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Lean-Oriented Approach for Discovering Failure Demand in a Service Contact Centre Environment

Case Study from the Finnish Financial Sector

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ABBREVIATIONS

PDCA	Plan, Do, Check, Act – continuous improvement cycle
SOP	Standard of procedure
TPS	Toyota Production System
VOC	Voice of Customer

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ABSTRACT

Current literature presents a lack of practical tools for discovering failure demand in a service contact centre environment. As contact centres are a modern strategic tool for companies to manage costs and drive up customer satisfaction, the need for understanding the largest form of waste is necessary. Therefore, this study focuses on the question of what the steps for discovering failure demand are in a service contact centre environment and why it is important. To be able to answer this question, the study will first analyze the existing literature and based on that explain the phenomenon of failure demand and build a framework for discovering it. After the framework has been tested in a case study form, the gathered results are presented as empirical evidence.

The method used for this study is qualitative and the observative research method was used to collect the data. The logic was a combination of inductive and deductive. The data itself was collected from over a 130 different customer interaction points and the individual customer representatives were also interviewed. The chosen company for the study was a big financial group which operates mainly in Northern Europe. However, this study only focuses on its service contact centre functions in Finland. The data access from the chosen company enabled a case study research on how value and failure demand are discovered in a significant service environment. The findings of the study suggest that the three main steps for discovering failure demand are: building understanding, capturing data and categorizing data.

As a theoretical contribution to the existing literature, this study offers a new framework that can be tested in different service environments to discover failure demand. Furthermore, as individual steps of the discovery process were done independently, the study offers more data on failure demand, thus enriching the current literature. The managerial implications in this paper provide a new practical tool for managers and practitioners a like with well documented and easy to follow process steps. Also, the framework helps to spread knowledge on the phenomenon of failure demand among organizations and managers.

KEY WORDS: Demand, Value Demand, Failure Demand, Lean, Contact Centre, Waste

1. INTRODUCTION

Service contact centres are an essential part of businesses in modern times (Marr & Parry 2004: 55). They handle most of the contacts a business has daily and most of the customers tend to seek answers to their quandaries through the service contact centres (Marr & Parry 2004: 55). This is in no any mean changing in the long run. On the contrary. Service call centre functions are estimated to grow 12% annually in the Western European markets alone (Marr & Parry 2004: 55). Naturally, as technologies advance, new communication methods have been introduced. Chat platforms, social media application and direct messaging possibilities have their own user base. This addition of new communication channels is developing call centres into contact centres where the method of communication is not necessarily a phone call (Marr & Parry 2004: 56). However, calling is still the most used method to communicate between businesses and customers. The service call centres allow organizations to quickly contact their customers and solve their problems, answer any questions or deliver information (Marr & Parry 2004: 56). This lays enormous pressure on these functions to deliver excellent customer service daily with efficient cost management. As service call centres are the most popular way of communication between a company and a customer, organizations have realized that by perfecting their service delivery through communication, they can differentiate themselves from their competitors (Marr & Parry 2004: 55). In a way, service contact centres have become strategic entities to companies as they have become the face of the organization.

The driver for the ever growing need for contact centres is customer demand. Demand is defined as an insistent and peremptory request that is made by one party to another. In other words, demand occurs when somebody wants or needs something (Seddon 2005: 26). However, a crucial mistake that is done in modern contact centres is to assume that all demand is something that is required to be done (Teehan & Tucker 2008; Seddon & O'Donovan 2010b). This mindset and assumption create unnecessary strain on resources and therefore impedes the ability to serve actual valuable demand of customers. Consequently, organizations are required to divide demand into value demand and failure demand. Value demand is the demand that the organization is there for (Seddon 2005: 26). It brings value to the requester and the requestee. Examples of value demand can be when

customers contact the organization because they would like to acquire a service or if they would like the organization to help them in problem solving (Seddon & Brand 2008: 8). Failure demand, on the other hand, is demand that does not and it is deemed the single largest waste that modern service contact centres face today (Seddon 2005: 26; Seddon & O'Donovan 2010b: 14). Examples of failure demand can be when the customer is contacting the organization and asking what is happening with their services or products or that they do not understand something that was previously talked about.

The main objective of making failure demand visible in an organization is to increase customer satisfaction and manage costs (Seddon & Brand 2008; Seddon & O'Donovan 2010b; Teehan & Tucker 2010; Soltani et al. 2011; Arfmann & Barbe 2014). However, even though the topical literature has acknowledged the aim and purpose of studying failure demand, it lacks holistic and practical approaches on how to discover this phenomenon in service business environments. This is why, the purpose of this study is to fill the gap between current literature and the lack of practical discovery tools for failure demand which is touched and pointed out in the current literature (Hines et al 2004; Leong & Tilley 2008; Teehan & Tucker 2008; Piercy & Rich 2009b; Teehan & Tucker 2010; Arfmann & Barbe 2014; Jaaron & Backhouse 2014). Also, Piercy & Rich (2009a) have stated that lean initiatives and consequently the usage of failure demand as a development point in studies, is very limited in pure service contact centre environment. With the aim to uncover a process to enable the discovery of failure demand and therefore offer a practical tool for organizations to use, this study uses empirical findings to compare results with the current literature. The findings are drawn by using case study approach and analysing a company from the Finnish financial sector.

Costs have been on a rise and in the meantime the quality of service has been declining in service organizations (Teehan & Tucker 2010: 177). This means that organizations are looking for remedies as the costs and quality issues are set to rise as services and products are getting more complex and at the same time organizations are in dire need to have simple yet efficient methods to discover the needs and demands of customers (Teehan & Tucker 2008: 90; Teehan & Tucker 2010: 177). A study to enable the discovering of

customer demand in a contact centre environment should provide value to service organizations as the research could be used as a combatant against the rising costs and declining service quality. Furthermore, discovering failure demand has a clear impact on performance in organizations (Teehan & Tucker 2010: 175; Jaaron & Backhouse 2016: 947). This speaks volumes of the need to build a method that helps in understanding why failure demand should be discovered in service organizations and why it is important to build a framework for managers and consultants alike to enable a methodical discovery process for different demand.

As established, there is a requirement for a hands-on practical tool that would help managers see what constitutes the demand in their organization (Piercy & Rich 2009b: 1477; Arfmann & Barbe 2014: 22). Also, as the results of investigative case studies are not easily widespread, additional case studies are required to enhance and supplement current findings (Jaaron & Backhouse 2016: 947). This means that case studies are needed for building a more robust understanding around demand and how it can be discovered in the first place.

Based on these findings the research question of this study is:

How can failure demand be discovered in a service contact centre environment to make it understandable and manageable?

By answering this research question the study produces value for the both academic research and to business managers alike. On the other hand it adds data to the current research and on the other it provides practical tools for managers and management consultants for discovering failure demand in a service environment.

This study is made up by three different sections. The first one is the literature review which leads up to building a framework for the study. The second one explains the research methodology and introduces the case company for the study. The third section discusses the empirical findings and the results that the framework enabled.

The literature review is the theoretical backbone of this study as it is used to analyse the current state of the phenomenon that is studied. Based on the theoretical analysis, a framework is presented. The research methodology part then discusses the different approaches that can be taken for a case study and therefore introduces the methodology on how to capture data for empirical findings. The last section, which is the empirical findings, assess the functionality of the theory-based framework by analysing the data that was gathered with the current literature. By conducting this analysis, conclusions can be drawn and managerial as well as theoretical implications can be discussed. Finally, limitations to the study are drawn and further research suggestions are presented.

2. LITERATURE REVIEW

This chapter will introduce the concept of value and failure demand. The explanation of the concept includes background for the phenomenon after tying it with a larger entity – lean thinking. Once the phenomenon has been discussed, separate steps are introduced on how to successfully discover demand in a service environment. Lastly, a framework is introduced based on the current literature.

2.1. Lean approach to demand

As established, service organisations and their operations need to be able to understand what the division is between value demand and failure demand to be able to run their operations in a financially sane way. However, development projects that try to enhance resource usage and cost savings without explaining or understanding the differences in demand types might be very long and expensive and as a result, managers tend to opt out from a project as the results are not tangible straight away in the balance sheet (Teehan & Tucker 2010: 176). This means that a deeper knowledge of lean thinking and processes is needed for the managers and the employees as they help in understanding what the differences in demand are and why they are important in a broader picture. Furthermore, understanding basic lean principles helps to grasp the importance of eliminating waste and as failure demand can be categorized as waste, lean principles are the basis for discovering failure demand in the first place.

The lean approach and the processes tied to it originate from the Toyota and the production system that the organization adopted, (TPS) (Hicks 2007: 236; Teehan & Tucker 2010: 176). The TPS is a lean production system that was developed, and is still developed, for manufacturing and production environments (Teehan & Tucker 2008: 91). The methodology is purely used to develop and improve services (Teehan & Tucker 2008: 91). Lean thinking and approach are philosophies that help in identifying parts of improvement in processes and systems (Hicks 2007: 234). This means that a basic understanding of lean thinking is required to be able to grasp why it is important to eliminate waste from the system and why demand is in the centre of it. However, as lean thinking

was moulded in a manufacturing environment, it cannot be transferred to a service organization without some customization. This means that for service organizations being able to learn from the TPS, some modifications are needed to it (Teehan & Tucker 2008: 91). The basics of understanding demand and eliminating waste are the same despite the difference in industries. The sole focus of this TPS philosophy is to focus on continuously improving the organizational processes that it is involved with and therefore building an understanding on why waste is a core need for lean thinking (Hicks 2007: 236). As lean thinking strives to extract value from the system whilst eliminating waste, the principal is the same for understanding demand. As demand can be categorized as value and failure demand, understanding lean thinking helps managers and consultants to take the first step to discover the differences in demand.

The core of lean thinking are the basic three process steps that organizations should follow when concentrating in turning their operation and services from a command and control environment to a lean approach (Womack & Jones 1996; Hines, Holwef & Rich 2004; Mayalef 2006; Teehan & Tucker 2008:91; Teehan & Tucker 2010: 177). These process steps are as follows:

1) Understand customer value as it is the key to the value for the organization
2) Manage demand that is created by the customer
3) Use methods to continuously improve your services and products (Teehan & Tucker 2010: 177)

By following these steps, a service organization is able to set up the framework for its lean thinking organization. Furthermore, the main principle is that the customer and their demand is the focal point of development. Customer behaviour and demand should be the driving force of any service-oriented organization and not internal development. However, these are just the actions needed on a broader scale to start understanding what the customers perceive as value and also why the focus on demand is crucial in service organizations (Teehan & Tucker 2008: 92). Metrics that help to understand whether the service or product delivery is improving are customer satisfaction and the reduction of overall costs (Teehan & Tucker 2010: 177). This means that for service organizations to

be able to develop their systems and processes to accommodate the end customer, they need to have a grasp on what drives customer demand.

A lean approach to service quandaries steers the development focus towards minimizing waste in organizations (Arfmann & Barbe 2014: 18). This means that by understanding basic lean principles, managers in organizations are able to shift their focus from arbitrary and random development tasks to attentive elimination of things that do not add any value to the organization. Lean principles argue that if any resource does not produce any value to the customer or the organization, it should be eliminated (Arfmann & Barbe 2014: 18). However, organizations tend to focus only on cost reduction with their lean initiatives which almost always results in no tangible benefits for the companies (Arfmann & Barbe 2014: 18). This is why organizations need to understand more about the powers that affect waste in their systems. Cost reduction cannot be the driving force for change, instead the organization needs to focus on customer value (Arfmann & Barbe 2014: 18). Therefore, it is crucial to understand customer demand. This means that a basic knowledge of lean principles is not enough to understand why the customers are in touch with the organization. However, understanding the core of lean principles helps managers in a service contact centre organization to understand the power of eliminating waste.

Failure demand can be called a type of sub-optimization or a form of waste depending on the context that it is used (Seddon & O'Donovan 2010b: 14). If the organization is able to discover failure demand from their systems, they can have the possibility to focus on meeting demand and at the same time decrease costs. This is because when the service level towards value demand increases, the costs decrease (Jaaron & Backhouse 2012: 8). Also, if the customer is able to receive an answer to their question during first contact, they are likely to not contact the organization again with the same question and consequently tying resources to their demand that should have been resolved in the first contact (Jaaron & Backhouse 2012: 8).

Finally, lean oriented projects are usually expensive as the need to transform a whole organization quickly arises when a development plan is implemented. To overcome the need for expensive or long-term projects, lean insights can be used to understand demand

and build a base for future improvement in service organizations (Teehan & Tucker 2008: 92). The simplest way to recognise what customer needs or demands the organization should fulfil is to understand the value that the service organization creates (Seddon 2005: 26; Marr & Parry 2004: 55; Teehan & Tucker 2008: 92). The idea behind this thinking is that as modern service contact centre organizations are in a place where they are able to collect vast amounts of data every day, they do not need to change their daily routines to start the collection of customer demand. There is no need to build new systems or commence expensive projects that would tie those precious and hard to come by resources. As the lean insights use the customer as the focal point, the organization needs to have a clear process or methodology on how to put the customer and their demand as the sole source of data.

2.2. Value and Failure Demand

> *"There are two broad types of demand in any service centre – value demand and failure demand. Value demand is what the service centre exists to serve; it represents the demands customers make for things they want, things that are of value to them. Failure demand is demand caused by a failure to do something or do something right for the customer"*
>
> *-John Seddon (2005) in his book Freedom from Command and Control pp. 26*

Value is something that the customer is willing to pay for (Teehan & Tucker 2010: 178). Satisfying the need of the customer and therefore producing value for them is defined as value demand (Seddon 2005: 26, Teehan & Tucker 2010: 178). This means that understanding what value demand is and separating it from its opposite, failure demand, is crucial in understanding what the customers want from the organization and what they are willing to pay for. Failure demand is the opposite of value demand. It is described as providing something that the customer does not want or value or not providing something that the customer necessitates (Seddon 2005: 26; Teehan and Tucker 2010: 178). It is also

defined as demand that is caused by an error to do something or to do something correct for the client (Seddon 2005: 12; Teehan & Tucker 2010: 176). Failure demand can be over 50% of all the demand that a service organization receives (Marr & Parry 2004: 56; Seddon & Brand 2008: 8; Teehan & Tucker 2010: 176; Jaaron & Backhouse 2014: 3). And in some cases, as high as 90% of the incoming service requests (Marr & Parry 2004: 56; Seddon & Brand 2008: 8). This means that in most cases at least 50% of all the work that is caused because of demand is unnecessary. Furthermore, this at least 50% does not provide any monetary value for the service contact centre organization and ties unnecessary resources that need to be employed to answer the total demand. In other words, the organization loses money by not discovering the differences between value and failure demand.

Value demand should be the sole reason why a service contact centre organization is formed in the first place (Seddon & O'Donovan 2010b: 14). It is this type of demand that companies want to serve as it creates value in terms of money and customer satisfaction for the company and its customer. However, if the service organization fails to deliver something right, the customer is bound to reach out to the organization again (Seddon & O'Donovan 2010b: 14). This is an unnecessary contact as the case should have been finished during the first contact. This unnecessary contact creates a redundant strain on resources that, in this case need to engage in error or mistake correction. At the same time the customer is not happy as they have not received what they wanted in the first place and now their valuable time is spent whilst reaching out to the company a second time. This, consequently, may have an undesirable effect on customer satisfaction. By not recognizing failure demand as an unnecessary part of the total demand, companies fail to understand an influential lever that could help them in economic terms (Seddon & O'Donovan 2010b: 14).

From the customer point of view, their demand should always be handled correctly as the customer wants it to be handled. Furthermore, the customers are expecting at least some value from their interaction with the service contact centre (Teehan & Tucker 2008: 89). However, it is indicated that customers do not gain value or what they expect from modern service contact centre organization (Seddon 2005: 26; Teehan & Tucker 2008: 89).

Instead, they receive standardized answers to their complex problems and because their queries are not handled, they therefore cumulate failure demand for the service organization. This is in no means a fault of the customer. Failure demand is mainly accumulated from the actions of the organization as they fail to do something right for the customer (Seddon 2005: 26). It forms by itself systematically if it is not purposefully discovered by the organization and then it duplicates and replicates as processes and systems are built around it without addressing the cause directly (Seddon & O'Donovan 2010b: 14). Therefore, by eliminating waste, in this case failure demand the organization should be able to increase their resource capability and therefore annul the need for unnecessary hiring.

However, as the service contact centre organizations are not concentrating on demand management, their managers are prone to employ additional staff to handle cases that should not be in their systems in the first place (Teehan & Tucker 2008: 93). A system in this case means a certain figure of elements and the interaction that those elements have with each other (Gregory 2007: 1505). In other words, these elements form a system where there are contributions and productivities to and from the elements. For a system to work, the organization in charge of it needs to know what the system is capable of and needs to be able to mould the system to answer to the demand and value that the organization wants to produce in the first place (Gregory 2007: 1506). Otherwise the system is not working as intended and it becomes a hindrance for the whole organization. To be able to manage the systems, service contact centre organizations need to understand what is driving them (Gregory 2007: 1506). However, as systems might be complicated, the demand that forces the system to work in a certain manner is an optimal starting point when trying to identify the root causes of why the system is performing as it is.

Eliminating failure demand from the system is nearly every time the most substantial device for improving capacity and efficiency (Seddon & Caulkin 2007: 19). This means that the managers in congruence with the organization need to grasp what drives the customers and how service quality is captured. This is essential as service organizations are subjected to growing costs as customer needs and demand is not fulfilled (Soltani et al. 2011: 89). By discovering failure demand from the system of a service contact centre organization, a company is able to start acting against it and therefore influencing its costs

and service efficiency (Seddon & O'Donovan 2010b: 15). Additionally, by discovering the causes of failure demand the organization can form a holistic view on how much of its demand is failure based and therefore it can start set targets for improvement and development. Waste, or in this case failure demand cannot be eliminated without understanding the root causes of it. In other words, discovering and understanding a problem leads to the means that can resolve it (Seddon & O'Donovan 2010b: 15).

Failure demand is key for understanding why the organization is struggling with its resources or why it is not able to improve its customer satisfaction (Arfmann & Barbe 2014: 19). The easy part of identifying whether an organization is suffering from excess failure demand is to focus on the metrics of the service call centre. Long queuing times, unnecessary prioritisation and the need for external resources are indications that the organization is dealing with failure demand (Walley 2010: 886). However, these indications alone are not enough to prove that failure demand is the issue. The organization needs to have a method to identify the demand types that are handled in the organization. Also, a clear process on how to capture the demand is needed to bring the organization up-to-date with the amount of failure demand that they are dealing with. Currently, organizations are contented with the fact that they are not collecting data on demand (Walley 2010:887). This is because managers can explain the current queue and answering rate problems with the lack of resources (Walley 2010: 887). By discovering demand types, the service contact centre organization is no longer able to hide behind the resource excuse when explaining why not all calls or service instances were handled and why some of the customers are not happy with the service. However, as a clear method on how this phenomenon can be discovered is not available, there is a need for a clear process for understanding and managing failure demand from an organizational point of view (Arfmann & Barbe 2014: 22).

2.2.1. Understanding demand

According to Jaaron & Backhouse (2014), the understanding of customer demand begins with the analysis of the customer demands that the organization has. However, organizations might not understand the phenomenon in the first place. There might not be a consensus that demand can be even categorized into two different entities. Without a proper

introduction on demand and why it is important to discover in the service organization, managers are not going to commit resources and shift their focus on an idea that is unfamiliar. The key of being able to discover failure demand and is to build a consensus on a managerial level on what it is and why it is important before the data collection can be commenced.

The first step towards discovering failure demand is to understand the phenomenon and to communicate that understanding to the right stakeholders (Seddon & Brand 2008: 8). In order to understand demand, organizations need to grasp what it is and why it is so important when trying to serve customers. As established, lean methodology helps in understanding waste which failure demand is. Simply put, the organization needs to be able to acquire a clear picture on why their customers call them as this will help the organization to form a cohesion on what is working and what is not (Seddon & Brand 2008: 8). Service organizations need to observe their role and answer the question "what purpose do we serve" (Jackson et al 2008: 187). Without a clear purpose a service organization is not able to see whether it is handling the cases and customers that it should be handling. The need to understand the organizations own purpose derives from the business that has formed the service organization in the first place. In other words, the organization needs to remind itself why it exists. Furthermore, the organization needs to focus on what are the things or services that matter to the customer as those subjects are the ones that create value (Jackson et al 2008: 187). This helps to build understanding on what value the organization should produce, and which actions and procedures can be called waste, and in this case failure demand.

The building of the understanding needs to be done with the right stakeholders of the service contact centre as they have the power to commence or refuse any development initiatives in the organization. The support of the top management or stakeholders is needed in order to implement new initiatives as it is one of the most critical aspects of organizational support (Elbanna 2013: 278). This means that the discovery process needs to be started by involving the right managers in understanding the phenomenon of demand. Also, as top management support drives the completion of development initiatives, it is vital to get the buy-in from key stakeholders from the beginning (Young 2013: 954).

After the phenomenon of demand is understood on a managerial level, from where the development initiatives usually start, the service contact centre agents need to also incorporate that understanding in their daily work. Studies have shown that the whole organization needs to have a structure in place where everybody can learn from each other to speed up the understanding on different goals that the organization is trying to achieve (Soltani et al 2011: 89). Therefore, lean thinking, in form of continuous improvement and employee participation is of high importance when trying to tackle service problems, such as failure demand, in a large organization (Soltani et al 2011: 89).

The risk of leaving the understanding part out when trying to discover failure demand in a service contact centre environment can drive organizations to solve problems ad hoc and without a long-term solution (Soltani et al 2011: 89). This means that rather than focusing on fixing the source of the demand, that usually is generated by the actions of a customer or the organization itself, the managers and the service agents focus on the sporadic case that they have stumbled across (Soltani et al 2011: 89). This binds resources to come up with a quick fix for a single problem for a single customer instead of focusing on what kind of demand drives this customer inquiry and fixating on the root of the problem with a proper tool and method. In addition, if the failure that is causing the demand in the first place is not fixed, the organization pushes itself into repeating the same error repeatedly (Soltani et al 2011: 89). The target for organizations should be to learn from its mistakes and to not commit the same error that binds unnecessary resources, increases costs and at the same time deteriorates customer satisfaction.

The norm of modern service management is that by maximising the ability of contact centre agents to handle demand the better the customers are being served (Jaaron & Backhouse 2012: 2). At the same time costs need to be lowered (Jaaron & Backhouse 2012: 2). As figure 1 showcases, by concentrating on demand as one entity, managers and consultants miss the opportunity to realize that not all demand should be handled. As demand can be divided into two categories, value and failure, managers and consultants alike need to discover the ratio of how much failure demand a service organization is producing. Only after discovering failure demand the organization can be designed to handle the right demand and eliminate the demand that does not serve anybody.

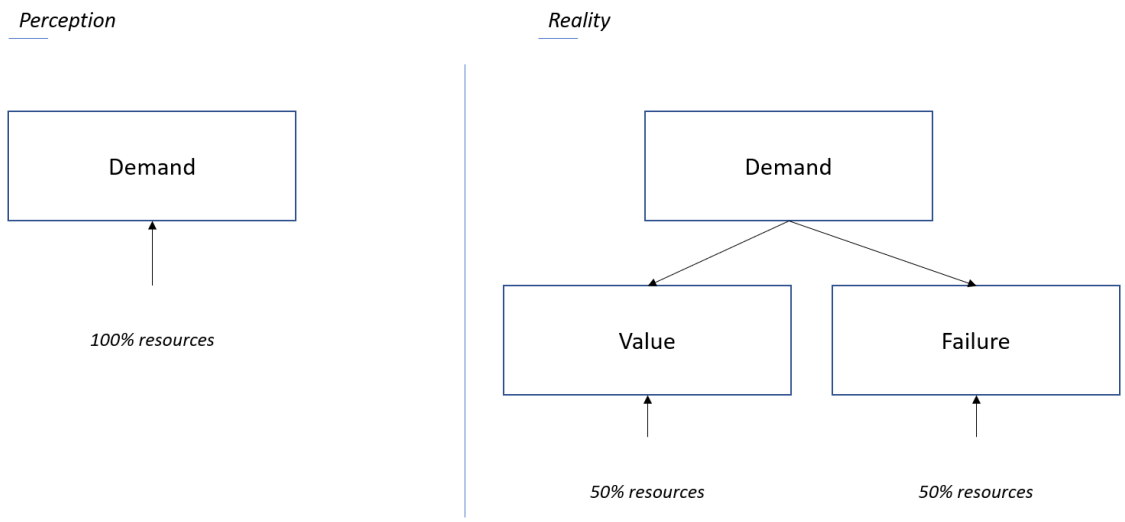

Figure 1. Perception vs. Reality on customer demand.

As resources are calculated against customer demand in total, managers and organizations should easily see how much of their total demand is value producing and how much of it is futile failure demand. However, as the intake of demand is only seen as one block of work that needs to be done, demand itself is not critically evaluated and therefore the problem has been impossible to use as a potential source for development. (Seddon 2006: 8). By understanding the division between value and failure demand, managers can take the first step in discovering the reality of demand in their service organization.

While organizations are struggling with performance and customer satisfaction, they are building invisible barriers for themselves with the actions, or more precisely, lack of actions that are taken (Radnor & Walley 2008: 14). Lack of customer focus is the number one barrier that organizations build when they are busy just trying to cope with the customer contacts and cases that they receive (Radnor & Walley 2008: 14). Without this understanding, value and failure demand can roam around the customer service organization without any disturbance and as a result the organization is not able to focus on what they should do. Another barrier that organizations build without knowing, is the lack of understanding on how demand affects the whole flow of the service (Radnor & Walley 2008: 14). This means that by not having a clear picture on customer demand, the organization is in danger to accumulate more failure demand that necessary by its own actions.

Managers need to understand what their systems produce and how do they answer to value demand (Seddon & Caulkin 2007: 14). This building of an understanding needs to be a part of the complete method to discover the two dimensions of demand, value and failure. However, the need to understand demand can sound theoretical if it is not put into practice. In other words, managers need to see for themselves what their current system produces and how much of failure it actually contains in order for them to understand the magnitude of the problem (Seddon & Caulkin 2007: 15). This means that understanding of the problem can be built in conference rooms and lectures but the capturing and categorizing of demand needs to be done in the field.

2.2.2. Capturing demand

There are academic studies that have reported efficient and valid procedures to capture the demand of the customers. However, these procedures or processes are complex and hard to use if one is not familiar with academic literature or is not a graduate student looking for material for interpretation (Teehan & Tucker 2008: 89). Furthermore, the issue with the current academic tools and methodologies are that they work only when the scale is right (Teehan & Tucker 2008:92). An advantage for having a lean based approach to improve service is that it is not cumbersome or expensive (Teehan & Tucker 2008: 92). It does not require infrastructure changes when using it, at least in the beginning and is relatively easy to implement. Developing and implementing a big scale study on demand requires big scale resources from the service organization. This can hinder the desirability of the study for any organization as resources are scarce in the first place (Teehan & Tucker 2008: 92). As organizations seek to continuously improve their operations and services, they are in dire need of easy to use tools and methodologies that can be used with no prior academic knowledge, in day to day operations and as an organic part of the daily work load (Teehan & Tucker 2008: 89).

To understand the amount of value and failure demand that customers produce, organizations need to concentrate solely on the requirements and desires of the customer (Seddon & Brand 2008: 7). This means that customer interaction is a fantastic source for gaining insights in what the customers value and what is considered as a wasteful contact.

Furthermore, by understanding the requirements and needs of customers, companies can develop their systems and processes to work at the rate of the demand and thus producing only what customers actually want (Seddon & Brand 2008: 7). However, as service organizations usually accommodate an abundant assortment of service call topics the variety of demand can be big. By focusing on the problems of the customers, in other words, whether they are producing value or failure demand, the service organization can start to capture relevant data to support the understanding of the phenomenon of failure demand (Seddon & Brand 2008: 8). Doing this ensures that the customers' input is saved and considered when trying to improve customer satisfaction.

When considering methods to capture value and failure demand Voice of Customer, VOC, is a viable one. VOC is a model designed to capture the feedback and response straight from the customer (Teehan & Tucker 2010: 175). In other words, the idea is to use an outside-in perspective to gain insights on how a company or organization is faring on a certain subject, service or product. The purpose for collecting the Voice of Customer is to ensure that objectivity is achieved as employees are not able to determine or influence the feedback that is gathered from the customer. The consequence should be clean and accurate data on the subject and as a result it can be used to enhance customer experience, reduce failure demand and therefore decrease overall costs (Teehan & Tucker 2010: 175). The VOC is also relatively easy to implement as a part of discovering failure demand as it is as simple as asking the question "did we solve your enquiry?" from the customer. This simple question helps the service organization to understand whether the root cause of the customers problem is solved and thus is delivered value or whether the organization failed to solve the problem.

Discovering value and failure demand requires also an organization to focus on what their customer determine as value. However, as customer feedback can be sometimes biased these service organizations have to understand different types and roots of demand as it gives them a more reliable starting point for development (Leong & Tilley 2008: 765). As outside-in perspective is the new trend in development, the total abandonment of inside-out should not be done. The outside-in approach means that the customers feedback is used to drive development and the inside-out approach means that the development is

done by following internal data and customer behaviour that is inducted from different data sources. So, the key to understand what the demands of customers are is to combine these two approaches.

The dominating approach to service contact centre management is derived from the structure inborn from industrial organizations (Teehan & Tucker 2010: 177). This is what the managers are taught, and it is easy to understand. The idea is to use data to support the conception of what customers want (Teehan & Tucker 2010: 178). Therefore, the inside-out approach has been a dominant one in development instead of the outside-in. The data is collected automatically in up-to-date contact centres by the software and the phone systems that the call centre agents use. This data is then usually gathered in an automated report that shows metrics such as average answering time, abandoned calls and average handling times (Teehan & Tucker 2010: 178). However, these metrics are not alone very good at determining whether the customer felt that their case was handled and whether they felt that they got any value based on their demand from the interaction. By capturing demand that derives from customers, service organizations are able to concentrate on the things that produce value for the customers, thus effecting customer satisfaction. In addition, when a service organization concentrates on only what produces value, it can avoid tasks and queries that produce failure demand.

As established, the ability to capture value and failure demand is a rather quick technique that can be used to as a basis to reduce costs and to tackle the actual needs of customers. By focusing on the right things, service contact centres can free resources to improve their service quality. If managers do not focus on the value that is created for the customers, the increase on demand might trigger the organization to hire more employees (Teehan & Tucker 2010: 179). When starting to capture demand in service contact centre organizations, the understanding of the phenomena should be incorporated in the organization and the distinction between failure and value should have been done (Seddon & Brand 2008: 8). However, at this point there is no need to sort the categories further as the categorization should only be to be done once the initial data gathering is completed. As service organizations tend to have a variety of demand categories, they need to be assorted

by committee to give the organization an opportunity to learn what failure demand can actually be (Seddon & Brand 2008: 8).

Finally, by not capturing the right metrics, in this case customer demand, organizations are lacking decision-making tools that would support their process and performance improvements (Leong & Tilley 2008: 758). Furthermore, as organizations are not able to capture the root cause of performance hindrances, they are not capable of focusing their development efforts to the right parts of their processes or services (Leong & Tilley 2008: 758). This increases the risk of having hit-or-miss projects on initiatives that do not increase the value that the organization tries to deliver. Once the capturing of demand has been done, the organization can start categorizing it to seeing what actually is producing all the demand.

2.2.3. Categorizing demand

Categorizing demand and more especially failure demand is crucial as different measures are needed for different problems. Some of the failure demand can come from internal work and some of it might come because of external forces. This mean that failure demand can appear from the system, as in processes, or human actions, the categorization of failure demand can be done by separating those two (Macomber et al 2018: 3). However, as demand in service organizations can be unpredictable, other additional categories might appear when trying to label all different cases of interaction.

There are two steps that need to be taken when categorizing failure demand (Macomber et al 2018: 2):

1) Work that results from failure demand needs to be recognized
2) The sources of failure demand need to be identified

In other words, the re-work that commences from failure demand is simple to see as it is literally causing the work that the employee needs to do. Secondly, the root causes of failure demand need to be understood before they can be fixed.

Service organization have predetermined tasks that they should complete. This means that some of the sources and categories of failure demand can be detected straight away and with some sources, tools and techniques are required. For example, failure demand that comes from people can manifest itself because of bad work instructions, deficiency of attention, not informing the customer that something has already been done, not speaking in layman's terms and for example that the people lack the right skills for the task (Macomber et al 2018: 3). In other words, the failure demand that comes from employees can be categorized as "people". This helps in determining what could be the remedy for failure demand that manifests from human action. Another category for the source of failure demand is process design (Macomber et al 2018: 3). In other words, this source could be categorized as "process". Examples of process design that causes failure demand are situations where the process itself is ambiguous and the employees do not know why they should follow it, multiple hand-overs, incorrect understanding of the process or the work to be done, inefficient process times and a lack of continuous learning and improvement through the process (Macomber et al 2018: 3). These sources help the organization to categorize the source of failure demand to process design and therefore know that process development is possibly needed to eliminate the failure demand in the first place.

There are some tools and techniques that help in categorizing failure demand. For example, the 5-whys technique helps in determining a root cause for failure demand (Macomber et al 2018: 4). In this technique the participant needs to first take an action that has been deemed failure demand and then needs to ask the question "why" five times to get to the root cause of the failure producing action. For example, why has the wrong service been offered to the customer → because the wrong service was pulled from the system → why → because the service had a faulty description → why → because our service manager mislabelled the service in the system… and so on until the root cause of the problem has been found. This method helps the organization to determine what the processes are that need to be redesigned and what the problems that could be solved with the Deming's cycle or in other words organic continuous improvement are.

Once the demand data has been captured and consequently categorized, the organization should determine which of the demand data points can be predicted and which are totally

random (Jackson et al 2008: 187). If a set of customer demands can be deemed as predictable, they are easier to manage. For example, if certain type of demand is reoccurring every three months, the managers can plan their resources accordingly. However, this should be done only in the case of value demand. If the reoccurring demand is failure demand, adding resources should not be the solution of the problem.

Managers and the organization should be discovering the root of the problem and eliminating it. As established, failure demand can be categorized into different types (Jackson 2008: 189). However, some of the failure demand is attached to the way of work of the organization (Jackson 2008: 189). By discovering this, the organization faces the challenge of having to develop some of their processes and standards of procedure again. This is a step that the organization needs to take if it wants to be able to concentrate on producing value and thus eliminating futile interaction that is purely waste (Jackson et al 2008: 189). However, this kind of failure demand is impossible to trace if the organization does not focus its efforts to lay out the sources of demand. Organizations and management become blind to the failure demand that is produced by the system as it is and has been a part of the daily resource management and routines forever. Therefore, categorizing failure demand is an important step to make the demand types transparent and therefore clear and understandable. Only by categorizing demand, every type of waste and failure demand can be considered when trying to manage it and trying to find solutions on how to eliminate it (Jackson et al 2008: 189). Categorizing the different sides of demand, helps service call centre organizations to determine what type of demands can and should be served in a call centre and what type of calls could be eliminated from the agents altogether (Seddon & Brand 2008: 8). When used as a basis for development this discovering process should help the organization to get in a position where it is able to reduce call volumes as the unnecessary contacts are eliminated. As a consequence, this should free more time to do value producing activities in the organization.

2.3. Process for discovering demand

As managers and consultants alike need to have a clear focus on how to improve the system that the organization is built upon and as they need to understand how to lead

against demand, the phenomenon of failure and value demand needs to be compacted in a format that is clear to follow (Seddon 2006: 4). Furthermore, as leading against demand is not embedded in the basic resource-based view of management, the structured format or process needs to explain and visualize the problem that failure demand can produce (Seddon 2006: 6; Leong & Tilley 2008: 758). However, as demand needs to be understood holistically, the method needs to include everything from building understanding to how to capture and categorize different demand types. This situation calls for a process that the managers and their organizations can follow to form an understanding on what demand is, why it is important to track, how to track it and finally how to divide demand types to make the whole phenomenon transparent and manageable. The method of discovering failure demand should be a continuous one. It needs to be a cycle that improves the understanding of the phenomenon each time and consequently adds value to the customers.

The lean-based PDCA circle, or plan, do, check, act cycle is in a way a good basis for the framework that is needed to give managers and organizations a method to observe demand because it incorporates a continuous cycle that helps the service organization to improve by itself. Also, it helps managers to see how the problem of failure demand is rummaging around their organization and what are the causes for that. Originally the PDCA cycle was created to be a self-driving method that leads the user from one stage to the next once the previous one is completed (Dimitrescu 2018: 286). The cycle can be used for testing problem solving in an organization and it has four distinctive parts:

1) Plan – here the organization discusses what they need to develop and why
2) Do – in this phase the organization does the change that it has planned for
3) Check – this part is used for checking how the changes affected the overall development entity
4) Act – This part is the learning of the new norm. In other words, the organization implements the new way of working and the cycle can begin once again (Dimitrescu 2018: 288).

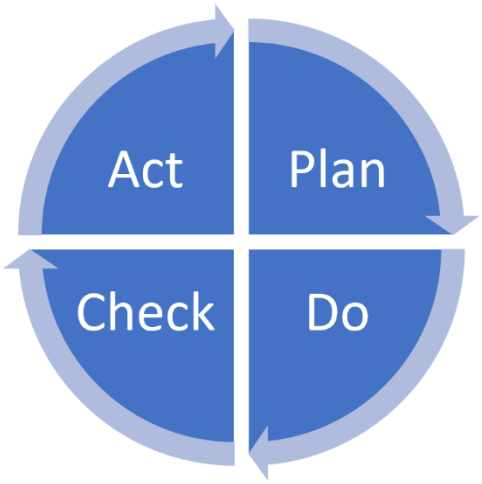

Figure 2. PDCA cycle

However, the PDCA cycle terms are not accurate enough to be used when it comes to discovering demand in a service contact centre organization. The phases are too broad and do not concentrate on the discovery of new problems. The cycle trusts that the employees and managers see the problems by themselves and bring them to meetings where the PDCA method is used. Therefore, a similar framework is needed but with more accurate descriptions of the phases that the organization needs to go through when trying to grasp and handle demand.

The planning phase needs to incorporate the basic knowledge and teachings of demand. Basically, the first step is needed to make the managers and the organization understand the present idea of demand (Seddon 2006: 6). For example, there needs to be consensus on how demand is understood and what is the role of the organization. Also, the key personnel need to be identified when building the understanding to ensure that the initiatives that ensue will be implemented. This means that planned and structured meetings are needed. On top of that, the meetings can be used to spread the knowledge of the phenomenon throughout the organization in a swift manner and this way the understanding of demand is made easier for the employees as well. This phase is commenced normally by the managers and consultants as the people who can make the change happen need to be the ones to understand why managing demand is important (Jackson et al 2008: 189). By naming this phase *understanding*, it incorporates all of the knowledge and actions that

managers and organizations need to know and do before the process of capturing demand can be started.

The second phase in the PDCA cycle is do (Dimitrescu 2018: 288). The term itself is usable but the term *capture* describes more precisely what the organization needs to do after the whole phenomenon of demand has been understood. As customer demand is constant, capturing it is the key to being able to build a database that can be used to see the overall situation of the service contact centre. This phase needs the staff of the service contact centre organization to enter the picture (Jackson et al 2008: 189). As the customer demand happens in the frontline of the organization, the employees that handle the demand need to be the ones to capture the initial data before any systems are built to help with the data capture. Also, by initiating the collection of data organizations start to realize what kinds of waste their systems enable and at least have initial ideas what could be done to prevent it (Seddon 2006: 6).

The third phase in the PDCA circle is check (Dimitrescu 2018: 288). This means that the organization should check how their process or service is faring at this point. However, when trying to discover failure demand, the organization needs to be able to distinguish between value demand and failure demand. This is why, the third phase is should be named *categorize*. This gives the organization a clear message that the database needs to be organized in such a way that the demand itself can be categorized in different entities that can be then discussed further. As the categorization can be a slow process due to the variety of demand, managers and the frontline employees in the organization should take part in the work that commences (Jackson et al 2008: 189). This way the managers are able to see the different types of demand with the help of the employees that have been dealing with the variety of customer interactions daily.

Normally in the PDCA circle the last phase would be to act on the findings (Dimitrescu 2018: 288). In this phase the organization should put their new ideas into action and then start the process of the circle once again (Seddon 2006: 6). However, as the root of failure demand can be multi-threaded, a new round of understanding the finding is needed (Seddon 2006: 8). The information on demand can be painstakingly difficult to categorize in

a way that is satisfactory as it can spread over multiple contact channels and over multiple messages that are delivered to the organization (Seddon 2006: 7).

Discovering customer demand asks for a repetitive analysis of the current situation with a comprehensive discussion on what it is we are trying to identify and why with the stakeholders. The stakeholders' buy-in needs to be secured before an analysis of the situation can be done as otherwise the changes required after the analysis are harder to implement. Furthermore, the understanding of the situation needs to be unanimous before any actions can or should be taken (Jaaron & Backhouse 2013: 229). Only after the root causes are agreed upon and a satisfactory categorization is settled, the fight against failure demand can be commenced. Therefore, the last step on failure demand prevention is called *eliminate*. However, as the PDCA cycle can be used to eliminate causes the framework to discover failure demand should not focus on the elimination of it. The sole reason for managers to understand the phenomenon of failure demand is to have them equipped with the knowledge that is required to start developing ways on how to get rid of it. In a perfect situation the framework used would make itself redundant as all the failure demand is eliminated. However, this is impossible as systems and people do errors. That cannot be avoided. But by taking action to reduce failure demand, the customer satisfaction and resource capacity should rise whilst costs are reduced (Seddon 2006: 10).

Everyone in the organization needs to understand why demand should be the focus of a service organization. This is because, in order to develop a new culture in an organization requires everyone's involvement (Radnor & Walley 2008: 14). In other words, everyone involved with demand management needs to be trained to understand and recognize it. By having everyone involved with the phenomenon, the whole system, from the human perspective, is equipped to at least know what kind of demand should be handled and what kind of demand should be avoided. By having this capability, the organization can at least communicate transparently what is the driving demand of the customers and how much of it is failure demand. Also, by being able to identify value and failure demand, team managers have a method which can be used as a development tool. The capturing and categorizing demand should result in a situation where the service organization has a

clear distinction on what are the value producing demand types and which demand types are failure (Jaaron & Backhouse 2013: 229).

After the types have been collected, they are used for further understand the situation and the role of the service contact centre. The results also help to organization to decide on following actions and how to reduce or eliminate failure demand from their systems (Jaaron & Backhouse 2013: 229). Typically, the continuous improvement cycles or process improvements can be used to combat the present failure demand. In other words, failure demand is removed from the service processes through a remapping of processes (Jaaron & Backhouse 2013: 229). By making this process of discovering failure demand a continuous one, the service organization will improve its understanding of the overall situation over time. By repeating this process, organizations and its employees are equipped to diminish and eventually eliminate failure demand from their systems (Jaaron & Backhouse 2013: 230).

2.4. Summary of the framework

The only way to prevent failure demand is to discover it from the system that is plagued by it. The three process steps that form the discovery process are *understanding, capturing and categorizing*. Only after these three process steps are executed and are in constant use, failure demand can be categorically eliminated or at least managed. By eliminating failure demand and therefore reducing waste the organizations and system is capable of handling more value demand (Teehan & Tucker 2010: 179).

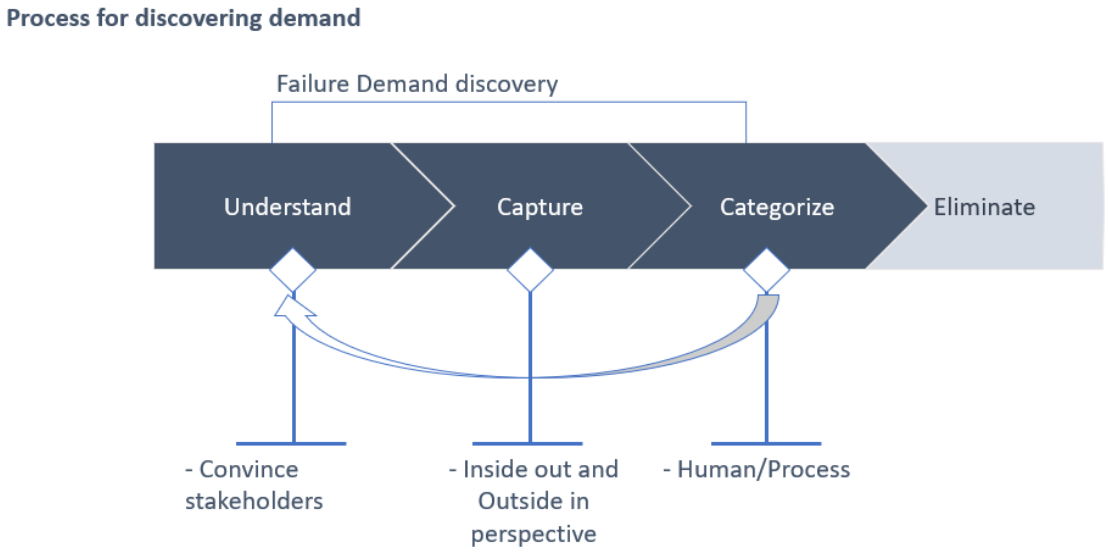

Figure 3. Framework for discovering demand in a service organization

By executing a continuous discovery of failure demand the service organization is able to understand what failure demand is, how it can be captured and what the different demand categories are. This enables the organization to find out how much of failure demand is in their systems when compared to the total demand that comes in and act upon that knowledge (Jaaron & Backhouse 2016: 952).

3. RESEARCH METHODOLOGY

The current business literature and research emphasises that by adding to or challenging previous studies and their results, a study can influence the research on the field. Challenging the status quo is a rarer way to influence current literature as it is difficult to envision a completely new idea. Because of this, it is more normal to analyse current literature and finding further research possibilities and use them to add more data to the current research (Alvesson 2011). This section will first talk about research philosophies and holistically present the methodology that is chosen for this study.

3.1. Philosophy of research

The choice of the philosophy that is used to conduct an academic study is crucial as it effects the way that the study is conducted as well as the understandability of the subject for the research. There are several philosophical approaches that can be adapted when it comes to academic research and it is of utmost importance to choose the one that is suitable for the study as some approaches are better equipped to be used in different studies and situations than others (Saunders et al. 2016). There is a common understanding that there are five distinctive philosophical approaches when it comes to business studies (Saunders at al. 2016: 135). These approaches are listed as positivism, critical realism, interpretivism, postmodernism and pragmatism. However, these philosophies have layers to them as they can be interpreted through different lenses. The first lens is ontology which focuses on theory and law and, for example, focuses on the reality of existence (Afadil et al. 2016: 67). The second lens, epistemology, on the other hand focuses on the methodology and the background and therefore leans on data that is recognised at the moment (Afadil et al. 2016: 67). Finally the last lens, axiology, focuses on the meaning of the study and what is its value (Afadil et al 2016: 67).

As established, a study can choose between different philosophical approaches when conducting a study. By choosing positivism, the assumption is that any company or object that is subject to the research is considered as real-world corporeal entity that is natural (Chirkov & Anderson 2018: 716). This means that the researcher focuses on data that is

acquirable and then visible as only facts that are recognised at the moment mean something.

The difference between positivism and critical realism is that whilst they both think that information and knowledge is acquired when positive approach is used, the critical realists argue that the explanation for the results and the gained information comes from our own experiences and not from the objectivity and independency that positivists hold (Cruickshank 2012: 71). Critical realists observe their surroundings as not something that could be accessed with pure observation. Furthermore, epistemologically the critical realists argue that the facts that are agreed upon are like they are because historically and socially people have come to agree upon those facts (Chirkov & Anderson 2018: 727). Because of this, the critical realists do not think that any data can be independent or objective.

As positivist and critical realists have the notion of applying knowledge positively in common, interpretivists are against it (Cruickshank 2012: 71). Interpretivists argue that unbiased research is not possible when there are people involved. This is because people add their own experiences for everything and every situation. However, as meaning is the focus of interpretivists, the approach is well suited in research that tries to understand these underlying reasons of people (Goldkuhl 2012: 136). Consequently, the approach of interpretivism tries to construct a framework of interpretations where social factors and circumstances are understood. Because interpretivism focuses on meaning, the data that is used for research is based on the reality of people having different takes on it (Goldkuhl 2012: 137-138). In other words, interpretation and meaning affect the results and therefore the research is always based on the reality of the researcher or the subjects.

Postmodernist approach has a completely different focus point regarding to reality itself. Its focus is to understand the differences in languages and trying to discover views that are not common (Saunders et al. 2016: 141). On top of this, as reality is seen as not having any basis the results and required cohesion can only be achieved by understanding language. This means that the postmodernists completely disregard the ontological approach to research. As interpretivists argue that people and their perception change the outcome,

postmodernists concentrate on different procedures that make the people in the first place (Saunders et al. 2016: 142). The one thing that binds interpretivists and postmodernists is the notion that the research will be predisposed because the individual doing the research is not able to not influence data output from the research target (Saunders et al. 2016: 142). In other words, a focus on the organizational and professional levels between researcher and subject is needed and refraining from any prejudice is crucial.

The last of the five distinctive philosophical approaches to business research is pragmatism. Pragmatists concentrate only on designs that enable some sort of function and on the interaction that information and the function can have (Goldkuhl 2012: 136). In other words, they try to solve problems with tools that can be used in practice. However, as problems can be defined in various ways, the most critical part of choosing the research approach for pragmatists, is to define the research question at the start. On top of this the methods are subjected to the will of the researcher and it is possible to use what ever method necessary to solve the defined problem (Goldkuhl 2012: 139-140) However, as flexibility is introduced to research methods, the pragmatist approach acknowledges that a holistic understanding on reality might not be possible to achieve. Consequently, pragmatists recognize that there is more than one reality whilst trying to solve the initial problem with as much dependability and integrity as possible (Goldkuhl 2012: 139-140).

The need for a method to discover failure demand in a service contact centre environment is evident as demand is not understood in most organizations. On top of this, current research has not answered the need to produce practical tools for organizations to understand this phenomenon further although, according to research, it affects on customer satisfaction and operational costs are undeniable. Because the evident need for a solution to a problem the philosophical approach that was chosen to this study is pragmatism. As pragmatism offers a way to solve problems in a practice-oriented way, this paper can focus on delivering a practice and method-based view and tools on how failure demand can be discovered in a service contact centre environment. As the data gathering was done by analysing data but also by involving people, the research adopts a small portion of critical realism as it needs to acknowledge how dependable the data is. Finally, as the organizations and people in this study are seen as completely independent, the research

has an ontological context with the notion that the social actors and reality are connected to each other.

3.2. Method for the research

As a research philosophy needs to be chosen to produce a reliable study, the method of research needs to also be introduced. Three distinctive methods for constructing a study are known. Deduction, induction and abduction are different approaches to construct a cohesive and understandable study (Rodrigues 2011: 127).

A deductive study is constructed around theory. The theory is the backbone which is then used to develop a method or a framework. The applicability of the method needs to be then verified in a working environment. The theory and consequently framework is a compilation of current studies and it helps to understand the background and the cause for the problem that the researcher is trying to solve (Rodrigues 2011: 128). The verification of the developed framework or method then needs to be done in a way that is predetermined in the study. Furthermore, the theory needs to point out to how and why this method should be tested. As a deductive study is done by focusing first on theory, qualitative or quantitative sets of data are both usable for the sake of the study (Farquhar 2012: 25).

Opposite to deductive methods, the inductive approach starts by focusing on data (Rodrigues 2011: 131-132). This data is then used to develop a method or framework that is supported by current research. In other words, the research is based on seeing a problem without first consulting the existing theory on the subject. As most case studies start by seeing a problem rather than extensive reading, the inductive approach is quite common in case studies (Farquhar 2012: 25).

The last method to construct a cohesive research is abduction. This approach also first focuses on data as it is used to challenge the existing research on the subject (Dubois & Gadde 2002: 554). However, as the data needs to form a reliable framework, it needs to

be retested by collecting more data after the current theory has been challenged (Rodrigues 2011: 135). In other words, the framework is tested in a real world environment and iteratively modified and developed based on the continuous findings.

As parts of each research philosophy for the structure of the research are viable for case studies, this thesis incorporates parts of deductive, inductive and abductive approaches. The study begins with a notion that a research question has risen from a social environment and therefore to understand that problem, a deep dive into current literature is needed. After the theory is examined, a method or framework is developed that can be tested in a service environment. However, as the method is only tested in a small and controlled environment, the approach incorporates parts of inductiveness. Furthermore, abductive approach is leaned upon as the current state of theory is mirrored to practice inside the case company and consequently the framework is challenged and updated based on the observations and findings throughout the research as an iterative process.

3.3. Research methodologies

As the data that is used in research can be a large set of data points or an in-depth take on an issue, for example an interview, there is a clear distinction between the methodologies that can be chosen for research. Quantitative research methodology focuses on large scale data whilst qualitative methodologies focus on retracting the needed data by having narrow but focused sets of data (Punch 2013: 307). However, both research methodologies are completely acceptable in the field of economics and business studies and sometimes can be even mixed together (Krivokapic-Skoko & O'neill 2011: 297). The deciding factor between these two methodologies should be based on what the researcher wants to present regarding on their research.

The quantitative research methodology is based on statistics and the analysis of the results that can be attained from a large statistics data base. The data pool is so large that by itself it usually does not provide any value. Therefore, a thorough analysis of the database is required. Consequently, the analysis needs to be visualised in a comprehensive manner with for example pie charts or excel tables (Hanzel 2011: 304). Because statistics is based

on numbers the quantitative approach is best used when the data sets are numerical or somehow otherwise logical or mathematical.

As quantitative research methodologies focus on examining numerical statistics, the qualitative approach tries to understand the meanings that are constructed in a natural and social observable environment and then interpret them (Hanzel 2011: 304). This means that the qualitative methodology is used to interpret pre-existing and known situations and then deep dive in them by adding or discovering new information. As qualitative studies are based usually on a smaller data sample than quantitative studies the basis of the qualitative analysis needs to be transparent. In other words, it needs to be saved in a manner that enable re-examination whilst abiding to established and good practises (Hanzel 2011: 305). As this study examines the data set that is gathered from a few project participants along with their comments, the right method for conducting this research is qualitative. Also, this study uses one company as the main source of data, the research uses a case study form.

3.4. Type of study

The research methodology that fits a case study form is qualitative as it complements the aspiration of the researcher to deep dive in a phenomenon where the participants of the study cannot be manipulated and the lines between the theoretical literature and the case study context have not been crossed (Baxter & Jack 2018: 545). In other words, it tries to understand a problem that is manifested in the current reality, through empirical analysis. The case study research tries to understand how this problem has manifested itself, when this has happened and more importantly why it has happened (Farquhar 2012: 6). Furthermore, the empirical analysis can be done with one case study company or multiple other entities that are quantifiable.

A case study can have different approaches when it comes to what the study tries to solve. A descriptive case study tries to depict the problem and explain it. An explanatory case study tries to focus on why the problem is in the first place and how does it manifest itself. Lastly, an exploratory case study tries to produce new data to a problem that has been under researched (Baxter & Jack 2018: 545). As the name indicates, a case study tries to

observe and understand a problem in the context of the case, for example a new-found problem in an organization. Therefore, a case study is applicable in this study. As discovering failure demand is not a common practice in most service contact centre environments, the research problem focuses on a deep dive of the phenomenon. Consequently, the phenomenon of failure demand is integrated in a case company context and therefore it enhances the current literature.

3.5. Case company

Company X is a Finnish subsidiary of a Nordic financial conglomerate. The group employs around 20.000 people whilst company X employs around 2.000 employees. The group and the subsidiary provide financial products, such as daily banking, loan and investment services to its customers. Also, they provide financial consulting and customer service services to enhance and harden its customer relationships. As Company X is a big corporation it offers a wide array of services which, however, are not all customizable but rather developed with large masses in mind.

Company X	
Industry	Financial Sector
Services	Daily banking, investments, loans
Employees (group level)	Approximately 20.000 (2018)

Table 1. Case Company Key Numbers.

3.5.1. Service Contact Centre of the case company

The company X has divided its service capabilities in different segments, such as social media, chat and face to face meetings. However, the biggest customer service channel is the service contact centre which can handle around 2.000 individual personal banking customer contacts daily. This results in almost a half a million customer contact yearly in Finland alone. To handle this enormous mass of contacts, the contact centre services have

close to a hundred employees, almost all concentrated in one location. To handle all of this demand, company X has divided its service contact centre according to different customer demands. They have established teams that focus solely on loans and solely on investments. However, the biggest service group is daily banking services. This group serves customers with questions and enquiries about any daily services that they have in regards of their banking. This means that the enquiries are varied. The employees in service contact centre need to have a broad understanding of how the bank works and an overview of the broad spectrum of products and services that are available.

3.6. Collection and examination of the data

The data gathering in a qualitative study is based on the approach that the researcher chooses. The approach can involve a personal interaction with the study subject or a larger group. Furthermore, as the individualistic nature of a qualitative study means that it takes more time to gather the data, the sample can be quite small when compared to a quantitative study (Erikkson & Kovalainen 2015: 5). There are four distinctive methods when it comes to the data collection in a qualitative research. The first one is conducting interviews with individual participant. The second is focusing on larger groups. The third is to observe the subject of study and the fourth is to conduct an action based research (Erikkson & Kovalainen 2015: 83-84).

As all the data that was gathered for this thesis was acquired by listening to customer calls live and having a very concise set of questions that were imposed to managers and employees alike the method chosen for this study is mainly observation with a small portion of structured interview that helps to widen the understanding that the observational data produces. On top of this, as the research and the framework was developed by going to a real life business environment and the findings of using the framework in this environment are reported as empirical data, this thesis has incorporated elements of action research. Action research is an approach where the current theory is tested in a real life environment and through that action the theory is applied into practice (Eden & Ackermann 2018: 1148).

A structured interview is formed by a set of repeating questions that are asked in the same order every time to ensure that the answers can be quantified (Erikkson & Kovalainen 2015: 94). This ensures that every questionnaire can be compared to each other and that the methods are identical with each case. Finally, the structured interview is a good tool to enhance the understanding on what actually has happened regarding the researched phenomenon and how and when did it happen. This enriches a qualitative research. However, the structured interview might not be enough on its own as a method for qualitative research (Eriksson & Kovalainen 2016: 93). Therefore, this study incorporates observation as the main method of collecting data.

Observation is a method where the researcher observes and documents descriptively what is happening in their surroundings. The method is used in situations where a bigger picture needs to be depicted and the researcher has or has not accessibility to their research subjects when collecting the empirical data (Erikkson & Kovalainen 2015: 99). In order to further the study, an observer needs sometimes to take part in the situation that is being observed as the subject that is observed needs to have a clear picture on the phenomena that is being captured. This is key to enter the culture of the subject that is observed (Erikkson & Kovalainen 2015: 99). However, the observer needs to understand the limitations of observation. As the subjects who are not used to being observed are suddenly being observed, they might change the way they are conducting themselves individually or environmentally. This means that the observer needs to build an understanding on why the observations are done in the first place. Finally, as the environment or phenomenon can be observed in business research, the observer might require a long period of observation as the analysis needs to be consistent (Erikkson & Kovalainen 2015: 99). This is why the data for this study was gathered in two separate instances.

The first set of data was gathered in December of 2016 to accommodate the needs of a local project that was conducted inside the group. The data set included some 40 analysed contacts. To enlarge the data an additional set of data was gathered in July 2018. This included a further 93 contacts to bring the overall amount to 139 customer contacts. Another reason for gathering up-to-date data was to ensure that the same reasons for demand creation were still apparent and to make sure that no large changes had been implemented

in this area during the gap year. The calls were listened from the first line of Company X Finland's service contact centre which means that all the incoming calls were random, without any pre-determined reason for the call. This should ensure that the data is un-spoiled and unbiased. Furthermore, the data was gathered by listening to six separate call agents which in turn enhanced the cleanliness of the data. The call agents were determined pre-hand by the leadership of the Contact Centre. However, randomness was the key driver to choose the agents as their schedules needed to fit with the schedule of the data gatherer. Furthermore, none of the call agents can predetermine which calls are coming in and which are not, and they need to handle each customer call with the first-in-first-out principle.

A Microsoft Excel template was used to register the data while listening to the calls live. The excel had multiple cells to observe demand data and whether the contact was failure or value demand. Moreover, after each call the agent was asked a quick set of questions from a structured questionnaire. The questions were asked for two reasons. First, the answers were used to reveal whether the phenomenon of failure demand was understood or even known in the organisation and second, to mirror how the actual categorization of failure and value demand was done. In other words, the call agents might have perceived a call as value or failure demand while the data gatherer had an opposite idea. The agents did not, however, have a chance to affect the data. The questions were asked purely to understand the understanding of the organization and how failure demand was combatted in their environment. Finally, the questionnaire enriched the data that was gathered by observation as it provided a sanity check for the observer to ensure that bias was taken out when categorizing demand. In addition, the customers voice was captured by using a simple "was your matter resolved" question at the end of the phone call.

The data that is extracted from the observations and the compact interviews needs to be contextually analysed, which means that the researcher need to find similar patterns and unfamiliarity's from the collected data (Eriksson & Kovalainen 2015: 120-121). As the data was captured to excel sheets with automatically updating charts, the analysis was conducted continuously. The combination of analysing and gathering data that is not pre-

determined and using a concise questionnaire should give an indication on how the customer perceived the value of the call and how the company did without any bias. This in return was informed to the contact centre management as quick preventive actions to enhance the understanding of demand could be taken.

Finally, as the data gathering and consequently analysing the data is the core of any research, the quality and dependability of it needs to be ensured. A case study needs to have multiple sources as it ensures that the data can be cross-checked and therefore made reliable (Erikkson & Kovalainen 2015:139). This is why building a framework around the discovery of failure demand needs observation and small scale interviews. The sources complement each other, and the gathered data can be built cohesively.

3.7. Dependability and reliability of the study

Studies, in general, can be judged by how reliable they are and what is the level of validity of the theory and empirical data. The data of the study needs to be coherently gathered and consistently analysed to be reliable. The other side of judging a research is to analyse whether the study delivers what it was supposed to deliver. In other words, is it valid or not (Erikkson & Kovalainen 2015: 332)? Reliability can be achieved by taking steps to ensure that the data is valid. For example, when gathering data, the service call centre agents were asked to respond whether they thought that the call that they just received was creating value or failure demand. The need to answer a question regarding your own call can result in a lack of objectivity. However, the answer was mirrored to the data which was driven through the developed framework to ensure that the different demands were categorized as the current research suggests. This meant that the data was compared with the answers from the call centre agents which makes the reliability of the study more robust. At the same time the call was categorized as value or failure demand by the customer when answering to the question "was your matter resolved". This meant that the data had three different judging points, the observer, the contact centre agent and the customer.

While the researcher had a relationship with the company from where the data was extracted, the data itself ensured objectivity as it was gathered with total randomness and with the interview answers from the call centre agent and the customer. Furthermore, the data was gone through multiple times and analysed through out the gathering process to make sure that nothing crucial was missing. This should make the research results even more valid. The study can be made reliable by factoring in already established steps. However, the subjects for the research or the researcher themselves can have bias towards certain subjects or fields of research (Erikkson & Kovalainen 2015: 211). Furthermore, as the research is conducted in a humane environment, a possibility for errors has to be considered. For example, if the subjects for the research are affected by the observing and therefore their efficiency hinders, the subjects are exposed to errors that would not otherwise manifest themselves. Furthermore, an error can affect the research if the subject of research is not telling the truth.

From the other side of the spectrum, if the researcher has some initial bias towards the research subject, the errors might manifest themselves as wrong interpretations of the data (Chenail 2011: 258). These possibilities for errors were considered when the data was gathered. First of all, the observation sessions were chosen randomly with different contact centre agents each time. Furthermore, the inbound calls were not preselected and came through as calls normally would without any preference. The contact centre agents were booked for the full time whenever these observation sessions were arranged which meant that the agents were there to perform their duties normally without any interruptions. These steps ensured that no bias was possible towards the cases that were observed and that the agents themselves could work as efficiently as they are used to and did not have a possibility to influence the data gathering.

Secondly, the researcher filled the observation excel during each call which meant that there were plenty of time to concentrate on the observations at the same time. The interview questions were fast, so they were asked always right after a call which meant that the agent had the possibility to reiterate their viewpoints without the researcher having to interpret their sayings afterwards. This meant that when the data was repeatedly gone through afterwards, the findings were consistent and therefore the reliability and validity

of the study could be ensured. The research methodology that this chapter presents is the backbone for the methods and data collection for the study. The methodologies that are presented are needed in order to conduct a study of this kind and therefore complement the overall goals of this research.

4. EMPIRICAL FINDINGS

This chapter concentrates on the empirical findings that were made based on the data that was observed and gathered for this specific research. The chapter is divided into holistic subsections that concentrate on the key steps of the discovery process of failure demand. The first section discusses the findings relating to understanding the phenomenon, the second and third the methods on capturing and categorizing demand and consequently the overall situation of how much failure demand is discovered with this framework or process that is presented. Followingly, a brief discussion on what the organization can does to prevent this phenomenon and finally a conclusion is drawn based on the framework and the empirical findings.

4.1. Understanding demand

Currently in the service contact centre of Company X all demand is treated as work that needs to be done. The problem is that this means that the systems are trained to handle value and failure demand together as one entity. This means that people and process development does not try to take out the failure from the system but tries to come up with solutions on how that can be handled as part of the daily work. This is a flawed approach as including failure demand in the work to be done means that the system and the resources need to withstand much more inquiries and cases than necessary. In other words, keeping failure demand as a part of the work that needs to be done creates unnecessary costs as established by the literature. Therefore, Company X needs to be aware of what the customer wants from them and how are these enquires affecting their system. In other words, the organization needs to know what value they need to produce and how can they avoid unnecessary tasks.

As the understanding of failure demand needs to be implanted in the whole organization, managers are the ones that need to understand that there is a distinction between value and failure demand in the first place. As the theory and therefore framework indicated that there needs to be a process on how understanding can be built in an organization

internally, the following steps were followed to enable the beginning of the discovery process of failure demand:

1) Identify the right stakeholders
2) Explain failure demand
3) Spread knowledge throughout the organization

First the right stakeholders were identified. As the study was conducted in a service contact centre environment, the stakeholder that has the most influence in developing the area is the head of service contact centre. This meant that she needed to be convinced that discovering failure demand was indeed worthwhile. It is impossible to start developing countermeasures against failure demand if the whole concept of it is not understood and also supported from the top down. Therefore, the understanding the concept is the first step when trying to shift the focus of a service organization to respond to value demand and avoid failure demand.

The first one-to-one meeting with the head of the service contact centre where failure demand was explained took only 30 minutes as the potential of discovering failure demand was apparent. The power of indicating the results of previous studies and the high levels of failure demand in generic service organizations helped to showcase the importance of the discovery of failure demand. Also, the meeting was conducted by using a calculation to showcase the potential of discovering failure demand and why it is important for the organization to understand the phenomenon. As there was no way of knowing what the discovered amount of failure demand would be at this point, the calculation was done by indicating how much a five percent and a ten percent reduction would possibly save the organization yearly:

Example case with estimates	Rough baseline	Yearly savings
Yearly work load	Case-work load around 5h/day *250 work days = 1260 h	
Average Finnish yearly salary	36.000e	
Example of average handling time of a call	8 minutes	
Estimated amount of calls per year	400.000 – 500.000	
Failure demand reduction by 5%		2 yearly resources OR around 75.000 e
Failure demand reduction 10%		4 resources OR around 150.000 e

Table 2. Estimated benefits for discovering and eliminating failure demand

These numbers, although rough estimates for explanation purposes, helped to build a more concrete reality of the potential that discovering failure demand in a service organization gives. A failure demand reduction of around 5% could save an organization up to 100.000 euros yearly with these specific resources. This method helped to build the importance of understanding failure demand in the service organization. Once the key stakeholder was convinced on the importance of conducting a study on failure demand in her organization the researched and the head of the function agreed that the knowledge needed to be spread to the next organizational level.

Team managers are responsible for individual service teams in the service contact centre of company x. This means that the daily operations and development is their responsibility. Therefore, team managers in organizations carry an immense responsibility on seeking information and knowledge about the causes that can hinder the performance of the service organization and the reasons why customers are in contact in the first place. This emphasises the need to understand failure demand that is focused to the specific team or organization that is struggling with the phenomenon. A second meeting was set up where the head of the service contact centre was invited with her team managers. As the head of

the function was already onboard with the initiation of the study in the organization the team managers agreed unanimously on the importance of discovering failure demand. This meant that the focus of this second meeting was not to convince the team managers on the importance of the of failure demand but to train them to understand that demand is not one single mass that needs to be handled. The finding was that the step of building an understanding of the phenomenon might not be the hardest one as there are clear benefits for a service organization to discover failure demand from their system.

The third step of building understanding in the organization regarding failure demand is called spreading knowledge. This was done by engaging with the agents, that were observed for the study, on the topic of failure demand. By doing this the subjects could start thinking about the differences of demand that were not obvious for them before and start to notice whether the contacts were value adding or failure producing. This step also helps the managers to start thinking in a lean way and questioning their approach to demand itself as their employees start to report failure demand frequently. However, communicating theory to practice oriented managers only works to build up interest. To start a change mentality, concrete results are needed. This is why capturing and categorizing demand is needed to complete the discovery of failure demand. Furthermore, as organizations develop overtime the understanding of failure demand needs to be continuous as resources change.

As a conclusion, the step of understanding in the process of discovering failure demand is a crucial one at the start as without it the organization is not capable of knowing that there is a need to divide demand into two different categories. Although the empirical results of understanding the phenomenon can be only showed as “yes” or “no”, the sign that the organization was ready to probe and analyse this problem further meant that the first step is vital to kick start the rest of the process on discovering failure demand. In other words, the process would not be able to exists without the first step. As these following these steps resulted in a possibility to start capturing and categorizing demand, the first step in discovering failure demand is valid from theory to the empirical findings in this case study and this specific company. However, as service contact centres are trying

to reduce costs and raise customer satisfaction universally, the building understanding step should be applicable to other service contact centre organizations as well.

4.2. Capturing demand

Capturing demand was done by listening and observing contact centre agents over a period of three weeks in total in the beginning of the year in 2017 and in the summer of 2018. A twostep capturing process was used. First, an excel worksheet was drafted and used to capture whether the call was failure demand or value and then the contact centre agent was interviewed or questioned to validate the decision to capture a contact as failure demand. As the literature pointed out, an outside in and inside out perspective is needed when trying to capture failure demand, and that is why the data was captured with using the voice of the customer but also with internal consideration. As there are limited studies in discovering failure demand in a service contact centre environment, a work flow needed to be established before a capturing tool could be drafted.

Flow for capturing demand

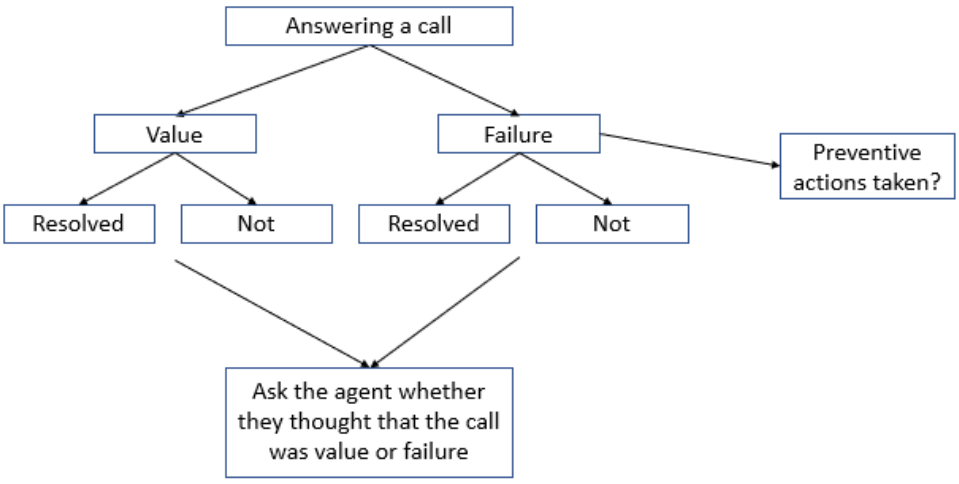

Figure 4. Flow for capturing demand

To start, the work flow was drawn out to understand how failure demand and value demand can be distinguished during a call. The flow starts with the customer contacting the service contact centre. During the call the researcher determined whether the call is value

or failure demand based on the literature definitions. In other words, whether the call is a result of a failure to do something or deliver something right. At the end of the call the contact centre agent needs to find out whether the matter was resolved by asking the customer that. This is how the voice of the customer can be implemented into the flow of capturing demand in a simple manner. Finally, after the call the researcher asks the contact centre agent whether they thought the call was failure or value demand. This is done as a sanity check and to see whether the organization has a basic understanding on failure and value demand. Additionally, an extra step was drawn to see whether contact centre agents take any preventative measures to ensure that failures do not happen again. This was captured by determining whether the customer was given instructions on how to tackle the same problem if it manifests itself without having to contact the service contact centre.

The drafting of the work flow enabled a creation of a more complex excel to capture demand in a more detailed way. Figure 5 showcases a simplified version of the process on the data capturing. The excel sheet that was used to capture demand in real time starts by defining the department that the study was conducted in. In this case it was the customer service department in the service contact centre function of company x. Also, the customer type is split between personal banking and business banking customers. This is done because the department should only handle personal banking customers and by filtering business banking customers, a form of failure demand can be detected straight away.

Data points for capturing demand

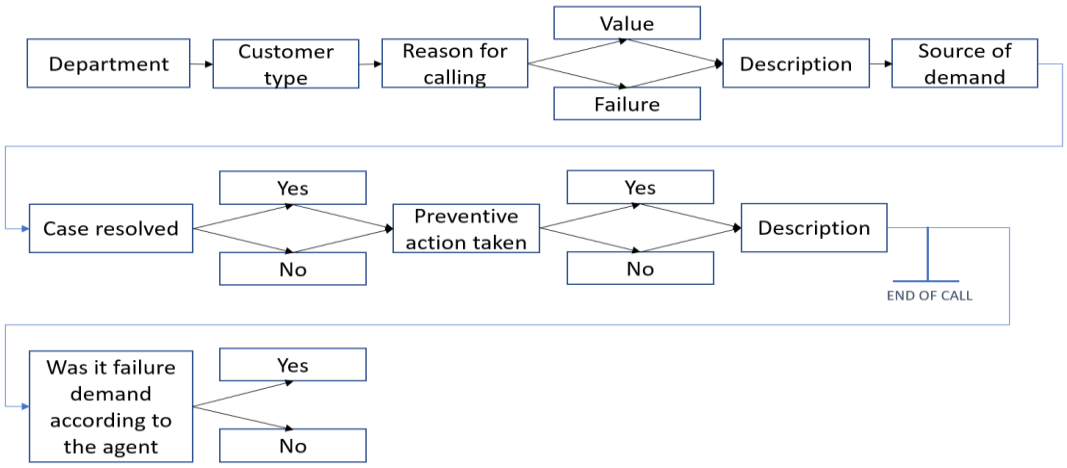

Figure 5. Data points for capturing demand

Next, the reason for contacting the department was determined as that usually is usually the starting point for determining the type of demand. From there the first distinction between value and failure demand can be done. Also, to cement the distinction a short description was written to solidify why the certain call was marked down as failure or value demand. Next, the source of demand was discovered. The division was done by dividing the causes of the calls as process based or human based demand. This division helps to understand whether training and understanding could help in mitigating failure demand or whether processes or systems need a closer inspection.

Towards the end of the call the voice of the customer technique is deployed by asking the customer whether their enquiry or problem was solved. As the outside in perspective is needed to understand the customers without any filters that might distort the data inside the company, the VOC technique ensures pure customer feedback (Teehan & Tucker 2010: 178). Finally, the researcher needs to determine whether the service call centre agent takes any preventative actions to make sure that the same enquiry does not happen again with this specific customer. This captures the standards of procedure, SOPs, of the department. In other words, this helps in seeing whether the organization itself is cumulating failure demand by not actively trying to solve cases in a preventative manner. Consequently, a description of the action needs to be captured to have data on what actions and what actions are not SOPs in the service organization.

At this point the customer call has ended and the data has been gathered. Without yet categorizing failure demand into smaller and more precise sections, an overall situation can be drawn by using the differentiation between failure and value demand. Of the total of 138 customer contacts, 70 were caused by failure demand. In other words, 51% of the total demand in the service contact centre of company X is because of failure and does not provide any value to the organization or the customer.

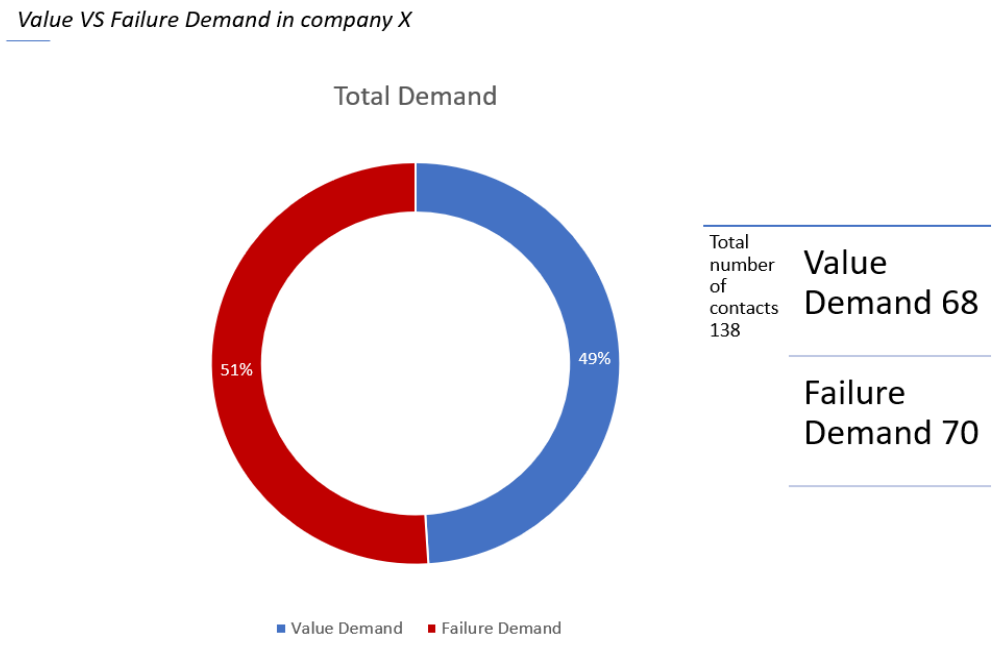

Figure 6. Value VS. Failure Demand in company X

This discovery helps the organization to see that half of their incoming demand is non-value adding. In addition to the manually gathered data the contact centre agents were asked questions to determine whether they understood value and failure demand and how they would distinguish the calls. This was done by using a short questionnaire. The questionnaire was used to as a sanity check and to ensure that the initial findings by the researcher are backed by somebody else as well. The six contact centre agents who were taking the calls were questioned after each customer call. The questionnaire consists of three different questions:

1) What kind of demand was the call?
2) What was the source of the demand in the call?
3) What could you do to prevent that call happening again?

The first question is used to mirror whether the researcher and the call centre agent categorize the call the same way. This was used to see how well the contact centre agents know what failure demand is and how reliable the researchers view of failure demand is. Next the source of demand was asked from the agent. The idea here was to understand

whether the contact was design and process based or whether it was human interaction and action based. This enables the categorization of failure and value demand in the organization and helps the organization to decide how to develop against demand. The third question was asked to see whether the service organization agents are taught to take measures to prevent enquiries that could be done in a different channel for example. In other words, are the agents trained to prevent failure demand.

The first question of the questionnaire can be analysed while capturing demand as it sanity checks whether the researcher and the agent have understood failure demand in a similar way and would capture the contacts in a same way.

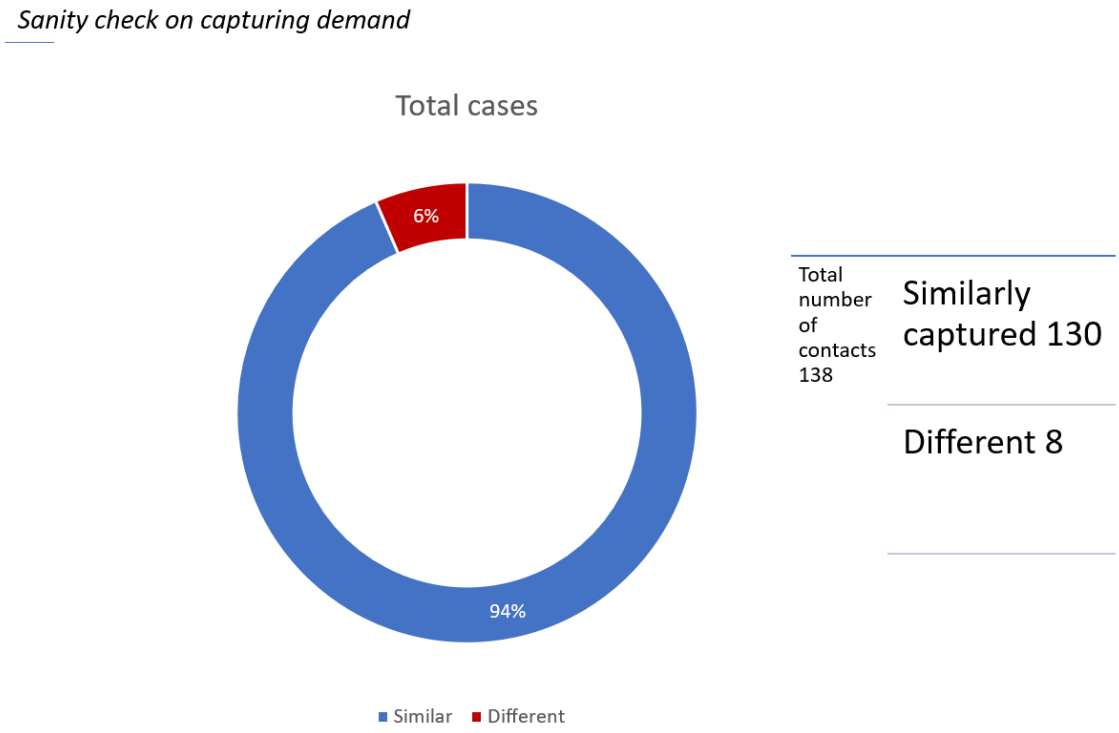

Figure 7. Sanity check on capturing demand

The questionnaire shows that in only 6% of the cases the researcher and the agent disagreed on whether the call was failure or value demand. The disagreements were on the following cases:

1) Customer wanted to order a credit card and the agent argued that the call was failure demand as the customer could do the ordering in their web bank. However,

as the customer contacted the bank only the first time regarding this matter the call had to be captured as value demand.

2) The customer wanted to know how he could order new web bank details. The agent categorized the case as value demand because the customer was seeking help. However, the bank had failed to renew the customer banking details automatically which triggered the call and therefore it had to be categorized as failure demand.

3) The customer wanted to know why she had not received a new credit card automatically when her old one expired. The agent categorized the call as value demand because the customer got an answer. However, the call was triggered by a failure to deliver the card to the right address which meant that the bank had triggered the failure demand.

4) The customer tried to find information about his account in his web bank but was not able as it was too confusing. The agent helped the customer to find the right information and therefore marked the case as value demand. The demand, however, was triggered by a design flaw in the customer web bank and therefore had to be categorized as failure demand.

5) The customer wanted to withdraw money from their investment account. The agent helped the customer with the problem and marked the case as value demand. However, the customer had withdrawn money before from her investment account in her web bank which implies that the system is not easy enough to use. The case was marked as failure demand.

6) The customer ordered a card with contactless payment features. However, he received a card that did not have this feature. The agent fixed the situation by ordering a new card and marked the case as value demand because the customer was happy. However, the failure happened when the bank failed to provide the right

product to the customer which meant that the case needed to be marked as failure demand.

7) The customer had made a payment a few weeks back, but the money was not withdrawn from his account. However, he saw that he was about to be debited in the next few days. He wanted to know the exact date when the money was going to be withdrawn from him. The agent explained that this is a feature in his web bank and the money will be withdrawn in the next few days. As the customer was informed, the agent marked the call as value demand. However, as the web bank had triggered the call by not showing exact and precise data for the customer, the call had to be captured as failure demand.

8) The customer wanted to speak to a certain person in the organization. The agent helped the customer and marked the call as value demand. However, as the person failed to give contact details in the first place, the customer had to call into the service contact centre. The call could have been avoided by ensuring the right contact details in the first place and therefore the contact had to be captured as failure demand.

However, as the data shows 94% of the cases were captured in the same way by the researcher and the agents which elevates the trustworthiness of the capturing process. By crossing these two methods, the excel and the questionnaire, a cohesive capturing of demand was done and the method for capturing demand was deemed as one that works. When the source of demand is discovered, organizations can take fact-based decisions on how to handle this demand. The capturing of demand consequently makes the categorization of demand possible which enables a more precise understanding of the organizational situation of failure demand.

4.3. Categorization of demand

A precise categorization was done based on the data that was captured to give more understand better the root causes of failure demand. First, a distinction between human interaction and process design is used to distinguish human training needs and system work. Secondly these two categories were deep dived to see what the different causes for these failures are and whether there are failures that repeat themselves. In addition, the customer service agents were asked how they would categorize the calls and therefore source of demand. This ensures that the expert on the organizations services and products is able to influence the decision on which source of failure demand is used with each case. Furthermore, as the organization is interested in the sources of failure demand, the division concentrates only on these types of contacts.

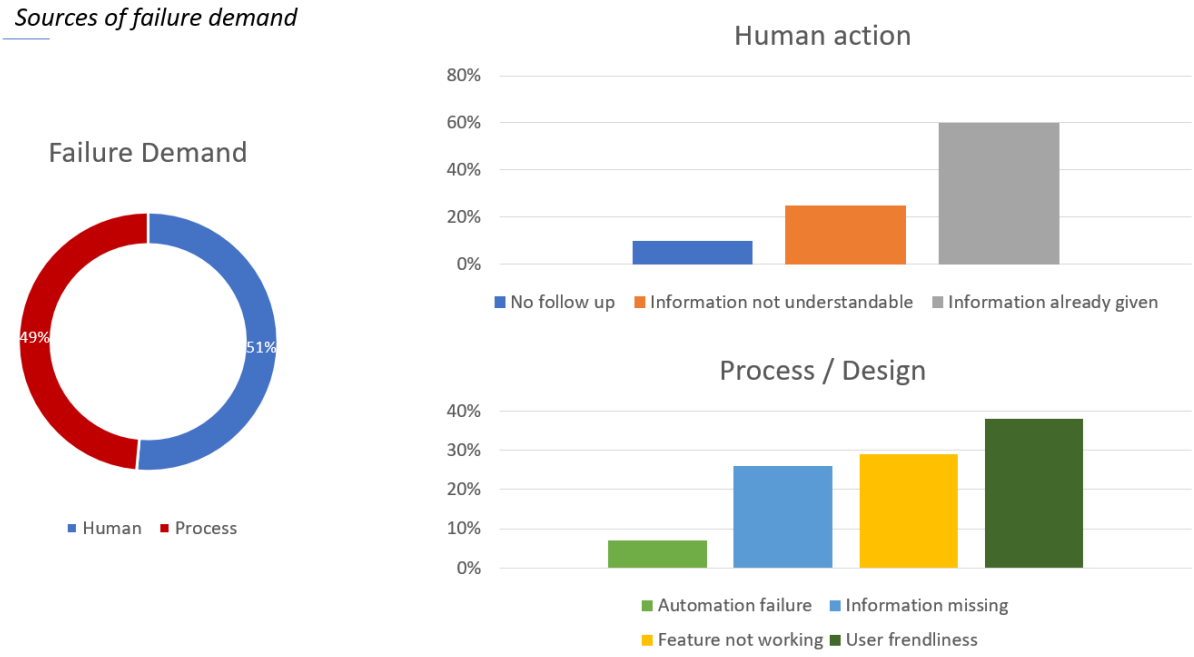

Figure 8. Sources of failure demand

Figure 8 showcases the division between failure demand that was caused by human action and by process or design. The division is almost equal. The human actions are caused mainly by three different causes which make up for almost 95% of all failure demand in

this category. This kind of failure demand occurs when the trigger for the demand is a human action or interaction. The first one is caused by the organization not giving enough information or preventative information to its customers. This results in customers calling the organization with questions that they should already know the answer to or should know where to find the answer in the IT-systems of the organization. Over 60% of all human based failure demand was caused because of this. For example, customers are not informed on how they could solve a similar kind of problem in the future or they are not provided with the information on where to find the information by themselves. The second cause accounts around 25% of all failure demand that is caused by human action. This happens when the organization gives information to its customers, but the information is not easy enough to understand and the customers need to contact the organization to clarify their questions. For example, a customer was sent a draft of a contract that included information that was not talked about on the phone. The information should have been discussed prior to avoid the unnecessary contact. Another example was a letter that was sent to the customer where they were explained why their payments were refused. However, the legal text was hard to understand according to the customer which resulted in failure demand. The simplification of the text could have spared the organization from a failure demand contact.

The third main cause of failure demand that is caused by human action is the organization failing to react on customer enquiries. In these cases, the customer has left a call back request or asked to solve a problem and get back to them, but the organization is not able to comply or is not able to give the customer exact time when they should call back. Around 10% of the cases are caused by this. These cases of failure demand could have been avoided by ensuring delivery times for the customers and following up on them. The rest 5% of human triggered failure demand were standalone cases. These categories of failure demand regarding the human action helps the organization to see what the main sources for this kind of demand are. Furthermore, by categorising these sources the organization is able to see what the most common sources of failure demand are and where to focus their development efforts.

Failure demand that is caused by process or design is divided into four main categories which make up for almost 100% of all failure demand in this category. This kind of failure demand occurs when the trigger for the demand is caused by a process or system design that the organization works with. The biggest category for failure demand comes from designing the customer channels user friendly. Around 38% of the cases are caused by the customer not finding the information that they were looking for and therefore called the service contact centre. However, all the needed information can be found from the company's website or other e-channels. This means that channels themselves were not intuitive enough for the customer to find the needed information. For example, a customer had to call the service contact centre because she was not able to print out a receipt from her web bank even though she tried to look for that functionality. The functionality is built in the system but was too hard to find. Another example was a customer who tried to understand whether he could come to his nearest branch and withdraw money from there. He said that the information about the branch was not specific enough and had to call the customer service to make sure that withdrawal was possible. Both of these cases could have been avoidable by focusing on what customer usually want when they are searching for a certain type of information.

The second category in process or design triggered failure demand is a failure in the company's customer channels. Around 29% of the failure demand contacts were because a feature or functionality did not work in the self-service environments that the customers use. For example, a customer called when she could not access her web bank. The reason for it was an update but there was not information about the update on the company's website. Another example was a contact where the customer had to call the company as they encountered a technical problem when they tried to approve the payment of one of their invoices in their web bank. By not proactively informing customers of technical defects, the organization creates automatically a wave of failure demand.

The third biggest category is made of cases where the customer had to call the company as crucial information was missing in their self-service channels. Around 26% of failure demand was because of this specific reason. For example, a customer ordered a new credit card from their web bank but did not receive any confirmation about the order. They

contacted the service centre to make sure that the order went through. A simple confirmation message would have eliminated this failure demand.

The rest of failure demand was caused by automation not working as it was supposed to work. For example, a customer had to contact the company as they did not receive a new credit card automatically when their old one expired. Another example was a case where the customer had to ask the company whether automatic payments could be set up for her loan. The automatic payments should be always as the primary option for loan payment, but the automation had failed to set up an automatic debit account for this specific loan. These failure demands need to be escalated to process development and to departments that are in charge of automation solutions.

By categorizing demand into human based or process based failure demand, organization is able to distinguish between the need to train its employees and the need to look more closely into its working processes and methodically developing them.

4.4. Prevention of failure demand

Elimination of failure demand in a service contact centre environment was delimited for this particular study as an organization needs to continuously discover failure demand for a longer time period before they have enough cases to start developing against demand. However, as the discovery phase of failure demand was done by implementing the required process steps, the preventative actions were also registered in the process as an organic part of it. In other words, as the contacts were handled a natural extraction of data was done by questioning "were any preventative action taken?" to see whether the organization is already taking some measures to manage failure demand. Therefore, a short overview of the current preventative actions can be displayed and discussed. Furthermore, the service call centre agents were asked what actions they could take to prevent the failure demand contacts from happening again. This was done as it was a natural part of the discovery process which means that it should be implemented in the revised framework.

The cases which were marked as failure demand account for 51% of all the demand that company X faces in its service contact centre. However, only around 40% of the failure demand cases include preventative actions. This means that 60% of the failure demand cases have the potential to cumulate more failure demand in the future if the contact centre agents do not take preventative actions as a part of the customer contact.

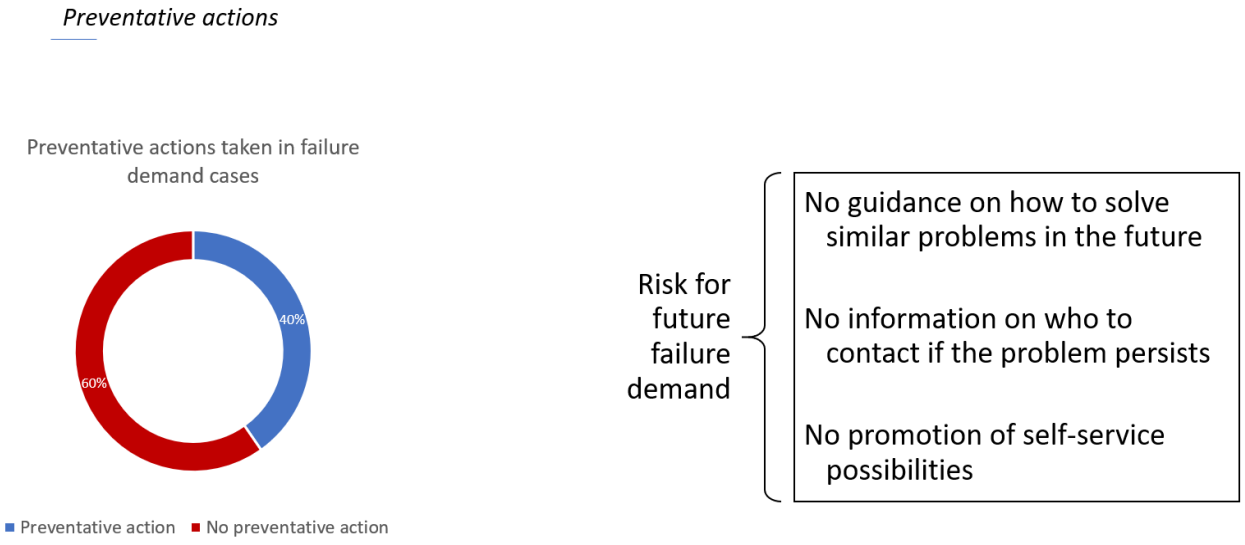

Figure 9. Preventative actions against failure demand

When asked about what kind of preventative actions should or could be taken in these cases of failure demand the answers could be divided into three categories based on the answers:

Category 1: Agents did not provide any guidance to the customer on how to solve a similar problem if they encounter it again. Furthermore, the customers were not given information on where to start finding the information that could already exist in the products and services that company X provides.

Category 2: The agents did not provide customers with direct contact details when they tried to reach a specific part of the organization or a specific person. This results in calls that are directed to a wrong department in the first place and therefore are failure demand.

Category 3: The agents did not promote self-service options for the customers. For example, customers are able to pay bills or check their account information by themselves. However, as the agents did not proactively push the customers to use self-service tools, there is a risk that the customers will continue contacting the service organizations with matters that could be resolved elsewhere.

The first category includes problems from customers that could repeat themselves in the future. For example, a customer called because the attorney of power functionality did not work for him. The agent solved the problem by completing the document on the phone and then sending the complete document to the customer. However, the functionality works normally which means that the agents should have concentrated on solving the actual problem of the customer which was the functionality not working and not the symptom of the customer. By not solving the problem, the customer might contact the service centre again with the same problem, therefore cumulating failure demand. In these kinds of cases the preventative action is to fix the problem of the customer and then provide them with exact steps on how to handle the case in the future. This would reduce the amount of failure demand by diminishing the number of calls that are made with repeating problems.

The second category is made of cases where the customer called to the wrong department because of bad process design or because they were not provided with direct contact details. This means that customers have to take an unnecessary step by calling the service contact centre to reach the right person or department. For example, a customer called the service contact centre and told them that he has a loan case pending with a certain person but cannot reach her because he does not have her number. This is a classic example of unnecessary steps that the customer needs to take and therefore accounts as failure demand. By ensuring that customers have direct access to the persons that are handling their cases in each moment reduces the amount of calls and strain in the service contact centre organization.

The third category is about promoting and directing customers to the self-service functionalities that the company provides. For example, a customer called the service contact

centre to order a new credit card. This could have been done in their own web bank swiftly. The agent filled the order but failed to tell the customer about the self-service functionality. This increases the risk of the same customer calling the service centre when they want to order another product from the company. This means that the agents need to always tell the possibility of self-service to make sure that the customer is aware of the possibility.

As a summary of preventive actions, the service contact centre needs to ensure that:

1) Every call ends with exact information on how to proceed with the problem if it occurs in the future
2) The customer knows who to contact and has the means to do that in the future
3) Agents promote self-service functionalities to ensure that cases that can be handled by the customer themselves are handled by themselves

Although these actions might prevent failure demand, customers can behave unpredictably which means that these steps should at least reduce the possibility of repeating failure demand in the long run. As failure demand can occur because of repeatability, implementing these actions the service contact centre can quickly start fighting against failure demand without any major changes to its working habits. Lastly, as the elimination therefore prevention of failure demand was limited out from this study, more conclusive preventative actions cannot be drawn from the results. However, as these preventive steps formed during the data collection, they are also incorporated in this thesis to showcase the multipurposed process of discovering failure demand. By showcasing this example, organizations can be made aware that by modifying the discovery process to their will enables them to collect complimentary information about their working habits and therefore make it easier to spot starting points for development against failure demand.

4.5. Summary of findings and revised framework

By implementing a clear step-by-step process failure demand was discovered in the contact centre organization of company x. The first step was to build *understanding* in the

organization which consisted of three distinctive steps. First, the *crucial stakeholders were identified* from the organizational chart of the service contact centre. Secondly, failure demand was *explained to the stakeholders* in form of meetings where the basics and potential of discovering failure demand was discussed. Thirdly, the team managers and contact centre agents were briefed about what the phenomenon is. By executing these three steps the organization was ready to move on to capturing failure demand which meant that these top-down steps were the right ones for building understanding in the organization. By understanding demand that comes from the customers, the organization is able to train its employees to answer correctly for the value demand and to identify failure demand. Furthermore, it can start managing value instead of costs by discovering what drives failure.

The second step to discovering failure demand in a service organization was to *capture* the demand of customers. This step started by building *a flow for capturing demand* and based on that, different data points were created to enable a detailed capturing process. These steps gave the organization the first results on how much failure demand there is in their systems. 51% of its company x service contact centre demand is failure based. Also, to strengthen the reliability of these numbers, a *sanity check* was done were the failure demand numbers were compared to the failure demand numbers that the service contact centre agents provided. This comparison produced a 94% similarity rate which means that only 6% of the cases were disputed. By doing the sanity check the validity of the results is tested. Through capturing demand, the organization can point out things that matter, or value demand, and what are the things that do not matter at all, failure demand. Furthermore, *capturing* and *categorizing* these different demand types means that the organization can define its purpose from the customer point of view and therefore has the knowledge on what should be eliminated from the system.

The third step of the process is to *categorize* the failure demand that has been discovered during the capturing process. This starts by dividing failure demand into two distinctive categories called *human interaction* and *process/design based* failure demand. 51% of the failure demand that is evident in the service contact centre of company x is produced by human action and therefore 49% comes from process design. By dividing these categories

into even smaller sections the organization was able to recognize the most common sources of failure demand. The most common human action based failure demand was cases where the customers were already once given the information that they were now after. Almost 60% of the human action based failure demand was caused by this. The most common process or design based failure demand was the lack of user friendliness in the systems of company x. Customers were calling because they were unable to use the system as it was intended and almost 40% of all process or design based failure demand was caused by this. Additionally, the categorization was done by the observed contact centre agents with the researcher to drive data quality.

The last step of the process is the *elimination* of failure demand. This focus of this thesis was not to on the elimination of failure demand but to discover it by using a specific framework. However, as the capturing process produced also data on whether the contact centre agents were taking any *preventative actions* against failure demand, the results needed to be shared in this research. This means that this new finding is introduced into the discovery process framework. Almost 60% of the failure demand cases did not include any steps to prevent it from happening again. Furthermore, the risk of failure demand repeating in this specific organization increased because the agents did not guide the customer on how to solve similar problems in the future and they failed to promote and guide customers towards *self-service*. By sharing this information with the organization, they are able to start taking small measures, for example sharpening the scripts of agents, to fight failure demand without any incremental development work. This is a form of methodical elimination of failure demand because the ability to prevent failure demand is already built in the processes or human capabilities of the organization and therefore preventative actions do not require separate projects or tools to be implemented.

Finally, by using the discovery process, the organization is able to paint a starting point for the failure demand situation that they have. This thesis has proven that the presented framework works at least in an inbound service contact centre environment as failure demand was discovered successfully by using the proposed framework. However, discovering failure demand needs to be a continuous cycle where new causes of failure de-

mand are extracted from the system constantly and then eliminated through process development or continuous improvement. Also, as failure demand prevention was discovered to be as a part of the discovery process it is added to the revised framework as a standalone step. This is because it is not pure elimination of failure demand but more an underlying action that the organization is already doing or not doing on purpose. Furthermore, as the prevention can be started during the continuous process of discovering failure demand, as it does not require new tools or methods, it can be attached to the actual discovery process. Moreover, the actions inside each process step have been précised according the findings of the empirical data.

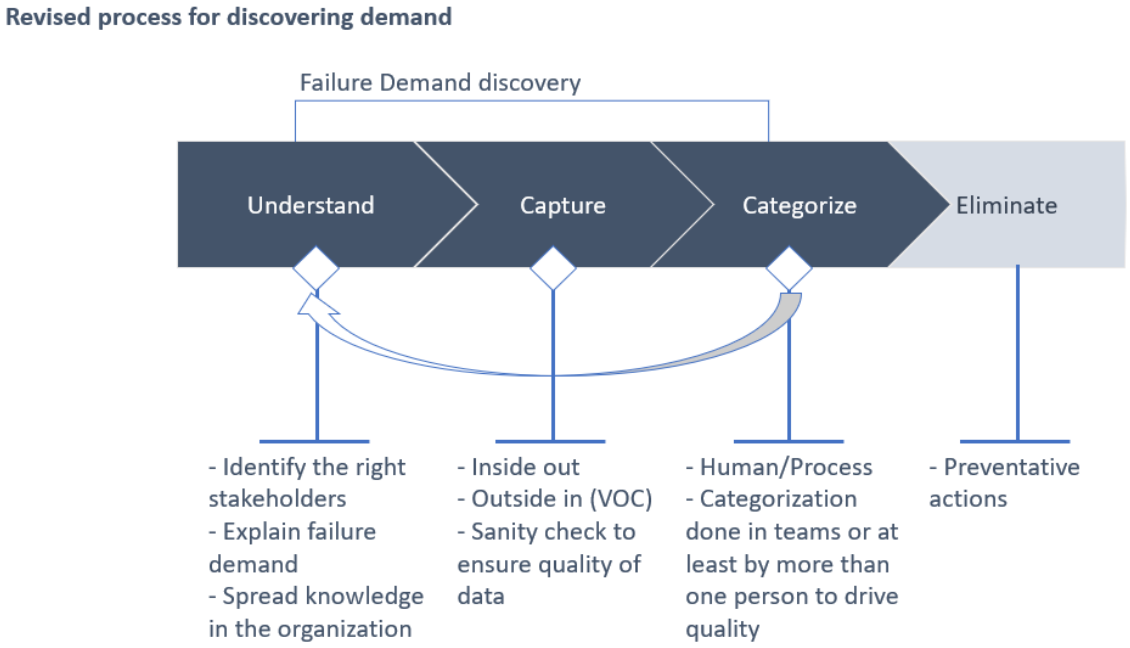

Figure 10. Revised framework

To conclude, service organizations are required to discover the phenomenon of failure demand before they can start understanding their purpose and consequently designing against it.

5. DISCUSSION

The current literature on failure demand lacks a common way to describe a discovery process to the target audiences that it is trying to convince regarding the importance of understanding the phenomenon. However, the description of the phenomenon is similar in the current literature and the different approaches still lead to building a cohesively strong case on why uncovering failure demand is crucial from service organizations. Understanding the phenomenon is described to be the starting point to uncovering the difference between value and failure demand and there are sometimes similar and sometimes different methodologies on how to capture this division. This means that a concrete, continuous discovery process for failure demand is missing.

By discovering failure demand the organizations are able truly understand the difference between value adding activities and failure demand. This leads to an understanding on how efficiently their resources are used and where to focus to start eliminating failure demand from the company's system. However, the company or the organization needs to first understand why it exists and what it wants to do. By starting to discover failure demand can challenge the top management of the organization to doubt the necessity of handling all of the demand that is coming in and rather focusing on the right demand. The hard part is that current management philosophies are inclined to think that all customer contacts are relevant demand which needs to be handled.

Finally, organizations that want to discover failure demand and consequently act upon it, need to change the approach to their current management and organizational culture. This means that as failure demand can be produced by human action or process design, the organization needs to start to question the way it has been answering to certain type of demand and thus serving customers for decades now. Furthermore, in a culture where every customer demand is deemed equally important the organization needs to learn a new way of analytically categorizing failure demand contacts as completely unnecessary and methodically start to eliminate them. As these measures might be drastic for an organization that has not divided its demand into failure demand and value demand, this

study is built from a perspective that focuses on building a framework around the phenomenon of failure demand that eases organizations to uncover the magnitude of failure demand step by step with the aim that in the long term organizations are more knowledgeable to what drives demand.

5.1. Theoretical implications

This study develops a practitioner-oriented multistep process, which is constructed and tested in a real business environment, to discover failure demand which ties together different methods and partly formed steps that the current literature has introduced (Seddon & Brand 2008; Jackson et al 2008; Teehan & Tucker 2008; Teehan & Tucker 2010; Macomber et al 2018). Also, it filled the gap between current literature and the lack of practical tools for discovering failure demand which is touched upon in numerous studies: Hines et al 2004; Leong & Tilley 2008; Teehan & Tucker 2008; Piercy & Rich 2009b; Teehan & Tucker 2010; Arfmann & Barbe 2014; Jaaron & Backhouse 2014. The outcome of this is a practical tool that can be used by service managers and consultants alike to discover failure demand from organisations. Furthermore, the practical tools enrich the current literature that has not had a focus on practical tools (Jaaron & Backhouse 2014). In other words, by focusing on a process approach the study adds to existing literature.

By using the framework on how to discover failure demand in a case study, the study enriches the current literature by introducing more data on each individual step of the process (for example, Jackson 2008; Teehan & Tucker 2010; Soltani et al 2011). Also, as the current literature points out the need for a cohesive process for discovering failure demand, a framework was built to match that need. The steps that determine the process, which are understanding, capturing, categorizing and in a limited capacity prevention were identified by analysing the current literature and therefore built on top of the research that guides the solution for the phenomenon of failure demand.

By using the framework in a case study, the knowledge on the individual parts of the discovery process was enhanced. Understanding failure demand requires identifying the right stakeholders (Seddon & Brand 2008). However, the employees of the organization

need to understand what failure demand is as the first line contact centre workers were the ones to capture the data. Also, the decision making process on whether to enable a study on failure demand was swift when the stakeholders were introduced to potential savings that come from understanding demand. In the capturing part, adding a clear data point collection method and a flow for capturing demand helps the current studies to showcase a method on how the capturing was be done in a service environment. Finally, as the current literature show that categorizing demand should be done from a perspective of identifying the sources of demand (Macomber et al 2018), this study enhanced the categorization by introducing a human factor and a process factor for categorizing demand.

5.2. Managerial implications

This study and the framework it presents, along with the empirical evidence produces managerial implications for organizations, managers and business development practitioners. Furthermore, as the study is conducted in a service contact centre environment, the managerial implications are focused especially for similar organizations and people working in them. The main offering of the study is a cohesive process to discover failure demand which was put through a test in a case study which resulted in successful discovery of the phenomenon. To ensure that the framework is viable in an organization environment, the study was conducted in a real service contact centre environment by executing the steps that were determined in the framework. The study put the framework to the test by executing each step individually and therefore enabling a critical analysis on what works and what does not. The framework held up during the empirical phase of the study and therefore produced data for each individual step of the process (*understanding, capturing, categorizing, preventing*) and as a whole process that has the aim of discovering failure demand. This means that the study offers a practical tool for managers and consultants alike to use in their daily operations and business development.

When analysing the different steps of discovering failure demand, managerial implications can be divided into smaller sections. For managers and consultant this research has

demonstrated that discovering failure demand in a service organization can be quite simple and initiated without large investments. However, the understanding of failure demand challenges managers to change their focus from looking at demand as one entity to dividing it into two distinct sections. This is not easy as demand types have not been the focus in service contact centres. However, this challenging of what you already know is vital for managing failure demand.

The study offers practical tools for data capture with flows for capturing demand (Figure 4.) and the data points that need to be established for the capturing to be successful (Figure 5.). Also, by capturing data on demand, managers can not only see what the demands of the customers are but also how employees perceive demand (Jaaron & Backhouse 2014: 7). This means that the managers acquire a great platform for evaluating whether certain employees need more training or coaching on different topics that the customers bring up. For example, if an employee perceives an interaction that should bring value to the organization as failure demand, the managers have an opportunity to review whether the interaction was in fact value or failure demand. This is a great coaching starting point when thinking about what the employees needs when it comes to development (Jaaron & Backhouse 2014: 7). Furthermore, by categorizing demand, managers put themselves under scrutiny as the reasons for failure demand can be caused by how the work is organized in teams. Therefore, managers need to understand that a discovering failure demand can put a spotlight on the team that is analysed. However, the categorization process is not intended for finding culprits in the organization but merely to shine a light on where to focus the needed development efforts. In other words, the categorization step offers managers a way to showcase the needed development areas in their team or organization

Finally, the data that is produced by the discovery process helps the managers and organization to see how their customers behave and what they appreciate. Also, it helps the managers to understand how their teams are truly performing as successfully handling value demand should be the only aim of any service team. To conclude, the study provides practical hands-on tools for managers and consultants alike which help in discovering failure demand from the needed organisations.

5.3. Limitations and suggestions for further research

By concentrating on managerial and theoretical implications, the study showcases the impact that it has on current research and current managerial practices. However, there are limitations to the study as well as suggestions for further research. Although the framework and the discovery process of failure demand has been constructed in a way that it should fit different service organizations, the study only tested it on one. This means that because of only having one case company as the target for analysis, the generalisability of the process cannot be presented as one that works in every service organization environment. Furthermore, as the case study concentrated on a company that serves Finnish customers only in the Finnish financial sector, the generalisability suffers more. Consequently, additional studies in the financial and service sector are needed to validate the framework more. However, this study did not set out to create a general framework that would work in every industry, but instead focused on analysing and testing how a discovery process of failure demand would work in a selected service organization. Another limitation of the study is the fact that the top management were not interviewed after the empirical findings were complete. This means that the data of the study lacks the take of the top managers that would have enriched the empirical findings by adding information on whether the findings are in line with the expectations that they had for the study or whether the findings came as a surprise.

Complementing the limitations of this study, the suggestions for further research are mainly based on generalising the framework that has been presented in this study. Further studies could compare how demand is handled between competitors in the financial sector. This would add more data that has been collected through the presented framework. Furthermore, additional research could try to incorporate the theoretical approach to a back office environment in a service organization to see how failure demand can occur inside an organization without the presence of a customer. Finally, as the framework is built in for a service contact centre environment, another study could try to incorporate the framework to another sector to test the generalisability of the process.

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APPENDIX 1. Questionnaire for contact centre agents

Failure demand study 07/2018 Luca Porru

Questionnaire

Q1) What kind of demand was the call?

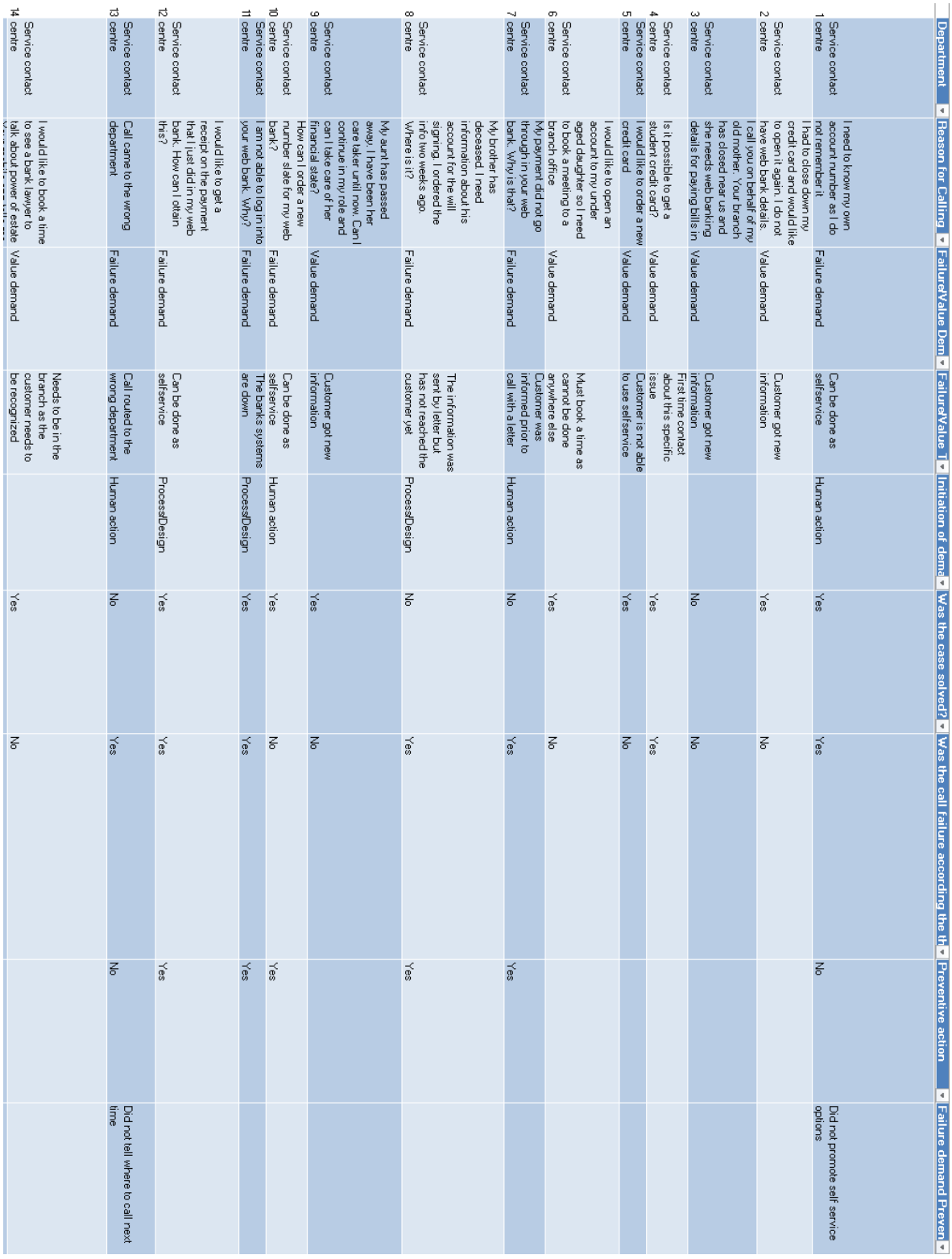
- *Why do you categorize it that way?*

Q2) What was the source of the demand?

- *Was it design/process based, or human interaction/action based?*

Q3) What could you do to prevent that from happening again?

APPENDIX 2. Discovery process data



	Department	Reason for Calling	FailureValue Dem	FailureValue T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
1	Service contact centre	I need to know my own account number as I do not remember it	Failure demand	Can be done as selfservice	Human action	Yes	Yes	No	Did not promote self service options
2	Service contact centre	I had to close down my credit card and would like to open it again. I do not have web bank details.	Value demand	Customer got new information		Yes	No		
3	Service contact centre	I call you on behalf of my old mother. Your branch has closed near us and she needs web banking details for paying bills in	Value demand	Customer got new information		No	No		
4	Service contact centre	Is it possible to get a student credit card?	Value demand	First time contact about this specific issue		Yes	Yes		
5	Service contact centre	I would like to order a new credit card	Value demand	Customer is not able to use selfservice		Yes	No		
6	Service contact centre	I would like to open an account to my under aged daughter so I need to book a meeting to a branch office	Value demand	Must book a time as cannot be done anywhere else		Yes	No		
7	Service contact centre	My payment did not go through in your web bank. Why is that?	Failure demand	Customer was informed prior to call with a letter	Human action	No	Yes	Yes	
8	Service contact centre	My brother has deceased. I need information about his account for the will signing. I ordered the info two weeks ago. Where is it?	Failure demand	The information was sent by letter but has not reached the customer yet	ProcessDesign	No	Yes	Yes	
9	Service contact centre	My aunt has passed away. I have been her care taker until now. Can I continue in my role and can I take care of her financial state?	Value demand	Customer got new information		Yes	No		
10	Service contact centre	How can I order a new number slate for my web bank?	Failure demand	Can be done as selfservice	Human action	Yes	No	Yes	
11	Service contact centre	I am not able to log in into your web bank. Why?	Failure demand	The bank's systems are down	ProcessDesign	Yes	Yes	Yes	
12	Service contact centre	I would like to get a receipt on the payment that I just did in my web bank. How can I attain this?	Failure demand	Can be done as selfservice	ProcessDesign	Yes	Yes	Yes	
13	Service contact centre	Call came to the wrong department	Failure demand	Call routed to the wrong department	Human action	No	Yes	No	Did not tell where to call next time
14	Service contact centre	I would like to book a time to see a bank lawyer to talk about power of estate	Value demand	Needs to be in the branch as the customer needs to be recognized		Yes	No		

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
15	Service contact centre	Your mobile app tells me that there is an error and I am not able to use it. What can I do?	Failure demand	Problem with the banks app	Process/Design	Yes	Yes	No	Did not tell how to solve this problem in the future
16	Service contact centre	I am your customer in another country and I would like to open an account in Finland as well. How can I do that?	Value demand	New information to the customer		Yes	No		
17	Service contact centre	My credit card expired during the summer but I have not received a replacement. Why?	Failure demand	The card was sent to a wrong address	Process/Design	Yes	No	Yes	
18	Service contact centre	I would like to order web banking details for my daughter and tried to fill a power of attorney document in your web bank. The document did not work. What do we do?	Failure demand	Technical error in the web bank	Process/Design	Yes	Yes	No	Did not tell how to solve this problem in the future
19	Service contact centre	I need my account details from the year 2014. Are you able to send it to me?	Failure demand	Information can be found in the selfservice tools	Process/Design	Yes	No	Yes	
20	Service contact centre	Can you deduct my student loan automatically?	Failure demand	Automation should be done automatically for this product. For some reason it	Process/Design	No	Yes	No	Did not tell where to call next time
21	Service contact centre	I would like to have web banking details so lets book a time for that	Value demand	Branch office visit is needed		Yes	No		
22	Service contact centre	I would like to know if I can go to a branch office and ask about cards?	Failure demand	Can be found in the selfservice systems	Process/Design	Yes	Yes	No	Did not tell where to find this kind of information in the future
23	Service contact centre	I got a warning that my web bank is not safe. Why?	Failure demand	A problem in the banks systems	Human action	Yes	Yes	No	Did not tell how to solve this problem in the future
24	Service contact centre	I have been sent money in May. How do I know who sent the money to me?	Value demand	New information to the customer		No	No		
25	Service contact centre	I would like to change my credit card to a card that has travel insurance. How do I do that?	Failure demand	Can be done in the selfservice systems	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
26	Service contact centre	I would like to talk about my company	Failure demand	Call was wrongly routed	Process/Design	No	Yes	No	Did not tell where to call next time

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
27	Service contact centre	I would like to withdraw money from my investments. Can I do it here?	Failure demand	Can be done in the selfservice systems	Process/Design	Yes	No	No	Did not tell how to solve this problem in the future
28	Service contact centre	My wife transferred money to an account that no longer exists. How can we get the money back?	Value demand	New information for the customer		Yes	No		
29	Service contact centre	I would like to talk to a lawyer that has handled our case in the past.	Failure demand	Call routed to the wrong department	Process/Design	No	Yes	No	Did not tell where to call next time
30	Service contact centre	I tried to add my card to an app but the card is not recognized. Why?	Value demand	The app of the receiver does not work		Yes	No		
31	Service contact centre	I have received my new card as the old one was stolen. How do I reduce the credit limit?	Value demand	A new card has been formed to the customer		Yes	No		
32	Service contact centre	I am going to Germany to buy a car. What is the safest way to transfer the money?	Value demand	New information given to the customer		Yes	No		
33	Service contact centre	I tried to find a straight number to your business banking but did not find it.	Failure demand	No way to contact specific person	Process/Design	No	Yes	No	Did not tell where to call next time
34	Service contact centre	I tried to do an e-bill in my web bank but all I got was an error.	Failure demand	A technical error in the banks systems	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
35	Service contact centre	I have some payment issues. Can I discuss my situation with you?	Value demand	New information given to the customer		Yes	No		
36	Service contact centre	I would like to pay my bills here on the phone.	Failure demand	Can be done in the selfservice systems	Human action	Yes	Yes	No	Did not promote self service options
37	Service contact centre	I would like to grow the limit on my credit card. How can I do it?	Failure demand	Can be done in the selfservice systems	Human action	Yes	Yes	Yes	
38	Service contact centre	I am calling on behalf of my mom and would like to cancel the meeting that was booked prior.	Value demand	No way to cancel a meeting by himself so contact is needed		Yes	No		
39	Service contact centre	Somebody tried to use my credit card. Can you check what has	Value demand	Customer does not see the information bythemselves		Yes	No		
40	Service contact centre	I ordered a card without contactless payment and would like to change this to one that has it.	Value demand	The order has been fixed according demand		Yes	Yes		

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
41	Service contact centre	My mobile banking app told me to contact you as it has an error.	Failure demand	The mobile app is not working properly	Process/Design	Yes	Yes	Yes	
42	Service contact centre	I sent a credit card appliaction to you yesterday but did not receive any confirmation. Has the application reached you?	Failure demand	No confirmation has been sent to the customer	Process/Design	Yes	Yes	No	Did not tell where the customer could find the information by themselves
43	Service contact centre	I transferred money in my mobile app and the app said that the payment did not go through. Afterwards I saw that the payment went through two times. Can you cancel one of the payments?	Failure demand	The money was withdrawn wrong but has not been returned	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
44	Service contact centre	I closed my card last week as it disappeared. Can I order a new one?	Value demand	Customer is not able to handle the problem with the selfservice tools		Yes	No		
45	Service contact centre	Can we meet an attorney to talk about aour will?	Value demand	Bookings can only be done by calling customer service		Yes	No		
46	Service contact centre	My mobile bank does not work as it says that I already have an account in your bank	Value demand	The customer punched in wrong information		Yes	No		
47	Service contact centre	My mobile bank app does not work as I don't know which details I need	Value demand	The customer has forgotten the right details to log in		Yes	No		
48	Service contact centre	I used my credit card to by stuff from amazon. Now those transactions have been cancelled. How do I get my money back?	Value demand	Customer provided with new information		No	No		
49	Service contact centre	I would like to open a lease account.	Value demand	Bookings can only be done by calling customer service and it is needed in this situation		Yes	No		
50	Service contact centre	I would like to talk about my credit card bill	Value demand	New information provided to the customer		Yes	No		

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
51	Service contact centre	My credit card is missing. Can we close it	Value demand	Can only be handled in		Yes	No		
52	Service contact centre	Kela needs account details. How can I order them?	Failure demand	Can be handled in the selfservice systems	Human action	Yes	Yes	Yes	
53	Service contact centre	One of your branch is closing. How can I agree on my payments after that?	Value demand	Customer received new information		Yes	No		
54	Service contact centre	I transferred money to another account in another bank but do not see that money there. When does it appear?	Failure demand	This information is show in the instructions of the self service tool	Process/Design	Yes	Yes	No	Did not tell how to solve this problem in the future
55	Service contact centre	I do not remember the pin code on my credit card. How do I reset it?	Value demand	Customer provided with new information		Yes	No		
56	Service contact centre	Your mobile app does not work. Why?	Value demand	Customer provided with new		Yes	No		
57	Service contact centre	I have an open credit card bill. Can a pay an amount of 30e now and the rest in august?	Value demand	Customer provided with new information		Yes	No		
58	Service contact centre	I would like to book an appointment to your branch office	Value demand	Time was booked to the customer		Yes	No		
59	Service contact centre	I received a money transfer that needs to be verified. What should I do?	Value demand	Customer provided with new information		Yes	No		
60	Service contact centre	I paid on the 16th of july but the payment has not gone through. When does it go through?	Failure demand	The information is shown in the selfservice systems	Process/Design	Yes	No	Yes	
61	Service contact centre	I tried to pay a bill in your web bank but an error popped up saying that a decimal was wrong. Why?	Failure demand	The customer used the app wrong	Human action	Yes	Yes	Yes	
62	Service contact centre	I would like to pay my bills here on the phone.	Value demand	Customer is not able to use selfservice		Yes	No		
63	Service contact centre	I have forgotten my pin to my web bank. How can I get a new one?	Value demand	New information is provided to the customer		Yes	No		
64	Service contact centre	I would like to raise the limit on my credit card	Value demand	Can only be handled in		Yes	No		
65	Service contact centre	I have an unused accound in your bank. Can I use it normally and what are the costs?	Value demand	Customer provided with new information		Yes	No		

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
66	Service contact centre	I tried register to you mobile app but it says that my account cannot be attached to the app.	Failure demand	Technical error in the app	Human action	Yes	Yes	No	Did not tell how to solve this problem in the future
67	Service contact centre	I wasn't able to log out from your web bank because of a technical	Failure demand	Technical error in the web bank	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
68	Service contact centre	I need my own account number as I do not remember it	Failure demand	Can be done in the selfservice systems	Human action	Yes	Yes	No	Did not promote self service options
69	Service contact centre	I lost my banking details and would like to close	Value demand	The banking details were closed		Yes	No		
70	Service contact centre	I would like to check whether my pension has been transferred to my account	Failure demand	Can be done in the selfservice systems	Human action	Yes	Yes	No	Did not promote self service options
71	Service contact centre	I lost my credit card and would like to close it	Value demand	Can only be handled in		Yes	No		
72	Service contact centre	I would like to order a card to my child. I did not find any information from you web page	Failure demand	Information was not easy to find as selfservice	Process/Design	Yes	Yes	No	Did not tell how to solve this problem in the future
73	Service contact centre	I have been returned a credit card payment but it still is marked as billed. Why is that?	Value demand	The bills have been fixed		Yes	No		
74	Service contact centre	I would like to cancel a booked time	Value demand	Changes to the booking were done		Yes	No		
75	Service contact centre	I have applied for a housing loan and would like to continue the talks with the same person	Failure demand	No way to contact specific person	Human action	No	Yes	No	Did not tell where to call next time
76	Service contact centre	Do I need to book an appointment or can I just visit a branch whenever I want?	Failure demand	Information can be found in the selfservice tools	Human action	Yes	Yes	No	Did not tell where the customer could find the information by themselves
77	Service contact centre	I would like to transfer money to my daughter. How do I do it?	Value demand	Information was not easy to find as selfservice		Yes	No		
78	Service contact centre	What is your closest branch office in Espoo?	Failure demand	The information is shown in the selfservice systems	Human action	Yes	Yes	No	Did not tell where the customer could find the information by themselves
79	Service contact centre	Im looking for a specific person in your branch	Failure demand	No way to contact specific person	Human action	No	Yes	No	Did not tell where to call next time
80	Service contact centre	I would like to know my account balance	Failure demand	information is shown in selfservice	Human action	Yes	Yes	No	Did not promote self service options
81	Service contact centre	I have received money transfers. What do I do to accept them?	Value demand	New information is provided to the customer		Yes	No		
82	Service contact centre	I do not recognize all my account traffic.	Value demand	The situation was cleared for the customer		Yes	No		
83	Service contact centre	I am a realestate agent and Im trying to contact a specific person	Failure demand	No way of contacting a specific person	Human action	No	No	No	Did not tell where to call next time
84	Service contact centre	What kind of official papers do I need when I want to open an account for my child?	Failure demand	Information was not easy to find as selfservice	Process/Design	Yes	Yes	Yes	
85	Service contact centre	I have ordered a new card 10 days ago but it has not arrived. Why?	Failure demand	The information was unclear in the selfservice tools	Process/Design	Yes	Yes	Yes	
86	Service contact centre	I lost my web banking details and orered new ones. Can you transfer money between my accounts meanwhile?	Value demand	Money trasfer was made for the customer		Yes	No		

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
87	Service contact centre	I would like to apply for a credit card.	Value demand	New card was ordered		Yes	No		
88	Service contact centre	I would like to cancel an appointment.	Value demand	The time has been cancelled		Yes	No		
89	Service contact centre	I need information on foreign payments	Value demand	New information has been provided to the customer		Yes	No		
90	Service contact centre	My husband has passed away and I would like to cancel investments payments. How can I do	Failure demand	The call was transferred to the wrong department	Process/Design	Yes	Yes	No	Did not tell where to call next time
91	Service contact centre	I would like to order an electron card	Value demand	A new card has been formed to the customer		Yes	No		
92	Service contact centre	I have exeeded my account balance and I contacted you two days ago. Now nothing has	Failure demand	The case was not fixed during first contact	Human action	Yes	Yes	No	Did not tell how to solve this problem in the future
93	Service contact centre	I called you yesterday with this same problem that a strange payment has been deducted from my account. What is the	Failure demand	The case was not fixed during first contact	Human action	No	Yes	No	Did not tell how to solve this problem in the future
94	Service contact centre	I would like to know the address of your branch office	Failure demand	The information can be found from the selfservice tools	Human action	Yes	Yes	Yes	
95	Service contact centre	My mother has received a yearly payment bill for her credit card. Why?	Value demand	New information has been provided to the customer		Yes	No		
96	Service contact centre	I received a paper bill for my credit card. Can it be changed to an automatic one?	Value demand	New agreement has been formed to the customer		Yes	No		
97	Service contact centre	I would like to have a debit card and a separate credit card. How can I	Value demand	A new card has been formed to the customer		Yes	No		
98	Service contact centre	I closed down my business accounts but have not received the money to my personal	Failure demand	The customer was not informed about the schedule	Human action	No	Yes	Yes	
99	Service contact centre	I called you yesterday about my credit card. What is the situation?	Failure demand	Customer did not receive any updates regarding the	Human action	Yes	Yes	No	Did not tell how to solve this problem in the future
100	Service contact centre	Im calling on behalf of my business. I received a letter which I do not	Failure demand	The letter is unclear	Process/Design	No	Yes	No	Did not tell where to call next time
101	Service contact centre	I would like to pay my daughters bill but still would like that she is shown as the payer. How	Value demand	New information provided to the customer		Yes	No		
102	Service contact centre	I would like to know when a payment from sweden reaches my account.	Failure demand	Technical problems in the banks systems	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
103	Service contact centre	I should have received money from sweden but nothing has showed up	Failure demand	Technical problems in the banks systems	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
104	Service contact centre	My credit card has been misused and I closed it. I would now like to fill a reclamation application.	Value demand	New information provided to the customer		Yes	No		
105	Service contact centre	I would like to book an e-meeting as we are not able to come to a branch	Value demand	A time was booked to the customer		Yes	No		
106	Service contact centre	I would like to modify my scheduled appointment	Value demand	A time was booked to the customer		Yes	No		
107	Service contact centre	I would like to make sure when my appointment was	Failure demand	The customer was not informed about the schedule	Human action	Yes	Yes	Yes	

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
108	Service contact centre	I should talk to a specific person about my loan	Failure demand	No way to contact a specific person	Human action	No	Yes	No	Did not tell where to call next time
109	Service contact centre	My wifes sister is buying a house and needs a backing from us. How	Value demand	New information was provided to the customer		Yes	No		
110	Service contact centre	Im trying to reach a specific person from the branch office in Turku	Failure demand	No way to contact a specific person	Human action	No	Yes	No	Did not tell where to call next time
111	Service contact centre	I would like to apply for an installment free period.	Failure demand	Knew how to do it in a selfservice channel but opted to	Human action	Yes	Yes	Yes	
112	Service contact centre	We would like to talk about a new loan	Value demand	Time was booked to the customer		Yes	No		
113	Service contact centre	I would like to know how much loan I could have	Value demand	Time was booked to the customer		Yes	No		
114	Service contact centre	I have two loans with different rates. Was this always the case?	Failure demand	The customer has the information in her loan papers	Human action	No	Yes	Yes	
115	Service contact centre	Fixed term of my loan is coming to an end. What do I need to do?	Failure demand	The information has been provided to the customer prior	Human action	Yes	Yes	Yes	
116	Service contact centre	I would like to book a time to a branch office	Value demand	Time was booked to the customer		Yes	No		
117	Service contact centre	I would like to book a time to you branch office in Malmi	Value demand	Time was booked to the customer		Yes	No		
118	Service contact centre	I would like to check the rate on my housing loan	Value demand	New information provided to the customer		Yes	No		
119	Service contact centre	I would like to book a time to talk about a credit card	Value demand	New information provided to the customer		Yes	No		
120	Service contact centre	I would like to continue my talk with the lawyer that I contacted yesterday	Failure demand	No way to contact a specific person	Human action	No	Yes	Yes	
121	Service contact centre	My mother has passed away and she has backed my loans. What do I need to do?	Value demand	A time was booked to the customer		No	No		
122	Service contact centre	I would like to book a time to your branch office in Hyvinkaa	Value demand	A time was booked to the customer		Yes	No		
123	Service contact centre	You are going to withdraw a bigger amount from my loan as	Failure demand	Technical error in the web bank	Process/Design	Yes	Yes	Yes	
124	Service contact centre	I have applied for a free installment period and you are rising my rate.	Failure demand	The sent message was unclear in the first place	Human action	No	Yes	No	Did not tell how to solve this problem in the future
125	Service contact centre	We have paid a certain amount of our loan back and would like to free one of the collaterals. Is that possible?	Failure demand	No reaction to the first contact plead from the customer	Human action	No	Yes	No	Did not tell where to call next time
126	Service contact centre	I would like to book an appointment for a housing loan	Value demand	Time was booked to the customer		Yes	No		
127	Service contact centre	I would like to liquidize my investments to pay my loan. How can I do	Value demand	New information provided to the customer		Yes	No		
128	Service contact centre	I contacted you about a loan beforehand. You promised to call me but nobody has reached out	Failure demand	No reaction to the first contact plead from the customer	Human action	Yes	Yes	Yes	
129	Service contact centre	How can I apply for an installment free period?	Failure demand	Information can be found in the selfservice tools	Process/Design	Yes	Yes	No	Did not tell where the customer could find the information by themselves

	Department	Reason for Calling	Failure/Value Dem	Failure/Value T	Initiation of dema	Was the case solved?	Was the call failure according the th	Preventive action	Failure demand Preven
130	Service contact centre	I need to start to pay my student loan. How do I do that?	Failure demand	Information can be found in the selfservice tools	Process/Design	Yes	No	Yes	
131	Service contact centre	I am not able to transfer money to my consumer credit. Why?	Failure demand	Technical error in the web bank	Process/Design	No	Yes	Yes	
132	Service contact centre	I contacted you about my installment free appliactions. I really need to know whether you are able to give me them or	Failure demand	Not able to provide specific answer to the customer	Process/Design	No	Yes	No	Did not tell how to solve this problem in the future
133	Service contact centre	I have loan insurance and would like to stop it. How do I do it?	Failure demand	A separate company provides loan insurances	Human action	No	Yes	Yes	
134	Service contact centre	I have a car finance from you. How can I change the payments?	Failure demand	A separate company provides car financing	Process/Design	No	Yes	Yes	
135	Service contact centre	I was told that I needed to inform you when my house has been sold.	Value demand	The case could be completed with this information		Yes	No		
136	Service contact centre	I talked with Eija yesterday. Now I am not able to reach her. Can you patch me through?	Failure demand	No way to contact specific person	Human action	Yes	Yes	Yes	
137	Service contact centre	I need a loan offer as fast as possible.	Value demand	A time was booked to the customer		Yes	No		
138	Service contact centre	I am calling from another bank and would like to ask whether our case has been handled in your	Failure demand	the other bank did not inform the parties about the agreement	Human action	No	Yes	Yes	