Frontline. The use of bi-weekly meetings with Other Service Providers was initiated already in February. In order to facilitate a smooth and comfortable transition for the employees, a continuous dialogue and transparency was emphasized.

The first stage, initiated in March 2019, involved moving a few people from Customer Service for Kappa and then gradually continued to move staff throughout this period. This first stage was primarily focused on the employees in India. These employees were partaking in the preparation of training material for new employees of the Frontline. A pilot run for the Frontline was planned in the beginning of April and included a training period for the newcomers.

The official launch throughout the organization is planned to be in May 2019, which includes launching the Frontline, having the new sectors in place as well as the physical placement of Customer Service employees next to the Delivery Teams. The reorganization, as a whole, is expected to be fully implemented in June 2019.

March	April	May	June

First Stage
Start moving people for Kappa's customer service into new sectors

Second Stage
Pilot run for frontline

Third Stage
Official launch in all sectors

Final Stage
Fully implemented
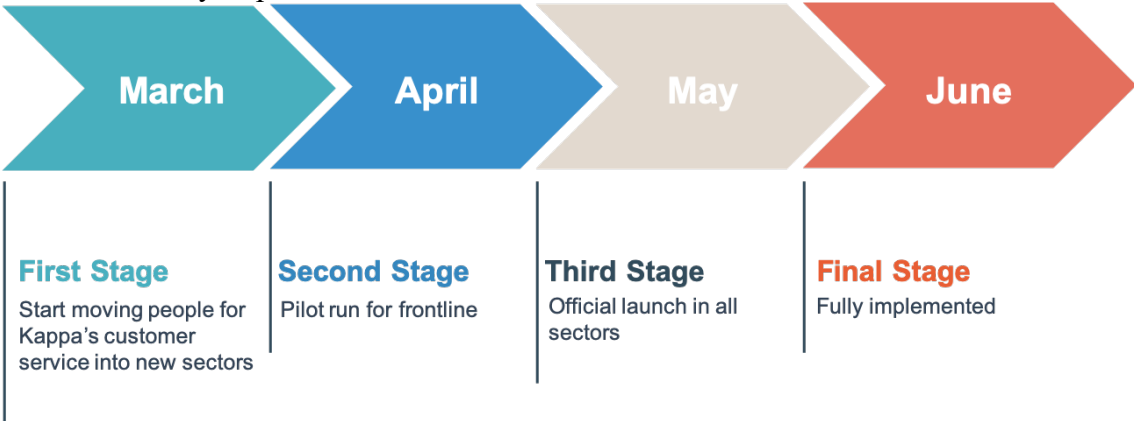
Figure 19 Timeline over the implementation process.

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4.4 Summary of Results

Current measurements of the SLA show that Alpha does not meet their delivery promises. Kappa's perception of the service dimension of reliability does not meet the expectations of delivery. However, their perception of Alpha's responsiveness, empathy, assurance and tangibles meets or exceeds the expectations. The organization of incident management today contains three customer service teams which do not have a specific focus on Kappa, except for one team solving complex incidents, the Flow Team, and two customer service employees. The tasks of Customer Service include assigning and solving incidents and they are often dependent on the Delivery Teams and Other Service Providers to solve incidents. Overall the employee motivation is characterized by a varying workload, communication gaps and a welcoming environment that is motivational. However, the accountability for the SLA-results without being able to fully affect or control it, is a dissatisfaction among employees. There is a bottleneck in communication with the Delivery Teams and Other Service Providers contributing to making the incident solving more time consuming and unmotivating. The planned organizational changes are welcomed in the organization and received positively, from the employees as well as the customer representatives. The expectations are that the changes will remedy the problems with bottlenecks in communication and enable Alpha to deliver according to SLA.

5. Discussion

In the following chapter, the research questions will be discussed based on the theoretical framework and the results from the empirical data collection. The purpose is to elaborate upon how different factors of incident management practices affect the service quality, furthermore, evaluate how well the change would solve identified factors leading to poor service quality. Finally, how the service quality can be further enhanced is discussed and presented together with recommendations.

5.1 What Factors of Incident Management Practices Affect the Service Quality

To enable evaluation of how incident management practices affect the service quality, the current service quality is initially discussed and presented. Thereafter, a chapter discussing the factors, related to incident management practices, affecting the quality of customer service is presented. The factors are presented using Pettigrew's (1987) model of change, and the context, content and the processes of the change are evaluated.

5.1.1 The Service Quality of Customer Service

Table 7 below shows a summary of the empirical data concerning all customer Kappa's perceptions and expectations on the delivered services, along with an analysis of whether it is satisfactory or not. The analysis is based on the difference between the customer's expectation and perceived service (Gap 5) described by Parasuraman, Zeithaml & Berry (1985), presented as following:

- Expectation and perception are matching and therefore *satisfactory*
- Expectation is lower than the perception and therefore the satisfaction is *exceeding* the expectations
- Expectation is higher than the perception and therefore there is a gap in satisfaction

Table 7 A summary of Kappa's perceptions and expectations of the service provided by Alpha, according to the SERVQUAL dimensions/factors.

	Perception	Expectation	Satisfaction	Desire
Reliability	•Service goals are rarely reached •Delivered service is reliable	•Stability in meeting SLA	Gap	Long term improvement and find root cause
Responsiveness	•High transparency •Versatile and quick response •High willingness to help	•High transparency •Quick response •Uphold own services	Exceeding	Continuous improvement of communications
Empathy	•Caring with individualized attention	•Caring with individualized attention	Satisfactory	Increased attention through collaboration

As illustrated in Table 7, the empirical data indicates that *Empathy* is satisfactory, and the *Responsiveness* is exceeding expectations. The Responsiveness in the form of willingness to

help and collaboration outside of Alpha's own services is greatly appreciated according to all Kappa representatives. However, there are differences in opinion regarding whether the collaboration is enough or not and the interview provided seemingly contradictory statements. However, it does indicate how an increased level of partnership is desired instead of the help being unilateral.

All Kappa representatives' perception of the delivered service reliability is lower than the expectations on the service, indicating that the Reliability dimension leaves room for improvements. As seen in the SLA measures, the goal of 90% solving rate was only reached once in 2018. However, the analysis of the dimensions in the customer satisfaction shows how the majority of dimensions are satisfactory or exceeding Kappa's expectations. The purpose of evaluating customers' satisfaction is to highlight strengths and areas for improvement (Wicks & Roethlein, 2009). Based on both the SLA measurements and the definition used for service quality being customer satisfaction based, the analysis of the results indicates that even though the reliability ought to be improved by delivering according to the SLA promise, Kappa is satisfied with Alpha's responsiveness.

5.1.2 Factors of Incident Management Practices Affecting Service Quality

Figure 20 Figure illustrating the factors influencing the service quality.

The factors seen in Figure 20 encircle the practices of incident management, meaning both the context in which the employees are operating and the resulting employee satisfaction. Hence the delivered service quality is a result of the combined effects of these factors. The practices that affect the service quality include external communication, internal communication bottleneck, wide responsibility for customer service, and finally the employee satisfaction.

External Communication Draining Time From SLA

The customer satisfaction, hence service quality, is to a great extent influenced by Alpha's external communication with Other Service Providers as well as the customer processes. The results from managers showed that 33% of incidents solved are for Other Service Providers. One of the Application Specialists explained that the incidents can jump around between Other Service Providers and do not arrive to Alpha on time, or not at all, resulting in those incidents breaching. Therefore, it is in the best interest of Alpha to work on external communication with the Other Service Providers. However, these practices of the external communication (Also seen in chapter *4.2.3 External Incident Handling*) are directly reflected on the SLA by creating longer lead times through which it affects the SLA negatively. This is all reflected on the service quality, specifically in Alpha's responsiveness and reliability.

There is a correlation between the service quality dimensions, as described by Parasuraman, Zeithaml & Berry (1988). The responsiveness, through the willingness to help, creates longer lead times resulting in a negative impact on the reliability. Thus, indicating a correlation between responsiveness and reliability. Knowing which one of these two dimensions to focus

on could present a dilemma. It is difficult to decide what to focus on and whether it is possible to increase reliability while at the same time maintaining high responsiveness. Focusing on one of them might be the correct strategy, however it can also be detrimental (Garvin, 1987; Haywood-Farmer, 1988).

Bottleneck Obstructing Internal Communication

The current organizational structure in which the Customer Service and the Delivery Teams are working as separate units, have created a communication bottleneck between these two functions. This became evident from the employee interviews performed where issues regarding the communication were raised by all Application Specialists. The communication gap serves as a bottleneck when the Application Specialist is forced to wait for a response from the Delivery Team, resulting in longer lead times, negatively affecting the SLA by causing incidents to breach. The communication gap includes: 1) a failure from the Delivery Teams side to respond to Application Specialist within the SLA time frame; 2) a lack of communication regarding new updates. Poor communication within the organization can be costly, impacting the bottom line directly and indirectly through ripple-like effects. A balanced flow of information reduces the risk of misunderstandings and limits expensive mistakes (Mesmer, 2004). The Delivery Teams' failure to respond makes the Application Specialist very dependent on others. However, due to that the Delivery Teams have no official responsibility over the incidents it is unlikely to expect them to prioritize solving incidents.

The frequent posting of questions related to incidents in the communication channel, also causes an overflow of information and according to the Application Specialists it might result in that people stop to care. Since the Delivery Teams have no obligation to respond but their expert knowledge is vital, it makes the communication counterproductive. The role of the Delivery Team is similar to the level 2 support groups described by Bartolini, Stefanelli, & Tortonesi (2008), dealing with more complex issues. However, the organization of incident management at Alpha requires the Application Specialist of the Customer Service team to perform task on all levels described by Bartolini, Stefanelli, & Tortonesi (2008).

Wide Responsibility for the Customer Service

When contemplating the process flow for solving incidents (*4.2.3 Internal Process Flow for Solving Incidents*), it becomes clear that the Customer Service employees have a wide responsibility consisting of both simple tasks, such as assigning incidents, as well as complex incidents that involve communication with several parties and require expert knowledge of the customers' software. The poor SLA results, and the empirical findings indicate that the balance between these widespread tasks is difficult and that the attention is redirected from solving incidents to administrative tasks. As described in Dixon (2018) there is a positive effect that can be seen on customer service by having teams with expert knowledge. Judging from this, an indication is that an organizational structure where the responsibility is widely divided prevents employees from solving the customers' problems in the best possible way.

Fluctuating Employee Satisfaction

Several studies have shown that employee satisfaction has a direct effect on the quality of work performance (Hackman & Oldman, 1974) as well as customer satisfaction, especially in a service-setting (Yee, Yeung & Cheng, 2008). The cause to the fluctuating employee satisfaction will be discussed with Hackman & Oldman's three critical psychological states, *Experienced Responsibility for Work Outcomes, Experienced Meaningfulness of Work* and *Knowledge of the Actual Results* as basis in the following text.

Causes are summarized by the following issues:
- Customer Service's dependency on Delivery Teams and Other Service Providers
- Mountain of incidents impeding the visibility of work results
- Locations in US and India are lacking guidance and a clearly defined leadership

The experienced responsibility for work outcomes is positively affected by the extensive responsibility for delivering according to SLA. However, the autonomy is hindered by Customer Service's dependency on the Delivery Teams, created by the communicational bottlenecks. Their autonomy is also negatively affected by incidents being incorrectly assigned to the Other Service Providers. The Application Specialists mentioned the unfairness of this and that they sometimes only get a few hours to solve the incident when it should have been a few days. Altogether, the experienced responsibility for work outcome is high, but the dependency on the Delivery Teams and the incorrect assignment of incidents negatively affect the autonomy, hence the employee satisfaction. Being challenged and presented with a variety of tasks results in an experienced meaningfulness of work. However, the mountain of incidents and the dependency on the Delivery Teams impedes the visibility of the outcome. Altogether resulting in the feeling of helplessness and not making a difference, negatively affecting the experienced meaningfulness of work.

The employees are presented with transparent and frequent feedback on their work performance. However, a lack of guidance and a clearly defined leadership is criticism given by employees located outside of Sweden, which negatively affects the employee satisfaction. Krüger (1997) explained that due to flat organizations not having a clear hierarchy to climb, it can cause career-oriented workers to feel unmotivated because there are fewer opportunities for promotion. This is depicted though diverging opinions of the flat organization among the Application Specialists. A flat organization provides both advantages and disadvantages, it brings more teamwork, better communication and greater job satisfaction (Powell, 2002). The flat organization at Alpha is likely to have a positive impact on the customer satisfaction by encouraging communication between employees of different positions. However, Powell (2002) also states that the effectiveness of the flat structure critically depends on the attitudes of the people working in these flat organizations. Furthermore, geographical distance impacts the coordination of teams by negatively influencing how the power of leaders are perceived by the employees (Hauptman & Hirji, 1999).

According to Hofstede Insights (Presented in *3.6.3 Cultural Differences*), the score of India in the dimension of power distance indicates an appreciation of hierarchy and top-down structures, being dependent on a power holder for direction. The results from Hofstede Insights concerning Sweden and US are similar. However, both US and India are more inclined to appreciate hierarchies which is also supported by the empirical findings of this thesis. In contrast, Sweden's scores indicate being more accustomed to managers striving for consensus and involvement of employees in the decision making. Altogether indicating that the cultural differences between Sweden, the US and India are influencing how the leadership and the flat organization are perceived.

5.1.3 Summary Research Question 1

The factors of incident management practices that negatively affect the service quality include: Fluctuating employee satisfaction, an internal communication bottleneck, the external communication performed with Other Service Providers draining time from the SLA time frame as well as a wide responsibility for the customer service. Collectively, these factors cause the customer to experience a low reliability of the service yet a high responsiveness.

5.2 How Well Can a Change Towards Specialized Customer Service Solve the Identified Factors Leading to Poor Service Quality?

The Context-Content-Process model of change (Pettigrew, 1987) is used as a framework to discuss and evaluate the change. Additionally, references to literature from the theoretical framework are used to evaluate whether the poor service quality will be improved with the reorganization.

5.2.1 Context

The global context in which Alpha operates is characterized by a rapidly growing demand within the area of e-commerce (Laudon & Traver, 2016; Wan, Zhong & Huang, 2017). Consequently, this is an external factor of the context causing the quantity of incidents to increase. Meeting the quantity demand, as well as the quality, is crucial according to all of the Kappa representatives as well as Alpha's Managers. The SLA can be considered both an external and internal factor since it is measured by both Kappa and Alpha. Alpha experiences an urgency to improve the SLA metrics, and doing so in a sustainable manner. A continuous breach of SLA targets might make them subject to financial penalties in the future. According to Kappa, there are currently no consequences if Alpha does not deliver according to the promise and that the SLA in reality is nothing more than a fluffy handshake. According to Bartolini, Sallé & Trastour (2006) most targets in an SLA are subjects to direct financial penalties if delivered quality is deficient and proactive actions, such as reorganizing, are therefore critical. Internal factors also include inspiration to the change (Pettigrew, 1987). The inspiration was stated by one of the managers to be the article (presented in *3.4.4 Expert Teams*) published in Harvard Business Review by Dixon (2018). The content of this article will be further discussed in the next chapter. Altogether, the results indicate that all the managers at Alpha are convinced that the status quo is more threatening than to not change. Coutu (2009) states that at least 75% of managers need this conviction for a transformation to be successful.

5.2.2 Content

A discussion and evaluation of how planned organizational changes (presented in *4.3.1 The Content of the Reorganization*) can possibly improve the service quality are presented for each factor causing the poor service quality (presented in *5.1.2 Factors of Incident Management Practices Affecting the Service Quality*). The factors and the content of the reorganization is presented once again in Figure 21 for clarity. Furthermore, remaining issues that need further improvements are indicated for each factor. Hence, evaluating how well the content of the change would solve factors leading to poor service quality.

Factors Causing Poor Service Quality
External Communication Draining Time From SLA
Bottleneck Obstructing Internal Communication
Wide Responsibility for Customer Service
Fluctuating Employee Satisfaction

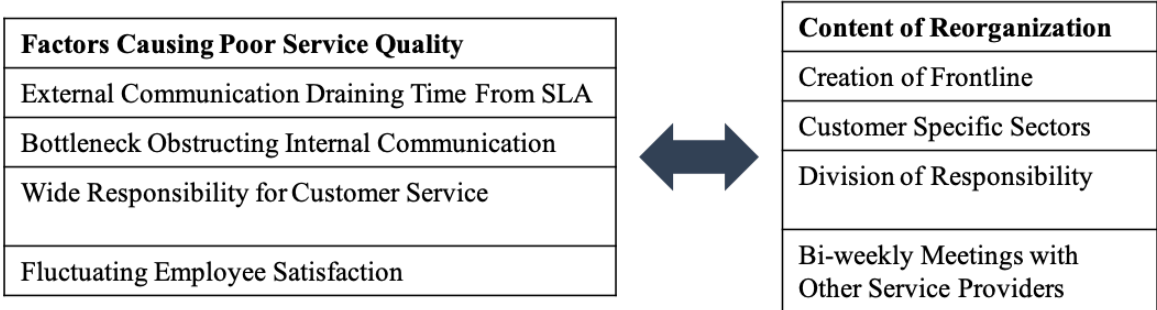| Content of Reorganization |
| --- |
| Creation of Frontline |
| Customer Specific Sectors |
| Division of Responsibility |
| Bi-weekly Meetings with Other Service Providers |

Figure 21 Illustration of the basis for discussion in 5.2.2 Content

External Communication Draining Time From SLA

Bi-weekly meetings with the Other Service Providers are expected to improve the external communication. This new routine may reduce the lead time for solving incidents through a more efficient communication, hence improve service quality. However, this does not solve the underlying issue of Alpha spending time on incidents from Other Service Providers. It rather enhances it by draining more of the SLA timeframe. Therefore, a remaining issue is improper service quality standards, with a gap between the intended measure and what is actually measured.

Bottleneck Obstructing Internal Communication

The communication bottleneck between the Delivery Teams and the Customer Service is expected to be remedied with customer specific sectors, where the Customer Service in Sweden will have a close physical proximity to the Delivery Teams with desks next to each other, along with the division of responsibility. The customer specific sectors will facilitate communication, especially between employees in Sweden as they will be working in shared spaces and collaborating openly. Face-to-face communication is a more efficient form of communication; however, this might be inhibited by geographical locations and different cultural environments (Nonaka, 1991; Barson et al., 2000). The communication bottleneck might therefore still remain in India and the US due to the geographical distance. Dixon (2018) describes how T-mobile found co-location to be essential and just setting up virtual teams not being enough. The division of responsibility will however force the Delivery Teams to engage more in solving incidents, thereby reducing the bottleneck.

Wide Responsibility for Customer Service

The wide responsibility for Customer Service will partly be mitigated by creating customer specific sectors and a Frontline to unburden the Customer Service employees. As seen in Dixon (2018) the customer will, through a customer specific support structure, receive a more tailored support directed towards their specific needs, increasing the customer satisfaction. However, with the team of experts there is a risk of the organization becoming vulnerable, since the knowledge is more concentrated with specific people having extensive knowledge about a narrow, but important area. A significant part of the acquired knowledge is embedded in individual employees and needs to be shared or coded to maintain its existence (Starbuck, 1992). Hence, the team of experts create a need for careful knowledge transfer if the experts were to leave the organization. Especially considering how one Application Specialist described the documentation to be poor, employee turnover in combination with expert teams could thus create a knowledge vacuum.

As one Application Specialist from the US office stated, the new Frontline would enable a focus on solving incidents by getting rid of the noise. With the new Frontline directly assigning the incoming incidents to the relevant team of experts the solving time is likely to be significantly shortened, thus affecting the SLA measures in a positive way. Bartolini, Stefanelli, & Tortonesi (2008) describe the organization of incident management being divided into three separate support groups, depending on the complexity of the tasks. Dividing the responsibility of incidents with the delivery team will make the organizational structure of incident management more coherent with what is described by Bartolini, Stefanelli, & Tortonesi (2008), by giving the Delivery Teams official responsibility to act as support to customer service. However, as described by the managers this could prove a challenge, since the Delivery Teams will spend more time on solving incidents which will slow down the deliveries. There is a significant risk of shifting the wide responsibility issue to the Delivery Teams instead of the customer service, since they will have yet another task on their tables with this reorganization.

The employee satisfaction can be expected to increase with less dependency on Delivery Teams, the customer specific sectors and a Frontline. With the customer specific sectors, along with the proximity of the Delivery Teams, the Customer Service employees will become experts in their respective customer area, increasing the knowledge and decreasing the dependency on the Delivery Teams. Having the Frontline focusing on rudimentary issues will give Customer Service the chance to utilize their expert skills to solve complex issues. Furthermore, by limiting the new Customer Service teams to a specific customer, the mountain of incidents will be seemingly smaller. The employees in the new customer specific sectors will only have to deal with the customer-relevant incidents, thereby increasing the visibility of results and being able to experience that their job has an impact on other people. However, with the narrow area of responsibility in the Frontline follows a risk of a decreased visibility of results and lack of task significance for these employees, since the tasks will be relatively simple, and many incidents will just be passed onwards and not processed from start to finish by Frontline staff. Altogether, the employee satisfaction is likely to increase within the new customer specific sectors, but instead the new organizational structure might have to tackle issues with low employee satisfaction in the Frontline.

Furthermore, parts of the organization will invariably be inclined to appreciate top-down leadership, whereas other parts do well within a flat organizational structure. However, with US employees having closer contact with the Delivery Teams, it will likely result in them feeling more included in the organization and having a clearer sense of direction. The need for a defined leadership in India and US will nevertheless remain. Furthermore, the issues with Customer Service dependency due to external communication with Other Service Providers, will remain.

5.2.3 Processes

Most change efforts fail due to negligence of implementation processes (Kotter, 2007). By understanding the stages of change and avoiding shortcuts as described by Kotter (2007), the reorganization can yield the intended results of solving the factors affecting the service quality.

The results indicate that Alpha has the potential to take the right actions at each stage of change. Having more people involved creates a better outcome along with creating a powerful guiding coalition and removing obstacles when implementing change (Kotter, 2007). The results have shown that there is strong support for the change within the organization, no one has opposed the change and the managers along with the employees constitute a powerful guiding coalition. Alpha can create short term wins through initiating the implementation by moving people gradually, having experienced employees lead an onboarding process with training along with pilot runs to ensure that the frontline will work properly and that the employees feel comfortable in their new job tasks. Without short-term wins, people may give up or start resisting the change. There is a difference between creating the wins and hoping for them, the former being a success factor (Kotter, 2007). Many change processes take years to plan and implement, as seen in the case by Nadler & Tushman (1997). As the result presented in chapter *4.3.5 The Processes of the Reorganization* indicates, the methods and execution of Alpha's change have evolved rapidly, thus there is a risk of decisions without a profound foundation being made.

The results indicate it to be less cumbersome to implement change within a medium sized enterprise like Alpha. Alpha is a relatively young company (founded in 1998) and all of the interviewees talked about it as forward thinking and flexible. All things considered, the mindset of managers as well as customer service employees seem to empower others to act on

the vision of change. Nonetheless, there are indications of falling into the common pitfalls of change. One of them being the risk of claiming the victory too soon and forgetting the importance of consolidating improvements and producing more change (Kotter, 2007). Even though the initial performance improvements might indicate an achievement of the SLA support promise, it might encroach on other dimensions of the service quality, hence not yielding the desired results. Highly concentrating on one dimension can provide the appropriate strategy, although it might result in disaster (Garvin, 1987; Haywood-Farmer, 1988).

5.2.4 Summary Research Question 2

The context in which the change is occurring presents a sense of urgency facilitating the change to be successful. The processes of implementation show great potential, however, the widespread confidence in its success presents a risk of declaring victory too soon. The content of the change will partially solve the factors leading to poor service quality. Remaining issues are the following:

- Customer Service's dependency on Other Service Providers due to improper service quality standards
- Risk of bottleneck obscuring internal communication between the global sites
- Poor documentation and lack of knowledge transfer
- Issues with wide responsibility shifts towards Delivery Teams
- Risk of low employee satisfaction in the Frontline
- Locations in US and India are lacking guidance and a clearly defined leadership

5.3 How Can Service Quality Be Further Enhanced?

The SLA defines what the customer is expected to receive and form the service provider's desired behavior rather than render penalties as described by Larson (1998). One customer representative expressed a concern about the lack of consequences of not delivering according to the SLA and how it obstructs collaboration between different service providers. Financial penalties might not be the way to go, instead collaboration needs to be incorporated the with Other Service Providers in the SLA. According to Jin, Machiraju & Sahai (2002) it is crucial to design the SLA to be balanced between risk and benefits for all parties, based on an understanding of its impact on business process in both service providers and customers. The customer Kappa's view of what their expectations are seems to differ from what is described in the SLA and the possibility to realign the SLA to the actual customer expectations should be considered critical. Furthermore, customer centricity is more than just giving the customers what they want and provide good service, it is about offering a great experience before and after the purchase in order to achieve customer loyalty and profits (Galbraith, 2005). This statement by Galbraith (2005) further enhances the importance of incorporating the collaboration to fully enable customer centricity.

The result from the customer satisfaction evaluation also indicates evidence of a dissimilarity of how the customer values the five dimensions. While the SLA measurements are low, the perceptions within four out of five dimensions are satisfactory or exceeding the expectations. Only the reliability dimension, and somewhat also the responsiveness dimension (since it is connected to the speed of response), reflect the SLA measures. This raises a question of whether all the dimensions are valued equally important by the customer, which ought to be investigated further.

Further improvements are needed regarding the expressed lack of leadership in the US and India. Alpha must find a way to balance the flat organizational structure and Swedish culture across the global borders. Either by introducing team leaders in both India and the US or by conducting cross-cultural training to enable the employees to perform as effectively as possible. Zakaria (2017) suggests training programs to prepare people to participate in virtual collaboration, a practice which can be adopted by Alpha. In addition, by having career mentors that describe how to perform a career journey within the company, Alpha can present a clearly defined path of advancement for its employees. Having clear career paths is especially important for the employees in the new frontline since they are at risk of feeling a low job satisfaction over time and must have the possibility to advance. Dixon (2018) describe how stand-up meetings several times a week, to share the best practice, can be used to build collaboration. The Delivery Team performance and collaboration with Customer Service could be enhanced with this type of meeting with both of these teams.

In order to maintain the expert knowledge within the company, documentation and transfer of knowledge becomes vital. Shin, Holden & Schmidt (2001) state that to reward knowledge sharing, organizations need to evaluate the cost of how the knowledge is owned and establish a control of the knowledge flow. Documentation of practices and having proper handover procedures in place will enable knowledge transfer during employee turnover. Altogether, when reorganizing to improve the service quality one must consider whether the organizational learning is characterized as double- or single- loop learning. The tendency to improve the quality measures without questioning the underlying norms and values is similar to the single-loop learning, as described by (Argyris & Schön, 1996). Implementation of improvement efforts as a result of changes in the underlying values is preferred and one could for example reconsider the norms within the design of the SLA, as well as how having a flat organization really affects the employee satisfaction in the global sites.

6. Conclusion

The purpose of this thesis was to study how organizational changes at a logistics software provider affect the quality of the incident management and to indicate further improvements. In light of the theoretical models, an additional goal was to evaluate how said changes would lead to improved service quality.

The research showed that factors of incident management practices that negatively affect the service quality include: Low employee satisfaction, an internal communication bottleneck, the external communication performed with Other Service Providers draining time from the SLA time frame as well as a wide responsibility for the customer service. Collectively, these factors cause the customer to experience a low reliability of the service yet a high responsiveness. The low reliability was mainly due to the SLA measurements, which demonstrated an inability to deliver according to the service promise. However, the perception of the responsiveness was exceeding the expectations due to shown willingness to help. Consequently, the divergence of these two dimensions indicates how quality must encircle both customer satisfaction and SLA measurements to accurately portray the whole picture, enforcing the complexity described in literature regarding the definition of quality (e.g. Parasuraman, Zeithaml & Berry, 1985). A change towards a specialized customer service was studied in order to understand whether it can solve the identified factors leading to poor service quality. The content of the change includes a new frontline, creation of customer specific sectors and a division of responsibility. It could be concluded that the context in which the change is occurring presents a sense of urgency that enables the change to be successful. The processes of implementation show great potential, however, the widespread confidence in its success presents a risk of declaring victory too soon. These changes, that conjointly present a more specialized customer service, partially solve the identified factors leading to poor service quality but only to a certain extent, leaving room for improvements. The following improvements to enhance the service quality are suggested:

- Re-design SLA to include collaboration and reflect the customer satisfaction
  - Consider double-loop learning when developing quality measurements
- Improved leadership in India and the US
  - Introduce local team leaders
  - Design cross-cultural teams and training programs
  - Appoint career mentors to present clear career paths
- Introduce stand-up meetings with Customer Service and Delivery Teams to build their collaboration
- Document practices to maintain expert knowledge and ensure knowledge transfer

A major challenge for logistics software providers today is how to meet the growing number of incidents while upholding the service quality in a complex logistic system. Shifting to a customer centric organization of the customer service and providing a differentiated service offering, adapted to their customer needs, has potential to improve service quality. Such change can open doors to cultivate knowledge and resources for the increasing quantity of incidents while improving the service quality. However, this thesis has also shown the potential difficulties when trying to implement customer-centric changes to improve quality measures, as there are many factors of the organization to consider; The layout of the organization; The geographical location and accompanying cultural differences; Knowledge transfer; Internal and external communication. Furthermore, the 'how' to define and measure service quality ought to be contemplated on further by logistics software service providers, using the concept of double loop learning by questioning 'why' it is measured as it is. Finally,

a challenge is to balance between the different dimensions of service quality and how to improve different dimensions simultaneously without sacrificing one or the other.

This thesis has also indicated a difference between the measured service quality and the actual customer satisfaction. Quality measures, such as SLA, should not be substituted but rather complemented with other qualitative measurements to incorporate collaboration and create a better understanding of the customer satisfaction. The conducted research showed that quality extends beyond traditional definitions in contracts or what is distinguishable from numbers in excel sheets. It can be concluded that the SLA should be used as a guideline as to where the service quality lies and not the sole measurement of it. The customer can be satisfied with the service provider even though service promises are unfulfilled, a finding in line with theory (E.g. Parasuraman, Zeithaml & Berry, 1985). As an analogy for how the differences in expectations depend on the receiver: Like a kaleidoscope, the service quality is perceived differently depending on the angle of the viewer. To summarize, expected quality is closely related to previous experiences and promises of performance which reinforces established theory (E.g. Wicks & Roethlein, 2009). Service quality also encircles the customized attention and care given to the customer, accentuating the unique needs and preferences of that specific customer; A consideration that is applicable not only within the context of the logistics- or software service, but universally for service providers.

7. Future Research

The main focus of this thesis was upon how practices of incident management affects the service quality and consequently how certain changes of its organization would improve the service quality. The quality measurements of incident management are usually governed by service promises such as the SLA, however research is needed regarding how these types of performance measures affects the relationship with the customer. Further studies on links between customer satisfaction and the degree of collaboration allowed by the service level agreements are needed. Thus, the research ought to investigate the impact of a closer collaboration between the customer and their service provider, to evaluate how perceptions and expectations on delivered service quality would be affected. Furthermore, one major difficulty experienced is knowing exactly what the quality measurements should encircle if the service field is highly customized and traditional frameworks are inapplicable or difficult to adapt. Meaning that the understanding and knowledge on how to design these types service quality measurements ought to be further researched, especially when implementing more customer centric service offerings. Moreover, the area of research on geographical distance and cultural differences in flat organizations could be further explored, for example by investigating how to tackle issues that might arise. This type of organizational layout might be optimal for in one location, while problematic somewhere else in terms of communication, leadership and decision making or when implementing change. Hence, additional studies may further evaluate how customer service can be organized and change be implemented, to create the capacity to sustainability meet quantity and quality demands within the logistics market.

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Appendix I – Example of interview questions with Managers

Introduction
We are two students, Louise Krook and Lovis Göthberg, at Chalmers writing our thesis at Quality and Operations Management. As you may be aware of we are doing the thesis at Alpha and investigating how the incident management will be affected by upcoming organizational changes and what further improvements are needed. This interview will be anonymous and approximately take 60 minutes, you can choose to not continue with the questions whenever you like, both before and after the interview. If we have your permission we would like to record the interview as well.

General
Please tell us about bit about yourself
- Area of responsibility
- Work tasks

Could you explain the organizational structure in your location?
- How many Delivery Teams
- Customer service/teams
- Team structure

How many are employees/teams working towards Kappa?

What are the responsibilities of the flow team?

How are the incidents solved?

What do you (your team members) do when you can't solve an incident?

What are your biggest challenges today?

How does the communication with other locations work?
- How often?

About the reorganization
Please describe the reorganization, from start to end.
- What is it
- Who is involved
- When
- Implementation process

Why do you choose to reorganize in this specific way?
- Motivation and reasons

How long have the reorganization been planned?

How have the change been communicated?

- Involvement of employees

What has been the feedback from the employees this far?

The reorganization, how will it affect your location specifically?

- Will it affect decision making/problem ownership

What are the biggest difference between the new and old structure?

- Differences between locations

What are these changes expected to contribute with?

- Goals and vision
- Milestones

What are the risks that you can see connected to reorganizing?

- The risk of not changing?

Appendix II – Example of interview questions with Customer Representatives

Introduction
We are two students, Louise Krook and Lovis Göthberg, at Chalmers writing our thesis at Quality and Operations Management. As you may be aware of we are doing the thesis at Alpha and investigating how the incident management will be affected by upcoming organizational changes and what further improvements are needed. This interview will be anonymous and approximately take 60 minutes, you can choose to not continue with the questions whenever you like, both before and after the interview. If we have your permission we would like to record the interview as well.

The purpose of interview is gain knowledge of Kappa's customer satisfaction regarding with the quality of current customer services of incident management at Alpha. The questions are related to the attributes of delivered services and investigates both the perceived performance and the expected performance.

All these following questions will be in regards to the customer service of solving incidents.

General
What do work with? (responsibilities etc)

What is your relation to Alpha's incident management?

Reliability
1. What is your *perception* of Alpha's performance, when it comes to:
How well they provide services as promised regarding incident management?
If well - Why even though they are not meeting the SLA? NO -why not?

2. What is your *desired/expected* performance, when it comes to:
How well they provide services as promised regarding incident management?

3. What is your *perception* of Alpha's performance, when it comes to
How well they provide fast solutions?

4. What is your *desired/expected* performance, when it comes to:
How well they provide fast solutions?

Responsiveness
5. What is your *perception* of Alpha's performance, when it comes to
Keeping you informed about the progress of solving incidents?

6. What is your *desired/expected* performance, when it comes to:
Keeping you informed about the progress of solving incidents?

Empathy
8. What is your *perception* of Alpha's performance, when it comes to:
Their willingness to help?
(For example issues regarding data from Other Service Providers)

9. What is your *desired/expected* performance, when it comes to:
Their willingness to help?

Assurance
7. Do you perceive that the customer service have sufficient knowledge to solve the incidents?

Tangibles
8. What is your perception of the personal interaction that Alpha offers?

Reorganization
9. What is your perception of the current organizational structure for solving incidents?

10. We assume that you are aware of the upcoming organizational changes. In what way are you expecting the change to improve the service towards you?

Processes (Only for Customer Representative Y & Z)
Tell us about how the process look like when an incident is discovered and reported to Alpha.

How does the process look like when Alpha sends back the solved incident and you close it?

Which processes are affected by the SLA?

What are the biggest challenges that you can see in this process?

Appendix III – Interviews with Employees

Introduction
We are two students, Louise Krook and Lovis Göthberg, at Chalmers writing our thesis at Quality and Operations Management. As you may be aware of we are doing the thesis at Alpha and investigating how the incident management will be affected by upcoming organizational changes and what further improvements are needed. This interview will be anonymous and approximately take 60 minutes, you can choose to not continue with the questions whenever you like, both before and after the interview. If we have your permission we would like to record the interview as well.

General
Tell us about yourself.
What do work with?
- Responsibilities
- Work tasks

How long have you been at Alpha?

Employee Satisfaction

Do you feel that you have the opportunity to influence your job tasks? (Do they listen to your feedback?)

Do you feel that you get enough information about matters affecting your job?

Are the resources (tools) adequate for solving the incidents?

If you are faced with an incident which you do not know how to solve, do you feel that you get enough support to find a solution anyway?

In thinking about the variety of tasks your position requires, would you say that there are too many, enough, or not enough? (workload)

Do you feel that the quality goals (SLA) are reachable?

What is motivating? (Internal & external incentives?)

What is demotivating?

Does the job make good use of your skills and ability?

Any other issues regarding the work environment that you would like to mention?