

Process innovation for a national branch of selected multinational IS/ICT company

Diploma thesis

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Abstract

The topic of this diploma thesis is “Process innovation for a national branch of selected multinational IS/ICT company”. The aim of the thesis is to improve corporate process based on the process analysis methodologies and evaluate the effectiveness of the proposed change. The theoretical part is devoted to the basic terms such as process management, modeling and process improvement. The practical part is devoted to the description of the original process, its analysis and proposed process improvement. The process is analyzed by DMAIC method in conjunction with model SIPOC. The proposed solution is to implement a system of interactive voice response, which has a positive effect on the productivity of the team during the process of providing credit limit. The remaining part of the thesis is devoted to evaluation of the effectiveness of the proposed change and the possibility of its implementation also to other branches with similar business goals.

Keywords

Functional management, Process management, Modeling of processes, Model SIPOC, Business Process Improvement, Business Process Reengineering, DMAIC Method

Abstrakt

Názov diplomovej práce je “Procesná inovácia pre národnú pobočku vybranej IS/ICT nadnárodnej spoločnosti”. Cieľom diplomovej práce je pomocou metód procesnej analýzy navrhnúť zlepšenie podnikového procesu a zhodnotiť efektívnosť navrhovanej zmeny. Teoretická časť sa venuje základným pojmom, ako procesnému riadeniu, modelovaniu a zlepšovaniu procesov. Praktická časť sa venuje opisu pôvodného procesu, jeho analýze a navrhovanému zlepšeniu. Proces je analyzovaný pomocou metódy DMAIC, ktorá je doplnená modelom SIPOC. Navrhovaným riešením je implementácia hlasovej schránky, ktorá má pozitívni dopad na produktivitu práce pri poskytovaní kreditového limitu. Súčasťou práce je tiež ohodnotenie efektívnosti navrhnutého riešenia a možnosť implementácie riešenia pre pobočky s podobným zameraním.

Klíčová slova

Funkčné riadenie, Procesné riadenie, Modelovanie procesov, Model SIPOC, Business Process Improvement, Business Process Reengineering, Metóda DMAIC

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1 Introduction

The present time, which is characterized by high dynamics, enforces directly the optimization of each decision in an economic life, because all the subjects seek the best solutions. The most substantial element of each economy is the enterprise, in which exists the whole row of processes and operations, ensuring its existence and fulfilment of its goals. The basic task of the enterprise is to produce the products, or to render the services with the purpose to achieve the profit and satisfy its customers, who demand these products and services. Under one of the most important factors, which in the present conditions of the competitive environment influences the long-term conserving the success of the company in the market, belongs unceasing effort to improve and innovate activities, work processes and services.

The optimization of the enterprise processes is that's why often discussed theme in the present time. The fully effective processes are the goal of each enterprise. When the companies devote the attention to this theme, they can considerable hinder the wasting of their recourses.

The optimization of the processes influences the cost of enterprise and its effectivity. It is suitable for all sorts and sizes of the entrepreneurial subjects. Almost in each organization with the time arise accidental processes, which are managed by nobody. The goal of each optimization should be the removing of these accidental processes.

The goal of the diploma thesis is to propose by the means of the methods of the process analyse the improvement of the entrepreneurial process and evaluate the effectivity of the proposed change.

In the theoretical part of this thesis are summarized theoretical observations from the area of the entrepreneurial processes, obtained on the basis of the study of the literature introduced in the list of references.

The first chapter is dedicated to the process management, characteristics and categorizations of the enterprise processes from various points of view. The second chapter talks about methods of enterprise management, concretely about the functional and process management and their following comparison. The part of the third chapter is the description of standards and tools for modelling the enterprise processes. The last chapters describe the arts of improvement of the enterprise processes. In the chapters, there are chosen some methods of improvement, which are described.

The second part of diploma thesis is aimed at the application of theoretical knowledges in a concrete company. In this part, there is a short characteristic of the company. On the basis of the real conditions, data and information is described the original state of process of the providing credit limit, which is connected with the releasing of orders. On the basis of the process description are analyzed its problematic parts. Then the optimization of the given process is proposed. The conclusion of the practical part represents the summarized contributions of the introduction of the optimized process into the operation and the influence of this optimization on other processes proceeding in the enterprise.

2 Objectives and Methodology

2.1 Objectives

The diploma thesis focuses on the issues of optimization of business processes for a branch of a selected multinational company. The branch strives to provide high-quality customer service in the shortest possible time in order to maintain its comparative advantage.

The main aim of this thesis is to optimize the process for providing credit limit for customers of selected branch of a multinational company. The diploma thesis looks at the analysis of the original process. The key present process issues are identified in the analysis and the proposal for improvement of this process will be developed.

2.2 Methodology

The diploma thesis focuses on the business process optimization.

The first part summarizes theoretical knowledge of business processes acquired by studying literature mentioned in the references. The literature deals with process governance, characteristics of the business processes, continual improvement and process reengineering.

The second part is a practical part of the diploma thesis. The company and its business plan is introduced in the first part. The information presented is derived from the company's annual report and its Internet websites. Subsequently the selected branch of the multinational company is introduced with its team who is using the process for providing the credit limit for customers. This process is directly related to the second process of this team - order fulfillment. The team has time limit set for completion of each process. These processes are analyzed by DMAIC method.

The phase Define defines the problem of low productivity of the employees in these processes. This part is further supplemented by SIPOC model that identifies main suppliers, customers, process inputs and outputs. Their original state and progress is analyzed as well. The analysis of the process for providing credit limits has not shown any significant flaws that would need to be corrected. However, there were observed deficiencies in factors affecting deadlines for completion of credit limit applications. These deficiencies represent invalid phone calls the team has to deal with but are not related to the scope of work of the given team. These phone calls delay the work of the team and have impact on the productivity of the application processing of orders.

The phase Measure focuses on the productivity of work associated with processing of the credit limit application within the allotted time. Based on unfavorable results, the measurement has been extended also to include processing of the orders and answering telephone calls within the given time. After the evaluation of the results, it has been found that the team has difficulty meeting the process deadlines.

Therefore the measurement of the invalid phone calls adversely affecting the processes was also conducted.

The phase Analyze the output of the measurements was summarized. The analysis concentrated on the amount, duration and reason of the invalid phone calls. The total number of the telephone calls per employee was determined. Subsequently this number was divided by the amount of the work days and the average number of the phone calls per day per head was determined. The same approach was applied to the average duration of the invalid phone calls. This analysis also revealed the most common reasons.

The proposed optimization was based on the results of the aforementioned analysis and the process change project was realized.

At the end of the practical part of the thesis the benefits of the process optimization and the impact of this optimization on the productivity during the credit limit process are summarized.

3 Literature overview

3.1 Business processes

People encounter processes almost on daily almost on daily basis, therefore their exact meaning can get unnoticed. It is a term that is widely used by most of the employees ranging from the level of middle management. Processes are part of every business, therefore the following section presents some of the most important concepts and definitions, which should be well known by every businessman, manager and executive.

In literature, there can be found numerous definitions of the term business process (ŘEPA, 2012), most of them, however, share a common essence. This is represented by the interconnected sub-activities which transform inputs into outputs in a certain order, while added value is created. The goal of every major business process is to create added value. At the same time, those processes which do not create any added value need to be eliminated from the business. (ZÁVADSKÝ, 2011)

3.1.1 Basic concepts

„A business process is a set of activities which transform a set of inputs to a set of outputs (goods or services) for other people or processes while employing people and tools.” (ŘEPA, 2007) A business process consists of the following components:

- Inputs – can be data, information or materials which are used during a process, e.g. a received order, a received invoice or charging order or a plan. The input of a process becomes the subject of the process operation.
- Business process steps – transform inputs into outputs. They can be applied in different processes or repeatedly in the same process.
- Outputs – these are the goods or services which become the outcome of a process.
- Feedback – it is a method of monitoring and measuring the quality of outputs and it is used to regulate or improve a given process. (CONGER, 2011)

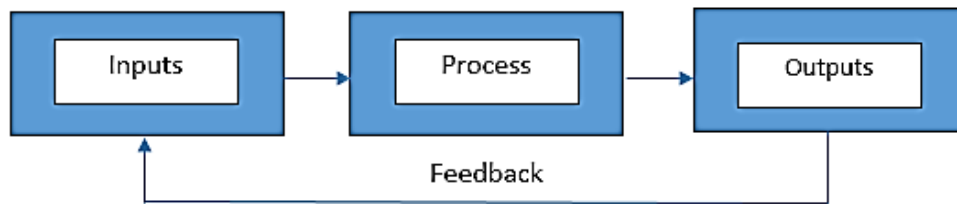


Fig. 1 General scheme of a process
Source: Adapted from CONGER, 2011.

A process can be characterized by the following qualities:

- statement of the objective and identification of the purpose of the process,
- identification of the customer, to whom the outputs of the process are intended,
- the timeframe which elapses from the beginning of the process until the outputs are given to the customer,
- the overall expenses of the process, e.g. payload, utilities and telephone expenses,
- control objects, which are represented by the process owner,
- supporting objects, which are used, but not exhausted during the process, e.g. information, devices and tools. (GÁLA, 2009)

Business processes can be divided into several categories according to different perspectives. In general, however, we can divide them into management, supporting, operational and metaprocesses. The connections between these processes are depicted in the illustration 2.

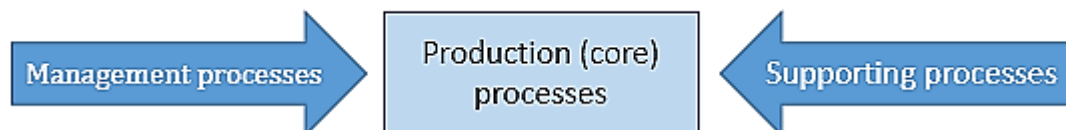


Fig. 2 Categories of processes
Source: Adopted from GRASSEROVÁ, 2008.

The main business processes add value directly to the customer. By executing their operations in a sequence, a product is shaped to its final form, in which it gets to the customer. Usually these processes generate income in order to gain profit to the company. The main processes are for example research and development, production, providing services or customer service.

The supporting processes add value to the customer indirectly, for example that operations of these processes create conditions for the operation of the main/key/managing business process. These can be divided into control and oper-

ational processes. An example of a controlling process can be for example information system maintenance. The operational processes include strategic management and corporate governance.

Operational processes are business processes, which govern and control the key processes, so both the main and supporting processes. These processes include for example decision making or information management, planning or cycle management.

Metaprocesses define the process of the analysis, production and updating all the business processes. The basic metaprocesses are: process analysis, process modeling and management of process changes. (ZÁVADSKÝ, 2011)

Each process of a company can be divided into sub processes and activities.

In the business sector, there is only a small amount of processes that can operate without interference from a human being. Even the fully automated processes need coordinators or creators to function. Therefore every process has their attributes, which are:

- process owner,
- process operator and
- process activities.

The process owner designs the process and bears the responsible for it. The process operator works with the process and notices its shortcomings. The activities are regulated to be mutually interconnected and they create a certain structure, while the connections are defined by their relations. (ZÁVADSKÝ, 2011)

As a process environment is usually a very complex system, it is not unusual that individual processes are run through several of the company's organizational units. To be able to separate the processes, perform their description and analysis and design their changes, it is inevitable to determine what falls into the defined process and what falls beyond it. Therefore, it is very important to clearly determine the boundaries of a process, for example using the SIPOC diagram. (SVOZILOVÁ, 2011)

One of the main responsibilities of a manager is process control. Their role is to monitor and improve the process and prevent problems, which could slow the process down. The extent of process control in an organization depends on its size and number of employees or, more precisely, on the number of participants in the process. The managers coordinate the activities on daily basis and deal with the exceptional circumstances which are not covered by the system.

The level of maturity of the processes in an organization can be described by the CMM model (Capability Maturity Model) using six levels of management:

0. Non-existing management – the processes are managed chaotically.
1. Initial – the processes are managed randomly.
2. Repeatable – several given policies are followed during the execution of the basic processes, which can be repeated.
3. Defined – the processes of the organization are documented.

4. Managed – the processes are managed and their efficiency is measured by KPI.
5. Optimized – the processes are being constantly improved, also, there is an innovational cycle for managing and processing.

The most important part of a process is its final state including a value for an internal or an external customer. In order to monitor their cost and value for the customer there are measurable parameters assigned to every process. (BALS, 2008)

3.2 Business management methods

Every business sets their certain targets, which are fulfilled via processes. The responsible manager for the output of a business process assigns the realization of a process to a specific employee. The employee executes the process during a given time frame, at a given location, using technical devices or tools, while the given activity generates cost. We can distinguish two basic methods of business management based on their perspective on the given activities – functional and process management.

3.2.1 Functional management

The beginning of functional management is connected to the work of Adam Smith, *The Wealth of Nations*, published in 1776. The underlying philosophy of functional management was mentioned for the first time in this work. The approach is based on dividing the work into the simplest operations, which could be executed even by unskilled workers. The greatest application of functional management resulted in mass production and specialization in the 20th century. Functional management can be characterized by the traditional form of management of business functions, which includes production, technical, business, economic and personal functions. All of them follow their own goals, which can oftentimes be contradictory.

The perspective of functional management focuses on the organizational units, which create a closed entity. Every operation is divided into simple tasks, which need to be coordinated and controlled. This is the way how pyramid structures of management and control can arise. (HROMKOVÁ, 2001)

Advantages of functional management

- The business is managed centrally and the management determines the direction of the decisions. The organization has a pyramid structure, which ensures that the management follows a common strategy and goals of the organization.
- A department focuses on one task, which increases the level of expertise during problem solving. Expenses decrease and time is saved.
- In an organization with functional management, the employees have the advantage of a clear career path, so they can advance within the pyramid structure.

Disadvantages of functional management

- Every unit carries out a part of the process without monitoring the overall flow of operations. Its disadvantage can also be waste of time and information noise, which is created by transferring from one unit to the other.
- Problems can also arise by determining the responsibility for the overall output, alternatively by unfamiliarity with the overall process.
- Functional structures only give restricted possibilities for change, which creates artificial obstacles in the flow of changes (operational positions are protected).

3.2.2 Process managements

According to Kovář (KOVÁŘ et al., 2004), process management emerged about twenty years ago. It was created as a reaction to the change caused by advancement of technology and informational technologies, when production came with new requirements. Greater free will on decision making, responsibility of the employees and team work is preferred.

A typical feature of process management is the ability to react to the different needs of the customers. This enables an easier transit from one requirement to an entirely different one.

The aim of process management in a business is to be able to react to the needs of the customers faster, more effectively and economically. Fiala and Ministr (FIALA, MINISTR, 2003) introduced four principles of process management by which it can be achieved:

1. Determination of strategic intentions and goals – to have a clearly defined input and output.
2. Definition of the processes and their mapping – to put emphasis on the key processes, which are essential for the success of a company.
3. Application of process ownership – there will be defined personal responsibilities determined for individual processes.
4. Change of the organizational structure of the company – to lower the number of communication connections and bureaucracy in a company.

Advantages of process management

The advantages of process management can be looked at from three perspectives. These are in terms of corporate governance, human resources and the field of information technologies.

In terms of corporate governance:

- A company can react to the changes of the market or demands of the customers faster.
- The targets of a business are clearly defined, they are monitored, measured and developed.

- Thanks to the process of precise monitoring, it is easier to uncover the roots of a problem.

In terms of human resources

- Channels of communication are improved within a company.
- Both the co-workers' activities and the employees' motivation are increased.
- The determination of the employees' positions is straightforward.

In terms of information technologies

- There is an overview of all the company's activities.
- There is the possibility to prevent crisis.
- Communication with colleagues and customers is fast. (ŠMÍĎA, 2007)

Disadvantages of process management

One of the main disadvantages of process management can be its implementation. It intervenes significantly with the operation of the company and it requires a significant amount of time.

After its successful implementation, the management should not experience any negative consequences. On the other hand, it has a different impact on the rank-and-file employees. In medium sized or big companies, one of the main goals of the implementation of process management is to reduce the number of employees. Thanks to the newly implemented procedures, a company can save some costs on the human resources.

3.2.3 Comparison of functional and process management

Process management, in contrast to functional management, is not operated in isolation of separate divisions and it is not solely oriented to the outcome of the tasks but to their progress as well. Table 1 shows the difference between functional and process management.

Tab. 1 Comparison of functional and process management

Functional management	Process management
Local orientation of the employees	Global orientation via processes
The employees are not familiar with the significance and connections with the internal customers and the suppliers – there is only minimal interconnection between the activities	The employees are aware of the inputs they use, from whom these are taken over and what outputs they offer to the following activities – there is interconnection between the activities
Regular information sharing between activities is missing	The information is common and is regularly shared
Measuring of activities is isolated from other activities	Measuring of activities is integrated into other activities
The employees' contribution to problem solving is non-existing or minimal	The employees are involved in problem solving in all activities and on all levels of a business
Decisions are influenced by the requirements of the activities	The decisions are influenced by the requirements of the customers and by the processes which are linked to them

Source: MLÁDKOVÁ, JEDINÁK, 2009.

3.2.4 Difficulties of transitioning from functional management to process management

Process management does not simply represent the modification of an existing system, but it deals with the process of changes between two entirely different ways of managing a company. One of the reasons why companies usually have problems with the transition to process management is the lack of information or distorted knowledge about process management and its assets to the company. This is not simply a change of the organisational structure of a business or an introduction of new technologies or devices. A problem arises when the businesses expect the employees to adapt to process management without assistance. However, resistance to changes which are considered unpleasant or dangerous could also pose some problems.

A solution can be to gradually implement the new style of management, so that the employees have enough time to understand the changes in the method of working and the principles of team work. An important factor in implementing process management is to understand in due time that the changes mainly affect the human factor. The success of the implementation is directly proportional to the success of negotiations with the workers and the company management.

3.3 Analysis and modeling of processes

One of the main factors for better understanding and significant improvement of business processes is to perform their modeling. Process modeling contributes to faster information gathering and to create an overview of the company. Via process modeling we can make a better understanding of the internal company structure, and the current business processes as well. It is a suitable tool to help cancel or simplifying those processes that need to be changed.

One of the many of advantages of process mapping is an overall improvement and better understanding of the business activities. Process mapping is used for specifying the needs and functions of either the new or the reengineered processes. In case of those processes which have been working in a business for a long time, process mapping can help to analyse the purpose of the process and to analyse its functions and mechanisms used to execute a process. The basic idea can be described as follows. (FIALA, MINISTR, 2003)

- Understanding the process using process maps, which depicts the activities of a process,
- it needs to be clear from a process map what activities a system performs,
- a process map should have a hierarchical structure with the main activities on the top and the details should be depicted on the lower levels,
- evaluation of a process map should be carried out on a regular basis, so that the process map would reflect the team's efforts.

Graphic description of flowcharts of business processes are used as an example on the following figure.

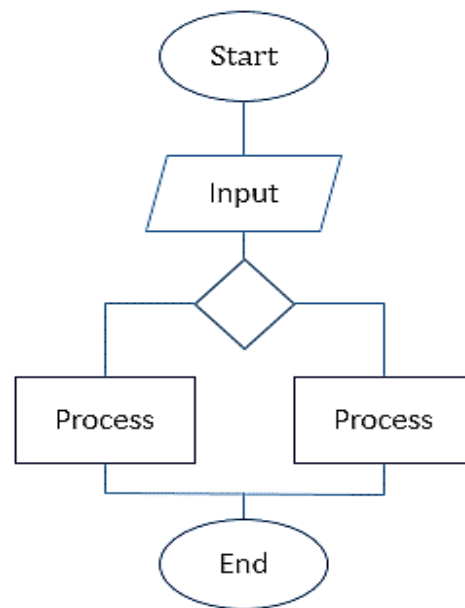


Fig. 3 Flowchart of business processes
Source: Adopted from Aris Community.

The company General Electric was the first company to implement process mapping of the company. Its objective was to significantly increase the company's performance. The main idea of process mapping was implemented to describe the essential steps in a process using workflow diagrams. Workflow represents the automation of the whole business process or of its parts.

3.3.1 Basic elements of process modeling

In literature, we can find a vast number of approaches and standards for modeling a business process. Each of them, however, has some particular common elements of the business process models: process, activity, stimulus and coherence. "A process is always modeled as a structure of inter-related activities, while every activity can be independently described as a process." (ŘEPA, 2006)

Process mapping enables us to determine the limits of a process, so where a process ends, begins, to identify the content of a process, to create a process diagram, to determine the purpose of a process, or to even identify the products and services of the process. Process mapping can help as well: (FIALA, MINISTR, 2003)

- to identify and describe the processes of a business,
- to identify weak areas, where a process is set back,
- to support the business management when deciding the priority of measures that could contribute to streamlining the process,
- to make communication between the external and internal limits of a company more effective.

A process model should only be created if it is essential or profitable, for example if the processes are complicated or contain a lot of links. We can use process modeling while reengineering the processes etc. In general, process modeling contributes to increasing business efficiency. However, to create a process model does not mean its immediate improvement. In order to have a process modeled correctly, it is important to fulfil these principles and to choose the correct modeling language.

3.3.2 Model SIPOC

One of the tools to create an overview of a process is the method SIPOC. It is a simple tool which enables to view the current situation of a business.

S (supplier) – the letter S signifies the suppliers of the business, it also describes where from the required supplies are received and who has an impact on them.

I (input) – part of this step is to identify the inputs needed to secure the required outputs. In other words, everything we need to satisfy the customer. These can be for example materials, technology or human resources.

P (process) – in this step it is important to preliminarily define those processes with which the company will deal and which could be improved. In this step, it is useful to create a process map to be able to better identify the process flow and find its weaknesses.

O (output) – it points out the demands of the customers and what kind of outputs the business provides. In this step, different idea of the customers and of their real visions can pose some problems. A suitable method to use in this step is VOC (Voice of customer) or CTQ (Critical to Quality). Their goal is to clarify the differences between the visions of the customer and of the business.

C (customer) – this part of the tool SIPOC describes the customers, who can be internal within a company or external. (GOERGE, et al., 2009)

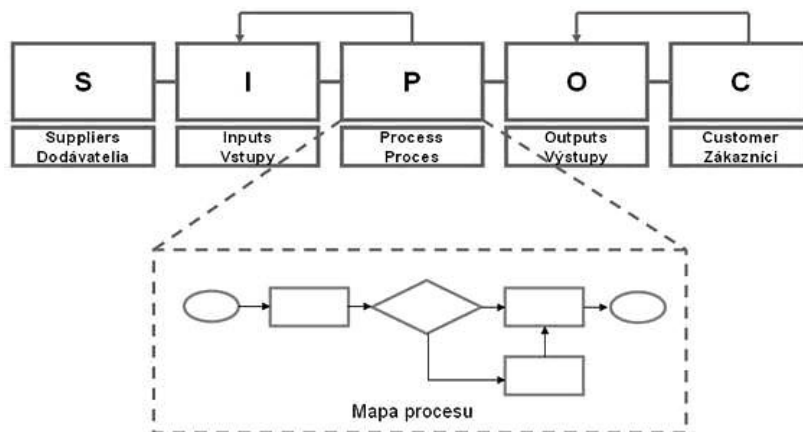


Fig. 4 Model of SIPOC
Source: KUČERÁK, 2017.

3.4 Business Process Improvement

This approach represents a gradual improvement of the company's processes, while respecting restrictions, such as the existing organizational structure or the goals of the business. So, the idea behind Business Process Improvement can be understood as improving the processes by implementing small changes to the current processes. (FIALA, MINISTR, 2003)

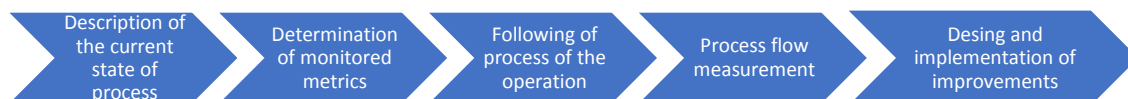


Fig. 3 Process management and modeling
Source: Adopted from ŘEPA, 2006.

In literature (KRNÁČOVÁ, 2011), the general principles of constant improvement are described the following way:

- it plays an important role in improving products and processes to understand the changing demands of internal and external customers,
- every work has its own customers and suppliers,
- everything is a subject to change and development, therefore improvement never ceases to continue,
- prevention needs to be a vital part of planning, problem prevention is the most effective when applied during the design of products and processes,
- improvement also depends on the people and the actual work in the team.

During the continuous improvement of processes the steps, which include analysis and planning of a process, appear repeatedly:

- description of the current state and activities of a process, determination of the measurable characteristics of a process, e.g. costs of a process or the time-consuming character of a process,
- monitoring the operations of a process, evaluation of the monitored and measured characteristics, identification of problems and critical areas during the realization of a process,
- planning and implementation of changes to a process and their reflection in the documentation and training of workers. (GÁLA, 2009)

3.4.1 Tools of BPI

Continuous process improvement can be accomplished using several methods.

3.4.2 Lean management

The aim of lean management or lean thinking is to increase the added value for the customer in every business activity, while reducing the level of waste of resources. This mainly concerns funds, human labour, time, materials, or storage space. So the main goal is to reduce the unnecessary waste of resources to its minimum, which can increase the added value for the customer. This method can be implemented both in the manufacturing sector and administration. Lean management is based on five guiding principles:

- specify what creates value from the customer's point of view,
- define the necessary steps in the production flow and eliminate mistakes,
- create flowing and continuous processes,
- create a system governed by the demands,
- constantly strive for improving the processes. (JAMES, et al., 2002)

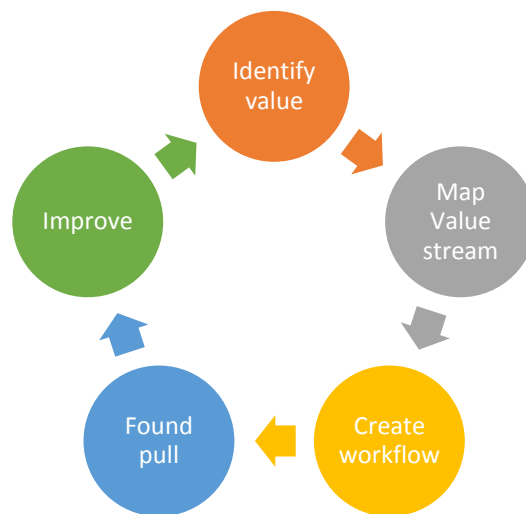


Fig. 5 Principle of Lean Management
Source: Adopted from ŘEPA, 2006.

Lean management is based on the principle of continuous improvement. It could be said that lean management represents a synonym for pace, simplicity and transparency of processes, which are created without using unnecessary activities and supplies. The lean method consists of several main steps:

- Lean planning – strategic and simple operation,
- Lean management processes – transparent documentation,
- Lean business processes – continuous improvement of the processes,
- Lean implementation – organized system of the management.

Tools of Lean Management

This system includes a vast number of tools and methods implemented from the Japanese management. The choice of a particular tool depends on the conditions and specific tasks of a business. The basic tools which are part of lean management are the following:

Just in Time - is a method for managing logistics, whereby a business can minimize the cost of shipping and storage. Its principle is to ensure the supply of materials for the production, so that they are available the moment they are needed in the manufacturing process. As the flow of materials is minimized the cost of shipping and storage is reduced. (WOMACK, 2006)

5S - is a set of simple principles that result in cleanliness and order in a workplace. It is the foundation of lean approaches. Its goal is to improve the work environment of an organization and thus also improve the quality of work. (PETŘIKOVÁ, 2007)

Kaizen - this system is characterized by gradual and continuous improvement in every area and at all levels of a business. This method is characterized by team work, which is based on good relationships within the team. (KRNÁČOVÁ, 2011)

Kanban - it represents a system of managing the logistics of manufacturing. It uses simple cards for managing the flow of materials. It is suitable for repetitive manufacturing.

Many of these approaches can be used individually, however, they reinforce and complement each other when applied in combination, which can have additional interesting results.

3.4.3 PDCA cycle

Continuous improvement should be a part of the system of the management. One of the universal methods of improvement is the method PDCA (Plan-Do-Check-Action). It comprises of four basic steps which should be followed, in order to make correct decisions.

Plan – make plans. In this phase all the necessary information is collected, sorted and analyzed in order to uncover the primary roots of problems. Additional to this phase, a plan of corrective and preventive actions is designed, which is based on the opportunities of improving the goals set.

Do – the aim of the step Do is to implement new measures and monitor their impact. An important part of this step is to measure and record new information.

Check – it regards monitoring of the results, their analysis and their following comparison to the goals set.

Act – if the results in the preceding phase reached the set goals, standardization of the actions follow. If the results were not satisfactory, we need to search for different solutions. (KRNÁČOVÁ, 2011)

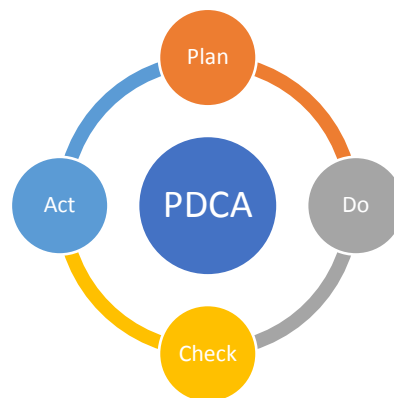


Fig. 6 PDCA Cycle

Source: Adopted from MATISKOVÁ, 2012.

We can find several other approaches and methods to continuously improve business processes, e.g. O-Journal, Global 8D, WV model, which have been developed by different organizations. In the following chapter the method Six Sigma is described in detail.

3.4.4 Six Sigma

In today's conditions and competitive environment businesses need to continuously search for methods of improvement. One of these methods which can be used to improve their competitive advantage is the method Six Sigma.

Six Sigma is referred to as a business strategy, which enables the improvement of the level of organization. It is carried out by planning and monitoring the everyday activities, thus increasing customer satisfaction. The method Six Sigma is based on the recognition of customer needs, it brings about an increase in performance, productivity and quality. (KRNÁČOVÁ, 2011)

Six Sigma is a complex method of business management and, similar to Lean, it focuses on the constant and continuous improvement of the operations of an organization.

The method Six Sigma can be applied from the level of individual processes which run through the organization until the level of organization as a whole. In Six Sigma, the innovations are based on DMAIC, a cycle of continuous improvement, which is set to the location and elimination of weak areas.

The main goals and characteristics of Six Sigma are:

- Profit maximization,
- Effective use of supplies and increase in productivity,
- Reduction of supporting processes,
- Minimization of negative effects - complaints, losses.

Part of model of continuous improvement is a universally applicable method of continuous improvement called DMAIC. This cycle focuses on the improvement of processes, services and goods. The individual phases of DMAIC cycle help to achieve its real improvement. (GEJDOŠ, 2005)

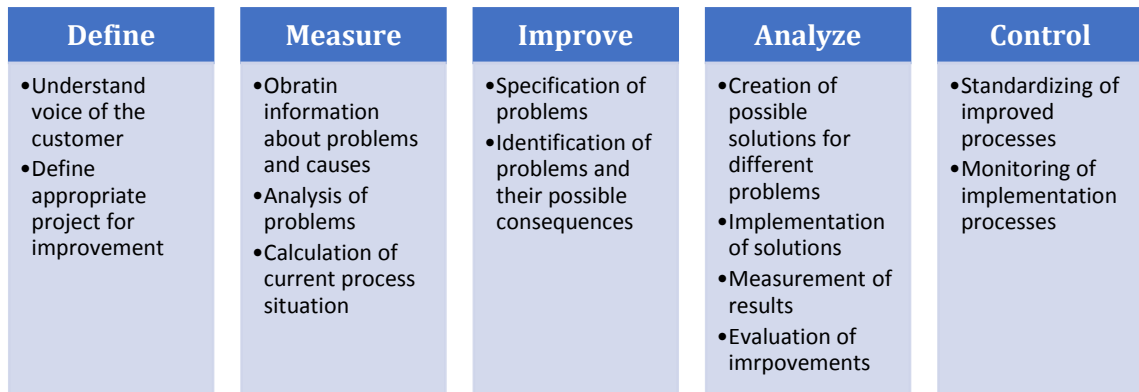


Fig. 7 DMAIC cycle
Source: Adopted from KRŇÁČOVÁ, 2011.

D (Define) – the initial phase of the method Six Sigma focuses on the specification of the problem and the identification of the customers' needs. Besides the identification of the problems, it is vital to define the goal and the range of the project of improvement. (KRŇÁČOVÁ, 2011)

During this phase it is important to find the answers to the following three fundamental questions:

- What is the reason to solve the project and what is the range of the project?
- What are the customers' demands for a process or a service?
- What type of a project are we trying to improve and what are its inputs and outputs?

M (measure) - this phase is focused on locating the real causes of deviations and it is applied to improve and design processes. In this phase appropriate indicators are chosen to describe the status of the process. The goal of this phase is to identify the current level of process performance, in order to identify the measurements necessary to evaluate success, to create a plan to collect data and measure performance and determine a baseline performance. (KRŇÁČOVÁ, 2011)

A (Analyze) – the basis of the phase Analyze is the analysis of the causes of problems, shortcomings, customers' dissatisfaction etc. It is vital to identify and manage those variables that affect business performance and are interconnected with the outputs. (KRŇÁČOVÁ, 2011)

C (control) – the phase Control is the final phase of the method Six Sigma. Its goal is to ensure long term maintenance of the improved condition, while continuous measuring of the given process is performed. (KRŇÁČOVÁ, 2011)

3.5 Business Process Reengineering

According to Šmíd'a, Business Process Reengineering (BPR) is a fundamental reevaluation and radical reconstruction of business processes in a way that dramatic improvement would be achieved in terms of critical factors of performance, just like costs, quality, services and pace. (ŠMÍDA, 2007)

So reengineering is fundamental reevaluation and radical reconstruction of existing processes or introducing new processes into a business in a way that efficiency of the whole organization would increase. The new processes are designed without taking into consideration how the processes have been operating until then. Important factors when designing the new processes are the needs of the customers, competitive environment or better use of new technology. (ŘEPA, 2007) However, it is not easy to radically change the processes in an organization. In the 1980s in the USA big companies tried the process of reengineering in order to streamline their businesses, however, only about 30% of them were successful. (ŠMÍDA, 2007) At that time people had no experience with similar projects. Nowadays there are numerous redesigned procedures and consulting companies.

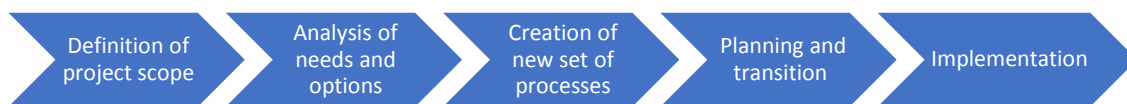


Fig. 8 Process management and modeling
Source: Adopted from ŘEPA, 2006.

During reengineering of business processes, we cannot talk only about the reformation of business processes, but also about their radical alteration. Information technologies play an important role in engineering. However, their implementation does not result in immediate automatic reengineering of business processes. It is important to differentiate what kind of possibilities they offer and what type of problems require their application. (KUBIŠ, 2007)

The method of reengineering distinguishes three types of changes (KRYŠPÍN, 2005):

- WPR – Work Process Reengineering – it includes fundamental changes in processes within one department.
- BRP – Business Process Reengineering – fundamental changes take place within the company as a whole.
- TBR – Total Business Reengineering – it contains changes which affect the environment of the business, these can be either the suppliers or the customers.

During the implementation of reengineering it is a key aspect to understand the process and not to canalize it in details. It is necessary to have sufficient knowledge of the current state of the processes in the organization. For example, to know how a

process is performed or which are the critical points that affect its performance. After understanding the processes, they are mapped, what is followed by deciding the order in which the changes ought to be implemented. It is not possible to perform reengineering in a business simultaneously for multiple processes. When making a decision about the order of the reengineering of processes, several different criteria are taken into consideration, such as the influence of the processes on the customers, their mailfunction etc. (KUBIŠ, 2007)

In order to successfully handle reengineering of the processes in a business it is important to avoid the most common mistakes, for example ignoring the opinions of our colleagues, improving a process instead of radically changing it, an effort to realize reengineering without the help of an external consulting company and trying to save money on resources needed for reengineering. (KUBIŠ, 2007)

The steps of reengineering described in (GALA, 2009) and (ŘEPA, 2006) consist of several phases, which are defined as the following:

- Planning and launching of the project (defining the objectives and scope, methodology, team, consultants, planning changes),
- assessment of the current state (focus on the customer, finding the target groups, specific definition of the process),
- a global proposal of processes (a proposal of the structure of processes),
- case study of the forthcoming changes (cost-benefit analysis),
- detailed proposal of the process system (creation of a plan for implementation and introduction of the processes and trial run),
- implementation and introduction of the system of processes (development of measurable processes),
- gradual improvement of processes (improvement of new and support processes).

3.5.1 Methods of reengineering

We can find several methods of reengineering, which can be distinguished by their range and scope. The tools of reengineering provide us with a fundamental insight to the problem and with a pattern that should be followed. Every project has its specific aspects that is why it is important to choose a method which best takes into consideration the given situation.

According to Řepa, (ŘEPA, 2007) the four basic methods of reengineering are:

- Methodology of Hammer and Champy
Hamer and Champy perceive the process of reengineering as a radical reconstruction of the strategically critical business processes. The management of an organization is perceived as the main factor of success. The possibility of resistance among other people involved in the process is mentioned only marginally. (HAMER, et. al, 2000)

- Methodology of T. Davenport

Davenport perceives information technologies as the most important part of the reengineering processes, mainly from the point of view of innovations. Organizational and personal issues are just as important according to him. As opposed to Hammer and Champy, he perceives the resistance of the employees to realization of changes as one of the main obstacles in successfully implementing reengineering. (DAVENPORT, 1993)

- Methodology of Manganelli and Klein

Manganelli and Klein recommend to focus on the processes, which can directly support the strategic goals of an organization and the requirements of its customers. One of these processes is the innovation of a new product. According to them, the main obstacles in the way of success are factors such as impact on the organization, costs, time and risks. (MANGANELLI, KLEIN, 1996)

- Methodology of Kodak

The international organization Kodak has developed this methodology in order to implement in their own business. This methodology is closely influenced by Hammer and Champy and its approach consists of several basic steps. These steps include initialization of a project, reviewing the processes, designing new processes, transformation of a business and change management. (ŘEPA, 2007)

These methodologies are connected by their similar approach to reengineering of business processes and that the changes during the processes have linear and methodical progression. One of the basic differences between these methodologies shows during the preparation of the project. Davenport focuses on the preparation, including a vision, while the other methodologies focus on the schematic process, taken from the general theory of project management. Another difference is the focus on the human side of reengineering. Every methodology, besides Hammer and Champy, emphasize the personal aspect of reengineering. (ŘEPA, 2006)

There are also several other methodologies of reengineering, for example the methodology of the American DoD (Department of Defense), ARIS methodology, PPP (Participatory Process Prototyping) methodology and others. (ŘEPA, 2006)

3.6 Differences of Business Process Improvement and Business Process Reengineering

Business Process Improvement and Business Process Reengineering are two basic approaches to improve business processes. BPR radically changed the business processes, while BPI gradually improves the existing processes of a business. It is not possible to perform BPR overnight. It is a long-term approach, which, however, promises greater efficiency compared to BPI, which is more difficult and poses greater risks. The next table summarizes the basic differences between BPI and BPR.

Tab. 2 Differences between BPI and BPR

Characteristics	BPI	BPR
Level of change	Incremental	Radical
Starting point	Existing process	Clean slate
Participation	Bottom-up	Top-down
Typical scope	Narrow, within functions	Broad, cross-functional
Risk	Moderate	High
Primary enabler	Statistical control	Information technology
Type of change	Cultural	Cultural and structural

Source: Adopted from ŘEPA, 2006.

4 Practical part

4.1 Introduction of the multinational company AB&C

The company AB&C belongs to the range of multinational companies involved in the sale of electronics and telecommunications equipment and services with headquarters in the UK. It belongs on the list of 100 companies with the highest market capitalization of the index constituents FSTE100.

Nowadays AB&C is Europe's leading specialist electronics and telecommunications retailer and services company, employing over 42,000 people in 11 countries. The company operates under a number of brands in the United Kingdom, Ireland, Southern and Northern Europe. The group of core AB&C retails markets is represented by mobile phones, connectivity and consumer electronics. This group is growing rapidly by industrialising the infrastructure of its existing services and expanding its offers, which focus on consumer services in the household, and expansion of business to business operations. (Company sources)

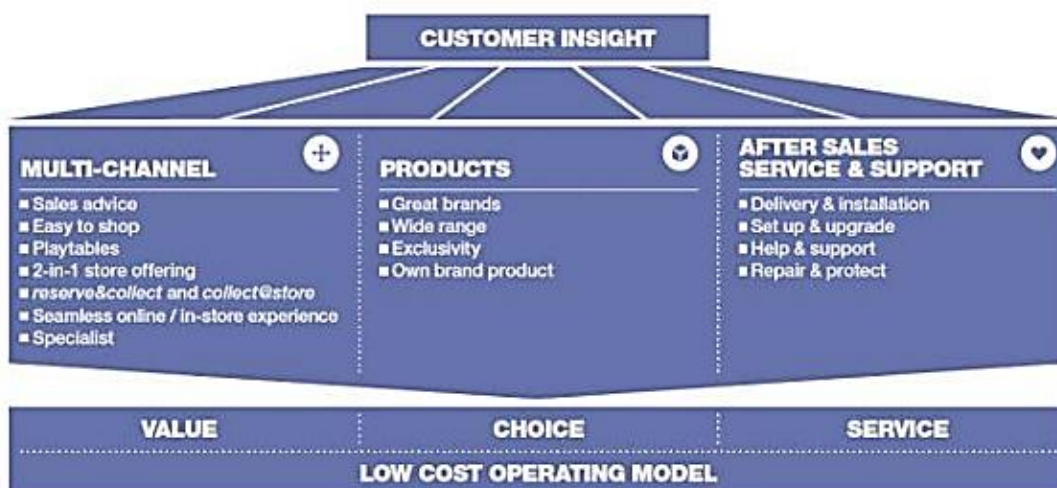


Fig. 9 Business model of company
Source: Company data.

4.1.1 Strategy of Business model

The AB&C company focuses on the areas in which it is the leader and can grow its market share. It tries to focus on three main strategic priorities.

The first one states the importance to continue to enhance and drive successful and sustainable retail business models in a multi-channel work. This step points out those distinct activities which are the key strengths of a multi-channel and service-based model, such as: work closely with the suppliers, focus on complete solution for the customers, providing the customers with great service and continuously improve processes in order to achieve reduction in costs.

The second priority is to strengthen the unique infrastructure of a business to drive growth in the product area while also including some growth in services. It would like to expand its relationship with the customers, because a customer does not only want support in choosing the right product, but also wants some help with connecting, installation, support and repair of the product.

The last priority is connected with the enlargement of the world services model. It is used to identify the next connected retail partner in order to focus on the high value markets with competitive carrier environments. (AB&C Annual report, 2016)

4.1.2 Business segments

The AB&C Company nowadays operates in four segments as follows:

UK&Ireland

- Currys / Curry Digital - sales of electronics and home appliances,
- PC World – specialized computer sales,
- KnowHow – specializing in pre-sale and after-sale service,
- E-commerce platform development – the development of e-commerce platform for e-shops,
- PC World Business also provides products and services to business to business customers.

Nordics

- The Elkjop Grop – specialist of electrical products across Nordics,
- KnowHow,
- InfoCare – repair company operating in Norway, Sweden, Denmark, and Finland.

Southern Europe

- Kotsovolos – operates as specialist electrical retailer in Greek,
- Phone House – independent telecommunications retailer in Spain,

Greek Squod – repairs and support provides for the Phone House in Spain. (AB&C Annual report, 2016)

As could be seen, the core business activity of the AB&C Company is sales of electronics, computers, communications equipment and home appliances both in stores as well as through e-shops. The AB&C Company supplies goods not only from their own warehouses, but also provides resale of goods to several companies which are connected to the e-commerce platform. These are mainly home appliances and luxury types of goods. On the company websites the customers can find more than 10 000 products, which are connected with information and services related to delivery of goods, installation, care-plans, bonus programs and other services. The development of an e-commerce platform can be considered as a non-business activity,

where its e-shops are operated. To maintain the leading position in Europe's telecommunication and electrical market, the AB&C Company focuses on the complex solutions for its customers and aggressively pursues innovations in a dynamically changing environment. This thesis focuses on the market of UK& Ireland, especially on branches of PC World and Currys/Curry Digital.

4.2 Presentation of the national branch in Brno

AB&C has been operating in the Czech Republic through its shared support centre for over eight years. It provides various supporting operations for the retail. Since its opening, the branch has grown into an international, young and dynamic centre. (Company sources)

One of the main reasons why the AB&C Company built an administrative office in Brno is a cheaper labour force in comparison with Western Europe. Other decision making factor for locating the offices in this city was a large number of students and graduates from universities, which creates a competition on the labour market and thus keeps the wages down. Nowadays, more than 500 employees from more than 28 different countries are taking a part in the retail business. The shared service centre has become an important part of the network of customer centre which operates in United Kingdom.

Basic information

Branch name: AB&C SSC, LLC

Date of incorporation: May 23, 2007

Legal form: Limited Liability Company

Equity: 1,777,814 €

Tab. 3 Trend in the chosen indicators in years 2014- 2016

Indicator/year	2014	2015	2016
Sales (in Euros)	7 129 072	8 826 954	12 605 377
Expenditures (in Euros)	7 006 538	8 691 965	11 986 874
P/L for period=Net income (in Euros)	88 851	94 233	473 983
Total assets (in Euros)	2 637 375	3 367 249	3 429 856
ROE using P/L before tax (%)	11.04	11.47	35.09
ROA using P/L before tax (%)	4.65	4.01	18.03
Solvency ratio (Asset based) (%)	42.09	35.33	51.83

Source: Based on the information provided in the interview and Amadeus database (Bureau van Dijk, 2017)

The table above shows us the key economic indicators of the branch in Brno for years 2014 to 2016. As could be seen the amount of sales has been increasing from year 2014 because the company has more and more customers. However, the expenditures of the branch have grown as well. The reason behind this trend of increasing number of expenditures could be reflected by the fact, that the branch had to invest in additional equipment, facilities or workplace. The ROE indicator exposes that the profit in 2014 was 11.04 per cent of the equity, in 2015 it steadily increased to 11.47 per cent and in 2016 it improved significantly to 35.09 per cent. The ROA indicator shows us that in 2014 one Euro of assets created 4.65 per cent of profits, in 2015 it decreased but in 2016 it also improved to 18.03 per cent. The solvency ratio also improved in year 2016. The more detailed financial analysis is not possible as per limited amount of available information.

4.2.1 Vision and Mission

The mission is to provide excellent level of services for customers to maximize customer satisfaction.

The main vision is to maintain the branch's leading position in this area as a true Service Support Centre. The branch continuously focuses on the creation of new global services for its customers by introducing more complex and productive work. This ambition is reflected in the customer's loyalty. (AB&C Annual report, 2016)

4.2.2 Branch responsibilities

According to branch responsibilities belong Finance department, IT department, HR Services, Business Administration and Logistics.

Currently we live in the age of innovations when changes in technologies are happening very fast. In order to keep a competitive advantage, companies need to find optimal solutions how to increase efficiency of its processes for minimal costs. It is very difficult process to reach this goal. Right now, the trend is to build a shared support centre in a country with a comparative advantage. The financial reason was used as the most noticeable component in motivating the ABC enterprise to establish a SSC in Brno. The decision to build the SSC centre in Brno did not only have a financial background, but also was driven by another aim, which was no less important: fragmented processes are combined into one place, thus redundant processes can be eliminated.

There are several departments which provide a wide range of supporting services in retail operations for UK & Ireland businesses. Such as finance and business administrations, which take care of payments to suppliers and creditors. They are also responsible for liabilities to be paid within an exact time period to avoid delay. The department of accounts receivables manages the administration of PC World customer's business accounts daily. In the shared service centre in Brno, there was also an IT department created employing quality workforce and caring for the development and maintenance of trading platform.

The parent company, based in United Kingdom, usually creates a pressure for further savings so the Managements of SSC are forced to seek additional ways how to streamline the processes. Knowledge is gathered under one "roof", there is a team of specialists who have knowledge about the whole process and its relations to other processes. This increases the chances of removing inefficiencies.

4.3 Organizational structure of SSC

Since the establishment of the branch in Brno, there has been an increasing trend in the number of employees. As was mentioned earlier, nowadays the Service Support Centre employs more than 500 employees. Employees are divided into departments based on the processes for which they are responsible.

The head of the branch is the SSC Director who makes the strategic decisions. The strategic decisions need to be consulted with the headquarters in the United Kingdom. This could lead to disadvantages during those decision-making processes which need to be done promptly, in order to meet the requirements of the dynamic market. The branch management creates plans and goals from the point of view of investments and also operations. On the one hand, they focus on the development of the branch, while on the other hand they pay attention to the effectiveness of the production. The centre has a total of 14 employees on managerial positions. Other employees are divided into teams. Usually up to fifteen people make up a team, with one team leader and one or two process specialists.

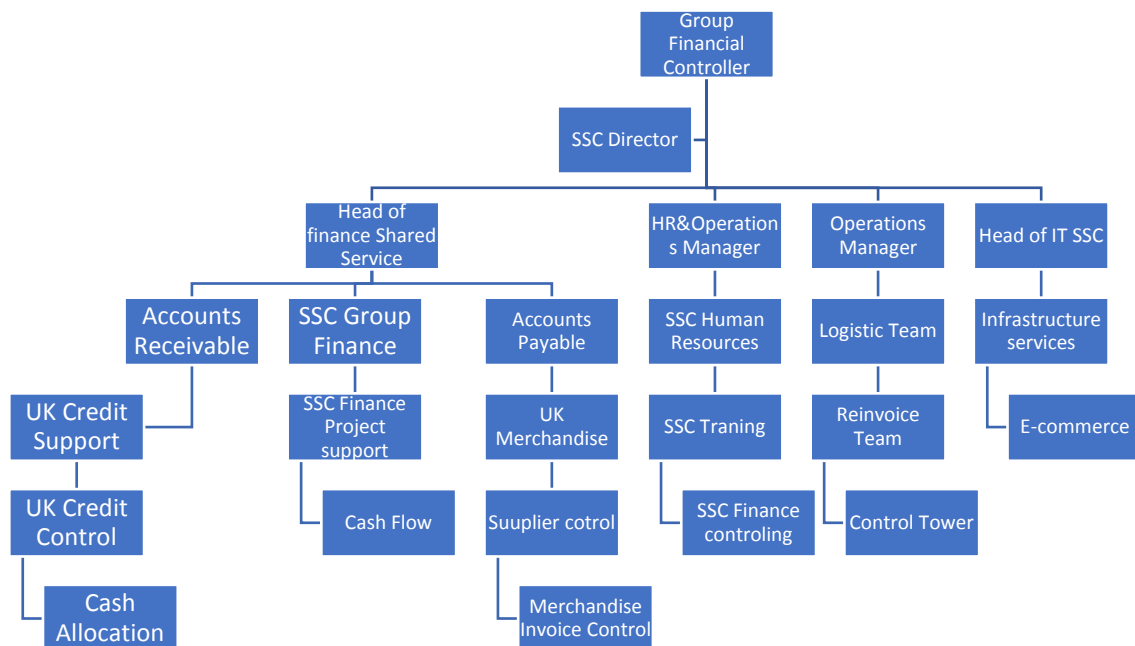


Fig. 10 Management structure
Source: Elaborated by author based on company data.

4.4 Team credit support

The company has the leading position in the line of leading specialists on the electrical and mobile market in the UK&Ireland, Nordics and Greece. Now, we will be focusing on the UK & Ireland market, especially on the PC World and Currys branches. In the Service Support Centre in Brno, finance teams are responsible for various kinds of processes.

The main purpose of the operations of these teams is the daily maintenance of over two and a half million active PC World Business accounts which those customers have with the company who are based in the UK & Ireland. The customers can purchase the products in stores or over the internet. When buyers decide to purchase in stores, they have two options how to pay for their orders. The first method is the classic purchase, which is paid in cash or in cashless way. The second method is the possibility of opening a business account. Business accounts have two forms. First one is in the form of a credit account. It allows customers to pay for their transactions within 30 days payment terms. The possibility to obtain loans for small and medium-sized enterprises is quite restrained nowadays. Therefore the supply of commercial loans represents an important credit form of financing. It can be characterized by the fact that a customer does not pay their obligations promptly, but after a certain period of time. It is provided for the period from the supply of goods or services until the payment for them is realized. The second form of the accounts are created as business accounts without credit limit. It means that a customer has to pay for the order in store or over internet banking. One of the advantages of this

kind of accounts is that accumulated points from purchases are monitored. This could offer some discounts for customers. Another advantage is the fact that if customers order goods over the internet, they do not have to fill in the registration information for each purchase. This could lead to faster and more confident process of purchasing.

In total, around two million of business accounts are created. Up to now, the company provides credit limit for 12 316 business accounts in total. More than half of the business accounts are represented by the public sector and the rest, approximately 5717 business accounts, belongs to limited companies. On average 300 credit limit applications are raised per month. On the other hand, more than 4 000 request for cash accounts are created per month.

Tab. 4 Revenues and Profit from year 2014, 2015

	Revenue		Profit/Loss	
	2015/2016 £million	2014/2015 £million	2015/2016 £million	2014/2015 £million
UK&Ireland	6,404	6,314	365	305

Source: AB&C Annual report,2016.

The increasing trend in the number of credit limit applications and the raising volume of cash accounts also contribute to drive sales and EBIT of the whole company AB&C. In the year 2016 revenue in the UK & Ireland increased by 1% to £6, 404 million in comparison to the previous years 2014/2015, when the company achieved revenues up to £6, 314 million. This revenue growth combined with the company costs and synergy savings has resulted in increasing the EBIT by 20% to £365 million. (AB&C Annual report, 2016)

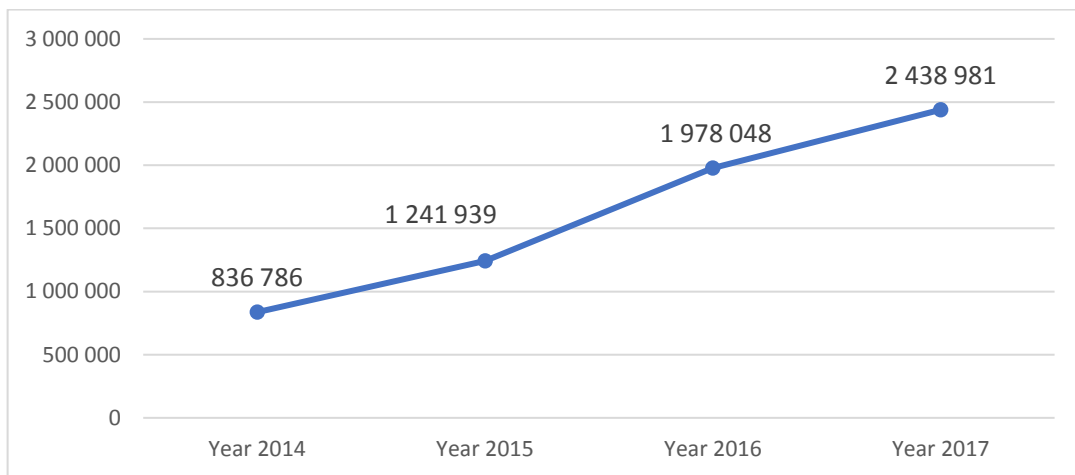


Fig. 11 Increasing trend in number of business accounts
 Source: Elaborated by author based on company data.

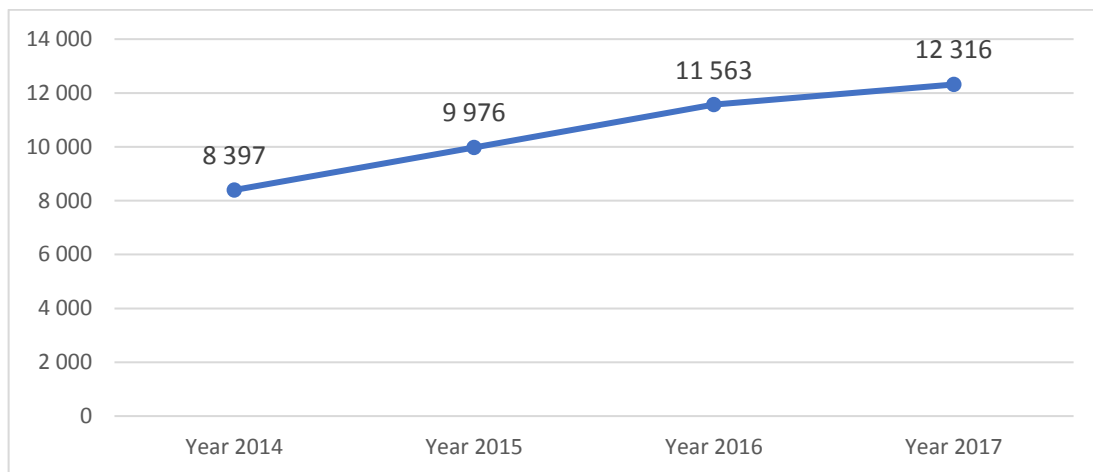


Fig. 12 Increasing trend in number of business account with credit limit
 Source: Elaborated by author based on company data.

On the one hand, by providing the possibility to open a business account with credit limit, the company creates long-term trading relations with the customers, but on the other hand, it needs to control that the customers pay for their payables on time and without delay. Also, the company needs to drive their customer service, speed of processes and quality of processes to the highest level possible in order to keep their competitive advantage. This could lead to additional costs for the company.

The main equipments which a team uses during work is a PC and telephone. Each employee has their own PC and telephone. The team works in three main programs. The first program is Maginus. This is a core agenda which is used by all finance teams working for the UK&Ireland market. It is used for receiving, reviewing and controlling orders, as well as for checking the customers' personal details, delivery addresses and main contacts on the business accounts. Maginus allows employees to communicate among each other and provides the possibility to exchange

notes regarding the orders. The second main program which is used on daily bases is Office 365 Outlook. In the team credit support two mailboxes are shared. The first one relates to receiving of documents associated with orders. A separate inbox is used for database, via which the team can change the customers' data on the accounts. The third programme is SAP. Using SAP, the team can track invoices and payments. In this system, the outstanding debt, payments for the orders, and also the available credit of customer can be checked.

The main activities which are included in the daily workload of the credit support team are: controlling orders that come into the system, providing information to stores about the state of the orders, verification of customers who apply for a credit limit, negotiating and providing credit limit for customers.

The credit support team consists of 12 employees and a team leader. A minimum of five people serve the system every day during the weekdays. During the weekend, there are 2 people there and on Sunday only one employee works. A time limit is set up for each process, which should be achieved. Each order which is received from a store should be checked within five minutes or at least, some action needs to be done with the order. When a customer applies for a credit limit, the team has one hour to carry out the necessary administration. During that time, also a security check with the customer needs to be attempted. This step serves as protection against fraudulent attempts.

4.5 DMAIC analysis

4.5.1 Define

Based on the reports, which are created by the credit support's team leader on daily basis, the team is able to fulfill its tasks within the required time frame in 65% of cases in average. The team members have realized that something needs to be done about this. They have decided to implement the method Six Sigma in order to increase the efficiency from the former 65% to a minimum of 75%. The method Six Sigma should improve the speed of dealing with requests coming from the stores. That would definitely contribute to the satisfaction of the customers.

Credit support team employees deal with two main processes. The first one is reviewing of the received orders from the stores, the second one is providing a credit limit. The team starts its work by received an or for validation. Work in team begins with the received order in the system which needs to be reviewed. The orders can have two forms. We can talk about an order from the catalog or about finishing the sale and handing over the order, if the customer is present in the store. The validated order is an input for next process which is delivering the order to the customer.

Prior to the release some of the orders from the system, the team has to fulfill the credit limit application.

In the sense of classifying the processes, the process of dealing with orders and providing of credit limit for external customer could be defined as the main processes of the team. Based on the relation to the entities which represent the inputs of the process, we can talk about an internal process running within company.

We will deal with the processes in the team credit support in the order they are executed in the real time. First, we will deal with the process of reviewing orders. Following, we will review the process of reviewing applications for credit limit and the process of providing credit limits.

In the following subchapters, the initial state of the process, its analysis, a proposal for optimization and the realization of the optimization is described.

4.5.2 Analysis of the original process using the method SIPOC

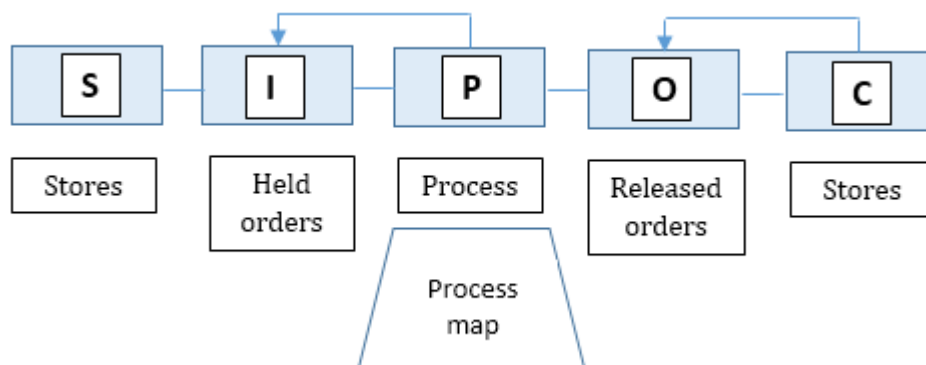


Fig. 13 Model SIPOC

Source: Elaborated by author based on Kučerák, 2017.

Suppliers

The suppliers for the team credit support are the sales representatives. They are employees of business chains, which are part of the company AB&C. They represent the external customer, who is purchasing the goods. The sales representatives act as suppliers in this process, who “supply” the orders into the system.

Inputs

The main inputs of the process of releasing of orders are information about the customers, about their accounts and information about the orders.

If a customer decides to open a business account in the company, the responsible sales representative needs to have the customer fill in the mandatory data. These are following: the name and address of the company, the name of the customer, contact details, email address for email invoicing, or additional contacts who will be responsible for the account, but also additional delivery addresses for the orders. To fill this information in correctly is an essential step, as they can help to communicate with the customer more effectively and also the possible misunderstanding when delivering an order can be avoided. Immediately after opening an account, the cus-

customer is assigned an account number. The information is required as a primary information to open up the account of the customer when communicating with the sales representative.

As it has already been mentioned, the customer can have two types of accounts. The first one is a credit account, the second one is a cash account. The type of the account is immediately apparent after opening up the account. This information is essential, as there are different approaches deployed when dealing with the request from the customers in both cases. In case of a credit account, the value of the assigned credit limit or the total amount of the unpaid invoices of the customer are immediately apparent after accessing the account. If customer applies for credit limit, the important information is the amount of credit limit which he would like to get.

Another main input is the order itself, which is created by the sales representative in the system. In the Maginus system, we can see the value of the order itself, the value of VAT and the total amount. After opening up the order, additional information can be accessed, such as products which have been ordered by the customer, the date of creating of the order and also the name of the sales representative who created the order. The orders are input in the credit support team via the program Maginus, where they are arranged by the time of creation.

While reviewing and releasing the orders from the system, the credit support team also receives phone call from the sales representatives regarding the orders.

Process

In this section will be described the process of processing an order in the credit support team. First, it will be introduced the progress of the order, which later be further discussed in theory, and in the following section it will be completed with the process map.

Analysis of the original process of releasing orders from the system

As it has been mentioned above, the main input for processing an order, which is created in store is order itself. If there are no problems with the order, so the customer paid upfront for the whole order or there is still enough credit limit on the customer's account to cover the order, the system will release the order automatically. However, if there is a problem with the order or with the payment for the order, the order will be held on the customer's account and it needs to be reviewed. The orders are arranged in the system by the date of creation and they should be reviewed within five minutes from appearing in the system. The time frame for reviewing orders is quite short. However, it needs to be taken into consideration that the customer can wait in the store and the goods cannot be given to the customer until the order is released by the credit support team. This process is time-consuming both for the team which needs to review the order and also for the sales representative who needs to wait while the order is being reviewed.

Meeting the time limit is quite difficult for the members of the team. Either, because of the volume of the orders being put in the system or because of the incoming

calls from the sales representatives regarding the orders that need to be reviewed by the team.

When taking an order from the system, it is important to notice to what type the account is set.

First, we will deal with the orders on those accounts where there is no credit limit assigned. The first step after opening an order is to check the payment.

The first possibility is that the payment for the order is visible in the system. A member of the team needs to compare the payment with the value of the order which is in the system. If the sales representative took sufficient payment for the order, but the order did not go through the system anyway, it is possible that there is only a process error. However, it takes time for the system to match the payment with the customer's account. Therefore, the time frame of five minutes is sufficient, as it leaves time for the system to match the payments. In this case, the order needs to be released manually.

A problem arises when the payment for the order does not match the required value which is in the system. Then we need to be found out why the sales representative as taken a lower amount. It oftentimes happened that the sales representatives try to sell the goods and they provide discounts in order to lure the customers to buy the goods. However, if the sales representative applies a higher discount on the order than is allowed by the system, the order will be held until the discount is authorized by the responsible team in the company. The team credit support can only point out this mistake by sending a message to the sales representative. The approval itself is the subject of another team's activity.

If the sales sales representative did not apply any discount on the goods, but an incorrect payment was taken for the order, the team sends the sales representative a message via the system, where the sales representative is asked to take a payment for the remaining amount. This mistake usually by arises by the failure of the human factor. The sales representatives usually take payment without VAT, or they make a mistake in the order of numbers when preparing the order.

Another possibility is that the payment for the order is not visible in the system. There can be several scenarios there. A relatively frequent reason why there is no payment in the system is that the customer is interested in getting a loan. When opening the order, we can see whether the sales representative filled out the box requesting a credit limit. If the customer is interested in getting a credit limit, the process of verifying the customer starts and the necessary administration takes place. The sales representative has to provide the correct documentation, based on which the team can review whether the customer is eligible for credit limit. The process of providing credit limi will be described in the following chapter.

If there is no payment in the system and the customer is not interested in getting a credit limit either, it is possible that the payment was made via bank transfer. It takes approximately three days for the payment to reach the company's bank. The team can check if the payment is not already visible in the system SAP. If there is sufficient credit in this system to cover the order, the order can be released from the

system. If the payment is not yet visible, the order is held in the system. The conversion between the system of the company which received the payment and the program where the team can check the payment also takes time. The team does not have access directly to account of the company, so they cannot check whether the payment has already been received or not until it is visible in the program SAP.

If the payment is not visible in the system even though the customer did not pay via bank transfer, but in the store, the team can ask the sales representative to provide them with a proof of payment. The sales representative sends the invoice receipt which is generated by the system to the credit support team's email address. The team has to check the date of issuing the invoice, the customer's account number where the payment was taken and the paid amount. If everything matches, the team releases the order from the system. If the team does not receive a proof of payment from the sales representative within twenty-four hours the order is canceled.

It can happen that the sales representative makes a mistake when entering the customer's business account number, so the payment is taken on the account of a different customer. In this case, the sales representative should send an email about the mistake on the account, where the order is created. The email needs to contain the following information: the account number of the correct account, where the money should be transferred, the wrong account number, where the money was taken and also the amount of the payment. After that, the sales representative can call the team. The team checks, whether the sales representative did everything correctly and also if the money is visible on the wrong account. The order can be released after this process. If the sales representative did something incorrectly, the order remains to be hold in the system and the manager of the responsible store is contacted.

It is important to pay attention to different details when releasing orders on a credit account, where there is credit available.

When opening an order in the system, the amount of the credit limit and the amount of the unpaid invoices are immediately visible. A customer can pay for an order in the store even if he has a credit account. If there is a payment in the system which matches the value of the order, the order can be released. If the customer would like cover the order with the credit limit, several things need to be checked. If the customer has sufficient credit limit to cover the order and all of his orders have already been paid, the new order can be released.

A problem can arise if the customer does not have enough credit to cover the order or the unpaid invoices. If the credit limit does not cover the order, it needs to be increased. The team needs to prepare the necessary administration and needs to call the customer to have the order confirmed. After this is done, the credit limit can be increased and the order released. However, if the customer who needs to have his credit limit increased has unpaid invoices on his account, a different team, which handles the unpaid invoices, needs to be contacted.

Another case may be that the customer has sufficient credit limit, however, also has unpaid invoices. In that case, it needs to be checked, whether there is a note from

the team handling the underpayments on the account. If there is a note on the account that the order can be released, it will be released afterward. These exceptions are offered to the good customers, or to those, who pay for all their orders, for example twice a month. However, if there is no note on the account, the team can notify the sales representative about the unpaid invoices and hold the order in the system.

The process of releasing the held orders in the system is subsequently shown on the process maps. The first process map shows the process of releasing orders on accounts without credit limit, the second one shows the process of releasing orders on the accounts with credit limit. Both of the processes are run in the program Maginus.

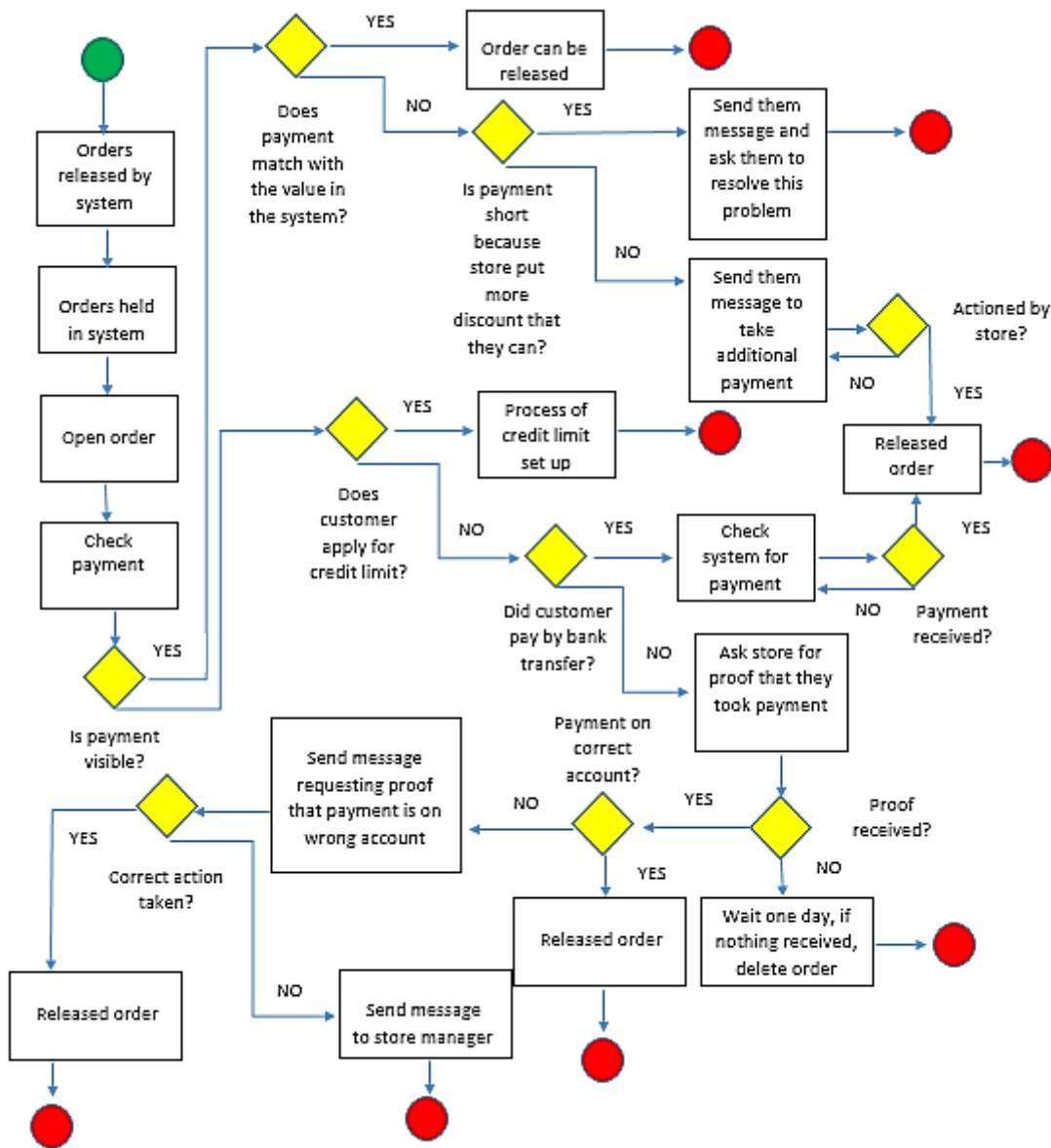


Fig. 14 Model of releasing order on accounts without credit limit
 Source: Elaborated by author based on company data.

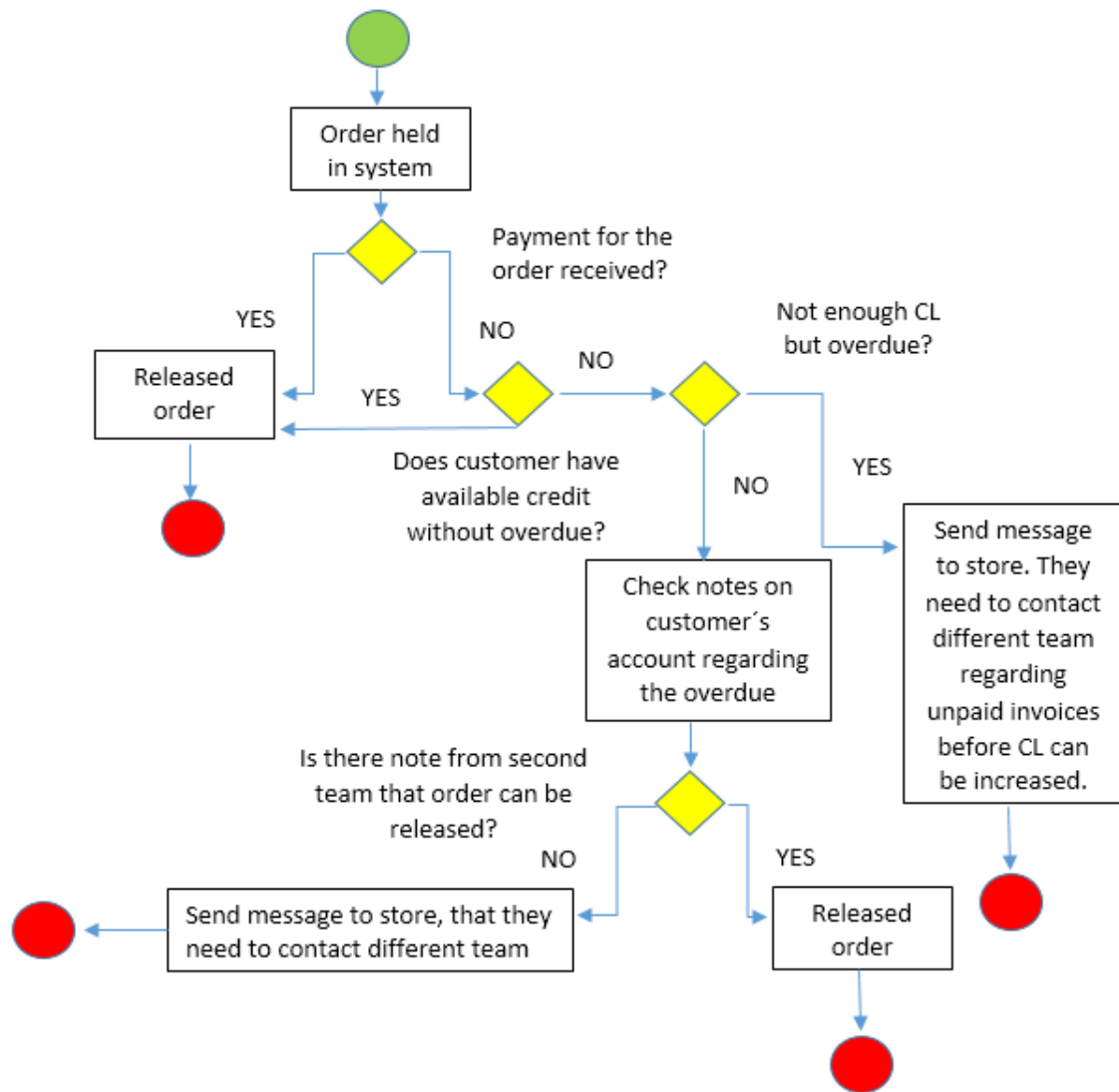


Fig. 15 Model of releasing order on accounts with credit limit
 Source: Elaborated by author based on company data.

Analysis of the original process of providing credit limit

As it has already been mentioned, one of the possible case scenarios if a payment from a customer is not visible in the system is that the customer would like to apply for credit limit. This means that an order can be covered by the credit limit on the account, while the real payment for the order can be realized within thirty days from its purchase. If the customer is assigned a credit limit, it can be used without restrictions, however, the orders need to be paid during the given thirty days. When assigning a credit limit to an account, the sales representative represents the external customers of the company who are legal entities.

The company provides credit limit to two main groups of customers. The first group contains companies with limited liability companies, while the second group consists of government funded organizations. Both groups are dealt with in a different way when assigning credit limit to their accounts. The input for the process are: opening an account for the customer, preparation of the required paperwork and raising an order in the system.

First it will be described the process of providing credit limit to Ltd companies.

When a team member accesses an order he or she immediately reviews several things. If a customer has Ltd company, the first order by which he applies for credit limit should be for at least £500. This amount was set as an internal business decision of the financial manager. After that the team member checks, whether the official application form for credit limit and an official order form have been sent by sales representative. If the official paperwork has not been received, the employee sends a message to the sales representative asking for these documents. If the documentation has been received, the team member starts the process of reviewing the customer who is applying for credit limit.

There are three things to be taken into consideration when reviewing a customer.

The first and most important part of the review is a report which shows the overall financial state of the company and also the risks that they pose. This report is found based on the registration number of the company which is written on the customer's application form for credit limit.

For the company AB&C, the process of reviewing a customer requires a waste amount of time. To gain the relevant information from yearly reports or other sources is difficult, even if we are only talking about summarizing and reviewing this information. The correct decision, whether a customer is assigned credit limit or not, is a long-term commitment for the company AB&C. If the customer does not keep to his commitments in time, it means losses for the company. As the step of reviewing customers who apply for credit limit is an important one, the company AB&C decided to outsource this to an external rating agency, Graydon. This company uses a huge amount of data, just like yearly financial reports of businesses, financial history of businesses and additional publications. It also reviews the stability of businesses on the market. These details are used to create a financial report for every company based in the UK or Ireland. These reports provide the team valuable economic, financial and business information to support their decision making.

Also, there are official contact details for companies on the reports, which are used to contact the customers during the final step. If there are no contact details on the report, the team member needs to search for contact details on the company's official website.

The information on the report is crucial for the team member. Based on this information, the team member decides whether the customer is going to be assigned a credit limit, and if so, in what amount. The report is generated by Graydon in a few minutes, so for the team this process does not pose any delays.

The second detail which is reviewed is the customer's web page. On this page, the team member can find a short description of the company and its contact details, such as phone number or address. These details should match the details provided on the credit limit application form. The relevancy of the details also depends on the webpage's creation day. If a webpage is registered for a period shorter than a year, the team cannot use this as an official source of information to get the customer's contact details.

If the report of the company Graydon is favorable for the external customer and the team is able to find the customer's contact details from an official source, the phase of providing credit limit for the customer can be finished. The amount of the credit limit is determined based on the value of the order and the recommendation on the Graydon report.

The last step is to call the customer and review the order directly with them for the last time. This step is in place to prevent potential fraudsters, who apply for credit limit in the name of a different company. During the phone conversation, the order is reviewed with the customer, the delivery address and email address for future invoicing are confirmed. After the phone call, the credit limit is increased and the order is released from the system.

The following image depicts the process of applying for credit limit, if the external customer is a limited company.

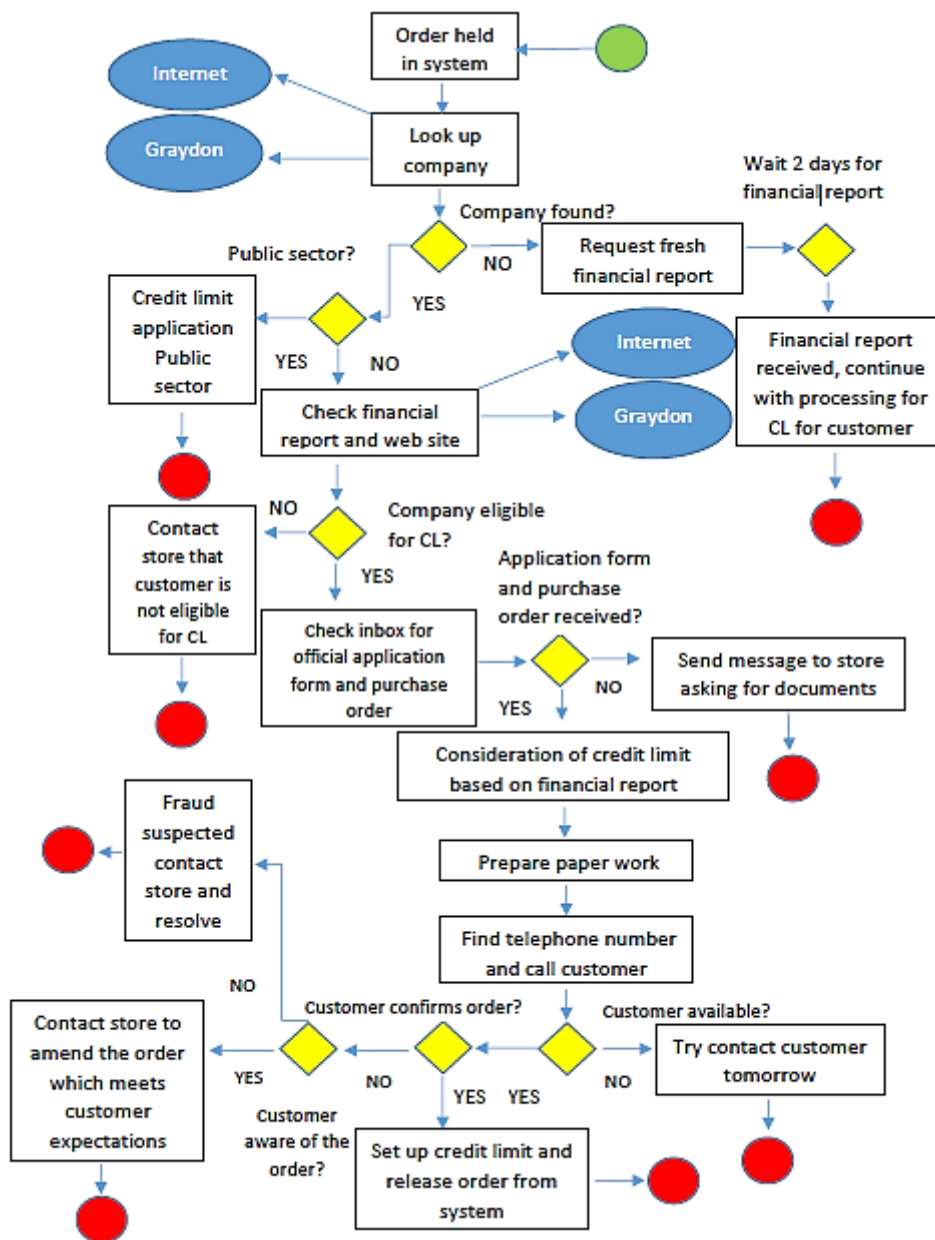


Fig. 16 Credit limit application for Limited Companies
Source: Elaborated by author based on company data.

The process of providing credit limit for customers in the public sector is easier. In contrast with Ltd companies, there is no minimum value set for the first order for the customers in the public sector.

The beginning of the process is the same. The sales representative has the customer fill in the official application form for credit limit and enters the order in the system.

After receiving the application form, the customer's reviewing takes place. As most of the customers in this group are hospitals, courts or schools, it is enough if the customer is registered on the official webpages of the local or state government. As the payment for these orders is guaranteed by the state, therefore credit limit for these customers is provided at a higher rate than for Ltd companies.

After that, just like during the previous process, the customer is contacted via telephone and the order details are checked. If the customer confirms the information, the credit limit can be increased and the order can be released from the system. The process of providing credit limit is depicted in the following process map.

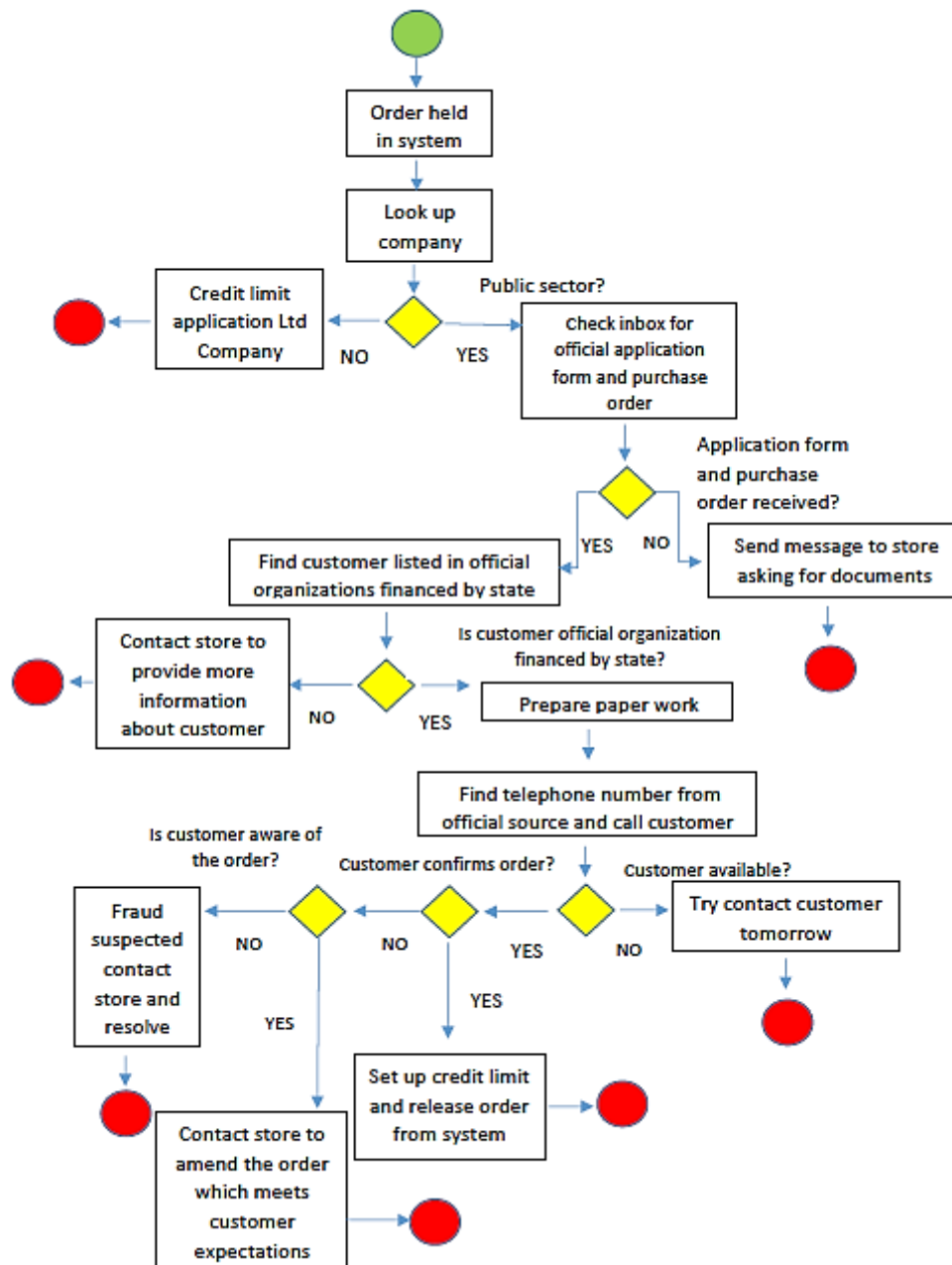


Fig. 17 Credit limit application for public sector
Source: Elaborated by author based on company data.

The process of reviewing a customer and assigning credit limit to his or her account should be done within one hour, including the phone call to the customer to check the order. After that, the order should be released from the system. However, this process is also influenced by external factors, such as receiving phone calls from sales representatives, which need to be handled while reviewing and preparing the administration to finish the process of providing the credit limit.

After evaluating the main processes of the team, it can be concluded that the phone calls from the sales representatives influence the speed of releasing orders from the system and reviewing the customers applying for credit limit. Every store has its own four-digit number, for their better recognition. When receiving a call, the sales representative introduces him- or herself by providing the store number. After that, the team requires the customer's account number, where the order has been raised. The team member should be able to identify, what information the team can provide to sales representatives and for what information they need to call a different department. The team members should have excellent communication skills in English to avoid giving incorrect information about a case if a request is not understood correctly.

Problems in the process

During a discussion in the team which was held to depict any problems regarding the process of assigning credit limit, there were no significant complications recorded. In most of the cases, the value of the credit limit the company AB&C can offer is accepted by the customers. When offering credit limit to Ltd companies, the most significant problem is posed by summarizing and importance of information, based on which the value of the assigned credit limit was decided. However, this problem has been solved by outsourcing this process to Graydon.

Nowadays, when the companies need the goods as soon as possible to be able to make better quality processes, the loan provided by the AB&C company is a fast way to obtain finance resources. For example, within one hour, the company AB&C can provide £2000 credit limit to an external customer to purchase electronics. If the external customer is assigned a credit limit, they can purchase goods during one month without making any payments, and they can make a payment for all their orders in one day. Also, the possibility to increase credit limit without any difficulties is considered a benefit, which makes the company stand out from the range of similar businesses.

The process of negotiating the credit limit is beneficial for the company. The company Graydon, which supplies the required information about the customers, has a reputable name on the market and has been providing the company with good services for several years. Thanks to the possibility to get credit limit, the company AB&C stands out from the line of similar businesses. In the process of negotiating credit limit for companies with limited liabilities there have not been any problems or places for improvement detected yet. Also, after analyzing the process of assigning credit limit to companies from the public sector there have not been any problems detected, which could be somehow improved.

We can, however, depict problems caused by external factors, which influence the speed of reviewing a customer who is applying for credit limit, preparing the required paperwork, providing the credit limit and releasing the order from the system. One of the significant external factors are invalid phone calls, which cause delays in the process of negotiating and providing credit limit.

As the process cannot be finished within the required time frame of one hour, these calls negatively influence the team's productivity. Therefore, in the following section will be focused on the causes of these calls, their effect on the main processes and the possibilities of their elimination.

The invalid calls from sales representatives pose the main problem in the process of reviewing orders as well. All the five members of the team have to handle these calls on a daily basis. It can occur that a sales representative would like to receive information, which cannot be supplied by the credit support team, as they concern the work of other departments. It can also happen that a sales representative requires the team to do his job instead of him or at least advise him in questions, he should be able to solve himself. These calls and requests of the sales representatives hold up the credit support team pointlessly and they also prolong the time needed to process the tasks for which they are responsible.

A problem arises immediately in the initial phase, when the team has only five minutes to review those orders, which are held in the system due to some problem. As it has already been mentioned, the system also requires five minutes to match the customer's payment with the order, which was raised in the system by the sales representative. The sales representatives are impatient and they do not wait the required five minutes if they see that the order is held in the system. They call immediately.

If a member of the credit support team opens an order and the payment for the order is not yet visible in the system, he asks the sales representative to send an email providing a proof of payment. Subsequently, the team member holds the order in the system, until the email is received from the sales representative. The process of scanning the payment confirmation, sending the email from the store and receiving and controlling the email by the team take longer than the required five minutes, which are required to match the payment. After the first eager call, a new problem can arise. The sales representative realizes that he does not have the email address, where he needs to send the required documentation, and the phone call needs to be repeated.

It often happens that the sales representatives do not refresh the customer's account, where there is already a note from the team regarding the problem with the order, also containing the information about the steps that should follow, or about the documentation which is required, for example when customer applies for credit limit, in order to have the order released from the system. They call the team instead of that. However, during the phone call, the team can only repeat the information which has already been put on the customer's account. These phone calls take additional wasted minutes during the process.

It can also happen that a sales representative calls regarding an order which has just recently arrived in the queue of orders. This means that this order is being reviewed sooner, than some older orders. This also results in the problem that the team does not have the time to review orders within five minutes, as they are dealing with the phone calls regarding the most recent orders.

As it is shown in the process map, if a sales representative takes payment on a wrong customer's account, it is his responsibility to send an email informing the team about the mistake. Without that, the team is not allowed to release the order from the system. In this case scenario, the team receives additional unnecessary phone calls. These calls can be made concerning the process which needs to be followed by the sales representative, or asking how long it takes to release the order.

Credit support also records several phone calls which do not concern the tasks of the team, but are part of the workload of a different team. These phone calls mean additional delay in the process of reviewing and releasing orders also it represents delay in the process of providing credit limit for customers. These are calls regarding for example a customer who has been assigned a certain credit limit, however, he also has unpaid invoices for some previous orders. In this case, the team credit support can send a message in the system to notify the sales representative that the order is not going to be released due to the unpaid invoices. However, the unpaid invoices are a responsibility of a different department. During the call regarding unpaid invoices, the team can only give the telephone number of the team, which deals with these invoices. The phone call is short, however, if these phone calls occur repeatedly, it can deprive the team of an hour throughout the day. The same thing happens if the customer pays via bank transfer. The team credit support does not have access to the bank account of the company. If a sales representative calls the team asking if the payment has been received for an order, the team can only help him by providing the number of the relevant department.

Another example which can be seen in the process map is the case, when a sales representative applies higher discount on the goods than is allowed by the system. First, this discount needs to be approved by the relevant team in the company, only after that can the order be released from the system. However, the sales representative only notices that the order has been held in the system and immediately calls the credit support team. This phone call is entirely redundant, as the team does not have the authority to approve discounts on an order, so they only put the call through to the relevant department.

This process is repeated in case of questions regarding orders containing catalog stock. The team credit support releases the order from the system. The process ends here for the team. Additional information regarding the order or complaints concerning the order are handled by customer service. However, if a customer comes to a store asking about the delivery date of his order, the sales representative again contacts the credit support team.

Other redundant calls the team receives and is not able to help can be regarding some problems with the order. These can be for example: how to cancel an order in the system or how to create an order. Raising two orders, while taking only one payment is also regarded as an error. Also, if the sales representatives have problems with the system and they are not able to work with the customers' accounts, they call the credit support team instead of the IT department.

The sales representatives should be familiar with these processes, or they can check their online manual or ask their store manager. However, if they have a customer in the store waiting for his order, they call the credit support team, as they believe that the process could be sped up this way.

The truth is, however, that they are delaying the process for those stores, which actually wait the required time for reviewing orders, also the operation of the team and the pace of reviewing orders.

Outputs

The main output of controlling orders is releasing the orders from the system, or notifying the responsible person about a problem with the order. The main output of the process of providing credit limit is the decision of actually providing or not providing credit limit to a customer. When a team receives a phone call, the output is the correct information which was given to the caller about a problem with an order or providing information about the state of an order. The output of the credit support department, the released order, becomes the input for the processes of other departments in the company, which handles deliveries to the customers in case the goods were ordered from a catalogue. If the customer buys the products directly in the store, releasing the order from the system finishes the process of purchase and the goods are given to the customer.

The goal of the credit support team is to review orders, applications for credit limit and phone calls in the required time and quality. This goal corresponds with the requirements of the sales representatives, who expect their orders being reviewed and calls handled as soon as possible with a quality service.

Customers

The customers of the team are the stores located in the UK and Ireland. The total number of stores in Europe, either the stores of the company or franchised, is more than 2000. More than half of this number is represented by the stores in the UK and Ireland. The branches supported by the team are Currys/Curry Digital and PC World. The team is in contact with the sales representatives of these stores on a daily basis. Both of the branches is specialized in the sale of electronics and home appliances. Every sales representative has his or her own username, so if the team would like to send a message to a sales representative, they can find him or her using this username. As it has been mentioned, the sales representatives contact the team via email or phone.

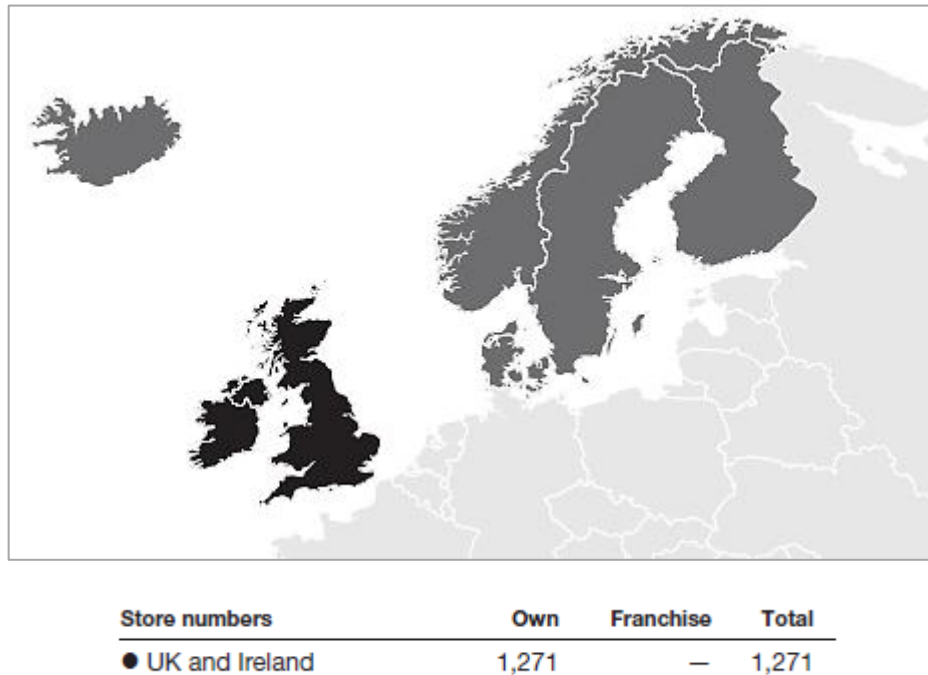


Fig. 18 Number of stores in UK&Ireland
 Source: AB&C Annual report, 2016.

4.5.3 Measure

In the team credit support, just like in every other team, the productivity of their work is measured. Based on this information the team can see if they are fulfilling the set targets.

The main request of the credit support’s customers is releasing orders from the system to finish the process of purchase. One of their main requirements is reviewing orders in the shortest possible time, so that the external customers receive their orders as quickly as possible. When accessing an account, it is important to review the order, payment for the order or if there is credit limit on the account, then if the remaining credit covers the new order.

If a customer applies for credit limit, the team has one hour to review if the customer is eligible for credit limit or not. Within this hour, the team member needs to call the customer to find out if he or she has received information regarding the order. These external customers applying for credit limit are mostly big companies, schools, hospitals or charities, which need their order to be dealt with as quickly as possible so that they can use the required electronics as soon as possible. The sales representative is the agent of this service, this is why he represents the main customer in this negotiation process.

One of the main factors, which affects the speed of reviewing customers and approving credit limit, is the quantity of unnecessary phone calls that the team need to deal with and which hold up the process. Based on the identified shortcomings it was decided to measure the productivity of the team regarding keeping with the

determined time frame when reviewing applications for credit limit and providing credit limit to customers.

In the phase Define, we characterized two processes – providing credit limit and reviewing orders. In this phase, we will focus on data collection, using which will be evaluated the tendency keeping to the set time frame during the individual processes.

Regarding the process of increasing credit limit, we concluded that the process does not have any significant shortcomings. Concluding the process within the given time frame poses the biggest problem. Therefore, we will focus on in-depth analysis of the problem.

The measuring focuses on the amount of received applications for credit limit on customer accounts. It was carried out during one month and the findings are presented in the following table. During measuring, three main indicators have been observed. The first one is the number of received applications for credit limit in one day. The other indicators represent the number of applications processed within one hour and the applications which have not been processed during the given time frame. The table contains also a percental evaluation of adhering to the given time frame.

Tab. 5 Number of credit limit applications processed and not processed within one hour

Date	Number of applications processed	Processed within 1 hour	Processed out of 1 hour	SLA	Average SLA
16.1.2017	18	12	6	66.66%	67.69%
17.1.2017	19	12	7	63.15%	
18.1.2017	22	14	8	67.02%	
19.1.2017	15	10	5	66.66%	
20.1.2017	16	12	4	75.00%	
21.1.2017					
22.1.2017					
23.1.2017	14	9	5	64.29%	68.01%
24.1.2017	22	15	7	68.18%	
25.1.2017	15	11	4	73.33%	
26.1.2017	17	11	6	64.70%	
27.1.2017	23	16	7	69.56%	
28.1.2017					
29.1.2017					
30.1.2017	14	10	4	71.42%	69.69%
31.1.2017	23	17	6	73.91%	
01.2.2017	19	13	6	68.40%	
02.2.2017	16	10	6	62.50%	
03.2.2017	18	13	5	72.22%	
04.2.2017					
05.2.2017					
06.2.2017	19	13	6	68.42%	71.72%
07.2.2017	13	9	4	69.23%	
08.2.2017	16	12	4	75.00%	
09.2.2017	21	17	4	80.95%	
10.2.2017	20	13	7	65.00%	
11.2.2017					
12.2.2017					
Total	360	249	111	x	69.27%

Source: Elaborated by author based on data provided by team leader.

After the process of measuring the process of reviewing the received applications for credit limit it is evident, that the team meets the requirements for credit limit increase at an inadequate level. This result could influence continuously chasing by sales representatives, who are waiting for credit limits to be approved and orders to be released from the system to finish their sales. The ratio of the credit limit applications processed and unprocessed within one hour is displayed in the following graph.

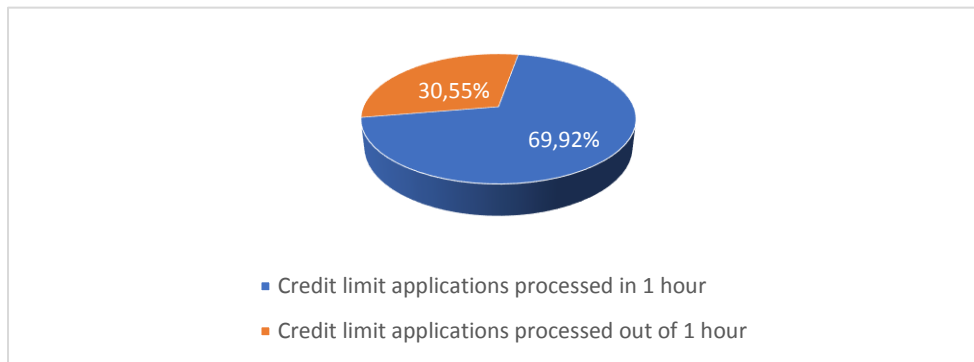


Fig. 19 The ratio of processed and unprocessed credit limit application within one hour for one month in %.

The inability to finish the process of assigning credit limit to accounts is the result of the number of invalid calls received from sales representatives. In table 5 it is shown that the team fulfills the given time frame only in 69,27% of cases.

Additional measuring took place in regards to the process of reviewing orders. In this group, three main indicators were present. These were: the overall number of orders the team reviews within a working day, the number of orders reviewed within five minutes and the number of orders which were not reviewed within five minutes. The data was entered into the following table for a period of one month. To what extent the team fulfilled the requirements was evaluated that at the end of every working day. Also, a weekly average was calculated from this data. The documented data is shown in the following table.

Tab. 6 Number of orders reviewed and not reviewed within the required time

Date	Orders processed	Processed within 5 minutes	Processed out of 5 minutes	SLA	Average SLA
16.01.2017	160	124	36	77.50%	64,57%
17.01.2017	190	124	66	65.26%	
18.01.2017	94	63	31	67.02%	
19.01.2017	229	144	85	62.88%	
20.01.2017	253	127	126	50.20%	
21.01.2017					
22.01.2017					
23.01.2017	229	141	88	61.57%	58,72%
24.01.2017	197	124	73	62.94%	
25.01.2017	180	108	72	60.00%	
26.01.2017	176	104	72	59.09%	
27.01.2017	222	111	111	50.00%	
28.01.2017					
29.01.2017					
30.01.2017	195	148	47	75.89%	64,16%
31.01.2017	205	111	94	54.15%	
01.02.2017	203	119	84	58.62%	
02.02.2017	144	103	41	71.52%	
03.02.2017	160	97	63	60.62%	
04.02.2017					
05.02.2017					
06.02.2017	169	98	71	57.98%	62,41%
07.02.2017	173	103	70	59.53%	
08.02.2017	253	158	95	62.45%	
09.02.2017	162	104	58	64.19%	
10.02.2017	187	127	60	67.91%	
11.02.2017					
12.02.2017					
Total	3781	2338	1443	x	62.47%

Source: Elaborated by author based on data provided by team leader.

After reviewing the table above, it is evident that during the given month the team fulfilled the five-minute requirement only in 62,47% of cases. Some days this figure was as low as 50%. Ideally, the team should be able to process every order within five minutes. That would mean that the following process, which have a released order as their input, would not be held. These could be delivering the goods or giving the goods to the customer in the store.

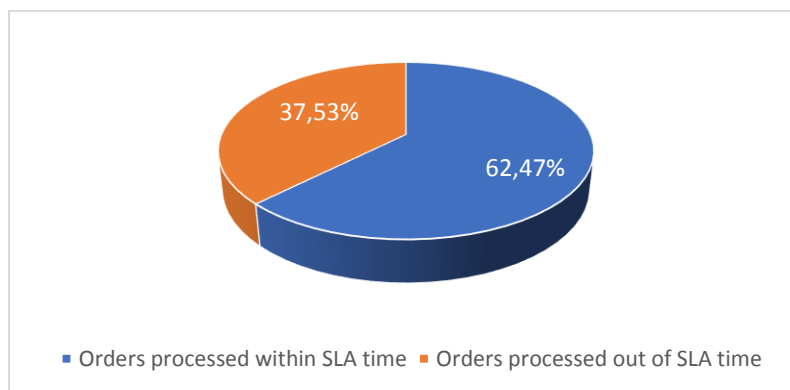


Fig. 20 The ratio of handled calls in one month in %.

In one month, the team processed 3781 orders. It can be seen in the graph that a significant amount of orders was reviewed only after the five-minute timeframe elapsed. This situation results in additional unnecessary calls from the sales representatives. The measuring lasted for 20 days, and during this time the team reviewed 2338 orders within the required timeframe. The remaining orders, however, were not reviewed within the required timeframe, which was reflected in the evaluation of productivity of the team.

Based on our findings, I have decided to include into the process of measuring also the number of received phone calls. Every phone call should be handled five minutes after the call is transfer to the team. This period also includes the time the sales representative spends waiting on the line, if there is nobody to take his or her call. The measuring of calls focuses on the number and duration of calls. The measuring focuses on the number of calls received, calls which were handled within the required five-minute timeframe, calls which were not handled during that timeframe and those calls which were disconnected before the team could have taken it. One of the reasons for this happening can be the time the sales representatives spend waiting on the line. The measuring of calls from the point of view of their duration focuses on the overall lasting of calls in the team, but also on the duration of one call. This data is shown in the following table. At the end of every day, the percentage of successfully keeping to the given time frame when handling calls was recorded.

Tab. 7 The number of calls handled and not handled within the required time

Date	Calls Received	Calls within 5 minutes	Calls out of 5 minutes	Abandoned Calls	Time of total calls	Average call time	SLA	Average SLA
16.1.2017	261	190	56	15	8:59:24	0:02:04	72.80%	67,94%
17.1.2017	130	81	39	10	5:07:40	0:02:22	62.31%	
18.1.2017	166	121	24	15	6:24:34	0:02:19	72.89%	
19.1.2017	261	154	90	17	8:42:00	0:02:00	59.00%	
20.1.2017	187	136	32	14	6:51:24	0:02:12	72.72%	
21.1.2017								
22.1.2017								
23.1.2017	226	148	62	16	8:09:40	0:02:10	65.49%	71,54%
24.1.2017	201	151	33	9	6:48:42	0:02:02	75.12%	
25.1.2017	230	159	55	16	7:55:20	0:02:04	69.13%	
26.1.2017	230	163	51	16	9:00:30	0:02:21	70.87%	
27.1.2017	179	138	29	12	5:52:02	0:01:58	77.09%	
28.1.2017								
29.1.2017								
30.1.2017	196	143	45	8	9:05:32	0:02:47	72.96%	73,53%
31.1.2017	227	174	42	11	7:37:47	0:02:01	76.65%	
01.2.2017	245	184	50	11	7:00:35	0:01:43	75.10%	
02.2.2017	233	157	60	16	7:49:53	0:02:01	67.38%	
03.2.2017	229	173	51	5	7:49:27	0:02:03	75.55%	
04.2.2017								
05.2.2017								
06.2.2017	261	192	55	14	9:38:33	0:02:13	73.56%	71,16%
07.2.2017	242	182	33	27	9:32:44	0:02:22	75.21%	
08.2.2017	257	183	56	18	8:34:00	0:02:00	71.21%	
09.2.2017	188	137	46	5	8:15:04	0:02:38	72.87%	
10.2.2017	205	129	65	11	7:41:15	0:02:15	62.93%	
11.2.2017								
12.2.2017								
Total	4354	3114	974	266	156:56:06	0:02:12	x	71,56%

Source: Elaborated by author based on data provided by team leader.

It is apparent from the data that the results from measuring are not favorable. Every day during the period of one month the percentage of fulfilling the five-minute requirement is calculated. These results are not favorable for the team, so there is room for improvement. The best result the got was to fulfill the requirement in 77% of cases, and the worst only on 59%. Compared to the number of calls the team received during that month, the results are weak. Taking into consideration those customers who have credit limit and purchase goods from the company on a weekly basis, the process should be fast in order not to hold up receiving the goods by the end user and thus contributed to their company. The team is able to fulfill the required time to handle phone calls in 71,56% of cases in a month. In the table we could see the average duration of calls and the overall time of receiving calls. This data helps to calculate the expenses the company has to pay for phone calls. In one month, the team received 4354 calls. Almost one quarter of calls were not handled within the required five minutes. The next part represents the number of phone calls which were canceled before one of the team members could answer them. As it has already been mentioned, the reason for this happening can be that the sales representative had to wait on the line for too long.

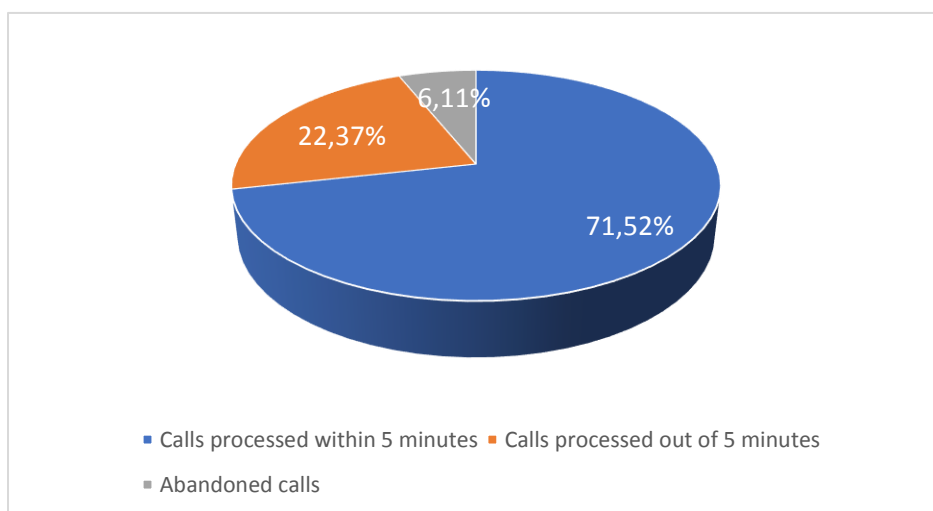


Fig. 21 The ratio of different types of calls against the overall number of calls in %.

The data of measuring the number of credit limits applications, the number of orders and the number of calls is generated by the system and the team leader has an access to it to have an overview about the efficiency of the team.

It is apparent from the data received from the previous measuring that the team is not able to fulfill the required time frame for the processes within the business. Based on this fact we decided to measure the unnecessary phone calls received from sales representatives, which slow the process of reviewing orders down, assigning credit limit to customers' business accounts and handling valid calls received from sales representatives.

The first step was to introduce the process of daily measuring the unnecessary phone calls, which had nothing to do with the team's tasks. A summary of the most common reasons of invalid calls was created based on a conversation with all the team members.

The measuring was carried out during working days for a period of one month. Five people work on reviewing applications for credit limit, reviewing orders and on handling phone calls every day. The measuring of invalid calls was carried out by one member of the team every day, so that the process of measuring has a possible smallest impact on the team's processes. The team member had to fill the details into an excel sheet prepared in advance. Every measuring lasted for eight hours. The team member filled the details into two tables. Based on conversation within the team, the first table contained the 15 most common invalid reasons for which the sales representatives call the team. Each of them was either regarding the tasks of different departments or regarding those problems which could have been solved by the sales representative without calling the team. This table contained three main details:

1. The number of invalid calls and the reason of the call
2. Duration of the call
3. The number of the store which made the call

The store numbers were noted to investigate, whether invalid calls are received more often from some stores than others.

Tab. 8 The most common reasons of invalid calls

Date		Time	
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
	Payment on wrong account - no email		
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Source: Author according to an interview provided by employees in the team.

The second table was used only for supplementary measuring. Calls regarding the team's work were noted there. The member of the team noted the following data:

1. Number of invalid calls and the purpose of these calls
2. Duration of the calls
3. Store numbers

Tab. 9 Illustration of a table for documenting valid calls

Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
	Valid Reason – No need to specify		

Source: Own elaboration.

The goal of my measuring process was to find out, from the overall number, what amount of calls was invalid, which are the most common reasons for these calls, their duration and the store numbers where the team receives these calls.

4.5.4 Analysis

In this section, the findings from the measuring process will be analyzed, which one designated worker has gained using a statistical survey. In the first table, we can see the duration of invalid calls, which were handled by one member of the team during one month.

Tab. 10 Measuring of invalid calls by one team member during one month

Date	Total number of invalid calls per day	Total time of invalid calls per day	Date	Total number of invalid calls per day	Total time of invalid calls per day
16.01.2017	8	0:09:31	30.01.2017	6	0:04:03
17.01.2017	7	0:06:37	31.01.2017	5	0:02:14
18.01.2017	9	0:03:50	01.02.2017	8	0:09:23
19.01.2017	6	0:03:52	02.02.2017	10	0:14:40
20.01.2017	15	0:15:04	03.02.2017	24	0:25:24
21.01.2017			04.02.2017		
22.01.2017			05.02.2017		
23.01.2017	13	0:13:37	06.02.2017	13	0:15:28
24.01.2017	18	0:23:35	07.02.2017	14	0:18:24
25.01.2017	22	0:21:47	08.02.2017	11	0:13:33
26.01.2017	9	0:04:43	09.02.2017	12	0:07:16
27.01.2017	10	0:03:47	10.02.2017	14	0:06:27
28.01.2017			11.02.2017		
29.01.2017			12.02.2017		

Source: Elaborated by author based on measures of invalid calls by one team member for one month.

Tab. 11 The overall number and duration of invalid calls by one member of the team in one month

Total number of invalid calls 1 person/per month	Total time of invalid calls 1 person/per month
234	3:43:15

Source: Elaborated by author based on measures of invalid calls by one member of the team for one month.

Based on this table we can see that the process of handling these calls took 223 minutes and 15 seconds for one employee. Based on the information from the chart 7 we know that the overall duration of calls during one month was 9416 minutes, which is about 157 hours. This number represents the duration of calls by five employees. So, for one team member it is about 1883 minutes per month. The following

graph shows the ratio between handling valid and invalid call by one team member. From this chart, we can see that invalid calls represent 12,47% of the overall number of calls received by the employee.

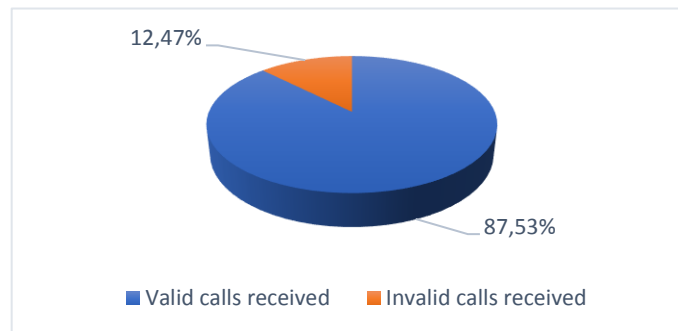


Fig. 22 The ratio of invalid calls against the overall number of handled calls by one employee during one month in %.

Table 10 contains the real number of invalid calls received by one team member in the period of one month. This table also shows the number of minutes spent on the phone while handling invalid calls during one month. Next, I will deal with an average indicator that I derived from the monitored data.

If we divide the total number of invalid phone calls per month with the number of working days on a month (20 days) we receive the average number of invalid calls per one day. This means, that one employee handles about 12 invalid calls every day.

The same approach is used to determine the average number of minutes on the phone. So, one team member spent on the phone about 11 minutes handling invalid calls per one day.

We can derive from these average values that the average duration of one invalid call is 55 seconds.

During one shift, there are five people working. These employees spend about 55 minutes by handling invalid call every day.

This indicates that almost an hour is spent on invalid calls, which could be used by the team to work on their main processes.

The next goal of this observation was to determine the main reasons of invalid calls. The following chart shows the number of invalid calls divided the reason the sales representatives were calling.

Tab. 12 The number of invalid calls as per their subjects

Invalid Reason for call	Call count
Phone received within < 5min	61
PO SLA < 1h	0
Didn't check the status of SO	19
Didn't check messages from team	4
Payment on wrong account - no email	27
Discount which needs to be approved	17
Do not know the email address/phone no.	1
How to cancel SO	2
How to discount SO	1
Information about delivery	27
Payment excluding VAT/pmt short	1
Hanged up before introducing / SO re-released	5
Unpaid invoices on account	37
2 orders, one payment	0
IT issue, advise store to contact IS helpdesk	32
Total	234

Source: Elaborated by author based on measures of reasons of invalid calls.

From this chart, we can see that the biggest ratio of invalid calls is represented by calls inquiring about orders which were not raised in the system longer than five minutes. These are calls from impatient sales representatives who do not respect the time frame the team has to review orders. They would like to know immediately if the order has been released from the system or not. Additional reasons for invalid calls are: asking questions regarding the procedure which needs to be followed if a sales representative takes money on an incorrect account, information about delivery dates and unpaid invoices. Therefore, it is the most effective to concentrate on these issues during the following steps. The ratio of different reasons of invalid calls against the overall number of calls is shown in the following graph.

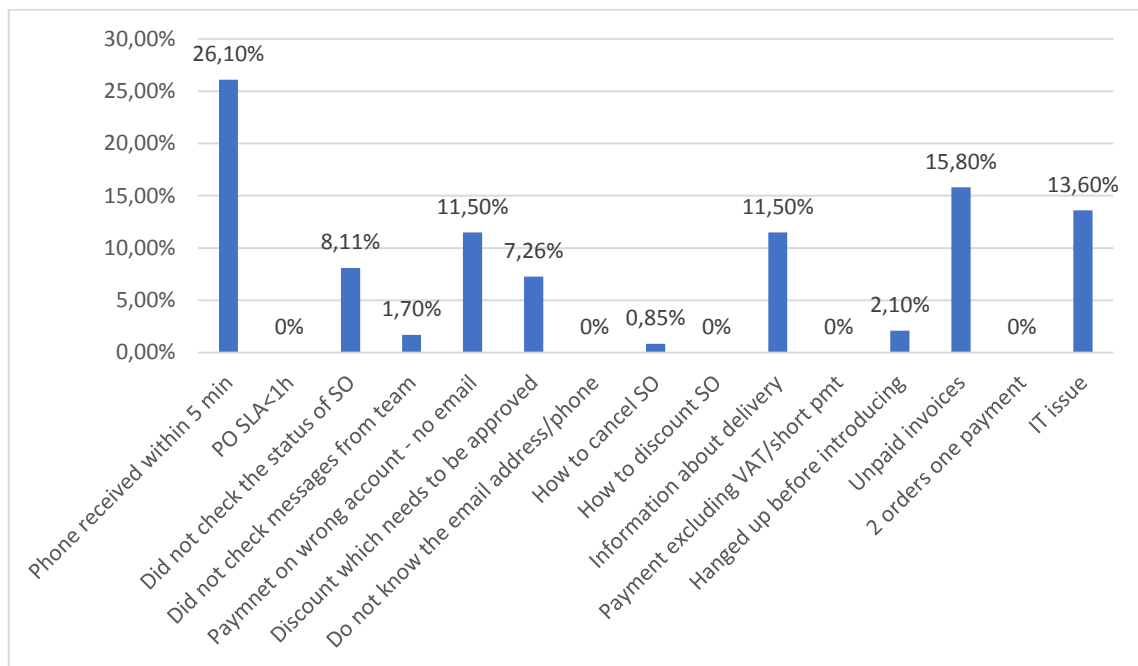


Fig. 23 The number of invalid calls by one team member for one month as per their subjects in %.

During the process of measuring invalid calls, the employee also had to note the store number where from the call was received. The process of measuring served to find out, if the invalid calls are received more often from some stores than others. After the the process of measuring and analysis, it was evident that the team received the greatest number of invalid calls from four stores compared to others. This information also shows a possible way of improvement.

4.5.5 Improve

As it has already been defined in the previous sections, the tasks of the team credit support consist of two main processes – providing credit limit and reviewing orders. To carry out the required steps to finish the first process the team has a determined time frame – one hour. To review and release orders the team has five minutes. One of the main factors influencing the team’s productivity is the number of calls received from sales representatives. These phone calls should be handled as soon as possible. The recommended time frame to handle calls is five minutes. Invalid calls prolong the team’s processes. Which can rise dissatisfaction either on the team’s or the store’s side.

The average productivity of the team during the first process is 69,27%. This means that the team can review whether a customer is eligible for credit limit, provide credit limit to the customer and release the order from the system within one hour only in 69,27%.

The average productivity of the team regarding the second process – so reviewing orders – was 62,47% during one month. This indicates that the team was able to review orders in the system within five minutes only in 62,47% of the cases. These results are insufficient. Therefore, the reasons of this state were analyzed.

The most frequent reason for receiving invalid phone calls from sales representatives is that the sales representatives are impatient. This problem can be solved by sending an email to the stores in question. In the email the sales representatives will be reminded that these types of calls are frequently received by the team, therefore the team is asking them to respect the stated five-minute time frame for reviewing orders.

Additional frequent reasons for invalid calls are: inquiring about processes which are handled by other teams than credit support. As a partial solution for this problem the implementation of a voice message, so an interactive voice response, was proposed. Inspiration for this solution was drawn from phone operators, who use a similar system.

Based on the most common reasons for invalid calls, it was proposed that four options should be given to the sales representative who calls the team, these would be based on the subject of their calls. The options on the interactive voice response are labeled with numbers. The first three numbers give the stores options to handle the most frequent reasons for invalid calls. These are the following:

- information about unpaid invoices,
- information about delivery details,
- problems with the system, which can be solved by the IT department.

When choosing one of these options, the interactive voice response automatically transfers the call to the relevant team. The last option is transferring the call to credit support.

The implementation of this process should improve the ratio of reviewed orders within the five minute time frame. If we take into consideration the number of calls for the team, the implemented interactive voice response should lower the number of those calls which interrupted before the team could answer it, because of the duration of waiting on line. Also, the number of received calls should also be lowered. The time saved by this process could be used to faster review customers applying for credit limit, as well as to review orders and to handle phone calls within five minutes.

To be able to decide, whether the interactive voice response should be implemented, the costs for this investment needed to be calculated. The shared service center has had the same supplier in the branch of telecommunication since its establishment. As the supplier has been providing tailor-made solutions for a reasonable price for the company for years, we targeted this question towards them.

Once a solution has been designed, the supplier has outlined the costs for the interactive voice response to about 10 000 Kč. As the company has already purchased a service pack from the operator, the interactive voice response only represents an additional service. Therefore, the costs for this investment are not high.

After finalizing the proposed solution, the idea was presented to the financial manager, who approved it and forwarded this to the director of the shared service center in Brno. After the director of the branch in Brno approved the request, the request was transferred to be approved by the chief financial officer, who is in the UK. He approved the request. After two weeks of processes of approvals, the realization could be started.

As this has not been a complicated issue, the supplier provided the interactive voice response within one week. After implementing the interactive voice response, a two-week trial period started. During these two weeks, there was no effect noted on the team's work by this process. Therefore, the two-week trial period did not represent a sufficient time to review its efficiency. The process of reviewing the impact of the interactive voice response on the time frames for the main processes set by the business started after the two-week trial period, and lasted for a month.

Tab. 13 Time table for implementing the interactive voice response

Date	Activity
16. 01. - 10. 02. 2017	Measurement of invalid calls Measurement of processes
13. 02. - 15. 02. 2017	Analysis of provided results Suggestion for improvement Contact supplier Costs calculation
16. 02. - 24. 02. 2017	Approval proces
27. 02. - 03. 03. 2017	Implementation of IVR
06. 03. - 17. 03. 2017	Trial period
20. 03. - 16. 04. 2017	Measurement of invalid calls Measurement of processes

Source: Own elaboration.

4.5.6 Control

After implementing the interactive voice response, its benefits were reviewed. The measuring took place the same way as earlier. One employee reviewed the number and duration of invalid phone calls and noted their reasons as well during his or her shift.

First, the results of the first process will be reviewed, in which the time frame for reviewing applications for credit limit is set for one hour. In the following table 14 the number of applications for credit limit which were and were not processed during the given time frame are represented. The data was provided by the team leader as an output of a computer system. After comparing the details before and after implementing interactive voice response, it is evident that the number of process applications for credit limit within the required time frame increased from 69.27% to 79.35%. This is an increase of 10.08%. The results show that implementing the interactive voice response was a correct decision, as there was a significant increase in the number of applications for credit limit process within the required time frame. In spite of that the results are not entirely satisfying.

Tab. 14 The number of applications for credit limit processed and not processed within the required time

Date	Number of applications processed	Processed within 1 hour	Processed out of 1 hour	SLA	Average SLA
20.3.2017	19	14	5	73.68%	76.37%
21.3.2017	18	15	3	83.33%	
22.3.2017	19	14	5	73.68%	
23.3.2017	21	16	5	76.19%	
24.3.2017	16	12	4	75.00%	
25.3.2017					
26.3.2017					
27.3.2017	20	15	5	75.00%	80.29%
28.3.2017	17	13	4	76.47%	
29.3.2017	16	14	2	87.50%	
30.3.2017	19	15	4	78.94%	
31.3.2017	18	15	3	83.33%	
01.4.2017					
02.4.2017					
03.4.2017	17	14	3	82.36%	80.35%
04.4.2017	16	12	4	75.00%	
05.4.2017	19	14	5	73.68%	
06.4.2017	14	12	2	85.71%	
07.4.2017	20	17	3	85.00%	
08.4.2017					
09.4.2017					
10.4.2017	21	18	3	68.42%	80.40%
11.4.2017	20	16	4	69.23%	
12.4.2017	22	17	5	75.00%	
13.4.2017	18	14	4	80.95%	
14.4.2017	16	13	3	65.00%	
15.4.2017					
16.4.2017					
Total	366	290	76	x	79.35%

Source: Elaborated by author based on data provided by team leader.

The results of the second process, which is reviewing orders, are described in the following table. Again, there were three indicators entered into the table – the overall number of orders, which were reviewed during one day by the team, the number of orders reviewed within the required five-minute time frame and the number of orders which were not reviewed during that time. From the table it is evident that the number of orders reviewed within five minutes increased from 62.47 % to 75.29% after introducing the interactive voice response. This is an increase more than 12%. Here we can also note that the introduction of the interactive voice response helped to increase the team's productivity.

Tab. 15 The number of orders reviewed and not reviewed within the required time

Date	Orders processed	Processed within 5 minutes	Processed out of 5 minutes	SLA	Average SLA
20.03.2017	193	139	54	72.02%	77,94%
21.03.2017	178	120	58	73.03%	
22.03.2017	120	96	24	80.00%	
23.03.2017	213	181	32	84.97%	
24.03.2017	187	149	38	79.67%	
25.03.2017					
26.03.2017					
27.03.2017	185	137	48	74.05%	74,19%
28.03.2017	201	158	43	78.60%	
29.03.2017	194	135	59	69.58%	
30.03.2017	213	163	50	76.52%	
31.03.2017	172	124	48	72.09%	
01.04.2017					
02.04.2017					
03.04.2017	197	141	56	71.57%	75,02%
04.04.2017	208	156	52	75.00%	
05.04.2017	173	139	34	80.35%	
06.04.2017	190	139	51	73.15%	
07.04.2017	168	126	42	75.00%	
08.04.2017					
09.04.2017					
10.04.2017	213	171	42	80.28%	74,02%
11.04.2017	185	139	46	75.15%	
12.04.2017	228	164	64	71.92%	
13.04.2017	219	147	72	67.12%	
14.04.2017	193	146	47	75.64%	
15.04.2017					
16.04.2017					
Total	3830	2870	960	x	75.29%

Source: Elaborated by author based on data provided by team leader.

In the third table, we can see the overall number of calls and which were put into groups based on the time of their duration. When receiving a call, it is important to handle it as soon as possible. The required time frame for this is five minutes. During the first measuring (see table 7), the number of calls handled within five minutes represent 71.56 % of the overall number of calls.

After introducing the process of interactive voice response, this number has increased to 82.31 %. This was achieved, as the duration of the calls by the sales representatives were shortened, who otherwise would have been waiting on the phone while the team would be dealing with other calls.

Tab. 16 The number of calls handled and not handled within the required time

Date	Calls Received	Calls within 5 minutes	Calls out of 5 minutes	Abandoned Calls	Time of total calls	Average call time	SLA	Average SLA
20.3.2017	207	172	31	4	7:11:15	0:02:05	83.09%	82,72 %
21.3.2017	199	164	31	4	7:01:13	0:02:07	82.41%	
22.3.2017	189	151	37	1	6:58:57	0:02:13	79.89%	
23.3.2017	202	162	30	10	8:51:56	0:02:38	80.20%	
24.3.2017	192	169	19	4	7:24:48	0:02:19	88.02%	
25.3.2017								
26.3.2017								
27.3.2017	193	158	31	4	7:14:15	0:02:15	81.86%	85,99 %
28.3.2017	200	173	27	0	7:26:40	0:02:14	86.50%	
29.3.2017	181	158	20	3	6:35:11	0:02:11	87.29%	
30.3.2017	151	132	17	2	5:57:22	0:02:22	87.42%	
31.3.2017	206	179	26	1	7:36:38	0:02:13	86.89%	
01.4.2017								
02.4.2017								
03.4.2017	179	152	26	1	6:33:48	0:02:12	84.49%	79,43 %
04.4.2017	199	161	37	1	8:04:14	0:02:26	80.09%	
05.4.2017	181	145	34	2	5:49:56	0:01:56	80.01%	
06.4.2017	185	149	33	3	6:28:30	0:02:06	80.54%	
07.4.2017	179	129	48	2	5:31:09	0:01:51	72.06%	
08.4.2017								
09.4.2017								
10.4.2017	194	161	31	2	7:26:12	0:02:18	81.13%	81,11 %
11.4.2017	184	156	26	2	6:20:16	0:02:04	84.78%	
12.4.2017	222	187	34	1	7:49:54	0:02:07	84.00%	
13.4.2017	189	148	36	5	7:30:27	0:02:23	78.30%	
14.4.2017	159	123	32	4	5:28:36	0:02:04	77.36%	
15.4.2017								
16.4.2017								
Total	3791	3129	606	56	139:21:17	0:02:12	x	82.31 %

The fourth table represents the number of invalid calls received after the implementation of the interactive voice response. The goal of introducing the interactive voice response was to eliminate the three main reasons of these calls. From this result, it is evident that the interactive voice response does not solve all the invalid calls. Before implementing the interactive voice response, five members of the team handled about 1170 invalid calls a month. After implementing this process the number decreased to 605, which is a decrease of 48.28 %.

Tab. 17 Measuring of invalid calls after implementing IVR

Date	Total number of invalid calls per day	Total time of invalid calls per day	Date	Total number of invalid calls per day	Total time of invalid calls per day
20.03.2017	5	0:05:06	03.04.2017	6	0:05:46
21.03.2017	9	0:11:36	04.04.2017	5	0:04:11
22.03.2017	4	0:03:22	05.04.2017	4	0:04:58
23.03.2017	5	0:05:08	06.04.2017	8	0:06:23
24.03.2017	4	0:03:08	07.04.2017	5	0:05:42
25.03.2017			08.04.2017		
26.03.2017			09.04.2017		
27.03.2017	6	0:04:28	10.04.2017	8	0:08:53
28.03.2017	5	0:08:21	11.04.2017	7	0:06:36
29.03.2017	6	0:08:58	12.04.2017	8	0:08:34
30.03.2017	6	0:07:08	13.04.2017	7	0:06:06
31.03.2017	6	0:05:10	14.04.2017	7	0:06:36
01.04.2017			15.04.2017		
02.04.2017			16.04.2017		

Source: Elaborated by author based on measures of invalid calls by one team member for one month.

Tab. 18 Total number and duration of invalid call after implementation of IVR

Total number of invalid calls 1 person/per month	Total time of invalid calls 1 person/per month
121	2:06:10

Source: Elaborated by author based on measures of invalid calls by one team member for one month.

We also focused on the evaluation of the three main reasons, which are handled by the interactive voice response. It can be noted that the number of these calls decreased to zero within the month the measuring was carried out. This result showed in the productivity of the team credit support, as the number of order reviewed within five minutes was increased by 12.82 % and the number of reviewed applications for credit within one hour increased was by 10.08 %.

Tab. 19 The reasons for invalid calls after implementing of IVR

Invalid Reason for call	Call count
Phone received within < 5min	46
PO SLA < 1h	0
Didn't check the status of SO	4
Didn't check messages from team	6
Payment on wrong account - no email	36
Discount which needs to be approved	21
Do not know the email address/phone no.	2
How to cancel SO	2
How to discount SO	1
Information about delivery	0
Payment excluding VAT/pmt short	3
Hanged up before introducing / SO released	0
Unpaid invoices on account	0
2 orders, one payment	0
IT issue, advise store to contact IS helpdesk	0
Total	121

Source: Elaborated by author based on measures of invalid calls as per their subjects.

When measuring the invalid calls, it has again been noted, why these calls were received. Even after implementing the interactive voice response, it was evident that four stores made more calls than the others. Based on their store number, the managers of these stores were found in the system. After that an email communication was sent to them to make them aware that their employees need to be retrained on the processes of the stores.

The following section of this thesis will be focused on the financial analysis. Due to data protection, the company AB&C did not provide the information need to calculate the economic benefits of the implemented process. For the purpose of calculations, the price list of the phone operator was used as a material during this thesis.

One minute of calling costs 3,21 CZK. From the table 11 it is apparent that handling invalid phone calls during one month by one employee lasted for 223 minutes

and 15 seconds. So for five employees this figure is around 1116 minutes, which represent costs in the value of 3 582 CZK in one month and 42 988 CZK in a year. After introducing the interactive voice mail system, the number of invalid calls decreases to 126 minutes for one employee, so around 630 minutes for five employees in one months. In local currency, the costs of these calls are around 2 022 CZK per month and 24 267 CZK per year. Based on the previous measuring, the company could save 18 721 CZK in a year thanks to the system of interactive voice response. These costs are covered on the side of the sales representatives. The owner of the stores, however, is the company AB&C, so in the end this amount represents savings for the company anyway. On the credit support's side, there are savings on the costs for employees and the time, they would spend on handling invalid calls. However, the real amount of this savings could not be calculated, as we did not have access to the required data to do so.

5 Discussion

This discussion can be considered as general characteristics of activities and measures AB&C company should implement in order to optimize its processes also in other departments of the company operating on similar principles. This set of measures could also be implemented in other branches of various multinational companies where employees have to meet allocated deadlines for processes but in addition have to provide customer care over the phone. The problem of high number of the phone calls not related to the scope of work of the teams may also emerge here delaying their core processes. It will be also discussed the results of the practical part of the thesis.

In the practical part of the diploma thesis I have modeled the credit limit process based on the controlling orders. Main processes were described and analyzed. The process issues are not related to the processes themselves (I consider the processes to be set correctly) but to the external factors affecting these processes. Therefore, it has been proposed an improvement not only for the credit limit process but also for the controlling orders. The proposed solution is applicable also in other departments of the company or in other branches of various companies operating on the similar principles. In order to implement the proposed optimization, it is recommended to apply the following steps as applied during the process optimization in the credit support team.

At first, it is necessary to develop a basic project plan and appoint the responsible persons for it. Given the fact that Brno's branch is not a large company, I would suggest leaving the overall responsibility in hands of department managers. For larger companies I would recommend either a branch manager or again the department managers. These people have very good overall knowledge about the branch operations.

After the responsibility question is answered, it is necessary to assemble the project team. I would include team leaders of the teams providing input on the team productivity to this project team. Moreover, the selected team members providing information about the specific process issues should be added to the team. These people would do the required measurements and analyses. This is critical to identify what part of the process causes hurdles. It is also necessary to create a timeline to this project plan and other attributes for measurements.

Based on the team discussions the main reasons for the invalid calls would be summarized and the measurements would take place in accordance with the principles discussed in this thesis. This means a person would be selected whose responsibility would be to collect the data on the number and duration of the invalid phone calls. This data would be further analyzed to determine the cause of these calls. Following the results of this analysis the measures to reduce the number of invalid phone calls should be implemented leading to improvement in the number of on-time completions within various processes.

After preparation and modification of the environment these changes should be gradually implemented and put in practice. The changes need to be implemented

in logical order. During the entire implementation, the department managers should carefully monitor the progress and solve unexpected issues on the fly.

In the practical part it has been summarized the most common reasons for the invalid phone calls which lead to the credit support team being unable to meet the tight deadlines on their core processes. The term invalid phone call refers to the calls from retailers the given team was not competent to resolve because they were not within their scope of work. The numbers of this calls have decreased by implementation of the voice mailboxes transferring the caller to the appropriate department. This change has had a positive impact on the productivity of the credit limits application processing within one hour and other processes in the team. Therefore I could recommend implementation of the voice mailboxes also to other departments within the company or to companies operating on similar principles.

6 Conclusion

During the practical realization of the optimization of the processes, which are the subject of the diploma thesis, many theoretical conclusions introduced in the first half of the work, were confirmed. The most important part of the planning of process optimization is the preliminary phase. It comes in it to the analyse of the existing process and formulation of the problems. On the basis of the realized measurements of the existing process the possibilities of the improvement of the existing state and new goals of the process could be defined. Just into the given aspects the expectations to the change are projected, which the optimization itself should bring.

The goal of the diploma thesis was by means of the methods of the process analysis to propose the improvement of the company process of the proving of credit limit and to evaluate the effectivity of the proposed change.

With this aim independent analysis in the branch office of the company AB&C was made, which has its seat in Brno. The main filling of the team of credit support is the checking of the orders for the purchase of electronics, coming from commercial chains, which are directed by the company and the providing of credit limits to the external customers, which want to buy on credit limit. In these processes the problem was the relatively low work productivity of the team workers - 65,87 % and the team has decided to increase it at least by 10 %.

After making the analysis of the main processes we have come to the following knowledge.

In the process of the providing of credit limit no important defects were registered, for which the solution could be supposed. The process itself of the negotiation on the providing the credit is for the company satisfactory. After checking the customer, the company offers him the credit, which is accepted by him in the most cases. But the problems can be seen in the external factors, which influence the velocity of the work in this process. One of the substantial external factors are invalid telephone calls from the sellers, which in this process cause the non-keeping the stipulated time limit – one hour.

The invalid telephone calls are the main problem also in the process of reviewing the orders, which should be managed within five minutes. That is why we aimed at the reasons of these telephone calls and possibilities of their removing.

By the analysis of the main processes we came to the knowledge that the most often cause of the invalid telephone calls are the telephone calls from impatient sellers. The fluctuation of the workers by the seller is caused by the fact that they do not know completely their work duties and they call rather into the team, because it is quicker. This problem can be resolved by email sending to the single shops with warning to respect the time, which has the team for settling of these processes.

Other three reasons of the telephone calls concern the informations, which cannot be rendered the sellers by the team credit support, because they are the contents of the work of other teams. For removing of these telephone calls the creation of the interface voice response was proposed, which connects the sellers directly on the corresponding team.

The introduction of the voice response was manifested positively in the productivity of the work of the team credit support, which was increased by 11.51 %.

The reserves in the work productivity increase are also on the side of the team itself. The most part of its workers are university students, which work on the half work obligation. The fluctuation of these workers is relatively high. It influences negatively the knowledge of their work duties and their work skills. Beside the fluctuation of the team workers the big influence on the work productivity have also the communication abilities of the workers in an English language.

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Appendix

A Measurement of invalids calls

Date	16.01.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
5	Phone received within < 5 min	02.12, 00.48, 00.50,01.13, 03.10	2245, 0328, 2832, 2290, 2245
	PO SLA <1h		
1	Didn't check the status of SO	00.46	2842
	Didn't check messages from team		
	Payment on wrong account - no email		
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
2	Information about delivery	01.05,00.47	9987, 7686
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
14	Valid Reason - No need to specify	05:20, 03:00, 02:10, 05:08, 00:20, 02:32, 03:30 00:46,00:40,01:20, 00:15, 05:12,00:58, 02:45	2812,2864,2238,2409, 4522,9987,7645 2323, 9998, 2409, 2842, 1122, 4587

Date	17.01.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	00.30, 01.30, 02.00	2264, 2853, 2370
	PO SLA <1h		
1	Didn't check the status of SO	01.07	2842
	Didn't check messages from team		
1	Payment on wrong account - no email	00.55	9998
	Discount which needs to be approved		
1	Do not know the email address/phone number	00.20	9998
	How to cancel SO		
	How to discount SO		
1	Information about delivery	00.55	6767
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
17	Valid Reason - No need to specify	05:20, 06:00,02:10, 05:08,00:20,05:12, 03:22, 02:11, 03:44, 05:23, 02:46, 00:58, 00:46,00:40,01:20, 00:15,01:45,	2812,2864,2238,9998, 2264, 2356, 6545, 0154, 2370, 7763, 9087, 6534, 0909, 2409, 8482, 9998, 2245,

Date	18.01.2017	Time	12.30-21.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	00.34, 00.41, 00.34	2332,2383,4923
	PO SLA <1h		
1	Didn't check the status of SO	00.46	2842
	Didn't check messages from team		
	Payment on wrong account - no email		
2	Discount which needs to be approved	00.34, 00.58	2834, 2423
	Do not know the email address/phone number		
	How to cancel SO	00.48	2409
	How to discount SO		
1	Information about delivery	00.48	
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
1	Unpaid invoices on account	00.32	6768
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	00.23	2238
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
13	Valid Reason - No need to specify	01:02 03:00, 5:00, 1:40, 1:12, 4:00 02:23, 03:56,01:12, 03:10, 04:03, 03:04, 05:00	2346, 2842, 2854, 4998 2812, 2664, 6768, 4443, 4998, 6667, 8867, 4342, 2245

Date	19.01.2017	Time	12.30-21.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
1	Phone received within < 5 min	00.43	2855
	PO SLA <1h		
1	Didn't check the status of SO	1.47	2281
	Didn't check messages from team		
	Payment on wrong account - no email		
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
3	Information about delivery	00.57, 00.34, 00.28	9998, 2409, 2245
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
1	Unpaid invoices on account	00.43	2385
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
7	Valid Reason - No need to specify	01:00, 01:42, 01:32, 01:28, 01:05, 00:48, 02:43	2175, 4880, 4831, 2865, 1600, 2237, 0785

Date	20.01.2017	Time	09.30-18.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
4	Phone received within < 5 min	00.46, 02.21, 00.23, 01.20	4998, 4835, 2243, 2382
	PO SLA <1h		
1	Didn't check the status of SO	01.55	8879
	Didn't check messages from team		
1	Payment on wrong account - no email	00.44	2245
2	Discount which needs to be approved	02.41, 00.54	2294, 2318
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
1	Information about delivery	00.46	4998
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
5	Unpaid invoices on account	01.10, 01.05, 01.21, 00.56, 01.12	2854, 2298, 2298, 2812, 2380
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	00.10	2276
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
8	Valid Reason - No need to specify	01:.07, 1:25, 6:20, 0:58, 1:31, 1:20, 3:05, 2:53,	4998, 4998, 9998, 2834, 2813, 2854, 4998, 2237,

Date	23.01.2017	Time	08.30-17.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
6	Phone received within < 5 min	00.33, 00.50, 00.32, 01.10, 00.35, 00.32	2258, 2843, 2393, 2447, 2215, 2209
	PO SLA <1h		
1	Didn't check the status of SO	00.46	2842
	Didn't check messages from team		
3	Payment on wrong account - no email	02.50, 03.35, 00.40	2805, 2805, 2401
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
2	Unpaid invoices on account	01.41, 01.25	2464, 2401
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	01.08	6768
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
11	Valid Reason - No need to specify	00:30, 00:29, 07:58, 2:40, 00:25, 00:50 00:35, 2:25, 00:53, 01:11	2334, 2486, 2335, 2890, 2853 2210, 2379, 4998, 2878,

Date	24.01.2017	Time	09.00-17.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
6	Phone received within < 5 min	01.31, 00.35, 00.36, 00.40, 00.44, 00.26	2445, 4802, 2245, 2804, 2356, 2382
	PO SLA <1h		
3	Didn't check the status of SO	02.41, 03.40, 04.12	2413, 4923, 9998
	Didn't check messages from team		
2	Payment on wrong account – no email	01.33, 00.48	2222, 4998
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
4	Unpaid invoices on account	01.27, 01.22, 02.15, 01.12	2812, 0778, 2812, 2206
	2 orders, one payment		
3	IT issue, advise store to contact IS helpdesk	00.40, 01.10, 01.23	4998, 4879, 2824
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
16	Valid Reason – No need to specify	0.31, 1.14, 1.57, 1.36, 1.07, 0.41, 0.41 1.15, 3.16, 2.10, 11.02, 0.25, 2.12, 2.02, 0.55, 1.05	2857, 4855, 2812, 2371, 2825, 2339 0778, 4998, 4998, 2810, 2274, 2483, 2261, 2872, 2346, 4998,

Date	25.01.2017	Time	10.30-19.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
4	Phone received within < 5 min	01.20, 00.34, 00.32, 00.40	2484, 2842, 2271, 2088
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
4	Payment on wrong account – no email	04.04, 02.55, 01.00, 02.16	2188, 2334, 2333, 2285
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
5	Information about delivery	01.02, 01.01, 0.35, 00.52, 00.42	2241, 2330, 2904, 2839, 2839
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
3	Unpaid invoices on account	01.02, 01.54, 01.40	2426, 2856, 2432
	2 orders, one payment		
6	IT issue, advise store to contact IS helpdesk	00.43, 00.23, 00.37, 00.51, 00.54, 00.12	9998, 2409, 2245, 4998, 2864, 2238
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
18	Valid Reason – No need to specify	00:59, 01:09, 2:21, 1:38, 1:20, 2:38, , 1:05, 00:41, 00:54, 00:59, 1:00, 0:40 00:33, 1:43, 2:00, 2:03, 00:36, 00:47	2339, 2272, 2440, 1618, 2843 0884, 2305, 2222, 2426, 2839,2245 2839, 2237, 2856, 2490, 1607, 2426, 2393

Date	26.01.2017	Time	10.30-19.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
2	Didn't check the status of SO	00.18, 00.23	2395, 2467
	Didn't check messages from team		
	Payment on wrong account - no email		
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
4	Information about delivery	00.34, 00.56, 00.43, 01.34	2245, 4998, 0034, 9998
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
3	IT issue, advise store to contact IS helpdesk	00.54, 00.34, 00.47	2901, 6768, 5478
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
15	Valid Reason - No need to specify	02:54, 04:00, 05:34, 04:22, 04:55, 01:54, 02:36, 04:53, 03:12, 05:00 02:31, 03:55, 01:41, 03:51, 00:54	5478, 4998, 2901, 6742, 2395, 2864, 5478, 7354, 0023, 9998 4532, 5412, 5423, 7777, 6542

Date	27.01.2017	Time	10.30-19.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
1	Didn't check the status of SO	00.46	2842
	Didn't check messages from team		
	Payment on wrong account - no email		
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
2	Information about delivery	00.18, 00.23	2395, 2467
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
4	Unpaid invoices on account	00.35, 00.14, 00.54, 00.43	2245, 8482, 2490, 4324
	2 orders, one payment		
3	IT issue, advise store to contact IS helpdesk	00.35, 00.56, 00.23	2901, 3424, 0003
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
7	Valid Reason - No need to specify	00:40, 00:54, 00:40, 1:50, 1:34, 00:38, 00:30	2388, 2076, 2812, 2436 2814, 2402, 9998

Date	30.01.2017	Time	10.30-19.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
	Didn't check the status of SO		
1	Didn't check messages from team	1.20	2272
	Payment on wrong account - no email		
1	Discount which needs to be approved	01.08	2393
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
1	Information about delivery	00.59	2423
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
3	IT issue, advise store to contact IS helpdesk	00.37, 00.59, 00.20	2306, 2364, 2810
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
10	Valid Reason - No need to specify	02:54, 03:45, 02:12, 01:43, 01:54, 04:23, 05:10, 02:21, 04:34, 04:11	4998, 6565, 2423, 9998, 2306, 3373, 7770, 2393, 4998, 1233

Date	31.01.2017	Time	09.00-17.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
1	Didn't check the status of SO	00.17	5542
	Didn't check messages from team		
	Payment on wrong account - no email		
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
1	Unpaid invoices on account	00.42	9998
	2 orders, one payment		
3	IT issue, advise store to contact IS helpdesk	00.38, 00.54, 00.23	2314, 2422, 2223
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
9	Valid Reason - No need to specify	02:13, 00:08,00:56,05:00,00:58 ,03:12,01:23,01:11, 00:15	4880, 2290, 2159, 5433, 2223, 4998, 9998, 7773, 5542,

Date	01.02.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.57, 00.37	2490, 2279
	PO SLA <1h		
1	Didn't check the status of SO	01.12	2877
	Didn't check messages from team		
1	Payment on wrong account - no email	01.20	2842
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
1	Payment excluding VAT/short payment	01.08	2232
	Hanged up before introducing/SO released		
1	Unpaid invoices on account	02.01	4921
	2 orders, one payment		
2	IT issue, advise store to contact IS helpdesk	01.43, 01.05	2272, 2272
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
7	Valid Reason - No need to specify	4:32, 2:02, 1:11, 03:08, 2:59, 00:38, 2:48,	2272, 2413, 4923, 2259, 2241, 2405, 2336,

Date	02.02.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.50, 01.15	2823, 0884
	PO SLA <1h		
2	Didn't check the status of SO	01.40, 01.20	2304, 0711
2	Didn't check messages from team	01.15, 00.30	2413, 4921
1	Payment on wrong account – no email	01.20	2868
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
2	Information about delivery	04.30, 02.10	2461, 2395
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	01.10	2379
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
6	Valid Reason – No need to specify	04:30, 1:40, 2:50, 2:10, 1:10, 1:00	2413, 4998, 2199, 2855, 2264, 4921

Date	03.02.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
7	Phone received within < 5 min	00.30, 00.35, 00.32,00.35 00.40, 00.35, 00.50	0715, 2187, 2305, 0013, 2843, 2245, 2259
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
8	Payment on wrong account – no email	01.05, 02.05, 01.15, 02.00, 02.30, 02.00, 02.15, 01.25	2907, 2855, 4918, 1603, 2842, 2813, 2438, 2395
	Discount which needs to be approved		
	Do not know the email address/phone number		
1	How to cancel SO	01.00	5542
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
1	Hanged up before introducing/SO released	00.15	
5	Unpaid invoices on account	01.45, 01.30, 01.25, 01.30, 01.35	4057, 0780, 2810, 2810, 9998
	2 orders, one payment		
2	IT issue, advise store to contact IS helpdesk	00.34, 00.18	2259, 2803
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
20	Valid Reason – No need to specify	01:22, 3:00, 2:50, 1:45, 1:55, 3:10, 0:30, 2:10, 1:30, 1:25, 1:45, 1:00, 1:10, 0:40, 1:10, 1:20, 1:10, 1:45, 1:50, 0.57	4923, 4998, 0709, 4802, 2282 4998, 2305, 2803, 2283, 2810 2810, 0778, 4853, 4905, 2810 4880, 2810, 2877, 2855, 2162,

Date	06.02.2017	Time	09.00-17.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
4	Phone received within < 5 min	00.44, 00.35, 00.40, 00.50	2842, 2306, 2812, 6768
	PO SLA <1h		
1	Didn't check the status of SO	03.10	2366
	Didn't check messages from team		
	Payment on wrong account - no email		
3	Discount which needs to be approved	02.20, 01.10, 01.30	1603, 4998, 2323
	Do not know the email address/phone number		
1	How to cancel SO	01.10	2486
1	How to discount SO	01.50	0771
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
2	Unpaid invoices on account	00.44, 01.30	4879, 2800
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	01.15	2245
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
16	Valid Reason - No need to specify	01:00, 1:47, 2:10, 1:35, 1:30 0:40, 0:55, 1:00, 0:43, 1:00 2:20, 3:40, 4:00, 3:20. 1:05, 2:20	4998, 2206, 2805, 2805, 2335, 0780, 4998, 1603, 2351, 2366, 2813, 2382, 2413, 2193, 2803, 2813

Date	07.02.2017	Time	09.00-17.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
1	Didn't check the status of SO	01.47	2814
1	Didn't check messages from team	00.37	2163
	Payment on wrong account - no email		
3	Discount which needs to be approved	01.47, 02.22, 01.07	2814, 2088, 4998
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
3	Information about delivery	01.28, 03.39, 01.06	2379, 0780, 2223
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
5	Unpaid invoices on account	01.06, 00.50, 01.32, 00.40	2200, 2865, 2211, 2211, 2302
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	02.13	2359
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
20	Valid Reason - No need to specify	1:00, 1:25, 1:22, 1:25, 03:55 1:48, 1:37, 1:54, 1:06, 2:03 4:09, 1:15, 2:52, 2:17, 1:47	4998, 2149, 2149, 2857, 2301 2857, 2200, 4928, 2264, 4810, 2841, 2463, 2810, 2379, 1616

Date	08.02.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
5	Phone received within < 5 min	00.36, 00.38, 00.38, 00.33, 00.49	4833, 2209, 2827, 2178, 4879
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
2	Payment on wrong account - no email	02.01, 02.00	2402, 9998
2	Discount which needs to be approved	02.21, 02.29	2402, 4933
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
1	Unpaid invoices on account	01.54	2422
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	01.34	4998
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
12	Valid Reason - No need to specify	00:05:12, 1:03, 1:26, 0:32, 03.00, 01.49 2:16, 0:59, 0:55, 1:04, 4:13, 0:48	4998, 4833, 2259, 2388, 0745 2422, 4998, 2271, 4909, 2250, 2879

Date	09.02.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
5	Phone received within < 5 min	00.22, 00.34, 00.12, 00.27, 00.18	2428, 2302, 2371, 2301, 0667
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
3	Payment on wrong account - no email	01.16, 00.32, 01.04	2322, 2168, 2245
1	Discount which needs to be approved	00.24	9998
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
1	Information about delivery	00.38	2389
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
2	IT issue, advise store to contact IS helpdesk	02.09, 00.40	2812, 2281
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
18	Valid Reason - No need to specify	00:01:30, 2:27, 0:57, 0:43, 1:43 1:31, 3:34, 1:07, 2:06, 1:31, 0:51 4:35, 2:00, 1:59, 1:22, 1:35, 0:38, 1:46	2259, 2130, 2168, 2371, 0776, 8889 2828, 2383, 2223, 2115, 2115, 4876, 1603, 2828, 2807, 2807, 2222,0703

Date	10.02.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
4	Phone received within < 5 min	00.45, 00.24, 00.13, 00.56	2314, 9998, 5542, 2810
	PO SLA <1h		
1	Didn't check the status of SO	00.46	2306
	Didn't check messages from team		
2	Payment on wrong account - no email	01.12, 00.45	2245, 2864
3	Discount which needs to be approved	00.23, 0.51, 00.23	2839, 2904, 2856
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
1	Information about delivery	00.34	4998
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
2	Unpaid invoices on account	00.43, 00.29	2401, 2271
	2 orders, one payment		
1	IT issue, advise store to contact IS helpdesk	00.43	2423
Call count	Start with 1, then replace with 2, then 3, etc.		
Call Duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00, ...		
Store Number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Valid Reason	Call Duration	Store Number
17	Valid Reason - No need to specify	01.56, 02.45, 01.12, 01.53, 04. 34 05.43, 02. 45, 02.12, 06.10, 05.02, 01.13 02.00, 04.45, 01.34, 03.54, 05.12, 03.56	2245, 0328, 2393, 2306, 3409, 2484 0034, 4998, 2314, 2422, 2206, 2383 2853, 9987, 0328, 2901, 5478,

B Measurement of invalid calls after implementation of IVR

Date	20.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	0.1.12, 01.48, 01.00	2814, 2245, 2232
	PO SLA <1h		
1	Didn't check the status of SO	00.57	2304
	Didn't check messages from team		
	Payment on wrong account - no email		
1	Discount which needs to be approved	00.49	2422
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	21.03.2017	Time	10.00- 18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
4	Phone received within < 5 min	01.18, 00.57, 01.50, 01.23	2827, 2163, 2272, 4998
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
5	Payment on wrong account - no email	00.36, 01.26, 02.48, 01.15, 01.23	9998, 2842, 2765, 9998, 7348
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	22.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	01.18, 00.49	2395, 2281
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
	Payment on wrong account - no email		
2	Discount which needs to be approved	00.56, 00.59	2281, 9998
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	23.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
1	Phone received within < 5 min	00.49	4998
	PO SLA <1h		
	Didn't check the status of SO		
1	Didn't check messages from team	00.58	4057
1	Payment on wrong account - no email	01.56	2271
2	Discount which needs to be approved	01.45, 01.00	9998,2211
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	24.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.37, 00.48	2290, 0003
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
2	Payment on wrong account - no email	01.24, 00.59	2423, 2401
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	27.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	01.59, 00.43, 00.59	2824, 3424, 2901
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
2	Payment on wrong account – no email	00.49, 00.53	2359, 2401
	Discount which needs to be approved		
	Do not know the email address/phone number		
1	How to cancel SO	00.25	2200
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	28.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
3	Payment on wrong account - no email	01.45, 02.01, 01.26	2423, 2271, 2810
2	Discount which needs to be approved	01.45, 02.04	9998, 2842
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	29.03.2017	Time	10.00- 18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.34, 01.47	9998, 2245
	PO SLA <1h		
1	Didn't check the status of SO	00.58	2402
	Didn't check messages from team		
2	Payment on wrong account - no email	01.28, 03.56	2281, 2401
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
1	Payment excluding VAT/short payment	01.35	7667
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	30.03.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.46, 00.59	2242, 2272
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
3	Payment on wrong account - no email	01.46, 02.13, 01.34	4998, 0322, 9998
1	Discount which needs to be approved	01.10	2281
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	31.03.2017	Time	10.00.-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	00.35, 01.15, 01.03	9998, 2323, 2906
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
2	Payment on wrong account - no email	01.24, 00.35	2827, 5542
1	Discount which needs to be approved	00.58	2842
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	03.04.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.56, 00.49	9998, 4998
	PO SLA <1h		
	Didn't check the status of SO		
2	Didn't check messages from team	01.16, 01.37	2401, 2245
1	Payment on wrong account - no email	00.49	2810
1	Discount which needs to be approved	01.39	2281
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	04.04.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	00.48, 00.58, 01.10	0766, 2301, 2428
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
1	Payment on wrong account - no email	1.36	2271
1	Discount which needs to be approved	00.59	2366
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	05.04.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
	Phone received within < 5 min		
	PO SLA <1h		
1	Didn't check the status of SO	01.14	2824
	Didn't check messages from team		
	Payment on wrong account - no email		
3	Discount which needs to be approved	01.37, 00.59, 01.48	2302, 2904, 2245
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	06.04.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	00.57, 01.14, 01.00	2302, 2842, 0013
	PO SLA <1h		
	Didn't check the status of SO		
1	Didn't check messages from team	00.39	2490
3	Payment on wrong account - no email	00.57, 00.43, 01.24	2245, 4933, 9998
1	Discount which needs to be approved	00.49	2812
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	07.04.2017	Time	10.00-18.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.48, 00.47	4998, 9998
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
3	Payment on wrong account - no email	01.45, 02.46, 00.56	2812, 2810, 2302
	Discount which needs to be approved		
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	10.04.2017	Time	12.30-21.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
4	Phone received within < 5 min	00.48, 01.35, 01.47, 0.57	2245, 2904, 2306
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
2	Payment on wrong account - no email	01.45, 01.15	2271, 2306
2	Discount which needs to be approved	00.57, 01.49	0322, 2810
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	11.04.2017	Time	9.30-18.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.54, 01.13	5542, 7584
	PO SLA <1h		
1	Didn't check the status of SO	00.27	2302
	Didn't check messages from team		
2	Payment on wrong account - no email	00.56, 01.49	2413, 4833
2	Discount which needs to be approved	01.14, 01.23	2856, 2306
	Do not know the email address/phone number		
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	12.04.2017	Time	09.00-17.30
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	00.57, 00.48	2864, 2209
	PO SLA <1h		
	Didn't check the status of SO		
1	Didn't check messages from team	00.29	2864
3	Payment on wrong account - no email	01.49, 02.01, 00.51	2901, 3424, 9998
	Discount which needs to be approved		
	Do not know the email address/phone number		
1	How to cancel SO	1.49	2281
1	How to discount SO	1.10	2402
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	13.04.2017	Time	10.30-19.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
3	Phone received within < 5 min	00.58, 01.45, 01.24	2839, 2904, 2306
	PO SLA <1h		
	Didn't check the status of SO		
	Didn't check messages from team		
	Payment on wrong account - no email		
1	Discount which needs to be approved	01.25	2810
1	Do not know the email address/phone number	00.23	2209
	How to cancel SO		
	How to discount SO		
	Information about delivery		
2	Payment excluding VAT/short payment	000.35, 00.56	0715, 0780
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

Date	14.04.2017	Time	12.30-21.00
Call count	Start with 1, then replace with 2, then 3, etc.		
Call duration	Write each duration of call. Do not delete previous call duration. Just write the duration of the next call next to it in format 0.00,		
Store number	At the start of each call ask for the store number. Record the store number in same manner as call duration. Eg. 2134, 2551,		
Call count	Invalid Reason for call	Call duration	Store number
2	Phone received within < 5 min	01.14, 00.59	9998, 4568
	PO SLA <1h		
1	Didn't check the status of SO	00.39	2988
	Didn't check messages from team		
2	Payment on wrong account - no email	01.23, 01.04	2812, 2364
1	Discount which needs to be approved	01.30	2272
1	Do not know the email address/phone number	00.27	9987
	How to cancel SO		
	How to discount SO		
	Information about delivery		
	Payment excluding VAT/short payment		
	Hanged up before introducing/SO released		
	Unpaid invoices on account		
	2 orders, one payment		
	IT issue, advise store to contact IS helpdesk		

