Oleksiy Dunets

Developing an Action Plan to Make Critical Customer Service Information Internally Available

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This page is the last element of my Thesis. This was completely new, interesting and amazing experience for me. It made me think about problems from the new and unusual point. Since 1997 I was involved in international business and have accumulated some understanding of the ways of solving business problems in practice. This Thesis provided a new fresh and extended angle to many problems and perspectives in the future. I would like to thank everyone in the case company who contributed to this study and came forward with ideas and suggestions to make this study successful. I would like to say warm words of support and understanding. I also need to say, please, believe. Changes are possible!

I would like to say thanks to my Instructors. Special thanks to Dr. Thomas Rohweder, for his time and valuable corrections at the time of writing this paper. Special thanks also to Zinaida Grabovskaia, PhL Head of IM&LOG Master's Programs, for her support, time, professional attitude and explanations of the huge number of details. I would like to thanks all other teachers, for their time and power that was invested into me as a student. Finally, I am thankful to my classmates for the great discussions we had during this year.

I also would like to say thanks to my family. I would like to thanks to my wife for her patience and understanding. I would like to thanks to my daughter for support. Thanks also to my son – hi, Alumni and thanks, good luck with your Master Thesis!

It becomes sad and hard for me to say these farewell words. Nevertheless, new challenges are waiting and new possibilities appear in the new business environment. I found a lot of friends here and, definitely these contacts could change a lot for me in the future. Thank you Program and Metropolia UAS. I am sure that my experience and knowledge received here, in Metropolia, will find good application in the future.

Oleksiy Dunets
Espoo
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Author	Oleksiy Dunets
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This Thesis builds an Action plan to make critical customer service information internally available within the case organization. The organization is a multi-international company that conducts its operations globally. The company faces strong competition in the market trying to improve its position. However, the company management is seeking resources and business instruments for improvements and, two ways are possible. The first way is engaging the external resources from external sources and, the second way is engaging the internal resources and use own strengths. The Thesis proposes to focus on the second approach and identifies the ways to help in the sales process by making the internal critical information easily available to the staff, when it is most needed, in the sales situations.

Strengths and weaknesses of the current information sharing were identified as findings from the current state analysis. The literature review was performed for revising the existing knowledge / best practice to treat the issues identified in the current state. The conceptual framework is focused on three issues that necessary to be fixed and for constructing the final action plan.

The outcome of the Thesis is the action plan developed for the local branch. The actions plan is developed for (a) making the necessary critical information internally available, and (b) improving the information sharing process within the organization. The action plan is constructed by collecting data from the interviews, internal software and documentation, group discussions with the core stakeholders and also the company internal documents. The final action plan is constructed as the universal instrument that can be copied to other sites. In this way, the company utilizes only available internal resources at the time of implementation the plan. In this way, the Thesis aims to evoke improvements within the company by utilizing own resources and based on what is already available.

Keywords	Action plan, Critical Customer Service Information, Hadoop

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Acronyms

CHF – International code of Swiss franc
EU – European Union
ISO – International Organization for Standardization
HR – Human Resource
CSA – Current State Analysis
QMS – Quality Management System
S&W – Strength and Weakness
IT – Informational Technology
CEO – Chief Executive Officer
DB - Database
ICT – Information and Computer Technologies
OSI – Open Systems Interconnection
RDA – Resource Description and Access
CMU - Carnegie Mellon University
CFW – Conceptual framework
HADOOP – Modern technology of IT architecture
PDCA – Plan-Do-Check-Act circle
Q@Im – Quality and Improvement
UEX – User Experience
CEM – Customer Experience Management
CRM – Customer Relationship Management
LN – IBM Lotus Notes Software
AGRI – Agriculture Products Business or Department
AFL – Agriculture, Food and Life Business or Department
MIN – Mineral Products Business or Department
OGC – Oil, Gas and Chemistry Products Business or Department
IND – Industrial Products Business or Department
TS – Transportation Services Business or Department
GIS – Government and Institutional Services Business or Department
CRS – Consumer Retail Services Business or Department
CBE – Certification and Business Enhancement Business or Department
EHS - Environment Health and Safety Services Business or Department

1 Introduction

This study aims to develop an action plan to make critical customer service information internally available. When the action plan is available, it is also possible to improve the information sharing process within organization and finally, help in discussion with customers and the sales process. This action plan can also be copied to other sites at the time of revising the sales process and operational activity of a multinational company involved in cross-border business, especially across EU borders. The case company conducts the business that requires a lot of new expert knowledge, methodologies, and approaches for providing services across the globe.

Presently, many companies are joining international markets and trying to optimize their operations. The companies are interested to raise the efficiency by implementing the quality management systems, such as ISO standards, or techniques such as *just-in-time* or *six-sigma.* Nevertheless, the sales process still presents a lot of unpredictable issues related to different technological and standard requirements, different regulations and law requirements, as well as culture.

At present, the new requirements, standards, and regulations appear ever faster in different countries, industries, and spheres of business. Internal knowledge sharing is helpful in creating a database with information about existence and readiness the Human Resources and equipment as well as actual information about internal technologies and procedures fitted with external Standards and Regulations. Moreover, this knowledge is critical for the sales personnel and necessary to be available and used at the time of sales by sales and operational staff.

An internal database of previous jobs is also helpful at the time of sales the products or services, as well as at the time of performing the jobs. In this way, an improved fast-searching database can be created, so that to raise the efficiency of sales activity as well as conducting the technical tasks for the company operational departments. The creation of such a database makes the focus of this Thesis.

1.1 Business Context

The case company of this study is an expert organization involved in the cross-border inspection, testing, verification, and certification business. This is an international company providing services to customers globally (especially across borders around the

world). The company is the supplier of services requested by banks, insurance or trading organizations. The company services relate to agriculture and mineral products; oil, gas and chemistry products; industrial products. Certification and laboratory testing services are also revised as part of the company business. The company has about 1800 offices and laboratories around the world. It has totally about 85 000 employees who work at different geographical locations globally. In the fiscal year 2015, the case company has shown a total 7,822,436 CHF capital amounting.

The company is one of the market leaders driven by product quality and product variety in this market segment. Nevertheless, the international business environment is developing, with new standards, requirements, and regulations appearing almost daily in this field. Moreover, competitors are becoming more active in the market. The new circumstances appear in the business and, the company cannot support their customers with their requests in case new knowledge and available high-skilled personnel are not known to be available for services. In this way, the company loses sales and customers become less satisfied and, many of them resign from the future co-operation. This modern, effective information sharing about the available personnel, services, and equipment makes a challenge for the company.

Thus, currently, the company suffers from a huge amount of information coming from both, external sources and customer requests, as well as business circumstances. When the new customers are coming spontaneously, the information about internal resources is not equally quickly available; moreover, even does not distribute within the company departments.

As a result, the company Sales personnel cannot work productively, under permanent pressure from the customers due to the lack of internal information within branches and departments. But it not only that the sales personnel is not effective, it is also that the operations are not supported well. As result, the sales are in decline from year to year, and the profit from the operational activity is not growing. The company business, that otherwise has enormous potential, is not developing even in the growing markets.

1.2 Business Challenge, Objective and Outcome

Currently, the case company's branches are spread geographically, and they experience delays in providing services to customers caused by lack of easily available information

about internal resources. This information especially relates to: (a) existence and qualifications of personnel (due to lack of HR information); (b) existence of technologies internally available and procedures, working instructions, and (c) existence the technical information (e.g. Standards, regulations, specific for each country and/or globally) to serve the customer requests speedily.

It seems that currently this information is either not available internally, or it is not integrated effectively, so that it does not help in making critical customer service information internally available, at the time of the sales process (customers' requests), as well as in providing services. Presently, the company personnel complain that information is scattered, spontaneous, often searched unprofessionally from the Internet. At the same time, customers expect immediate and professional responses (while internal data shows a correlation between discussions with customers and the company profit). As a result, feedback collected from the customers is often negative and sales lost.

Accordingly, the objective of the study is *to propose a concept to develop an Action plan for a company-wide database that makes critical customer service information internally available.*

The outcome of the study is to propose a plan for developing the internal Knowledge management database. This internal database will systematically include: (a) HR existence, qualifications and disposal, (b) available knowledge of internal technologies, procedures and working instructions as well as knowledge from the past projects already performed, (c) information on standards, regulations, and specific to local countries as well as to global level.

In addition, the final outcomes will also include the recommendations for: a) implementation of the online tool, and b) guidelines for it.

1.3 Thesis Outline

The scope of the thesis includes the 3 branches of departments, and the 3 types of information related to organizational issues, IT infrastructure and business processes available within the organizational structure at the time of use the IT infrastructure.

The study will be conducted by, first, investigating the current state analysis of the company in terms of the currently available information and its use. After that, as soon as the

challenges in this current process are known, the study will search for available knowledge and information to tackle the identified challenges. The proposal for the company-wide database will be created based on both, the company information and the findings from available knowledge and best practice

This study is written in 7 sections. Section 1 in this study provides the Introduction. Section 2 describes the methodology used in this industry, while Section 3 provides the current state analysis. Section 4 analyses existing knowledge and the best practice from literature and provides the Conceptual framework for the study. Section 5 proposes a draft version of the solution for the case company. Section 6 examines the feedback from the sites on the draft proposal to make a final version of the proposal. Finally, Section 7 presents the summary and conclusion from this study, along with an evaluation of the study in terms of reliability, validity, and success in achieving the objective.

2 Method and Material

This section focuses on research approach, research design, data collection methods, validity and reliability of the study.

2.1 Research Approach

This Thesis utilizes case study as its research approach. A case study is an approach that investigates contemporary phenomenon within its actual context in real life by an experimental inquiry and, revise the case study as an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2003: 13). The main aim of a case study is to find out the truth which is hidden and which has not been articulated or made known yet (Kothari C, 2004).

A case study supports the deconstruction and then subsequent reconstruction of the whole phenomenon for a complete understanding of the case (Yin 2003, 13). The deconstruction means understanding the details of a particular process and its key influencing factors. This convergence of data and findings from multiple data sources strengthens the results of the study, on the one hand, and, on the other hand, it makes the analysis more powerful and rich for a greater understanding of the whole case. (Baxter and Jack 2008: 554).

In this study, the case is defined as “Information sharing process” of the case company and this study examines the role of effectively sharing knowledge within the case company with the purpose to construct an effective way of delivering the information “just in time”. In this study, the data from several company units are analyzed under the leans of improvements the efficiency of co-operation within the company structure. The individual analysis of data from each unit helps to understand the influence of each business in the process, heading towards an improved way of effective discussion within the company structure.

In this Thesis, the study of the phenomenon is the inquiry of use of the effective knowledge sharing (of critical customer service information) at the time of sales or operational activity within the company branches located around the world. It is carried out as a case study since it deals with a big amount of data, deeply rooted in the context of

the case company, with the aim to make information available for use to all branches internally.

2.2 Research Design

The research design of this study is based on the logic of the case study and is divided into five stages, as presented in Figure 1 below. Figure 1 illustrates how the research design is built and what are the outcomes of each particular stage.

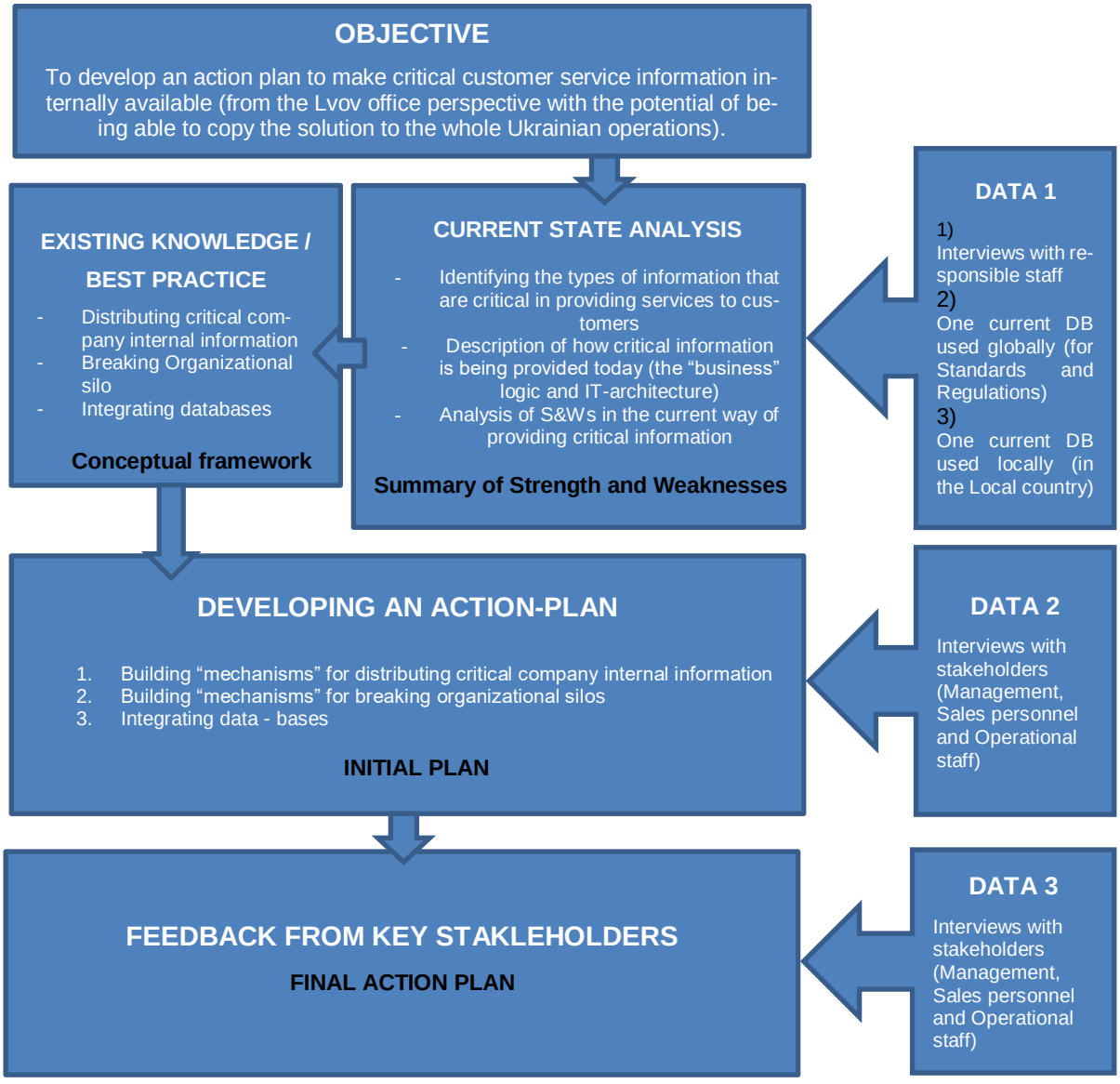

Figure 1. Research design in the study.

As seen from Figure 1, the five steps are distinguished in this study, and it starts with the first step related to the business problem identification. The next step is connected with the current state analysis (CSA) and identification of strength and weaknesses (S&Ws) in the current way of information sharing. This is done by collecting data from the interviews, internal software and documentation checking. Identifying the critical information is performed using employee and managerial interviews, stakeholders' responses as well as information from the computer systems and business architecture utilized at present. The next stage of CSA focuses on making a thorough analysis of the current operating processes. The final stage is connected with identification strength and weaknesses of the current processes available on the company site, in relation to the use and existence of internal information.

Next, the study focuses on examining literature and existing knowledge to uncover the best practice related to distributing critical company internal information, with the aim of building internal company databases for the company business. This is done with the purpose to select the most suitable approaches for formulating the proposal that would later help to improve the situation. The final step in this stage is formulation the Conceptual framework of the Thesis.

The next stage is connected with proposal building by the researcher. This initial proposal is built bearing into account the information gathered from the CSA and suggestions from best practice. The proposal also includes an action plan how to make critical customer service information internally available, so that to help sales and operational processes. The final stage is the proposal validation, where the researcher presents the proposal to the case company staff in order to get feedback. Feedback from the key stakeholders makes the basis for revising the plan and preparation of the final version.

2.3 Data Collection and Analysis

This study collects and analyzes data in three data rounds Data 1-3. Data 1 is gathered to depict the current state of the case company information sharing at present. Data 2 is collected with the purpose to build the draft of the proposal – a plan for the company-wide database. Data 3 incorporates the needed adjustments to the proposal – the necessity of gathering the feedback from the key stakeholders for validation of the proposal and constructing the final version of the proposal. Table 1 below presents an overview the different data stages and points to the section of the data sources.

Table 1. Data 1-3 collections in this study.

Data	Method	Goal	Section
Data 1	Interviews, Discussions, company documents and internal software systems	Description of the current process, identification the strength and weaknesses in the system	Section 3 - CSA. The Current State Analysis
Data 2	Interviews, Discussions	input to the draft of proposal building, checking the final draft	Section 5 - Developing a draft of the Proposal
Data 3	Interviews, Discussions	feedback to the draft of the proposal from the key stakeholders	Section 6 - Getting feedback on proposed draft and Summary of the final proposal

As seen from Table 1, the data is collected in three stages. Data 1 is collected utilizing interviews, discussion, the company documents and company software. This data is analyzed in Section 3 of this Thesis. Data 2 is collected from interviews and discussions. This data is utilized in Section 5 at the time of building the draft of the proposal. Data 3 is collected from interviews at the time of validation of the final proposal in Section 6. The data is collected at different data collection stages and specified in Tables 2, 3, 4 and 5 below.

Table 2. Data 1-3 collections: data sources, focus and outcomes.

Data	Focus	Source	Informant	Outcome	Timing
DATA 1					
Data 1(a)	Identifying the types of information that are critical in providing services to customers and providing the information today from the "business" logic	Interviews, Discussions, company documents. internal software systems on the local and global levels	001 – Expert-freelancer 002 – Operational staff 003 – Operational staff 004–Operational Manager 005 – Operational Staff 006 – Business Development Manager 007 - Business Development and Sales Manager 008 – Branch and General Operational Manager 009 – Quality Auditor 010 – Project and Business Development Manager	List of critical information	Questionnaires sent week 02-05, 2017. Questionnaires collected week 07-08, 2017.
Data 1(b)	Identifying the types of information that are critical in providing services to customers and how critical information is being provided today ("business" logic and IT-architecture)	Interviews, Discussions Internal software systems on the local and global levels		Summary of current info sharing practices	Questionnaires sent week 02-05, 2017. Questionnaires collected week 07-08, 2017.

Data 1(c)	Analysis of the strengths and weaknesses in the current way of providing critical information	Interviews, Discussions		Summary of strengths and weaknesses of current approach	Questionnaires sent week 02-05, 2017 Questionnaires collected week 07-08, 2017.
DATA 2					
Data 2	Input in the proposal building - description of how the critical information is distributed via Organizational Structure. Building the draft of the plan.	Interviews, Discussions	002 – Operational staff 003 – Operational staff 004–Operational Manager 005 - Operational taff 006 - Business Development Manager 007 - Business Development and Sales Manager 008 – Branch and General Operational Manager 009 – Quality Auditor 010 – Project and Business Development Manager	Summary of critical inputs that used in the draft of the "plan"	Questionnaires sent week 15-16, 2017. Questionnaires collected week 16-18, 2017.
DATA 3					
Data 3	Feedback from the key stakeholders	Interviews, Discussions	002 – Operational Staff 003 – Operational Staff 004 – Operational Mgr 007 – Business Development and Sales Manager 009 – Quality Auditor 010 – Project and Business Development Managr	Checking the draft of the "plan" and finalizing the final "plan"	Questionnaires sent week 18, 2017. Questionnaires received week 18, 2017.

As seen from Table 2, Data 1 focuses on: a) identifying the types of information that are critical in providing services to customers, b) description of how critical information is being provided today ("business" logic and IT-architecture), and c) analysis of the strengths and weaknesses in the current way of providing critical information. The outcome includes: a) a list of critical information, b) summary of the current info sharing practices, and c) summary of strengths and weaknesses of the current way of information sharing. A detailed description of Data 1-3 collections is available in Appendix 1.

Data 2 focuses on input in the proposal building in connection to the critical information on: (a) Personnel (P), (b) Technologies (T), and (c) Standards and legal issues (L). The outcome is the summary of critical inputs that used in the draft of the "plan". The construction of the proposal involved key stakeholders in order to gather input and receive feedback. In Data 2, part of stakeholders participated in Data 1 were involved. Data 2 was collected by conducting one-to-one discussion sessions where an initial proposal

was discussed. The meetings were recorded and documented in the field notes. The detailed overview of Data 2 is presented in Appendix 2.

Data 3 includes feedback from the key stakeholders to check the draft of the “plan” and finalizing the final version of the “plan”. The validation feedback was collected from the company Managers involved in daily business and the company Quality Auditor. The result was applied to the initial proposal after which the final proposal was created. The details of the data collected are presented in Appendix 3.

Interviews

This Thesis being a qualitative study, it utilizes interviews, which is the primary data source in this study. The interviews are conducted with the stakeholders of the case company, mainly via e-mail, skype, and face-to-face discussion. The field notes during the interview were recorded and documented. The notes from the interview were translated by the author when the interview was conducted in a language other than English, and submitted for checking to the interviewee prior to being utilized in this study. Appendix 1 presents a detailed view of the data used for conducting Data 1 collection.

Totally ten informants were interviewed and, the list of informants is presented in Table 2. Ten employees involved in the company business at the site of branches were interviewed. These persons have direct contact with customers and information from them is revised as important background for understanding the core of problems. Interviewed personnel are involved in the business in the middle management positions, inspection activity as well as operational performance and auditing.

In addition to the interviews, other types of data were utilized, such as participant observations (the researcher being the company and certification programs employee for the last 14 years) and internal case company documentation.

Internal documentation, participant observations, and software

Analysis of the company internal documentation included the following documents utilized at present moment, as presented in Table 3 below.

Table 3. Company documentation used for the current state analysis.

	Name of the document / software	Description
1	Global Internet pages	Description and the information about the company and services global level Description and the information about the company and services in the local country (I). Description and the information about the company and services in the local country (II).
2	Documentation on inspection services	Description of the scope of Inspection services and limited responsibility.
3	Documentation on certification services	Description of the scope of certification services and limited responsibility.
4	Documentation on testing services	Description of the scope of certification services.
5	Documentation on Services supplied on global level as well as on the local country level	List and description of condition the services supplied around the world.
6	User Agreement and Terms and Conditions governing issue and use of electronic documents for the company customers	The documents related to governing the relationship between the company and the customer in case of using the electronic database and usage the account in the company` global IT system.
7	Benefits and Policies for the company personnel	Benefits and Policies for the staff involved in the business development.
8	Local company procedures available in the intranet system	QMS local procedures available in IT system at the site of the local branch. Job descriptions of the personnel. Structure of the Enterprise in the local country.
9	Global company procedures available in the intranet system	QMS global procedures available in IT system worldwide and accessible from the local host in the local branch in. Job descriptions of the personnel.
10	Code of Integrity	Description the business ethic and definition the main principles of professional integrity and is an expression of the values that are shared throughout company, the company` various businesses and affiliates. Referring to it should help anyone acting for the company to make the correct decisions while carrying out the work. Simplifying this is ways of conducting the business.

Table 3 shows the list of internal documents utilized within the CSA. The case company has documented procedures available via intranet system. The documents were reviewed as shown in Table 3. These documents helped to analyze the current practices in the company. These company documents made a valuable source of data for the final proposal and as valuable input for the interviews. Additionally, the company software used at present moment on daily basis was also examined.

3 Current State Analysis

This section describes the results of the current state analysis that focus on the practices of providing the critical customer information for providing services today.

3.1 Overview of Current State Analysis

The current state analysis (CSA) aims to establish the current practices of (a) using the information critical in providing services to customers and (b) ways of sharing the information nowadays.

First, the current state analysis (CSA) *starts by an overview of the case company structure at the global and local levels*. This information is important in order to understand the information sharing needs and the types of critical information.

Second, *it identifies the types of critical information* for help in making the critical customer service information internally available. This is done by collecting data from the interviews, internal software and internal documentation checking. *Identifying the critical information* is performed using employee and managerial interviews, stakeholders' responses as well as information from the computer systems and business architecture utilized at present.

Third, the final stage is connected with identification strength and weaknesses of the current processes of *information sharing available in the company*, in relation to the types and existence of internal information.

Finally, the CSA *presents the S&Ws (the strengths and weaknesses) of the current ways of proving the critical customer information today*. Thus, the CSA aims to clarify how the types and process of sharing critical information are performed today.

3.2 Organizational Structure of the Case Company

The general scheme of the case company structure is presented in Appendix 4. The company has the Headquarter located in EU, and the Headquarter is responsible for the business around the world. The company worldwide network is managed by regional offices located in defined regions around the world. The regional offices are responsible

for the businesses in the local countries and, the management in the local countries is responsible for managing the businesses and field branches with personnel involved in the business as contractors or private entrepreneurs. Figure 2 shows the company structure on the global level.

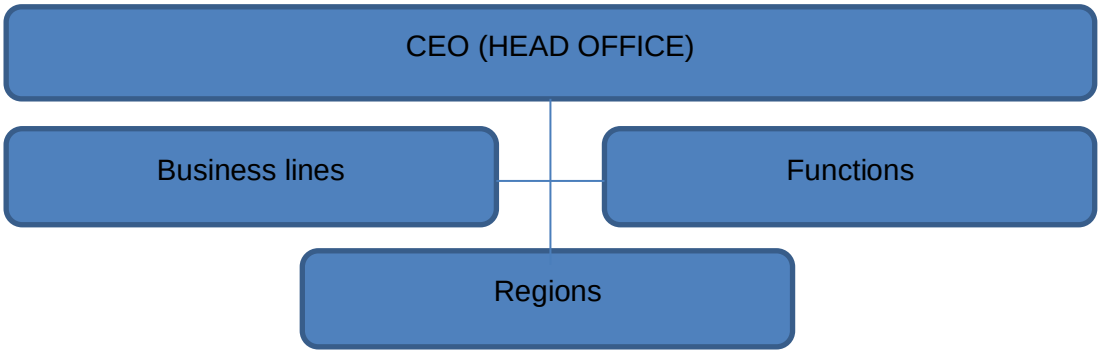

Figure 2. The Company structure on the global level.

As seen from Figure 2, three main activities are gathered in the operational council business. All of them influence the results but regional management and business lines are playing the most important role in the sales process.

3.2.1 Regional Level of the Organizational Structure

The Regional Managers are responsible for successful development of the company` businesses in their Regions. Figure 3 shows the company regional structure worldwide.

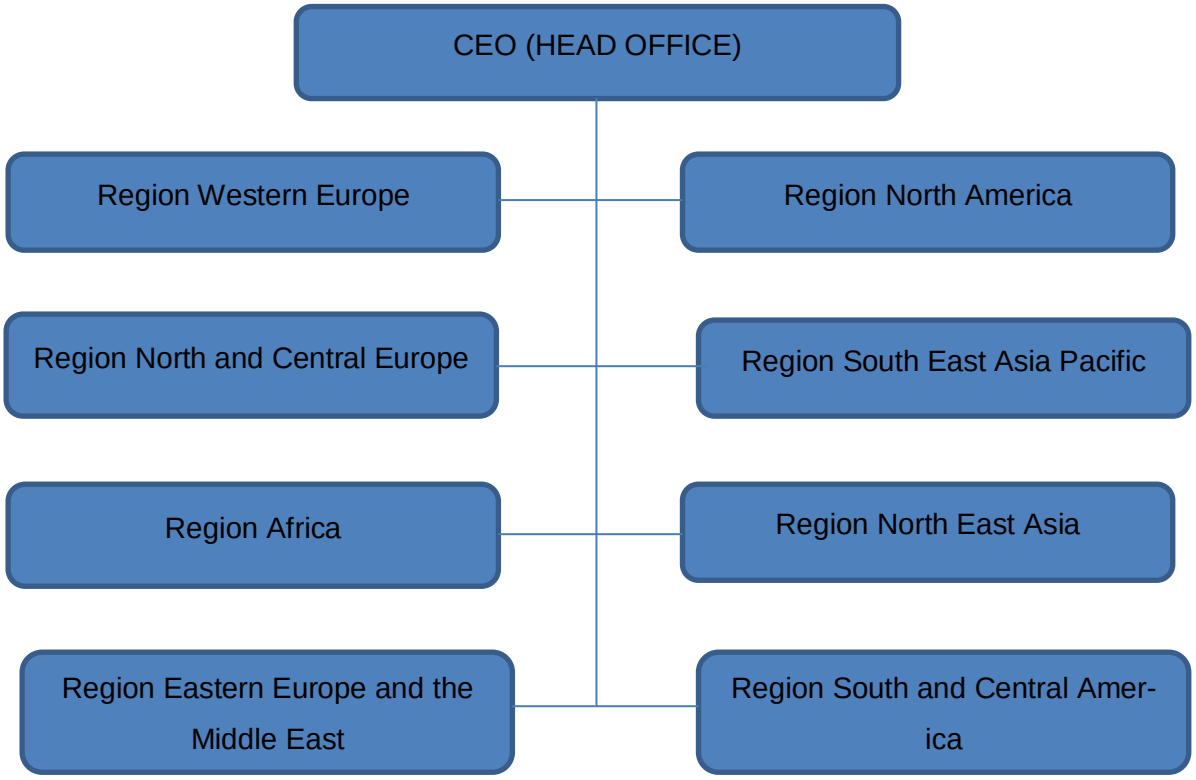

Figure 3. The company structure worldwide (Regional).

As seen from Figure 3, the regional structure is divided into eight regions and, the company CEO is responsible for managing the regional offices located around the Globe. The Regional Managers are responsible for the business development in their regions. At the same time, the Regional Managers are also responsible for administrative, legal and financial issues.

The businesses are conducted in operational departments. The businesses are responsible for operational activity and it is their responsibility to find the relevant staff, the relevant standards, and equipment. Figure 4 shows the businesses structure implemented worldwide.

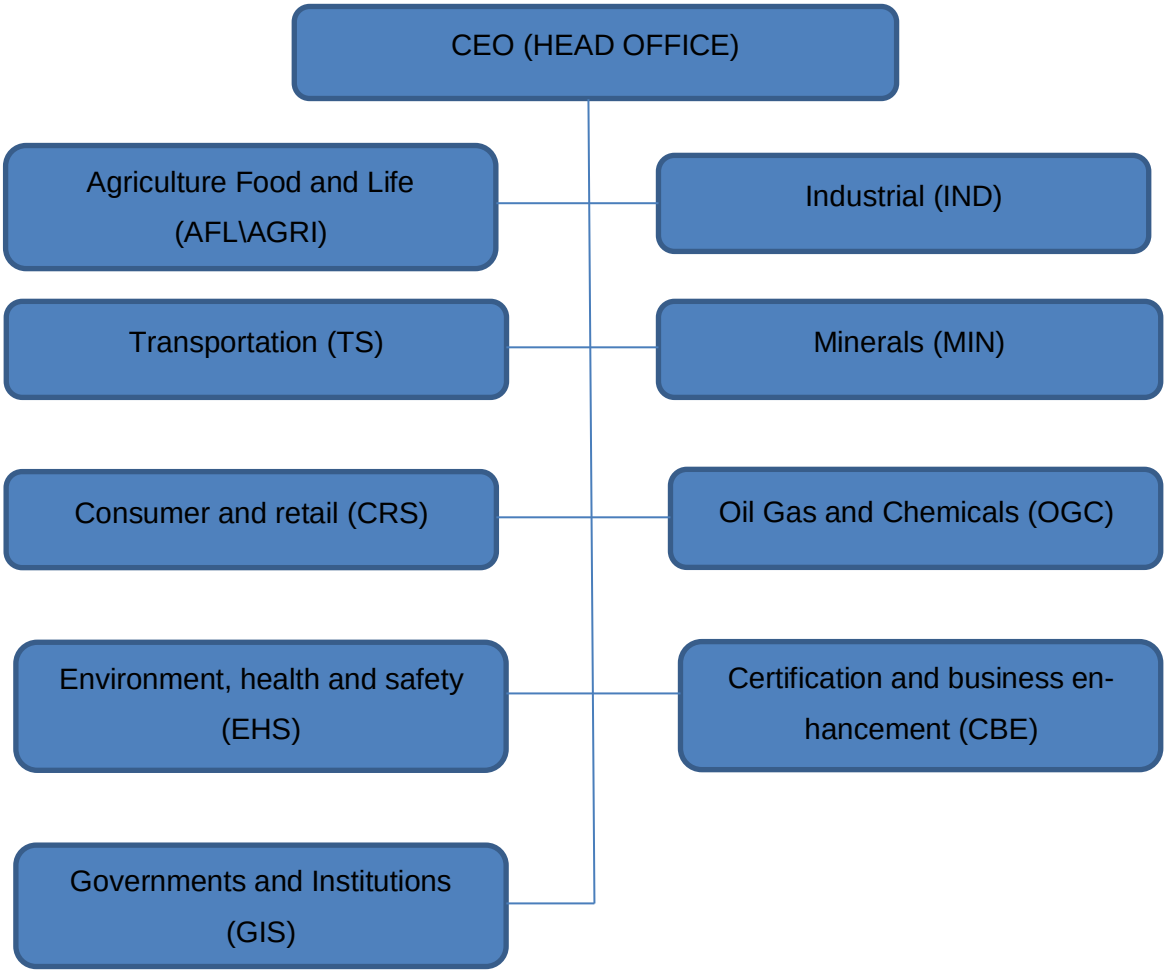

Figure 4. The company structure worldwide (Business).

As seen from Figure 4, the businesses are responsible for reporting to the Head office and, the information is gathered by CEO. The CEO is appointed as the person responsible for business turnover worldwide.

The Functions are revised as supporting activity to the business and regional structure. Nevertheless, the functions have the influence on the situation due to existence and combination the responsibilities for finances, legal and compliance issues, and corporate development and investor relations. Figure 5 shows the information related to the functions in the company activity.

Figure 5. The Company department functions, on the global scale.

As seen from Figure 5, the functions are revised as supporting activity in financing, legal compliance, communications, innovation and strategic transformation.

3.2.2 Local Level of the Organizational Structure

Involvement the country local management is the key to understanding the customer needs and successful discussion with customers. The company uses local management in the local countries to support their customers. The country local management is available in the local country offices. The business managers, local operational supervisors, staff, supporting personnel and hub of services are also available in the local offices. The branches have connections with local offices and, they are located in different geographical locations within one country.

The structure of the company branch in the local country is the key to understanding how the business contacts their customers in the field. Figure 6 presents the common structure of the company branch wherever in the world.

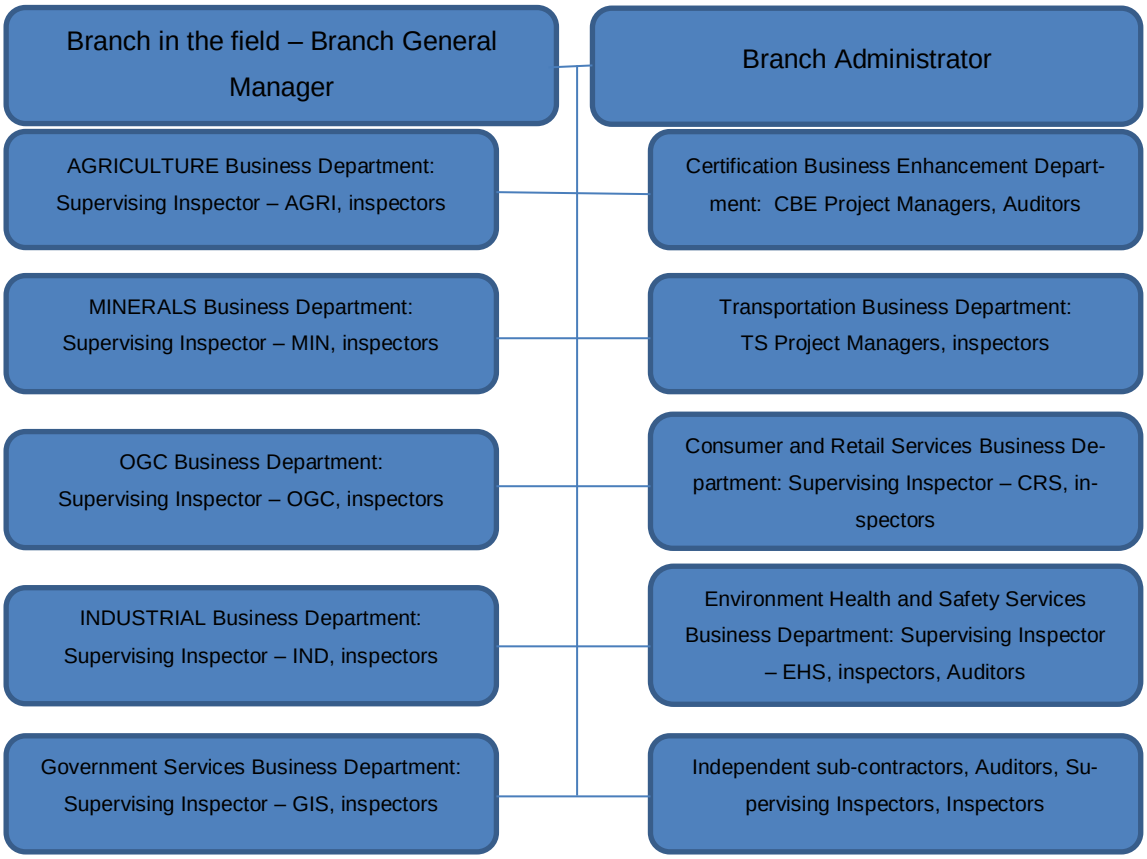

Figure 6. Structure of the company branch in the local country.

Figure 6 shows organizational structure of the branch in the local country. The branch is involved in the operational business as this is the main part of its job and fully responsible for the quality of service performed directly at the site. In this way, direct contact with customers is delegated mainly to the branch staff in the local country. This is the responsibility of the branch to discuss the business details with customers and explain what is necessary for the purpose to improve the company-customer relationships.

The discussion with customers is mostly conducted on the level of the company branch. The company income or cash generation process is followed and correlates with the company-customer discussion.

At the time of gathering of Data 1, the interviewed staff is involved in the business directly at the sites of the branches. In this way, the staff is directly involved in the discussion with customers.

3.3 Types of Information Critical in Providing Services to Customers

The general map of types of information is presented in Appendix 5 and, this information is connected with the architecture of DB and applications used globally and locally. The customers of the case company are typically seeking the best price, acceptable terms and quality. In order to support their requests, the critical information is necessary to be extracted from internal sources and relevant staff should be found. The critical information is necessary to be clear, valuable for the customer and delivered in the fastest possible ways. In order to identify this critical information, Data 1 included the questionnaire constructed to understand what makes critical information. (The questionnaire is available in Appendixes 6-8).

According to the answers to the questionnaire, three issues were identified as critical information. The first one is the issue connected with Personnel and personnel qualification (P), the second issue is connected with available internal Technologies, procedures, etc. (T), and finally, the third issue is connected with Law, standards and regulatory documents from external sources (L). These three types of information were identified as needed to the customers at the time of sales as well as later, in operations. These three issues and their role in business are described below.

3.3.1 P (P)-Personnel

The personnel used in the company business is the expert qualified due to the necessity to be in compliance with local and international legislation, standards, norms, and regulations. Therefore, the company always seeks for the qualified staff locally and globally. HR Management is delegated to the local offices in the local countries and each office is seeking for the personnel according to the needs available in the business.

Since it is important that the service is performed according to the international standards and personnel are qualified against international requirements and technologies, the staff is mostly sought after by company branches, or local offices, or HR departments due to payment issues and local legislation requirements. Importantly, although the staff is managed by HR departments according to the local administrative requirements (collected from the regional or global level), the salary and benefits are discussed individually, proposed to the particular employee. The salary level is fitted to the average salary within a definite country but discussed in each individual case.

At present, the HR database is used by HR department in the local country and, local personnel in the branches do not have access to the staff database even within the borders of the one local country. It is obviously that systematization is available but this systematization is available for the Highest Management and HR purposes on the local level. Part of critical information cannot be gained in a timely manner by sales or operational staff. It is obviously that thus part of the critical information is not accessible to the sales staff at the moment of sales the service. The core problem is connected to the approach to HR management, access to the HR database and synchronization the database with business requests. The first reason of such situation is connected with nature of expenses related to the salary which consists about 40-45% of the company income operational result. This is “unacceptable” from the point of view the company management. In this way, the information is revised as the “secret” from the own staff. The second issue is connected with the absence of clear understanding how to fulfill and manage the database - absence the understanding how to build and maintain the database.

Summing up, the abovementioned practices lead to closing the information about available staff and their qualification, the information is discussed in the narrow circle of highest management, the power and knowledge of personnel cannot be used properly and timely.

3.3.2 T (T)-Technology

The (T) data are using due necessity to be in compliance with modern local and international legislation, standards, norms and regulations and business requirements. Therefore, the company always seeks for the modern technologies can be used locally and globally. The information is updated on the regular basis depending on the actual business circumstances. Updated information is stored into special databases (global and local databases) depending on the level of relevance.

The databases with T (technologies) are managed on the local level as well as on the global level and, the interface is fitted to users located locally and globally. The databases are developed in the way that always updated information is stored on the global or local level. Importantly, that at the time of sales process in particular country, the (T) databases are used in the local country and, local personnel in the local branches has

access to the (T) databases developed in the local country. Nevertheless, local databases in different countries are available in the local languages and not synchronized, the information about T (technologies) cannot be shared between different countries even within one region. Indeed, the global (T) database is available in English.

It is obvious that systematization is available but this systematization is available in the local country and, the information is closed at the local level. In this way, part of critical information cannot be gained in a timely manner by sales or operational staff. It is obvious that thus part of the critical information is not accessible to the sales staff at the moment of sales the service to the customer. The core problem is connected to the approach to databases management; access to the (T) databases and synchronization the databases according to the business requests. The first reason of such situation is connected with nature of managing the process of saving and distribution the information on the local or regional levels. The second reason is connected with the absence of clear understanding how to fulfill and manage the databases - absence the clear understanding how to build and maintain the effective databases for the business purposes.

Summing up, the abovementioned practices lead to closing the information within the borders of the one country, the information is discussed in the narrow circle within the one-speaking region, the company powerful infrastructure is wasted and not used just-in-time, knowledge and valuable information cannot be used properly and timely.

3.3.3 L (L)-Legislation, Standards, Norms and Regulations

The (L) data related to legislation, standards, norms and regulations are using due necessity to be in compliance with modern local and international business circumstances. Therefore, the company always seeks for the new information that used locally and globally. The information is updated on the regular basis depending on the actual business circumstances. Updated information is stored into special databases (global and local databases) depending on the level of relevance.

The databases with L (Legislation, Standards, Norms and Regulations) are managed on the local level as well as on the global level and, the interface is fitted to users located locally and globally. It is important that services are performed according to the international or local requirements. Importantly, that at the time of sales process in particular country, the (L) databases are used in the local country and, local personnel in the local

branches has access to the (L) databases developed in the local country. Nevertheless, local databases in different countries are available in the local languages and, the information cannot be shared between different countries even within one region. Indeed, the global (L) database is available in English.

It is obvious that systematization is available but this systematization is available in the local country and, the information is closed at the local level. In this way, part of critical information cannot be gained in a timely manner by sales or operational staff. It is obvious also that thus part of the critical information is not accessible to the sales staff at the moment of sales the service to the customer. The core problem is connected to the approach to databases management, access to the (L) databases and synchronization the databases according to the business requests. The first reason of such situation is connected with nature of managing the process of saving and distribution the information on the local or regional levels. The second reason is connected with the absence of clear understanding how to fulfill and manage the databases - absence the clear understanding how to build and maintain the effective databases for the business purposes.

Summing up, the abovementioned practices lead to closing the information within the borders of the one country, the information is discussed in the narrow circle within one-speaking region, the company powerful infrastructure is wasted and not used just-in-time, knowledge and valuable information cannot be used properly and timely.

3.4 Ways of Providing Critical Information Today

The process of delivering the information to the company customers is mostly performed on the local level by local staff. The branch in the local country is responsible for contact with customers in the field. Discussion with customers and delivering the information to the customers is controlled by the persons responsible for general questions in the branches and, by the special staff in rare cases. In this way, access to the information is granted to the General Management. The sources of information and the databases are mostly available in the company databases but personnel involved in the process also search additional information from external sources.

Figure 7 below shows the case of utilizing the databases at the time of delivering the information to the customer in cross-border co-operation.

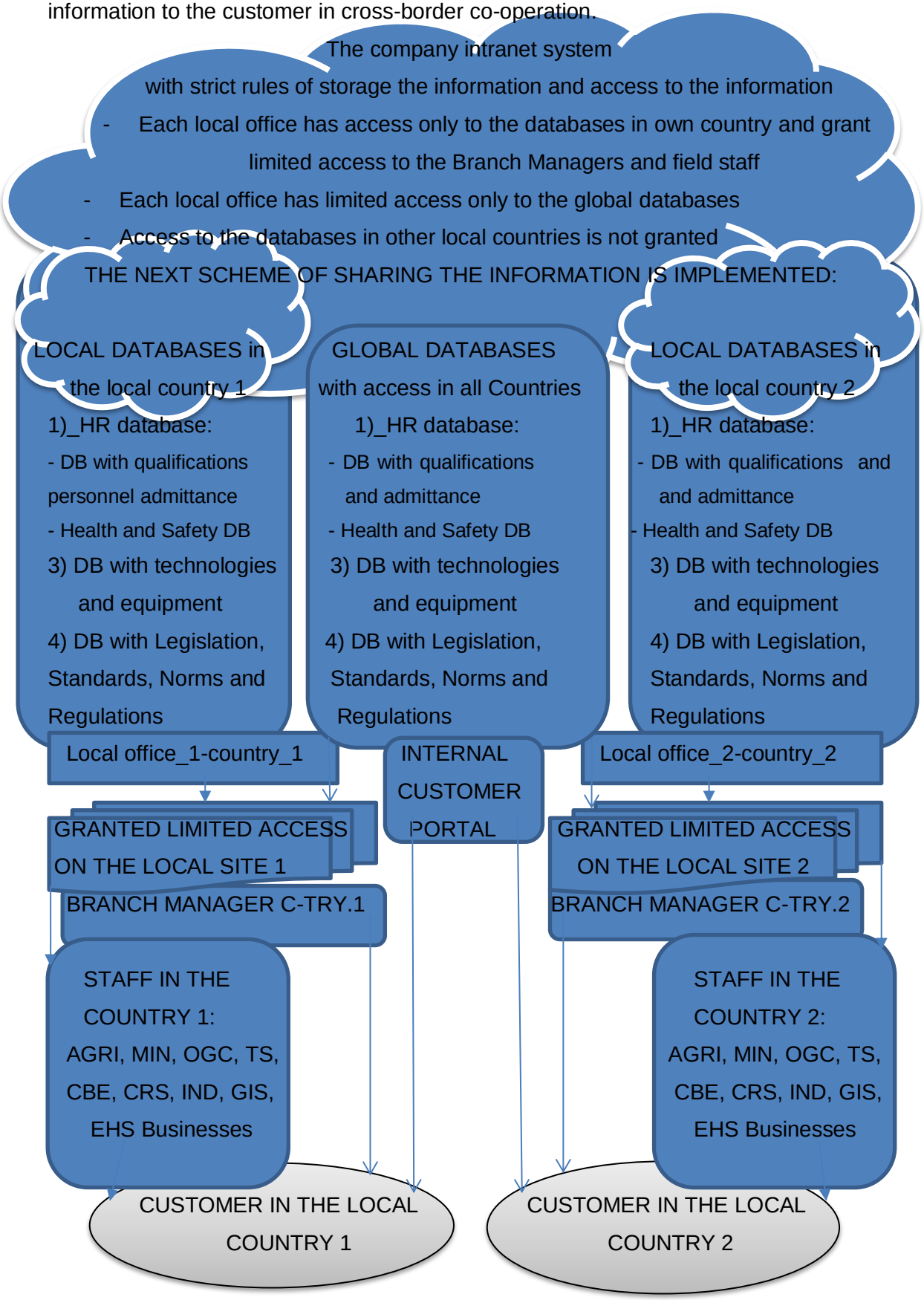

Figure 7. Providing critical information to the customer from the company databases.

Figure 7 shows the process of sales activity and co-operation with customers. It is clear that customer in the local country 1 cannot be supported with information from the local country 2. It is important that local databases available in the local country 2 cannot be shared and distributed between the company branch or personnel in the country 1 and vice versa. According to the company rules, the customer 1 in the country 1 is necessary to be served by local branch in the country 1 and, the customer 2 in the country 2 is necessary to be served by local branch in the country 2. Moreover, the information is not delivered to the customer directly but via the chain of company entities and, limited access is often available to the branches or personnel. Only one exception is the “customer portal” located within global intranet system.

Presently, it is also impossible to have fast access to the part of critical information due to limited access to internal informational chains for one local country. Fast access also cannot be supported due to the long chains at the time of searching and delivering the critical information. The broken informational chain is available between the company branches in different countries. However, this communication is conducted in non-effective way and process of “extraction” the information within company structure and delivering the information to the customers is very complicated and conducted in a time-wasted manner.

Assuming the above mentioned, the mere fact of the existence of the databases with critical information is confirmed. However, *these databases are not integrated between themselves* and, the way of delivering the information is too complicated. As result, the information is delivered in a slow, non-professional manner, if at all.

Figure 7 shows the process of delivering the information to the customers in two different countries. Figure 8 shows the process of delivering the information to the customer at the site of the one local branch.

Business processes and IT-architecture at the site of the local branch in the local country, as done currently, are shown in Figure 8 below. Figure 8 shows how the company uses their staff and IT resources at the time of delivering the information directly to the customers within the borders of one local country.

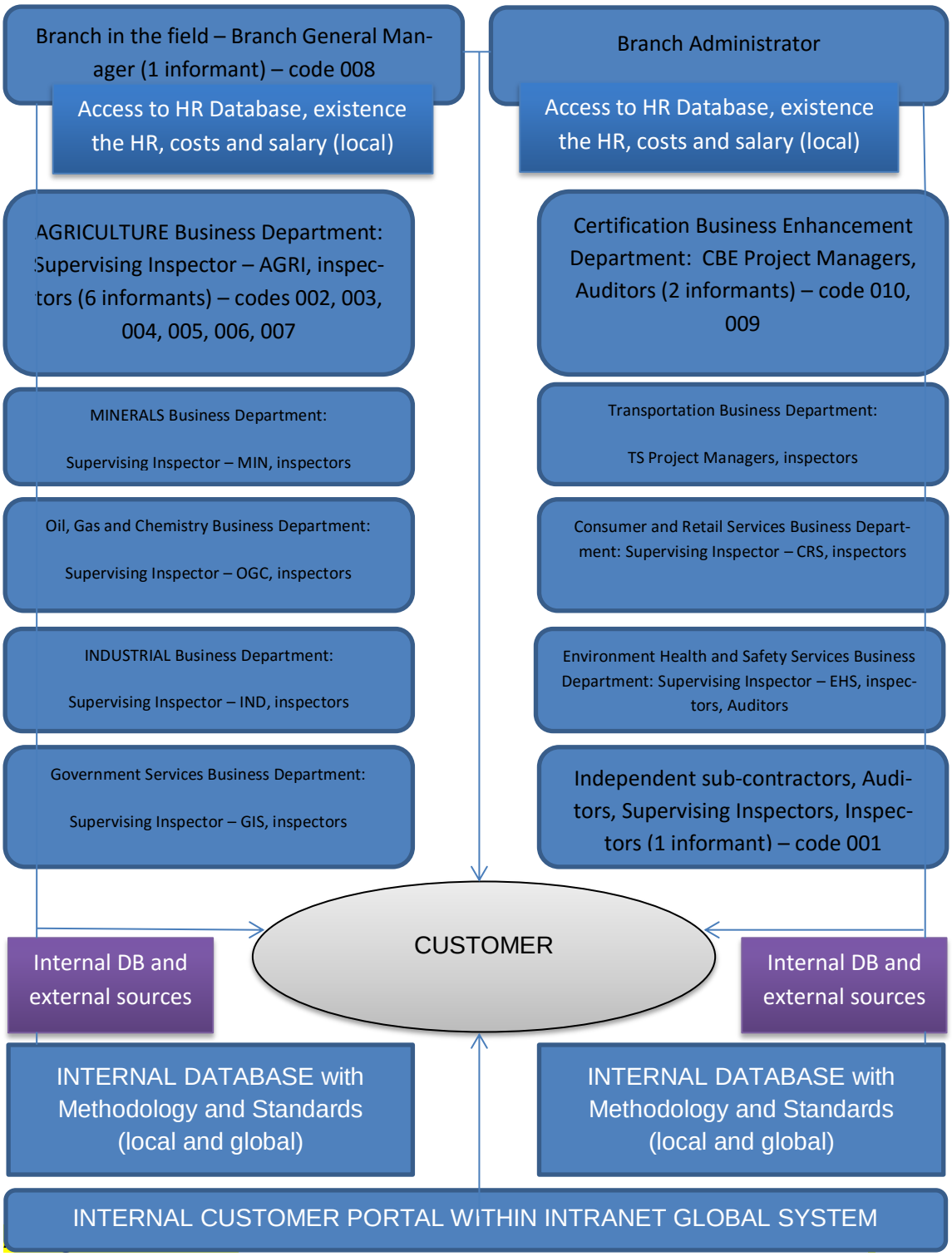

Figure 8. Providing critical information to the customer via local branch structure.

Figure 8 shows that three ways of delivering the information (administration, businesses and intranet source) are complicated with three independent types of the global and local

databases: (a) the company Human Resource database, (b) the company internal database with methodology and standards applicable in the customer business and (c) internal customer portal with history of the company-customer relationships.

This is obvious that information is currently available but delivered in a slow, non-professional manner. The discussion is conducted in a way that customer can "help himself" with a huge amount of contacts, documents, and unnecessary information. Assuming, the process of *sharing the information is insufficient*. *The problem of organizational structure to facilitate information is identified and necessary to be revised*. Meanwhile, the customers are interested in fast and professional information. Section 3.6 below revises the strengths and weaknesses from the point of view of the sales involved in a direct discussion with customers.

3.5 Analysis of Key Findings from the Current Ways of Providing Critical Information

This analysis of the current ways of providing the critical information today was performed using data collected from the sales and personnel involved in daily operations (inspection, certification, administrative functions). Ten informants were interviewed for Data 1 and, the information about the informants (codes 001-010) is available in Appendix 1. The summary of responses can be found in Appendices 4-6. The results are discussed below.

Analysis of the current ways of providing the critical information today, as seen from the point of view the sales involved in the company business, points to the following features (gathered using the questionnaires in Data 1).

First, the results for *identifying the types of critical information* and *providing the information today* (from the point of view of the business logic; the full summary is available in Appendix 4) point to the following challenges.

Table 4. Results of analysis of the current ways of providing critical information today (Business logic).

Results of analysis of the current ways of providing critical information today *(Business logic)*
a) System of saving the data is uncomfortable to the final user b) The information often is seeking from external sources not only from database. c) Sales process is not defined and documented

d) Often data with previous references are not accessible to the staff e) The case company rejects supplying of service at the time of absence the relevant information related to necessary standards, norms or regulations, internal procedures, an existence of equipment or methodologies. The same situation at the time of absence the qualified staff f) The situation is acceptable from the company management

As seen from Table 4, six main issues connected with business logic are stipulated by staff as the important part of the process of providing critical information today.

Second, the results for identifying how the critical information is provided today (from the point of view of a conjunction of the "business logic' and current IT-architecture; the full summary is available in Appendix 5) point to the following challenges.

Table 5. Results of analysis of the current ways of providing critical information today (IT-architecture)

Results of analysis of the current ways of providing critical information today *(IT-architecture)*
a) The current situation related to existence the information in the databases is not good or saving the data is uncomfortable. b) It is impossible to inform the customer about services in a fast mood. The current information available in the databases is not enough. c) The personnel has own ideas and ready to take the responsibility at the time of organization the process of exchanging information within company databases and co-operation with customers. d) The personnel has own ideas and ready to share them with the highest management how to improve the sales process and co-operation with customers using the company databases.

As seen from Table 5, four issues connected with IT-architecture and databases available in the case company disposal are stipulated by staff as the important part of the process of providing critical information today.

Third, summing up the additional results for identifying the current ways of providing critical information today (from the point of view of Sales and other involved personnel (full summary is available in Appendix 5) point to the challenges represented in Table 6. It is

necessary to implement the issues stipulated in Table 6 in practice. The issues are revised as the “necessary minimum” for future improvements and, the staff has problems with availability these instruments nowadays.

Table 6. Results of analysis of the current ways of providing critical information today (Sales).

Results of analysis of the current ways of providing critical information today *(Sales)*
a) existence the written instructions and procedures. b) performing the sales training for the staff. c) implementation the elements of CEM in purpose to improve the customer-company relationships. d) receiving the “fast access” to the company databases and CRM information and construction the more applicable “price tool”.

As seen from Table 6, four issues are necessary to be taken into account. Two issues are connected to “business” logic and, two issues are connected with fusion the “business” logic and IT-architecture.

At the time of performing the CSA appeared the issues that necessary to be taken into account in the future proposal. The issues related to organizational issues, existence the databases and distribution the necessary knowledge within the organization were revised by staff as very important parts of CSA. In this way, part of issues is connected to “business” logic and, part of issues is connected with fusion the “business” logic and IT-architecture.

3.6 Summaries of the Strength and Weaknesses

The strength and weaknesses are based on revising Data 1 collected from the company staff. When discussing with the stakeholders, also particular cases were revised, such as cases at the time of co-operation with customers in local offices and the cases at the time of co-operation with the customer within one particular country. The discussion also analyzed in detail the challenges of utilizing the databases at the time of meeting customers in cross-border co-operation. Typically, in such cases, critical information to the customer is obtained via the local branch structure in one local country.

It was found that the Strength-1 relates to *the existence the databases with critical information*.

Weakness-1 relates to the fact that *these databases are not integrated* and, moreover, there are obvious *problems with organizational structure to facilitate information existence* (Weakness-2). As result, the way of delivering the information is complicated and, the information is extracted and delivered in slow, non-professional manner. Therefore, the process of extraction the information from the databases, making the critical customer service information internally available and sharing the information within the organization is insufficient.

Summing up, the main strength includes:
(+) the existence of the databases with critical information needed.

The main weaknesses include:
(-) the fact that the databases are not integrated, and
(-) that the organizational structures to facilitate information sharing are insufficient.

4 Existing Knowledge / Best Practice

This section discusses the best practice and existing knowledge which is relevant to improving the information sharing processes. Special attention is paid to the business environment and technical support necessary for the making final decision. The conceptual framework is created at the end of this Section.

4.1 Basic Concepts of Information Sharing.

In an organizational context, knowledge creation is a two-step transformation process from data to knowledge. Data can be defined as a structured record of facts, events or transactions happening in an organization on a day to day to day basis but data does not reveal justification or interpretation of action by itself (Davenport and Prusak, 2000: 224). Data is transformed into information by adding context and meaning to the recorded data. Data is then transformed into information by contextualizing, categorizing, calculating, correcting and condensing the collected data (Davenport and Prusak, 2000: 224). Finally, humans perform knowledge creation activity on the information in order to transform it into Knowledge (Nonaka, 1994: 24). Adding attributes like comparison, consequences, connection and conversation of several human beings on that information transform the information into knowledge (Davenport and Prusak, 2000: 224).

Figure 9 below shows the two-step workflow for the knowledge creation process from data via information to knowledge.

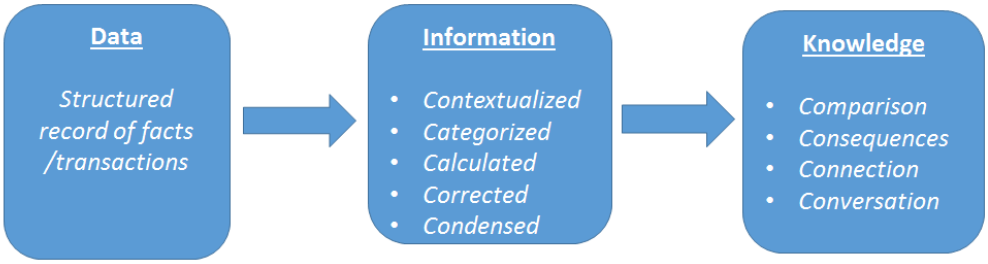

Figure 9. Transformation of Data to Knowledge diagram (based on Davenport and Prusak, 2000: 224).

As illustrated in Figure 9 above, the data is transformed into knowledge via information box and, knowledge is necessary to be stored and used in the business. Hence, infor-

mation is the commodity capable of yielding knowledge whereas knowledge can be defined as information based on a true belief of knowledge creator which can be justified by truthfulness (Dretske, 1981: 3). In other words knowledge can simply be defined as justified true belief (Nonaka, 1994: 24). In other words, the data transformed to knowledge becomes closer to human understanding which can be reused in a similar situation.

Wiederhold (1990: 36) identifies two loops at the time of sharing the information and making the decision support. According to the Wiederhold (1990: 36), there are two distinct feedback loops and their interaction illustrated in Figure 10. The data loop closes when the effects of actions taken are recorded in the database. The knowledge loop closes when recently gained knowledge is aside available so it can be used for further selection and data reduction decisions. The interaction is of prime concern for future systems.

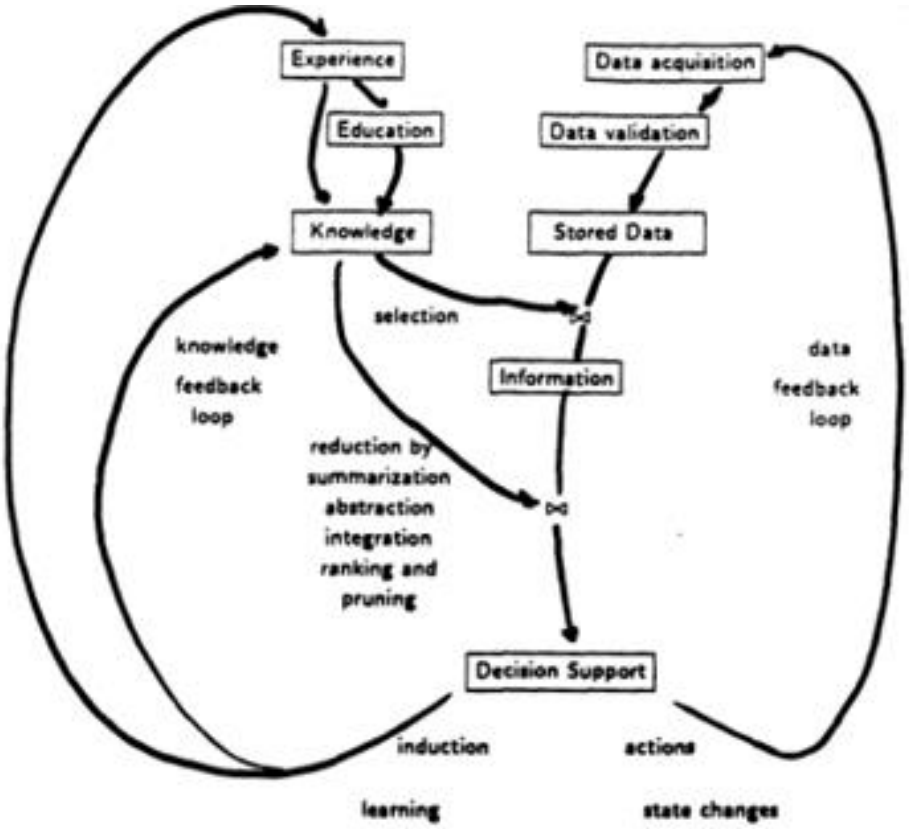

Figure 10. The knowledge and data feedback loops, and their interaction (based on Wiederhold, 1990: 36).

As seen from Figure 10, the data describes specific instances and events. Data may be gathered automatically or clerically. The correctness of data can be verified vis-a-vis the

real world. Knowledge describes abstract classes. Each class typically covers many instances. Experts are needed to gather and formalize knowledge. Data can be used to disprove knowledge. To manage the variety of knowledge, specialists were employed, and to manage the volume of data, the databases were segmented (Wiederhold, 1990: 36). As seen from the picture, knowledge creation process can be revised as the process based on the information received directly from data feedback loop and also, as the process based on the information via experience or (experience + education) loop. The processes are coming back to the information part of the data feedback loop and finally, to decision support point. Decision support point is the point of combining the information from data feedback loop and knowledge feedback loop for the purpose of improving the final process and information sharing.

The *data* in the case is the critical information identified in the CSA. The data related to HR; Technologies; Standards, Norms, and Regulations is revised as background information in the data feedback loop. The data can be inserted manually or automatically. The data is revised as the key element at the time of discussion with customers but the data is only the part of necessary information. The information from two loops is necessary to be used at the time of reaching the “decision support” point and make the right final decision. The decision is made at the time of transferring the data from the “data loop” to the “knowledge loop” via the process of storing and extracting the information. Finally, according to the Wiederhold (1990: 36), the future improvements can be revised as improvements connected with accommodation the data and approximation the future answers for prospective customer requests or moving through several circles of data – knowledge loops to the final “decision support” point.

The *knowledge base* of the organization continuously increases and becomes larger in scale when knowledge is shared within the organization - teams, departments, company` units, and external customers. The *knowledge base* is tightly connected with the *analysis of the data* and, this connection will be revised in the modern theories at the end of this Chapter.

The knowledge base (analysis) is connected with data within one “lake” according to the modern theories and, this “lake” is the special business environment for each separate company.

Figure 11 below is the spiral mode of knowledge creation in the organization.

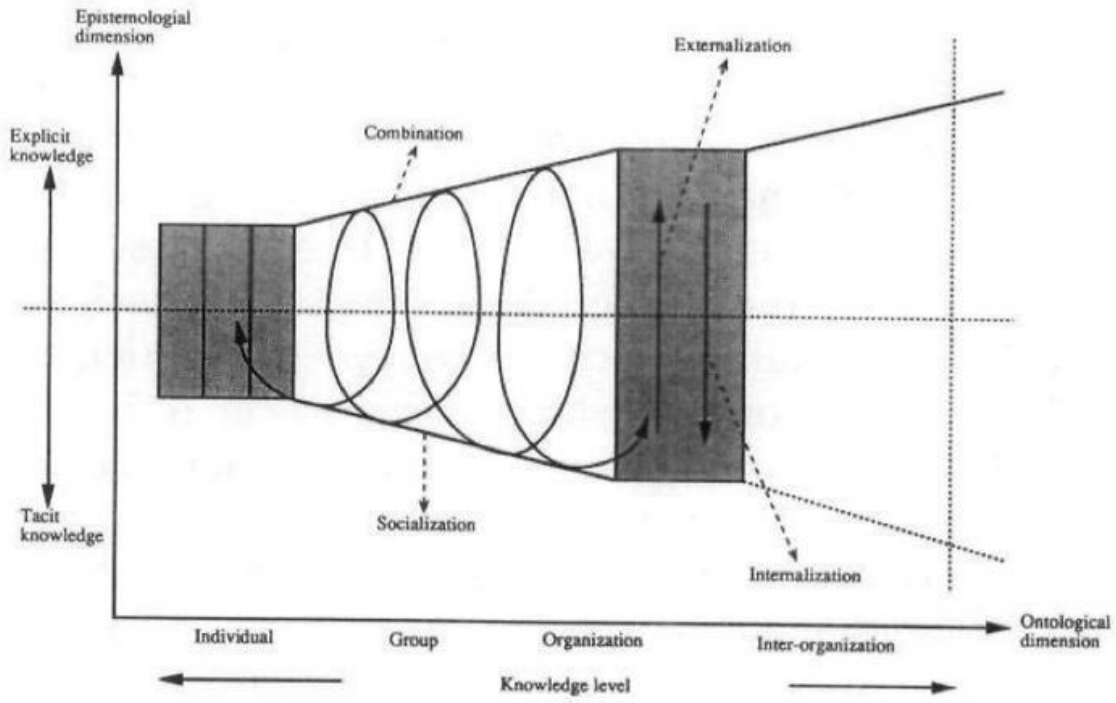

Figure 11. Spiral mode of knowledge creation (based on Nonaka, 1994: 24).

As illustrated in Figure 11 above, the volume of knowledge increased and increased. The organizational knowledge is created in a spiral process when the creation of modern or updated knowledge takes place through a continuous cycle of interaction between various kinds of existing knowledge.

4.2 Distributing Critical Company Internal Information

Distributing the critical company internal information is connected with effective use the business instruments within the Company environment as described in Figure 12. The Technical support, Organizational context, and Motivation factors create the effective business environment and business culture towards to effective system of knowledge sharing. In this way, effective distribution the critical company internal information is revised as a combination the Motivation factors and Supportive factors in one system.

The critical company internal information is the combination of the information from the data feedback loop and knowledge feedback loop. As seen from Figure 10, two loops cycles are involved in the process of creation the “decision support” and making the final business decision (Widerhold, 1990: 36).

Efficient Knowledge management strategy is important for organizational growth by converging scattered knowledge base across the departments and units. For successful implementation of knowledge management system in the organization, environmental factors surrounding knowledge sharing process needs to be analyzed and addressed carefully (Lindsey, 2003: 12). Environmental factors impacting governance of Knowledge management system could be summarized in three major categories like organizational factors, cultural factors or technical factors (Tabrizi and Morgan, 2014: 20). These environmental factors act as supporting and motivating tools for implementing knowledge sharing process.

Figure 12 explains Governance mechanisms of knowledge sharing in the organization based on Tabrizi and Morgan conclusions.

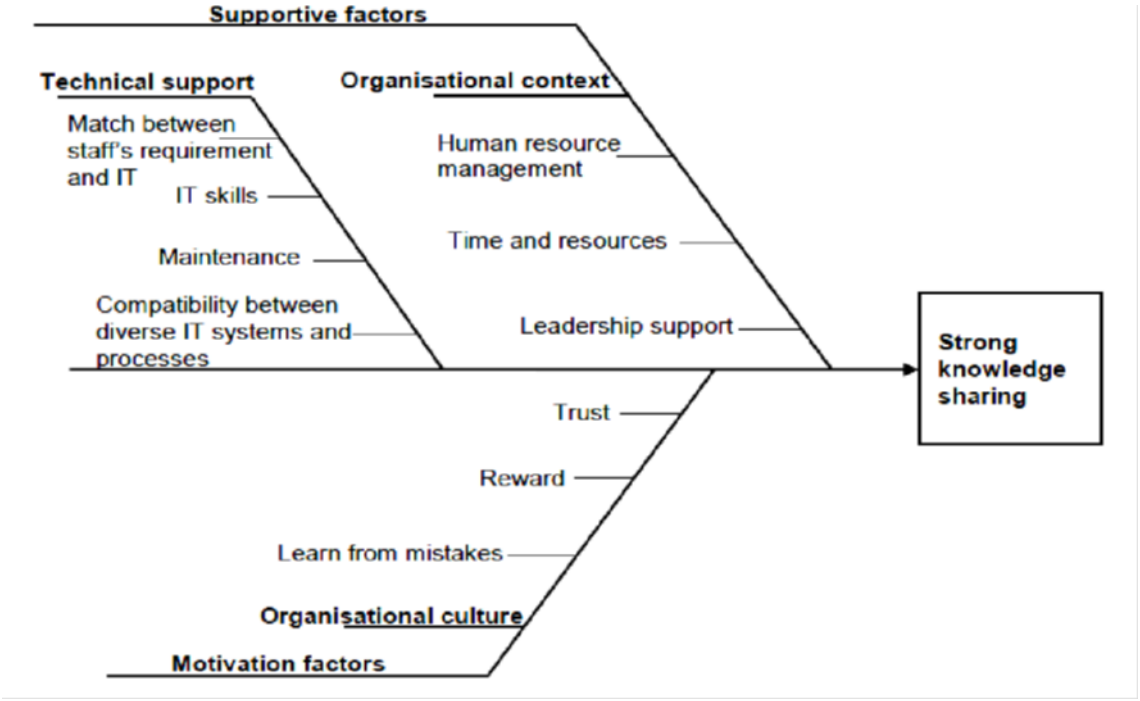

Figure 12. Governance mechanisms of knowledge sharing (based on Tabrizi and Morgan, 2014: 20).

As seen from Figure 12 above, and according to Tabrizi and Morgan (2014: 20), three elements are available in the process of sharing the information within an organization.

According to Tabrizi and Morgan (2014: 20), the technical support in many scholars emphasizes the role of ICTs as valuable means for facilitating the knowledge sharing and communication by reducing time and distance and consequently increasing the quality and reach of reliable knowledge (Fichman, 2011: 10). The key issue, however, is to

choose and implement appropriate ICTs that provide a close fit between workers and their requirements. Sufficient technology skill, maintenance of ICT systems, and compatibility between ICTs and processes are also reported as a cause of strong knowledge sharing. Lack of any of these issues can lead to knowledge sharing failure even with having appropriate ICTs in place (Bradley, 2012); (Guah and Currie, 2004: 15).

According to Tabrizi and Morgan (2014: 20), the Organizational context plays a significant role in supporting knowledge sharing practices (Hislop, 2013: 285). Leadership support, time and human resource management are reported as the main factors of organizational context in the literature. It is also important that hospitals offer enough time and resources to allow staff to share their knowledge (Currie and Suhomlinova, 2006: 30). Furthermore, HR is the key resource and core of creating organizational knowledge. Therefore, it is critical to create the clear and understandable rules to those who is interested in participation in the process of creation and sharing knowledge. According to Tabrizi and Morgan (2014: 20), the Organizational culture is the biggest challenge for the companies actually lies in building an environment in which professional communities can trust each other; otherwise, they are unlikely to share their knowledge (Dan, Arthur, David, Frank 2002: 17). Tolerance of making mistakes also plays a significant role in the knowledge sharing.

In this way, strong knowledge sharing within the organization is connected with three main categories as shown in Figure 12 according to (Tabrizi and Morgan 2014: 20). According to Figure 11 and Spiral Mode of Knowledge Creation Nonaka (1994: 24), the knowledge is accumulated and, the volume of information is raised exponentially. As seen from Figure 10, right decisions are made at the time of using the interaction between two loops towards decision support - the knowledge and data feedback loops, and their interaction (Wiederhold 1990: 36).

4.3 Breaking Organizational Silos

Tett (2015) believes that one of the characteristics of industrial age enterprises is that they are organized around functional departments. This organizational structure results in both limited information and restricted thinking. The Silo Effect asks these basic questions: why do humans working in modern institutions collectively act in ways that sometimes seem stupid? Why do normally clever people fail to see risks and opportunities that later seem blindingly obvious? Tett (2015: 304)

Definition of the silo effect within the Organization is taken also from the article (Hotaran 2009: 6). According to the Hotaran (2009: 6), the silo effect is a phrase that is currently popular in the business and organizational communities to describe a lack of communication and common goals between departments in an organization. The silo effect gets its name from the farm storage silo, probably because there could be two silos right next to each other and if people were inside them they could not be able to communicate since silos are tall, narrow buildings with no windows and are even supposed to be airtight. The result of the silo effect is also described in the Hotaran (2009: 6) and revises the influence, positive or negative, of one department upon another one.

At the time of improving the situation, the accountability is established hierarchically, and almost in all cases, this flow is too long. We can see delays and many filters depending on the importance given to a process by a different hierarchical position, and because of this, we end up keeping our time occupied and with little information on the client. If we are driven by the silo effect in every department, we use the resources at their full capacity. This will destroy for sure the horizontal effect. Because of this, we must look for the bottleneck and we must exploit it to the maximum (Hotaran 2009: 6).

According to Hotaran (2009: 6), clear vision of supply chain initiatives can influence and eliminate the influence of silo effect within the organization. Supply chain‘s initiatives over the last decade, while frustrating at times, have proved enormously beneficial to businesses. The most successful innovators viewed the supply chain as a strategic tool for changing the rules of the game. As a result, supply chain management and shareholder value are closely linked, and supply chain management will continue to have a major role in corporate success. And finally, The main attention must be retained by the fact that the client is satisfied by the process, not by the hierarchy. He doesn‘t care what is going on in the company; he cares only about the product, about the final outcome (Hotaran 2009: 6).

According to the Halter (2011), the principal problem with departments is what has been called the “Silo Effect”. This term comes from the imagery of looking at a row of grain silos stacked next to one another. Information, cooperation, and workflow can rise up through the top of one silo over to the top of the next one and then down inside of it. In simple terms, a group of employees requiring the assistance of another department must first go to their Department Manager who then negotiates with his counterpart Manager

before engagement becomes operational. The *silo effect* creates a myopic environment in which employees only concentrate and comprehend the tasks within their immediate jurisdiction. Their inability to see the whole picture causes them to believe that their isolated tasks exist in a vacuum unrelated to a larger, more vital goal. Typically those working in departments are encouraged to focus on the objectives of the department's success, (Halter, 2011). Figure 13 below explains the silo effect in a departmental structure.

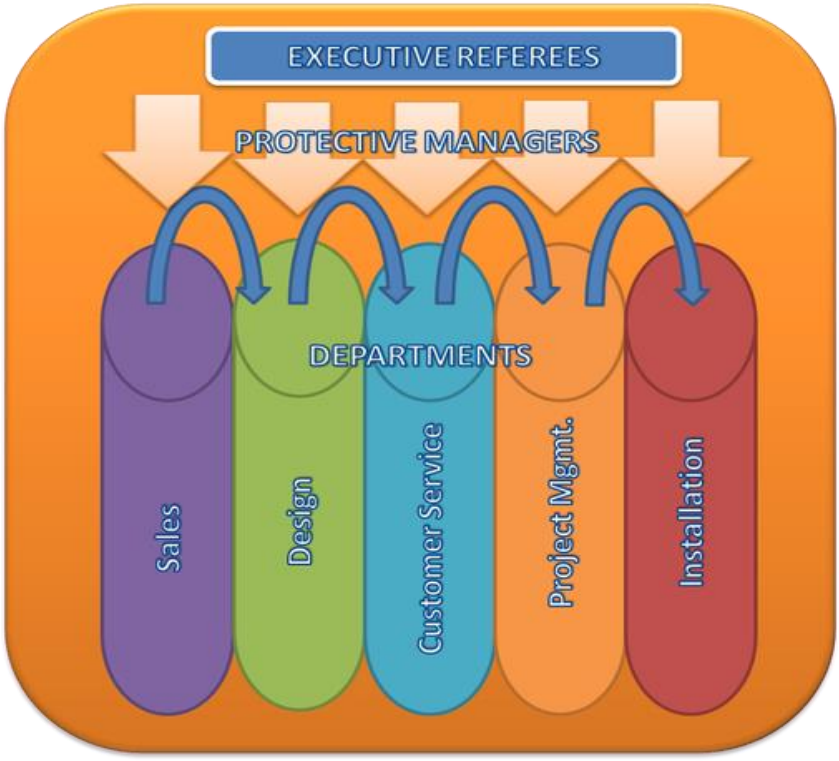

Figure 13. Organizational silo – effect departmental structure (based on Halter, 2011).

According to the information presented in Figure 13, the ability to employ a Cross Functional Structure throughout your organization will also greatly flatten your management ranks. Understanding customer's needs, setting goals, and then expecting teams to deliver on those goals builds an Accountable Organization which is non-reliant on parental style management structures. And as an added benefit you will find Cross Functional Structures are scalable. In good times and bad, it is only needed to add and subtract teams. Teams also become "used to" each other creating "soft" efficiencies and "automated" communication which increase productivity. Finally, C-Players, who often find hiding places within departments, are quickly exposed through peer pressure once they are on a team. This places an upward pressure on managers either to get people "up to speed' or replace them. Believe it or not, your business units actually make firing

decisions for you. Cross Functional Structures produce lower structural costs, higher accountability, and stronger players (Halter, 2011). Figure 14 below explains the Accountable Organization - Cross Functional Structure

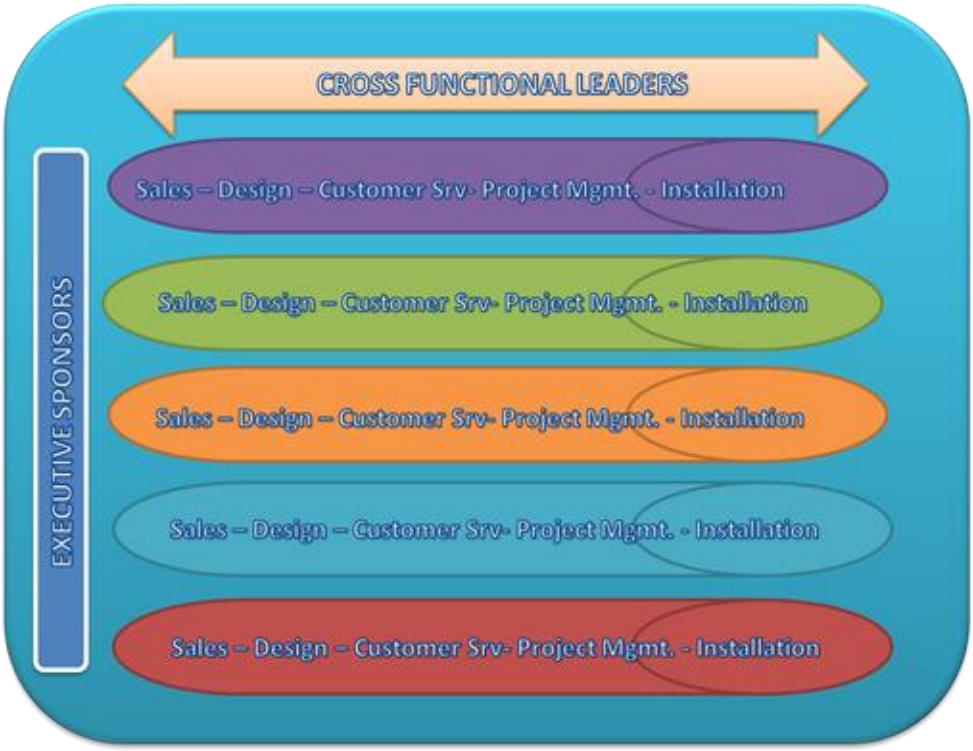

Figure 14. Accountable organization, cross-functional structure (based on Halter, 2011).

According to Figure 14, the manager's focus shifts from empire-building to team building. Their focus is on improvement and progress. They are able to manage daily work on an "exception" basis, getting involved when a Team asks for help. And they are able to spend valuable time supporting and growing the A-Players within their discipline. Cross Functional Structures allow managers to become Leaders (Halter, 2011).

As seen from the theory, the cross-functional leaders may build the teams when processes are combined into one chain with clear logic and support the final decision-making process. Nevertheless, cross-functional leaders should have the key instruments and critical information at their disposal. The theory explains the necessity to revise the silo-effect available in the organization. In practice, the companies have the organizational structures but organizational structures to facilitate information sharing are insufficient. Each branch has own organizational structure and each branch is isolated from the company facilities in another country. Nevertheless, company facilities are already existing

and ready to be used! This situation causes lack of understanding even between organizational entities within one country. This also leads to an atmosphere of lack co-operation within organization and appearance of fear and misunderstanding. Finally, the staff has no possibility to reach the goal even in the case of existence the internal resources and customer. This is really the situation when Your Departments Are Killing Your Business! (Halter, 2011).

Even at the time of existence of a cross-functional organizational structure, the difference between the communication process within the organizational structure and information flows is very strong. According to Social Network Analysis – Minnesota Department of Health, the difference in a hierarchy of classical IT department and communication at the time of performing the common job is presented in Figure 15 and Figure 16.

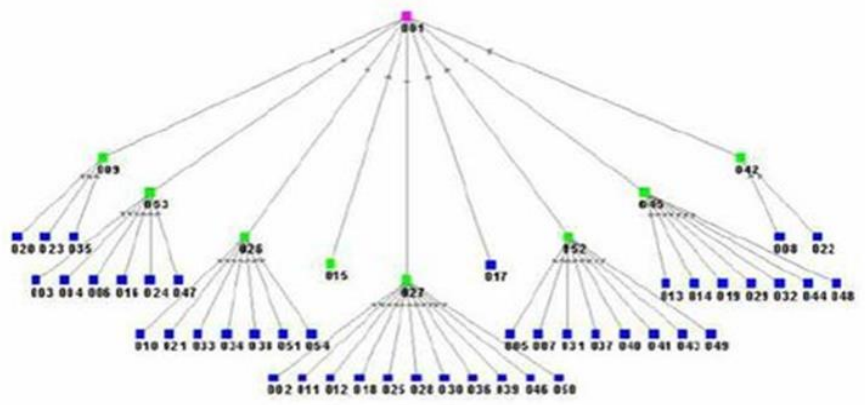

Figure 15. Organization structure within IT department (based on Social Network Analysis – Minnesota Department of Health, 2017).

Figure 15 shows an organizational structure already approved and revised as the effective instrument at the time of performing the job. Nevertheless, real life is commonly different from the approved cases and, divergence from approved cases available. Figure 16 shows how the work is performed in the practice even at the time of existence the approved organizational structure.

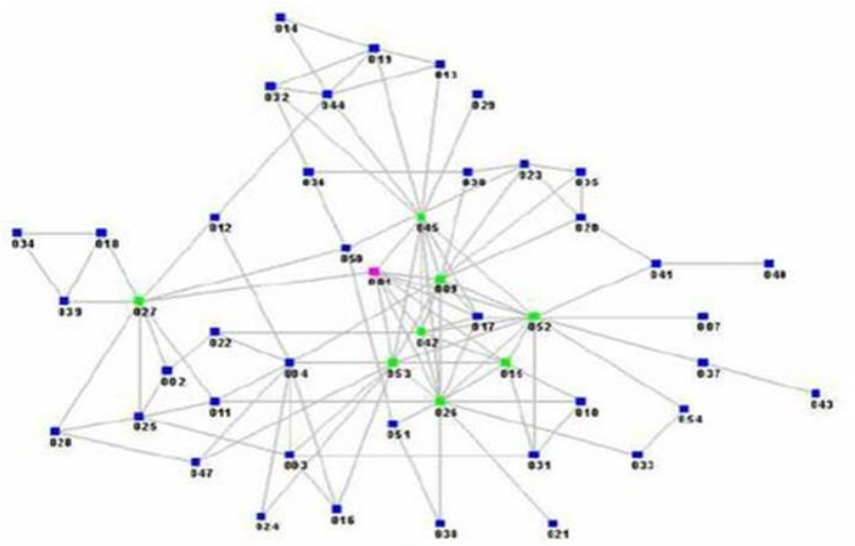

Figure 16. Connections within IT department (based on Social Network Analysis – Minnesota Department of Health, 2017).

Figure 16 shows the process of communication within an IT organization (as an example of an organization) where the structure of the IT organization is specified, but connections and communications occur along all directions, freely undertaken by the members.

The next sub-section explains the processes of communication within IT architecture and gives the details of classic IT architecture that necessary to be implemented at the site.

4.4 Integrating Databases

The classic approach to IT architecture on low layers was developed in early 1990. Revised modern approaches have appeared since 1990 and, the process of managing the databases was developed as the business instrument since this time. The last modern approach was developed in software businesses at the site of Silicon Valley in the United States in 2013-2015.

As described above, the cross-functional activity covered with a management of cross-functional leaders is the way to success at the time of construction the new type of Organization without silo-effect. Effective management in an accountable organization is necessary to be supported with the necessary instruments and critical data. Finally, the data is revised as background for accumulation the knowledge and create the decision support as stipulated in Figure 10.

At the time of using the cross-functional activity, only existence the sources of information from different databases make the process manageable. This is complicated with huge volumes of information and complexity of store and uses the information. On the other hand, this is easy to use the standard silo scheme with effect department structure. In this scheme, it is easy to control the sources of information, and process of use the information. This is why the process of integration the databases is important at the time of organization effective, modern cross-functional organization. This is why the effective process of sharing the information is necessary at the time of creation effective business processes within a cross-functional organization. Obviously, the databases exist, the databases are available at the local levels as well as on the global levels within the organizational structure and, these databases are necessary to be used in the fastest possible manner by managers or sales staff.

To develop the concepts needed for future information systems we model information processing as an interaction of data and knowledge (Wiederhold, 1990: 36). Data is the basis and describes specific instances and events. Data may be gathered automatically or clerically. The correctness of data can be verified vis-a-vis the real world. Knowledge describes abstract classes. Each class typically covers many instances. Expertise is needed to gather and formalize knowledge. Data can be used to disprove knowledge (Wiederhold, 1990: 36).

The volume of information is raised and, effective decisions can be made only based on use the key or important information at the time of making the preliminary business decision. According to the Wiederhold (1990: 36), a mediator term is implemented for this purpose and, the mediator is a software module which exploits encoded knowledge about some sets or subsets of data to create information for a higher layer of applications. In this way, the process of distributing the critical company internal information is revised as compilation the efficient databases and efficient company knowledge within one bundle via “mediators” or software modules.

Figure 17 presents the scheme of saving, buffering and extraction the information in a classic organization.

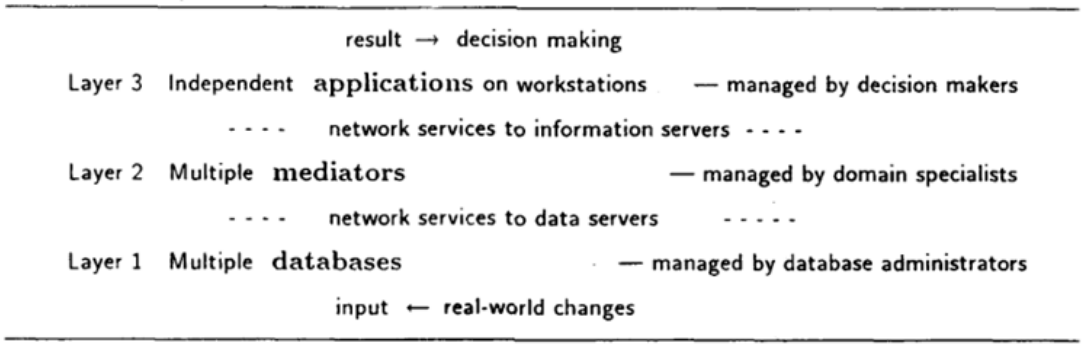

Figure 17. Three layers of the classic architecture (based on Wiederhold, 1990: 36).

All modules and organizational layers are distributed over a nationwide network. As seen from Figure 17, the interface of informational flow is simply and, each user has access to the necessary Database according to the company policy implemented at the site.

On the other hand, the scheme of saving, buffering and extraction the information in accountable organization managed by cross-functional leaders is presented in Figure 18 below.

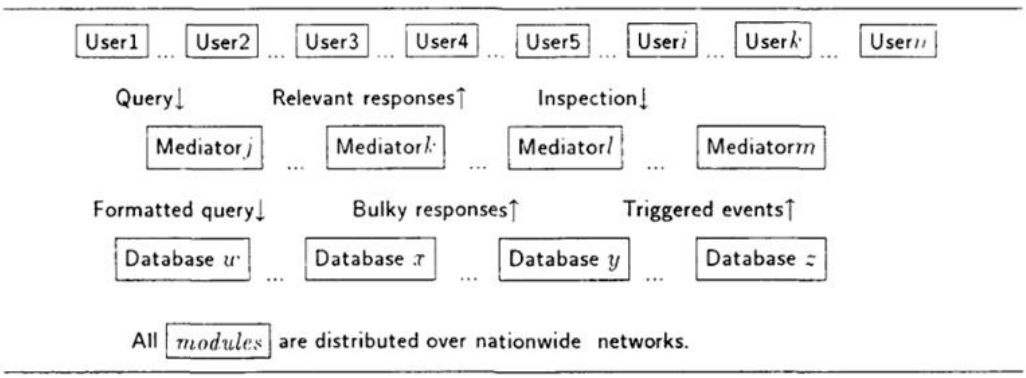

Figure 18. Interface for information flow. All modules are distributed over a nationwide network. (based on Wiederhold, 1990: 36).

As seen from Figure 18, the interface of information flow is complicated with “Mediators” and, each user has access to the databases via Mediators. This scheme of communication was published at the time of establishing the IT as the industry. Nevertheless, the idea of effective communication and exchanging the information is actual and can be implemented on the highest layers nowadays.

The “Mediator” means separate operational entity – the special operational department with staff and equipment or software within the company intranet or internal “on-premises cloud” revised as an integrated database. As discussed above, this scheme is used mostly at the sites of modern enterprises where departments are managed by cross-functional leaders. The information for the decision support is used not only for the separate silos or business from the separate database but businesses can use the information in communication between themselves as well as with databases via mediators. Inspection and Triggered event are helpful instruments together with Mediators.

According to the Wiederhold (1990: 36) the answer why mediators should not be attached to the databases is the next: In many cases, it may be feasible: in general, it is not appropriate. First, the mediator contains knowledge that is beyond the scope of the database proper. A database programmer, dealing with, says, a factory production control system cannot be expected to foresee all the strategic uses of the collected information. Second, the concepts of abstraction are not part of database technology today: the focus has been on reliable and consistent management of large volumes of detailed facts. Third, intelligent processing of data will often involve dealing with uncertainty, adding excessive complexity to database technology. Fourth, many mediators will access multiple databases to combine disjoint sets of data prior to analysis and reduction.

Similarly, it can be argued that the mediators should not be attached to the users' workstation applications. Again, the functions that mediators provide are of a different scope than the tasks being performed on the workstations. Workstation applications may use a variety of mediators to explore the data resources (Wiederhold, 1990: 36).

According to Wiederhold (1990: 36), at the time of extraction the data and knowledge for the business purposes, the interface protocols for data and knowledge is needed. For data transmission, there are developing standards. The level in the OSI sense revised by Taiieiibauin in 1987 and concerned is within the application layer. The communication systems will soon handle all lower level support layers without major problems. The Remote Data Access (RDA) protocol provides one such instance [ISO/RDA:87]. Other technologies that are pushing capabilities at the interface is the National File System, being promoted Spector in 1988 at CMU. *However, communication of data alone does not guarantee that the data will be correctly understood for processing by the receiver* (Wiederhold, 1990:36).

Thus, the classic way of Architecture to support interoperability of autonomous database systems (Zisman and Kramer, 1990: 12) is described and known. The methodology to assist with a distributed information discovery process for autonomous databases (Zisman, 1997: 15) is available. The information related to abstract data interface is also known and revised in 1990-2000 as well. According to the new approach revised by Wilder-James (2014), the data lake dream or Hadoop is developed as the place with data-centered architecture, where silos are minimized, and processing happens with little friction in a scalable, distributed environment.

According to Wilder-James (2014), a vision of Hadoop is forward-looking. In reality, many organizations are only just starting to kick the tires of Hadoop. Of those enterprises who are using Hadoop, most are in the early stages of this process in level (Hadoop level 2), with a few front-runners living at level (Hadoop level 3). Big data software vendors themselves are ushering in the early stages of the level (Hadoop level 3), with the focus for 2014 being on application development. We see new companies such as Continuity and Pivotal addressing the developer experience for big data. Regardless of where you are now, take some time to look to the future. We're on a journey towards connecting enterprise data together. As business is increasing, the digital access to data will become a critical priority, as will speed of development and deployment. The data lake is a dream that can match those demands.

Summarizing all the above mentioned the classic approach to the process of building and maintaining the databases is described in the next sources: a) Wiederhold (1990: 36); b) Zisman, Kramer (1990: 12); c) Zisman (1997: 15). The question of integrating the databases is raised due to an understanding the role and revising the databases and knowledge as the valuable instruments in the business (Veeramachaneni, 2016). The volumes of information are increased and, it is critical to focus on accelerating human understanding of data, scaling the number of modeling questions they can ask of that data in a short amount of time, and assessing their implications (Veeramachaneni, 2016).

4.5 Conceptual Framework of This Thesis

Based on the findings from existing knowledge and the best practice, the identified elements of the Information Sharing process are summarized into the conceptual framework and shown in Figure 19 below.

Figure 19 below presents the conceptual framework of the Thesis.

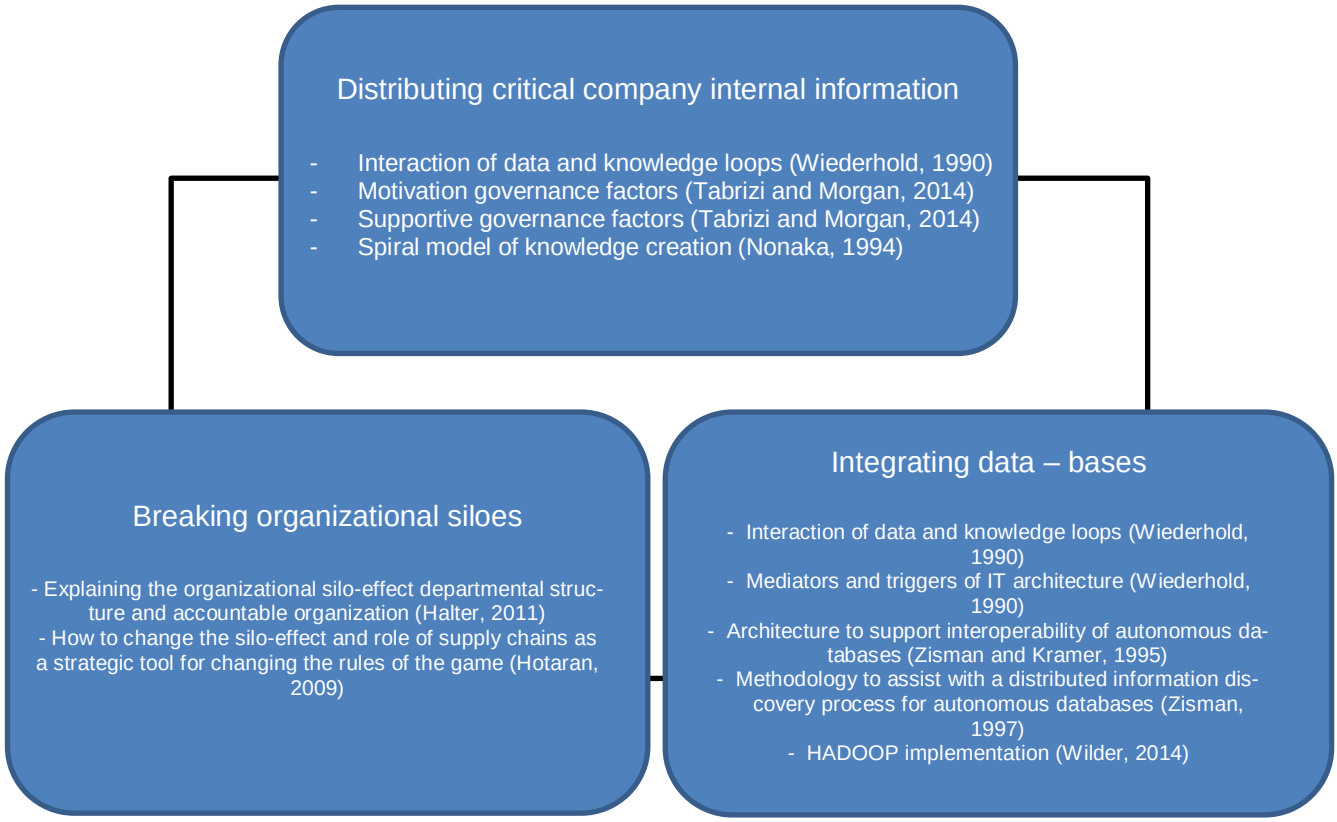

Figure 19. Conceptual framework of the Thesis.

As seen from Figure 19, the conceptual framework of this study combines three core topics indicated in the boxes above. Each box presents the issues connected with improving the information sharing process at the site.

Sales activity is the process that revised as the most important part of the business. The cash-generation is revised only as result of the sales activity. From the point of Organization, the sales is the process towards to the final decision point and managed by special staff involved in sharing the information within the company organizational structure and IT databases. This is why information sharing affect the sales activity and, three blocks are revised as the basis for information sharing.

5 Developing an initial proposal – draft of an action-plan to make critical customer service information internally available

This section merges results of the current state analysis and conceptual framework towards the building of the draft of the action plan using Data 2 interviews. Information Sharing Process is revised based on summaries of strength and weaknesses after analysis the Data 1 in the CSA. Finally, the draft of the action-plan is constructed and presented to the case company staff for revising and final validation.

5.1 Overview of Proposal Building Stage

The Proposal Building Stage aims to develop a draft of action-plan to make critical customer information internally available. The draft of the plan is presented in Section 5.5 – summary of initial "approach". The final target of the Section is the initial "approach" of the plan ready for revising by staff. The draft of the plan is constructed using the information available in the CSA with Data 1 and CFW. Three elements are revised as necessary elements at the time of building the plan.

First, the draft of plan includes the proposal how to build the "mechanisms" for distributing critical company internal information. This process is necessary in order to understand the information sharing needs and the necessary changes in this process.

Second, the draft of plan includes the proposal how to build the "mechanisms" for breaking organizational silos. This process is necessary in order to understand the necessary changes in organizational structure.

Third, the draft of plan includes the proposal how to build the "mechanisms" for integrating databases. This process is necessary in order to understand the necessary changes at the time of using the critical information P, T, L from the company databases.

Finally, the draft of Proposal is constructed taking into account three elements and, the preparation phase also revised as the necessary step before implementation the changes in areas of sharing the information, organizational structure and integrating databases. The draft of Proposal is presented in the "Summary of initial "approach" at the end of this Section.

5.2 Building “Mechanisms” for Distributing Critical Company Internal Information (Input from Existing Knowledge and CSA towards the Proposal Building)

The process of building the “mechanisms” for distributing critical company internal information is revised using the relevant explanation in the CFW and information connected with factors of interaction the data and knowledge loops, using motivation and supportive governance factors and spiral model of knowledge creation.

Based on the abovementioned, four issues were taken into account for construction the draft Action plan (based on the findings from existing knowledge, as guided by the results of the current state analysis).

Table 7. Construction the draft Action Plan – 1 (based on the findings from existing knowledge, as guided by the results of the current state analysis).

A	*Issues related to interaction the data and knowledge loops (CF, guided by CSA):*
	a) Identify the critical operations, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows. b) Stop using inappropriate system of distributing the information. c) Create the “informational map” what is critical and. Identify the ways of exchanging the information and front-end user interface.
B	*Issues related to motivation governance factor (CF, guided by CSA):*
	a) Create the working instruction for the personnel involved in construction the new model and has relationship to ”Informational Lake - HADOOP” on the level of the local Branch b) Create the working instruct. for HADOOP responsible staff on the country level
C	*Issues related to supportive governance factor (CF, guided by CSA):*
	a) Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust) b) Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and “Informational Lake” - HADOOP. c) Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and “Informational Lake” - HADOOP.

D	*Issues related to spiral model of knowledge creation (CF, guided by CSA):*
	a) Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator. b) Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer. c) Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.

As seen from Table 7, the "Mechanisms" are developed using the information that related to interaction the data and knowledge loops, motivation governance factor, supportive governance factor and spiral model of knowledge creation.

5.3 Building "Mechanisms" for Breaking Organizational Silos (Input from Existing Knowledge and CSA towards the Proposal Building)

The process of building the "mechanisms" for breaking organizational silos is revised using the relevant explanation in the CFW and information connected with factors of interaction the data and knowledge loops, using motivation and supportive governance factors and spiral model of knowledge creation.

Based on the abovementioned, four issues were taken into account for construction the draft Action plan (based on the findings from existing knowledge, as guided by the results of the current state analysis).

Table 8. Construction the draft Action Plan – 2 (based on the findings from existing knowledge, as guided by the results of the current state analysis).

A	*Issues related to interaction the data and knowledge loops (CF, guided by CSA):*
	a) Identify the owners of the business processes or responsible for the business. b) Stop using inappropriate organizational structures. c) Create the "operational map" what is critical and identify the critical positions.
B	*Issues related to motivation governance factor (CF, guided by CSA):*

	a) Appoint the cross-functional Mangers. Create the working Instructions. b) Appoint the Sales Staff in the local Branch. Create the working instructions.
C	*Issues related to supportive governance factor (CF, guided by CSA):*
	a) Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. b) Delegate the necessary responsibility to the Branch Manager. c) Delegate the necessary responsibility to the Sales Staff. d) Delegate the necessary responsibility to the Administrator within local Branch.
D	*Issues related to spiral model of knowledge creation (CF, guided by CSA):*
	a) Create the rules of contacts on the equal layers within the company structure. b) Create the rules of contacts on the different layers within the company structure.

As seen from Table 8, the "Mechanisms" are developed using the information that related to interaction the data and knowledge loops, motivation governance factor, supportive governance factor and spiral model of knowledge creation.

5.4 Integrating Databases (Input from Existing Knowledge and CSA towards the Proposal Building)

The process of integrating the databases is revised using the relevant explanation in the CFW and information connected with factors of interaction the data and knowledge loops, using motivation and supportive governance factors and spiral model of knowledge creation.

Based on the abovementioned, four issues were taken into account for construction the draft Action plan (based on the findings from existing knowledge, as guided by the results of the current state analysis).

Table 9. Construction the draft Action Plan – 3 (based on the findings from existing knowledge, as guided by the results of the current state analysis).

A	*Issues related to interaction the data and knowledge loops (CF, guided by CSA):*
	a) Identify the process of extracting the information from the databases and use the databases. b) Stop using inappropriate system of distributing and searching the information in the databases. c) Create the "informational map" what is critical and ways of delivering the information to the final user. d) Identify the necessary back-end platform for the "Informational Lake". e) Identify the models of IT architecture and extraction the information for the databases
B	*Issues related to motivation governance factor (CF, guided by CSA):*
	a) Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using "Informational Lake" technology. b) Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.
C	*Issues related to supportive governance factor (CF, guided by CSA):*
	a) Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master. b) Grant the relevant access to the databases via "Informational Lake" to Branch Manager c) Grant the relevant access to the databases via "Informational Lake" to Branch Administrator d) Grant the relevant access to the databases via "Informational Lake" to Branch Sales Staff
D	*Issues related to spiral model of knowledge creation (CF, guided by CSA):*
	a) Delegate the responsibility to fulfill the databases by branch staff. Sales Staff, Administrator, Inspectors and Auditors and Country Business Administrators in the country Head Office.

As seen from Table 9, the "Mechanisms" are developed using the information that related to interaction the data and knowledge loops, motivation governance factor, supportive governance factor and spiral model of knowledge creation.

5.5 Summary of Initial “Approach” (Based on the Inputs from Stakeholders, Data 2)

Summary of initial “approach” (called the “draft of an action plan”) is developed on the level of the local branch within local country. It is possible to start the process of implementation the improvements from the level of the local branch. Nevertheless, it is important to involve the highest Management as executive sponsors to support the changes in other branches or organizational layers. The changes can be implemented within 1-year period on the level of the local branch.

The plan is developed as universal instrument. The plan can be copied at the sites of other branches and, it is possible to copy the solution on the highest organizational levels via regions to the global structure. Nevertheless, revising of the plan is required at the time of copying to Regional or global scale. Four Stages are revised at the time of constructing the draft of the plan and, the Stages are presented in Table 10 below.

Table 10. Stages of Implementation the Action Plan.

STAGE	Description of the Stage and timelines required for implementation
STAGE 1	Preparation to the changes on the local level during 1-year, on the regional level during 3-years and the global level during 5-years.
STAGE 2	Implementation the changes in the local Branch within a local country during the 1-year period.
STAGE 3	Implementation the changes on the Regional level during 3-years period.
STAGE 4	Implementation the changes on the global level during 5-years period.

As seen from Table 10, the stages of implementation the action plan are connected with actions necessary to be performed in a definite period of time. The target of “approach” is exactly revising the stage 1 and stage 2 on the local level.

The summary of initial “approach” or draft of an action plan was constructed as the model with minimum investments due to improvements that necessary to be implemented in already functioned business environment. It is the task to not break already functioned business and operations but perform the steps in purpose to improve the situation in already functioned business. The possible cheapest resource is revised as the main asset such as company staff and restructuration of the company structure. According to the information already gathered in CSA and CFW, the draft of the plan includes three target-areas already identified in the CSA and CFW and additionally, the preparation stage.

The draft of action plan is constructed on the basis of combining the “mechanisms” for Distributing Critical Company Internal Information, “mechanisms” for breaking organizational silos and integrating databases. The preparation stage is also revised as important part at the time of construction the draft of the plan. The Data 2 was gathered and, Table with Data 2 questionnaires is presented in Appendix 9.

Taking into account all issues revised at the time of initial approach and building the mechanisms in the draft of the plan, four target-areas are summarized. The elements of the draft of the plan are presented in Tables 11-14below.

Table 11. Draft of the Initial Plan (Preparation Stage).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
PREPARATION STAGE (7 target - areas)	- Clarify vision of changes, Involvement the Executives and Highest Management.	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Identification the necessary changes	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Discuss changes in organizational structures, Announce the responsible positions	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Define the roles of UEX, Scram Masters, Project Managers within IT Architecture	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Announce the initial steps within local Branch in 1-year period of time	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Announce the plan of improvements at the site of one Region	- Less than 36 months	- Mngm-t Loc.,Reg., Global
	- Announce the plan of improvements at the site of several Regionas or globally	- Less than 60 months	- Mngm-t Loc.,Reg., Global

As seen from Table 11, the draft of the proposal (Preparation Stage) focuses on preparation the business environment and IT infrastructure for the future changes in the activity related to distributing critical company internal information, organizational changes in the available silo-structure and the database governing process.

Preparation stage is connected with preparation the background for implementation the issues already identified in the CSA and CFW. As discussed previously, the *“mechanisms” for Distributing Critical Company Internal Information* together with *“mechanisms” for breaking organizational silos* are necessary to be taken into account. The last issue relates to *integrating databases* and connected with the improvement of strength identified in CSA.

In this way, three additional stages each with eleven target-areas are revised at the time of construction the draft of the plan.

The first target-area is distributing critical company internal information. Table 12 below presents the summary of initial "approach" at the time of revising the process of distributing the critical company internal information.

Table 12. Draft of the Initial Plan (Distribute critical company internal information).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Distribute critical company internal information (11 target - areas)	- Identify the critical operations, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows.	- Less than 12 months	- Management Local, Q@lm., IT teams, Administrators, Auditors, Oper.staff
	- Stop using inappropriate system of distributing the information.	- Less than 12 months	- Management Local, Q@lm., IT teams
	- Create the "informational map" what is critical and. Identify the ways of exchanging the information and front-end user interface.	- Less than 12 months	- Management Local, Q@lm., IT teams Administrators, Auditors, Oper.staff
	- Create the working instruction for the personnel involved in construction the new model and has relationship to "Informational Lake - HADOOP" on the level of the local Branch	- Less than 12 months	- Management Local, Q@lm., IT teams, Administrators, Auditors, Oper.staff
	- Create the working instruct. for HADOOP responsible staff on the country level	- Less than 12 months	- Management Local, Q@lm., IT teams - Branch Manager
	- Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust)	- Less than 12 months	- Management Local, Q@lm., IT teams Sales staff
	- Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 12 months	- Management Local, Q@lm., IT teams, Branch Administrator
	- Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 12 months	- Management Local, Q@lm., IT teams, Branch Administrator
	- Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator.	- Less than 12 months	- Management Local, Q@lm., IT teams Legal Officer
	- Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	- Less than 12 months	- Management Local, Q@lm., IT teams
	- Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	- Less than 12 months	- Branch Administrator, Business Administrators in the country office

As seen from Table 12, the draft of the proposal (Distribute critical company internal information) focuses on revising the process of distributing the critical information within the organization. As described above, the draft of plan is constructed using the issues related to interaction the data and knowledge loops, issues related to motivation governance factor, issues related to supportive governance factor and issues related to the spiral model of knowledge creation.

The second target area is breaking organizational silos. Table 13 below presents the summary of initial "approach" at the time of revising the process of breaking organizational silos.

Table 13. Draft of the Initial Plan (Break organizational silos).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Break organizational silos (11 target - areas)	- Identify the owners of the business processes or responsible for the business.	- Less than 12 months	- Management Local, Regional, Q@Im
	- Stop using inappropriate organizational structures	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the "operational map" what is critical and Identify the critical positions	- Less than 12 months	- Management Local, Regional, Q@Im
	- Appoint the cross-functional Mangers. Create the working Instructions	- Less than 12 months	- Management Local, Regional, Q@Im
	- Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. Perform this in cooperation	- Less than 12 months	- Management Local, Regional, Q@Im Branch and Business, Administrators
	- Appoint the Sales Staff in the local Branch. Create the working instructions.	- Less than 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Branch Manager	- Less than 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Sales Staff	- Less than 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Administrator within local Branch	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the equal layers within the company structure	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the different layers within the company structure	- Less than 12 months	- Management Local, Regional, Q@Im

As seen from Table 13, the draft of the proposal (Break organizational silos) focuses on organizational issues necessary to be implemented in order to support the process of sharing the information in an effective way. As described above, the draft of plan is

constructed using the issues related to interaction the data and knowledge loops, issues related to motivation governance factor, issues related to supportive governance factor and issues related to the spiral model of knowledge creation.

The last third target-area is breaking organizational silos. Table 14 below presents the summary of initial "approach" at the time of revising the process of integrating the databases.

Table 14. Draft of the Initial Plan (Integrate databases).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Integrate databases (11 target - areas)	- Identify the process of extracting the information from the databases and use the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff
	- Stop using inappropriate system of distributing and searching the information in the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Create the "informational map" what is critical and ways of delivering the information to the final user. Identify the necessary back-end platform for the "Informational Lake".	- Less than 12 months	- Management Local, Q@Im., IT teams Admin., Auditors, Operat.staff
	- Identify the models of IT architecture and extraction the information for the DB	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using "Informational Lake" technology.	- Less than 12 months	- Management Local, Q@Im., IT teams new members
	- Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master.	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	- Less than 12 months	- Management Local, Q@Im., IT teams new members
	- Grant the relevant access to the DB via "Informational Lake" to Branch Manager	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Grant the relevant access to the DB via "Informational Lake" to Branch Administrator	- Less than 12 months	- Branch Administr., Q@Im., IT teams
	- Grant the relevant access to the DB via "Informational Lake" to Branch Sales Staff	- Less than 12 months	- Branch Sales Staff, Q@Im., IT teams

As seen from Table 14, draft of proposal (integrating the databases) focuses on the process of governing the databases and connection the databases to effective organizational structure (already discussed at the time of revising how to break organizational silos) and effective process of distributing the information (already discussed at the time

of revising how to distribute critical company internal information). As described above, the draft of plan is constructed using the issues related to interaction the data and knowledge loops, issues related to motivation governance factor, issues related to supportive governance factor and issues related to the spiral model of knowledge creation.

Summing up, the draft of the Action plan is corrected using information from the staff in Data 2 and, the summary of initial "approach" is constructed and presented for validation purposes.

6 Validation of the Proposed Action Plan

This section revises the Data 3 or feedback on the draft of the plan collected via key company staff. This section presents a summary of the feedback from the key stakeholders involved in the process of sharing the information. The final plan is revised as the outcome of the Thesis. Overview of validation results and developments to the final proposal based on key stakeholders' feedback are the stages revised in this Section before explanation the summary of the final plan.

6.1 Overview of Validation Stage

The validation and feedback discussion was conducted with the key stakeholders at the time of revising the final draft of the plan (or initial "approach") towards summary of the final plan. The feedback session was meaningful as the stakeholders were informed and already participated in construction the draft of the plan rarely. The discussion was mainly focused on revising the draft of the plan already familiar to the key staff and, the list of the key interviewed staff is stipulated in Appendix 3. The validation process was conducted to engage the key stakeholders and, the stakeholders' responses (Data 3) are collected in Appendix 10.

6.2 Overview of Validation Results (Data 3)

At the time of validation, the key staff expresses strong interest to the plan. The staff explained that changes are very expected and, the company staff is very interested in implementation the changes in the fastest possible way.

As result, the first issue at the time of validation was related to reducing the time frameworks necessary for implementation the changes. In this way, the timeframes were revised by key staff and stipulated in the final plan.

The second issue was related to revising the preparation stage of the final plan due to the high importance of the initial steps at the time of implementation the changes. The preparation stage was extended from seven to eleven target-areas.

The third issue was related to identifying the critical information on initial stages of implementation the changes.

The fourth issue was related to revising the alternatives at the time of changing the business processes and protection the business at the time of implementation the changes.

At the time of validation of the Proposal, key interviewed staff asked additional questions. The questions were very important and they highlight the important issues and advantages of received outcome. Taking into account that theme of the Thesis relates to creation the action plan in purpose to make critical customer service information internally available, improving the information sharing and finally, help in communication with customer (sales), three questions were asked and answered additionally.

First, in the validation session, the stakeholders asked: *'Why only Sales?'* The answer is that most companies are faced with the non-proper organization of sales departments and absence the personnel in the sales departments. The changes can be easily implemented in departments that required improvements. Most companies express their interest in improving the sales departments. This is easy to implement the changes in such circumstances. Importantly, the stakeholders were also trying to help and transfer the scope to other activities. This issue made the author to explain that topic of Thesis is actual not only for Sales but for the Operational activity as well.

Second, in the validation session, the stakeholders asked: *'Why Availability the Critical Customer Information and Improvement the Information sharing process can help in Sales?'* The answer is that each department requires information. The Sales department is involved in co-operation with external customers and it is critical to "extract" the necessary critical information in the proper moment to attract the customer.

Third, in the validation session, the stakeholders asked*: 'Why this topic is relevant?'* The answer is that efficiency of sales is connected with cash generation and financial results. The Thesis revises the theme that connected with possible improvements without strong investments in the cash-generation process.

Finally, the self-evaluation and possibility to copy the solution to other sites were discussed. At the same time, it was possible to express an own opinion, it was a chance to add an additional issue if it was seen as important.

In this way, the Thesis is connected with improvements in the company activity in sales using changes in Informational flows within the organization. Sales are connected with cash generation and financial situation. In this way, the company can change financial

situation using only internal assets without expensive investments. The case company staffs` agree on the answers as valuable and express own interest at the time of future implementation the plan.

6.3 Developments to Action Plan Based on Key Stakeholders Feedback

The final plan is developed based on the key stakeholders' feedback. Proposed changes were based on the Data 3 feedback with comments gathered in Appendix 10. Required changes are divided by fifth groups and all of them are analyzed below.

First, the staff is interested in implementing the changes. As result, the time of implementation the changes is reduced to 3-6 months at the time of Preparation Stage and 6-12 months at the time of Distribute critical company internal information, Break organizational silos and Integrate databases.

Second, the staff had comments to the Preparation Stage. According to the information from the key staff involved in the business, the Preparation Stage is the very important stage. The seven target-areas were revised and, eleven target-areas with additional details are appeared instead of previous seven target-areas.

Third, the staff sees the necessity to improve two target-areas in distributing critical company internal information. The first changes were related to the first target-area connected with identification the *critical* operations and *information*, processes owners and information flows. The second changes were related to the second target-area connected with *revising the alternatives* and stop using an inappropriate system of distributing the information. According to the key staff, we discuss *critical information* even at the time of preparation the changes and, *revising alternatives* is necessary for excluding the interruptions in the business activity.

Fourth, the staff sees the necessity to improve two target-areas at the time of break organizational silos. The first changes were related to the first target-area connected with identification the *critical information* in operations, owners of the business processes or responsible for the business. The second changes were related to the second target-area connected with *revising the alternatives* and stop using inappropriate organizational structures. According to the key staff, we discuss about *critical information* even at the

time of preparation the changes and, *revising alternatives* is necessary for excluding the interruptions in the business activity.

Fifth, the staff sees the necessity to improve two target-areas at the time of implementation the changes in integrating the databases. The first changes were related to the first target-area connected with identification the *critical information* in process of extracting the information from the databases and use the DB. The second changes were related to the second target-area connected with *revising the alternatives* and stop using inappropriate system of distributing and searching the information in the DB. According to the key staff, we discuss *critical information* even at the time of preparation the changes and, *revising alternatives* is necessary for excluding the interruptions in the business activity.

The draft of the plan was developed in Section 5 and also presented in Appendix 9. The feedback was gathered from the personnel involved directly in the company business (the list of personnel is presented in Appendix 2).

The final plan is constructed in the next sub-section using Data 3 presented in Appendix 10. It is necessary to stress that final plan is developed only under the scope of the Thesis and revising the discussion with customers (Sales activity) as the main target. The sales activity was chosen due to critical necessity of improvements of financial results and absence the necessity to invest the huge amount of resources in these changings.

6.4 Summary of Final Plan

Tables 15-18 below present the summary of the final plan after the validation stage. As described previously, the final Action plan is developed and constructed using Data 3 presented in Appendix 10.

Table 15 presents the final Action plan for the preparation stage. Table 16 presents the final Action plan for distributing critical company internal information. Table 17 presents the final Action plan for breaking organizational silos. Table 18 presents the final Action plan for integrating databases.

Table 15. Summary of Final Plan (Preparation Stage).

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
PREPARATION STAGE (11 target - areas)	- Clarify vision of changes, Involvement the Executives and Highest Management. - Identification the necessary changes - Cresting the roadmap of implementation within 3-6 months in the branch. - Choose AGILE or WATERFALL model - Discuss changes in organizational structures and protect business activity at this time - Announce the responsible positions - Revise the company staff as resource and propose to join the activity and implementation - Define the roles of branch Administrators and Legal officer, business Administrators. - Define the roles of UEX, Scrum Masters, Project Managers within IT Architecture - Clear identify the process of exchanging with critical information - Announce the initial steps within local Branch in the nearest 1-year period of time. Reduce the time frames of implementation the changes on Regional and global levels. The changes are very important and implementation the changes are very expected by staff.	- Less than 3 months - Less than 3 months - Less than 6 months - Less than 3 months - Less than 3 months - Less than 6 months - Less than 6 months - Less than 6 months - Less than 6 months - Less than 6 months - Less than 6 months	- Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global

As seen from Table 15, the summary of final plan (Preparation Stage) focuses on preparation the business environment and IT infrastructure for the future changes. Table 15 is changed from initial plan already presented in Table 11. The changes in time frames are requested by staff and all of them are available in the final version of the plan. At the same time, seven target-areas in Table 11 are revised and transferred to eleven target-areas in the final plan.

Second, Table 16 below presents the final plan after validation the stage “distributing the critical company internal information”.

Table 16. Summary of Final Plan (Distribute critical company internal information).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Distribute critical company internal information (11 target - areas)	- Identify the critical operations and information, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows.	- Less than 6 months	- Management Local, Q@lm., IT teams, Administrators, Auditors, Oper.staff
	- Revise the alternatives and Stop using inappropriate system of distributing the information.	- Less than 12 months	- Management Local, Q@lm., IT teams
	- Create the "informational map" what is critical and. Identify the ways of exchanging the information and front-end user interface.	- Less than 6 months	- Management Local, Q@lm., IT teams Administrators, Auditors, Oper.staff
	- Create the working instruction for the personnel involved in construction the new model and has relationship to "Informational Lake - HADOOP" on the level of the local Branch	- Less than 12 months	- Management Local, Q@lm., IT teams, Administrators, Auditors, Oper.staff
	- Create the working instruct. for HADOOP responsible staff on the country level	- Less than 12 months	- Management Local, Q@lm., IT teams - Branch Manager
	- Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust)	- Less than 6 months	- Management Local, Q@lm., IT teams Sales staff
	- Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 12 months	- Management Local, Q@lm., IT teams, Branch Administrator
	- Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 6 months	- Management Local, Q@lm., IT teams, Branch Administrator
	- Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator.	- Less than 12 months	- Management Local, Q@lm., IT teams Legal Officer
	- Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	- Less than 12 months	- Management Local, Q@lm., IT teams
	- Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	- Less than 12 months	- Branch Administrator, Business Administrators in the country office

As seen from Table 16, the summary of final Action plan (Distribute critical company internal information) focuses on revising the process of distributing the critical information within the organization. Table 16 is changed from initial plan already presented in Table 12. The changes in time frames are requested by staff and all of them are available in the final version of the plan. At the same time, two important changes are announced after verification the initial plan. The first important issue is related to the fact that it is

necessary to identify the critical information additionally to operations, processes owners and information flows. The second important issue is related to revising the possible alternatives before stop using the inappropriate system of distributing the information.

Third, Table 17 below presents the final plan after validation the stage “breaking organizational silos”.

Table 17. Summary of Final Plan (Break organizational silos).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Break organizational silos (11 target - areas)	- Identify the critical information in operations, owners of the business processes or responsible for the business.	- Less than 6 months	- Management Local, Regional, Q@Im
	- Revise the alternatives and Stop using inappropriate organizational structures	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the “operational map” what is critical and Identify the critical positions	- Less than 6 months	- Management Local, Regional, Q@Im
	- Appoint the cross-functional Mangers. Create the working Instructions	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. Perform this in cooperation	- Less than 6 months	- Management Local, Regional, Q@Im Branch and Business, Administrators
	- Appoint the Sales Staff in the local Branch. Create the working instructions.	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Branch Manager	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Sales Staff	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Administrator within local Branch	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the equal layers within the company structure	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the different layers within the company structure	- 6 - 12 months	- Management Local, Regional, Q@Im

As seen from Table 17, the summary of final Action plan (Break organizational silos) focuses on revising the process of breaking organizational silos within the organization. Table 17 is changed from initial plan already presented in Table 13. The changes in time frames are requested by staff and all of them are available in the final version of the plan. At the same time, two important changes are announced after verification the initial plan. The first important issue is related to the fact that it is necessary to identify the critical information additionally to owners of the business processes or responsible for the business. The second important issue is related to revising the possible alternatives before stop using inappropriate organizational structures.

Fourth, Table 18 below presents the final plan after validation the stage “Integrate databases”.

Table 18. Summary of Final Plan (Integrate databases).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Integrate databases (11 target - areas)	- Identify the critical information in the process of extracting the information from the databases and use the DB.	- Less than 6 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff
	- Revise the alternatives and Stop using inappropriate system of distributing and searching the information in the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Create the “informational map” what is critical and ways of delivering the information to the final user. Identify the necessary back-end platform for the “Informational Lake”.	- Less than 6 months	- Management Local, Q@Im., IT teams Admin., Auditors, Operat.staff
	- Identify the models of IT architecture and extraction the information for the DB	- Less than 6 months	- Management Local, Q@Im., IT teams
	- Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using “Informational Lake” technology.	- Less than 6 months	- Management Local, Q@Im., IT teams new members
	- Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master.	- Less than 6 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	- Less than 6 months	- Management Local, Q@Im., IT teams new members
	- Grant the relevant access to the DB via “Informational Lake” to Branch Manager	- Less than 6 months	- Management Local, Q@Im., IT teams
	- Grant the relevant access to the DB via “Informational Lake” to Branch Administrator	- Less than 6 months	- Branch Administr., Q@Im., IT teams
	- Grant the relevant access to the DB via “Informational Lake” to Branch Sales Staff	- Less than 6 months	- Branch Sales Staff, Q@Im., IT teams

As seen from Table 18, the summary of final Action plan (Integrate databases) focuses on revising the process of integrating the databases within the organization. Table 18 is changed from initial plan already presented in Table 14. The changes in time frames are requested by staff and all of them are available in the final version of the plan. At the same time, two important changes are announced after verification the initial plan. The first important issue is related to the fact that it is necessary to identify the critical information in the process of extracting the information from the databases and use the DB.

The second important issue is related to revising the possible alternatives before stop using the inappropriate system of distributing and searching the information in the DB.

As seen from the final Action plan, the changes are necessary to be implemented within 1-year period at the site of the local branch in one local country. Nevertheless, plan has developed in the way that it is possible to copy available solution to the whole country operations. The stages of realization the 1-year plan is already highlighted before.

STAGE 1, Preparation to the changes on the local level and implementation the changes on the local level during 0,25-1-year, on the regional level during 2-3-years and the global level during 3-5-years.

STAGE 2, Implementation the changes in the local Branch within local country up to 1-year.

The Thesis revises exactly this level of improvements with a potential of being able to copy the solution to the whole country or regional operations. Nevertheless, this issue is not the Theme of the Thesis and highlighted in the next Section. Summarizing, the next result could be received after implementation the plan:

First, the changes are identified, the roadmap is available, the model of changes is chosen, and the relevant staff is involved. Relevant processes are identified, initial steps confirmed.

Second, the process of distributing the information identified and proposed sustainable model of distributing the information.

Third, improved the process of organization the subordination and communication at the time of business operations.

Fourth, improved the system of dealing with internal databases P(personnel); T(technology); L(law, norms, and regulations).

7 Conclusions

This section contains the summary of the study, next steps, and recommendations toward implementation of the proposal. It also contains Thesis Evaluation vs. Initial Targets. Finally, the Thesis Evaluation Criteria were revised.

7.1 Executive Summary

This Thesis builds an Action plan to make critical customer service information internally available within the case organization. The organization is a multi-international company that conducts its operations globally. The company faces strong competition in the market trying to improve its position. However, the company management is seeking resources and business instruments for improvements and, two ways are possible. The first way is engaging the external resources from external sources and, the second way is engaging the internal resources and use own strengths. The Thesis proposes to focus on the second approach and identifies the ways to help in the sales process by making the internal critical information easily available to the staff, when it is most needed, in the sales situations.

The goal of the Thesis was to develop an action plan in purpose to make critical customer service information internally available. Availability of the critical information at the site may lead to successful process of information sharing and finally, help in sales activity. Based on the results of the current state analysis, the critical valuable information was identified from interviews with the company staff involved in the operational activity and the sales process. It is important to stress that critical information was stipulated as the information related to: P - (Personnel), T – (Technologies), L – (Legislation, Norms, Regulations, Standards) was revised as critical at the time of performing the sales activity.

Strengths and weaknesses of the current information sharing were identified as findings from the current state analysis. The CSA identified and proved the problem that has to be solved. The CSA pointed out that the case company has very good databases but connections with these databases are not relevant. At the same time, the organizational structure is not sufficient. The case company created organizational silos and, this problem is common in the actual business environment for the companies involved in the business with worldwide structures or a huge amount of data. This means that departments had created their own ways of working and valuable data are closed within one

department without sharing within the company structure. Nevertheless, there was investigated the existence of very strong databases and, this made the process of improvements possible.

Based on the results of CSA, it was decided that the focus of the Thesis was to create the new plan in purpose to make critical customer service information internally available. Therefore, next, the literature review was performed for revising the existing knowledge / best practice to treat the issues identified in the current state. For this purpose, the Thesis focused on revising the modern techniques that available in the academic and business publications under the scope of the Thesis. In this way, three issues were discussed: first, the presence of the organizational silos at the site, second the need to integrate the databases at the site and, last, third the need for distributing critical company internal information. The conceptual framework is focused on three issues that necessary to be fixed and for constructing the final action plan.

The outcome of the Thesis is the action plan developed for the local branch. The actions plan is developed for (a) making the necessary critical information internally available, and (b) improving the information sharing process within the organization. The action plan is constructed by collecting data from the interviews, internal software and documentation, group discussions with the core stakeholders and also the company internal documents. The final action plan is constructed as the universal instrument that can be copied to other sites. In this way, the company utilizes only available internal resources at the time of implementation the plan. In this way, the Thesis aims to evoke improvements within the company by utilizing own resources and based on what is already available

Finally, the proposed action plan was constructed and presented for validation and feedback to the key personnel involved in the International Trade Business worldwide. The answers from the key staff are gathered in Appendix 10. They evaluated this plan as valuable after the final revising of the outcome. This action plan is developed for the local branch of international global-vide organization and limited within this scope, although the proposed plan was constructed with the perspective of being able to copy the solution to the whole country operations or global scale and not only for sales.

The outcome of this Thesis is an action plan for making critical customer service information internally available. This plan would help Sales staff at the time of discussion with customer and gathering information from the company databases that already available

within the company structure. As was highlighted at the time of validation the proposal, only the sales process is the process of generation the cash-flows and, the effective sales department is the way to financial stability and generating revenue and income. Taking into account that it is not necessary to make expensive investments or re-financing in already available structure, the outcome of the Thesis can be revised as improvements with minimum investments.

7.2 Next Steps and Recommendations toward Implementation of the Proposal

The process of implementation of the plan is described in stage 1 (Preparation Stage) and stage 2 and relates to implementation the changes at the site of the local branch within a 1-year period. Stage 3 is connected with implementation the changes on the regional level and, stage 4 is connected with implementation the changes on the global level.

Stage 1 and stage 2 should be finalized within a 1-year period on the level of the local Branch. Nevertheless, the vision of development the plan on the next 3-years is necessary at this point. The model of successful Project implemented in the stages 1 and 2 is necessary to be taken as the sample already implemented. Stage 3 should be finalized within 3-years period. The vision of development the plan on the next 5-years is necessary at this point.

The future steps are connected with the same approach using the Deaming` cycle (Plan-Do-Check-Act) at the time of implementation the improvements. The first loop of the PDCA Deaming` cycle is developed in Chapter 5 and explained in Chapter 6. As explained, the first loop is revised on the level of the local Branch within a 1-year period. The next loop should be organized in the same way at the sites of similar local Branches on the Regional level up to 3 years and, the last third loop should be implemented on the global level up to 5 years.

The final plan for the local Branch is developed as the outcome of the Thesis and presented in Section 6 and Appendix 11. Nevertheless, the plan is constructed in the way that it can be copied to other sites. As result, ten Steps are described below in purpose to clarify the next steps and recommendations toward Implementation of the proposal.

Step 1. Clarify vision of changes and identify the targets.

Step 2. An adequate management practice must be instituted, as detailed in Section 5. The necessary changes are identified. The plan of improvements is discussed. The vision of the future improvements is discussed within the company and agreed by highest management. Reduce the time frames of implementation the changes on Regional level up to 2-3 years and global level up to 3-5 years.

Step 3. Create the “roadmap” of required changes taking into account already revised 1-year plan at the site of the local Branch. Simply, copy the solution at the sites of other branches within one Region or, at the sites of the Branches within different Regions.

Step 4. Develop the program of protection the business at the time of copying the solution at the sites of other Branches. Clear identify the process of exchanging with critical information.

Step 5. Define the roles of branch Administrators and Legal officers and business Administrators. Identify the roles of UEX, Scrum Masters, Project Managers.

Step 6. Announce the changes on the relevant level and involve the company staff in the process of implementation the plan at the sites of Branches on a Regional or Global level.

Step 7. Copy the final plan already implemented on the local level and related to distributing critical company internal information to other sites. The plan can be copied within a local country in one Region, different countries in one Region or different countries in two different Regions.

Step 8. Copy the final plan already implemented on the local level and related to breaking organizational silos to other sites. The plan can be copied within the local country in one Region, different countries in one Region or different countries in two different Regions.

Step 9. Copy the final plan already implemented on the local level and related to Integrate databases to other sites. The plan can be copied within a local country in one Region, different countries in one Region or different countries in two different Regions.

Step 10. Perform the analysis of the steps 1-9 using PDCA Deaming` cycle and, copy the solution at other sites.

Taking into account fact that organizational structure of the company Branches is similar around the world, it is easy to transfer the model of implementation the action plan from one country to another country around the world. Finally, the action plan will be useful around the world with minimum investments and changes within the organizational structure. It is no necessity to find expensive investments from external sources. It is only necessary to revise own strengths as the resource for future improvements.

7.3 Thesis Evaluation vs. Initial Targets

The quality of research work can be assessed by revising evaluation criteria and the Thesis outcome corresponding to the research question and the objective. The objective of the Thesis was to develop an action plan to make critical customer service information internally available, from the local office branch perspective, with the potential of being able to copy the solution to the branch operations. The outcome was an action plan to make critical customer service information internally available that was validated by the company staff. In this way, the Thesis outcome corresponds with Objective stipulated at the beginning and, the final version was validated by the key company staff.

Further on, evaluation of the Thesis is conducted using the selected quality criteria related to the reliability of the tools and data and validity of results, as well as the relevance of the approach and logic of the research process. This evaluation plan of this Thesis is based on the qualitative research methodology.

In qualitative research, *validity* can be measured by questioning whether the outcome of the thesis gives an answer to the research question. Validity is related to understanding the achievements and comparison of the level of conformity of the results achieved with the applied approach or study purpose. Validity directly refers to the closeness of the research findings with the initial research question for the study. *Validity* directly refers to the closeness of the research findings with the initial research question for the study. The validity criteria of a study typically include accuracy and neutral interpretation of the collected data. Neutral Interpretation of data takes into consideration the perspective of the study subject, and informants linked with the research (Maxwell 2013:232).

The validity of a qualitative study relates to the selection of appropriate tools, processes, and data (Leung, 2015: 4). Commonly, four types of validity Yin (1994: 13) are used in a qualitative research. These are internal validity, construct validity, external validity, and reliability. Validity is related to understanding the achievements and comparison of the level of conformity of the results achieved with the applied approach or study purpose. Validity directly refers to the closeness of the research findings with the initial research question for the study. The validity criteria of a study typically include accuracy and neutral interpretation of the collected data. Neutral Interpretation of data takes into consideration the perspective of the study subject, and informants linked with the research (Maxwell 1966:109).

This thesis was made following the case study research approach, by the qualitative research methods. For this approach, examination the validity of results and data makes an essential part of the research approach. The validity, reliability of the Thesis is accessed using the research design in the Thesis. The case study as a research approach requires that to ensure both valid and reliable outcome, theoretical and best practice findings have to be utilized in order to ground and increase the validity of the proposal. All these steps were taken in this study. The stages of the Thesis are the business problem identification (Objective), the current state analysis (zooming into the company`s case), searching for best practice (from literature and the best practice), building the proposal, and finally, collecting feedback and making final adjustments to build the final proposal.

In this study, from the validity point of view, the study requires multiple discussions and interviews with relevant personnel of the case company. This is to ensure that researcher obtains enough information about the case company and its operations and practices related to the study. Additionally, a feedback from all key stakeholders, managers and branches employees was taken for the evaluation. The data from internal company sources were correct and reliable. The data from multiple sources were used as well. The next sources of information were revised at the time of building the plan: 1) relevant participants, the company employees as well as company management, 2) the company documentation, 3) observations and 4) use of software, and well as 5) some consideration of information from the customers was revised as supporting source of information. The case study as a research approach requires that to ensure both valid and reliable outcome, theoretical and best practice findings have to be utilized in order to ground and increase the validity of the proposal. The information gained at the time of conducting the validation session was also enough and, the information is relevant to the subject of

study. As result, the structured answers and worthy comments were collected from the key personnel.

Reliability of a research refers to accuracy and correctness of the findings available in research. Validity and reliability are two interdependent terms where validity holds no value without reliability. A research should be reliable if the findings are consistent with nature, even if it is carried out in the different conditions at different point of time and performed by different researchers. In practice, the reliability of the study needs to be established to make any research valid (Lincoln and Guba 1985: 418). A research should be reliable if the findings are consistent with nature, even if it is carried out in different conditions at the different point of time and performed by different researchers. Firstly, data must be accurate. Secondly, interpretation of the data should take into account various perspectives of participants in the project. Thirdly, a researcher must scrutinize substitute hypothesis existing in the literature and/or given be relevant research participants in order to avoid bias in his own account. These all combine reassure valid outcome of a research (Maxwell 1996:109).

In this study, the nature of reliability requires the data that can be collected from mainly internal sources in the local country as well as from the global level. The data was gathered using independent sources within the company structure. To ensue reliability, the data are collected from multiple sources (interviews, observations, software, and databases, as well as internal documents) were taken into account. This was done to meet the triangulation requirements of the data collection sources and methods. These sources included: 1) interviews and discussions with relevant participants - the company employees as well as company management, 2) the company documentation, 3) observations, 4) use of software and 5) some consideration of information from the customers was revised as supporting source of information.

Logic means the cause-and-effect explanation of an action, decision, event, phenomenon, or solution (Business Dictionary: Logic). In this study, logic is ensured by step-by-step transformation the research from explanation the business context, identification the business challenge and Objective towards final Action plan. The CSA, CFW were the parts of the way from identification the Objective towards final Action plan. At the same time, Cause-and-effect explanation was the main line of the Thesis towards to the final goal as stipulated in the Theme of the Thesis.

In this study, logic is ensured by taking these steps at the time of explanation the details of elements included in a phenomenon of information sharing process. At the same time, the logical research process is stressed as a foundation for this study. The research design is introduced in Section 2.2 and the logic is ensured by building it in such a way that phenomenon was identified at the time of performing the CSA and explained using modern knowledge and the best practice at the time of identification the Conceptual Framework. The section within Thesis and moving from the business problem identification (objective) to the final proposal are connected between themselves with Logic. The final decisions and solutions were made at the time of building the proposal. The cause-and-effect explanation was the main line of the Thesis towards to the final goal as stipulated in the Theme of the Thesis.

Finally, *Relevance* means the relation of something to the matter at hand (Vocabulary: Relevance). In this study, relevance is ensured by the explanation the main problems connected with sharing the information and taking steps leads to explanation the way of solving these problems. First of all, relevance is ensured by a careful selection of the business challenge and choosing relevant steps to nurture the relevance of the outcome to both, the initial challenge, and as relevant and applicable outcome for the case company. The relevance of issues was cross-checked with company staff at the time of gathering Data and relevant steps were always checked from the beginning till the final validation the proposal and revising the final version of the plan.

As explained, the information from the sources stipulated above was used at the time of moving from objective towards the final action plan. The information was relevant due to fact that main problems connected with sharing the information and taking steps to explanation solutions are highlighted by staff and sources used in the case company business operations.

7.4 Final Words

The theme of Thesis is relevant due to fact that many companies faced with the problem of improving their position on the markets and often Sales departments are offended in bad results. Nevertheless, Sales departments can have very strong advantages and instruments at the time of conducting business. The company staff are ready to spend their time and power, making the company own staff as the cheapest and the most loyal and valuable resource ever seen in the company disposal. The staff can become an “internal

engine” and expensive external investments are not necessary. Moreover, staff loyalty and experience together with knowledge available in the company databases can be revised as the sustainable platform for future improvement and sustainable growth. Again, external resources are expensive and contradictory.

To put it simply, it is easy to solve a lot of issues connected with the business operations by only utilizing own resources and improving the information sharing process within the organization that is critical and should be available.

The outcome of the Thesis is the action plan that makes critical customer service information internally available. The plan was developed for the local branch within one local country on EU border but can be copied in other branches with a global network. In this way, availability the information and improving the information sharing process also become powerful instruments to change the communication rules and discuss with customers towards to the future success.

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Appendix 1. Details of Data 1 collection.

Details of Data 1 collection - for the Current State Analysis (CSA)

Data 1 collection Stage	Participant	Date and duration	Documentation	Topics discussed
Data 1(a)	Expert - freelancer – code - 001	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 07 week of 2017 year – 08/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	Identifying the types of information that are critical in providing services to customers: - identification the information that is critical in the sales activity (from the system point of view) - identification the information that is critical in the sales activity (from the process point of view) - identification the critical information relates to the personnel as the most valuable asset - future expectations related to sales in the case company on the local level (system) - future expectations regarding effective organization the sales as a process on the local level (process) - future expectation of the personnel involved in sales activity - HQ expectations is the vision clear
	Operational staff – code - 002	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 003	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business development Manager, Operational Manager – code - 004	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 005	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 13/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business Development and Operational Manager – code - 006	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	

	Business development Manager, Sales Manager – code - 007	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Branch and General Operational Manager - code - 008	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 07 week of 2017 year – 12/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	QMS Auditor BU_1 - code - 009	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Project Manager, QMS Auditor - code - 010	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
Data 1(b)	Expert - freelancer – code - 001	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 07 week of 2017 year – 08/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	Description of how critical information is being provided today ("business" logic and IT-architecture) - description of current sales business practices locally (system map) - description of current sales business process on the local level (process map) - satisfaction of the personnel from sales activity conducted at present time
	Operational staff – code - 002	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 003	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	

	Business development Manager, Operational Manager – code - 004	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 005	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 13/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business Development and Operational Manager – code - 006	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business development Manager, Sales Manager – code - 007	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Branch and General Operational Manager - code - 008	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 07 week of 2017 year – 12/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	QMS Auditor BU_1 - code - 009	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Project Manager, QMS Auditor - code - 010	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	

Data 1(c)	Expert - freelancer – code - 001	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 07 week of 2017 year – 08/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	Analysis of the strengths and weaknesses in the current way of providing critical information. - strengths of the current sales business practice - weaknesses of the current sales business practice - improvement opportunities as it seen from the current stage
	Operational staff – code - 002	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 003	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business development Manager, Operational Manager – code - 004	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 14/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 005	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 13/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business Development and Operational Manager – code - 006	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business development Manager, Sales Manager – code - 007	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	

	Branch and General Operational Manager - code - 008	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 07 week of 2017 year – 12/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	QMS Auditor BU_1 - code - 009	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Project Manager, QMS Auditor - code - 010	Questionnaires were sent on 02-05 week of 2017year. Questionnaires were collected on 08 week of 2017 year – 15/02/2017	Audio recorded, skype meeting, collected via e-mail / skype, field notes	

Appendix 2. Details of Data 2 collection.

Data 2 collection for building the proposal.

Data 2 collection Stage	Participant	Date and duration	Documentation	Topics discussed
Data 2	Operational staff – code - 002	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 19/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 18/04/2017 (fulfilled 17/04/2017), 2 part – collected 22/04/2017 (fulfilled 20/04/2017)	Audio recorded, skype meeting, collected via e-mail / skype, field notes	Input in the proposal building - description of how the critical information is distributed via Organizational Structure. Building the draft of the plan.
	Operational staff – code - 003	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 19/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 18/04/2017 (fulfilled 11/04/2017), 2 part – collected 22/04/2017 (fulfilled 21/04/2017)	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Business development Manager, Operational Manager – code - 004	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 19/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 18/04/2017 (fulfilled 16/04/2017), 2 part – collected 22/04/2017 (fulfilled 20/04/2017)	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Operational staff – code - 005	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 19/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 18/04/2017 (fulfilled 13/04/2017), 2 part – collected 22/04/2017 (fulfilled 21/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	
	Business Developmant and Operational Manager – code - 006	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 19/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 18/04/2017 (fulfilled 14/04/2017), 2 part – collected 22/04/2017 (fulfilled 20/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	
	Business development Manager, Sales Manager – code -007	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 20/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 17/04/2017 (fulfilled 17/04/2017), 2 part – collected 25/04/2017 (fulfilled 25/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	

Data 2 collection for building the proposal.

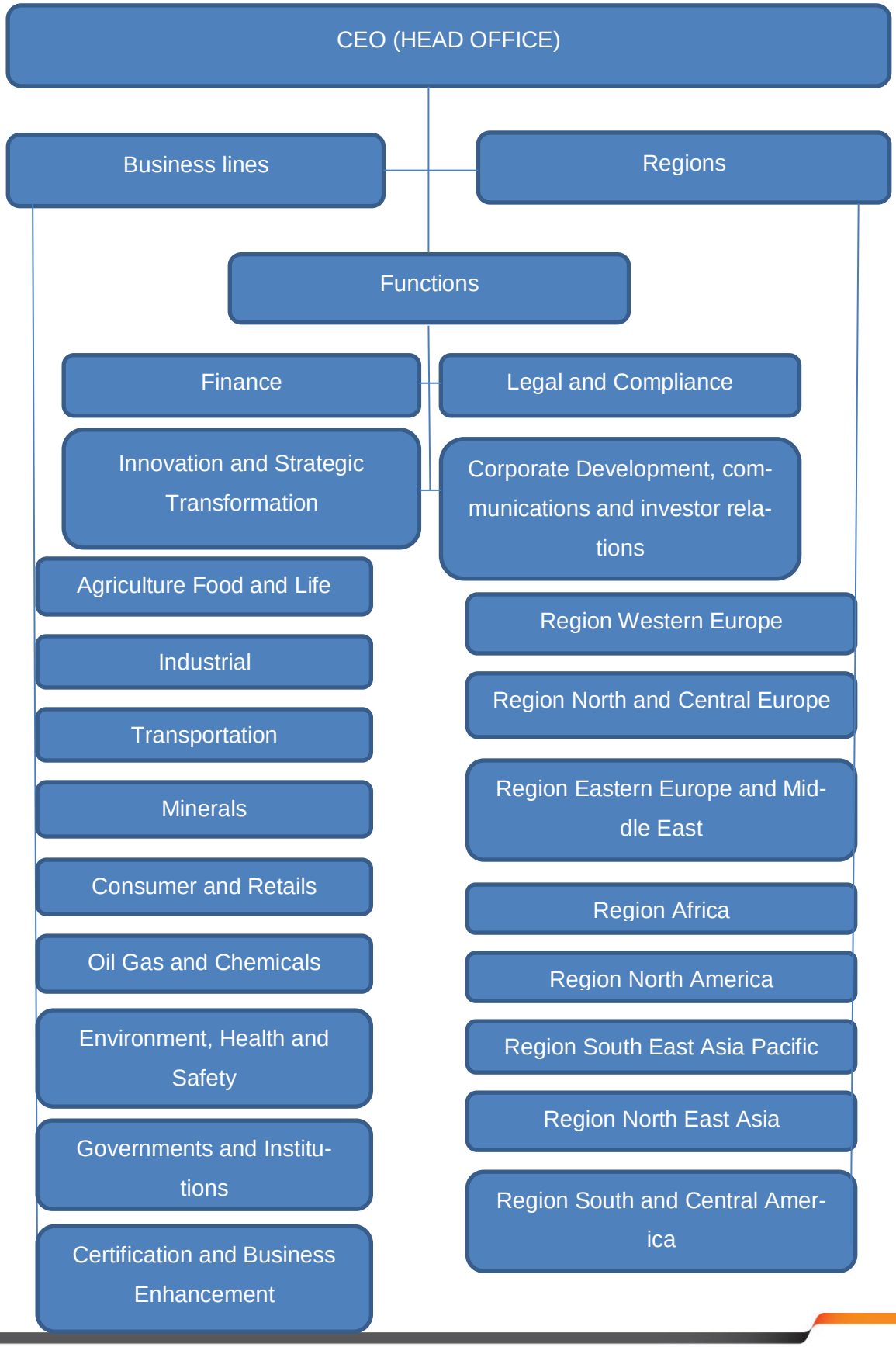
Data 2 collection Stage	Participant	Date and duration	Documentation	Topics discussed
	Branch and General Oper-ational Man-ager - code - 008	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 20/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – not collected 2 part – collected 24/04/2017 (fulfilled 25/04/2017)	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	QMS Auditor BU_1 - code - 009	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 20/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 17/04/2017 (fulfilled 16/04/2017), 2 part – collected 24/04/2017 (fulfilled 24/04/2017)	Audio recorded, skype meeting, collected via e-mail / skype, field notes	
	Project Manager, Business Development Mgr, - code - 010	Questionnaires were sent on 15-16 week of 2017year. 1 part – 10/04/2017, 2 part – 20/04/2017 Questionnaires were collected on 16-18 weeks of 2017 year. 1 part – collected 17/04/2017 (fulfilled 17/04/2017), 2 part – collected 24/04/2017 (fulfilled 24/04/2017)	Audio recorded, skype meeting, collected via e-mail / skype, field notes	

Appendix 3. Details of Data 3 collection.

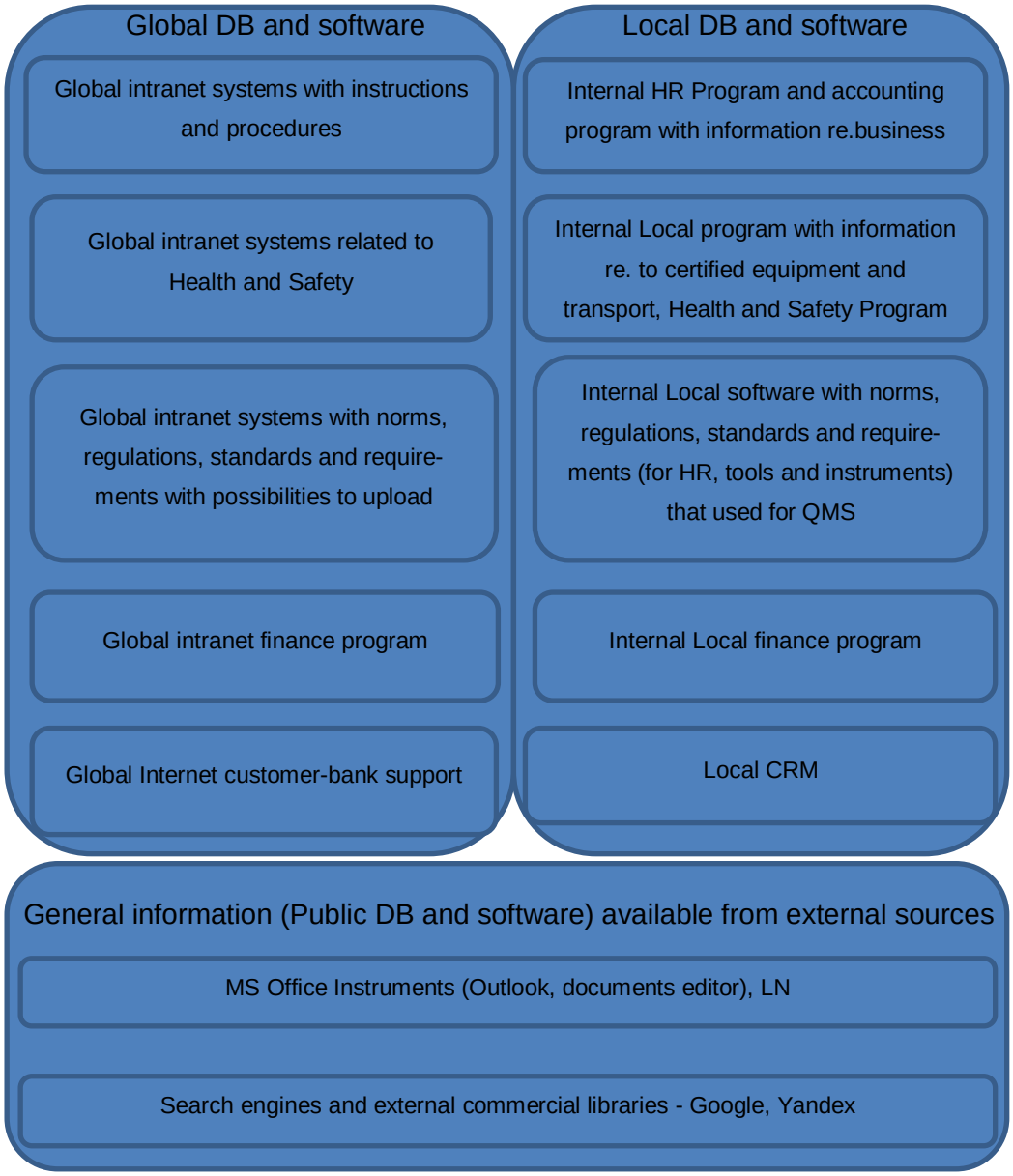
Data 3 collection for validating the proposal.

Data 3 collection Stage	Participant	Date and duration	Documentation	Topics discussed
Data 3	Operational staff – code - 002	Questionnaires were sent on 18 week of 2017year. 25/04/2017. Questionnaire was collected on 18 week of 2017 year, collected 26/04/2017 (fulfilled 26/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	Feedback for the proposed draft of the plan
	Operational staff – code - 003	Questionnaires were sent on 18 week of 2017year. 25/04/2017. Questionnaire was collected on 18 week of 2017 year, collected 26/04/2017 (fulfilled 26/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	
	Business development Manager, Operational Manager – code - 004	Questionnaires were sent on 18 week of 2017year. 25/04/2017. Questionnaire was collected on 18 week of 2017 year, collected 26/04/2017 (fulfilled 26/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	
	Business development Manager, Sales Manager – code -007	Questionnaires were sent on 18 week of 2017year. 25/04/2017. Questionnaire was collected on 18 week of 2017 year, collected 26/04/2017 (fulfilled 26/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	
	QMS Auditor BU_1 - code - 009	Questionnaires were sent on 18 week of 2017year. 25/04/2017. Questionnaire was collected on 18 week of 2017 year, collected 25/04/2017 (fulfilled 26/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	
	Project Manager, QMS Auditor - code - 010	Questionnaires were sent on 18 week of 2017year. 25/04/2017. Questionnaire was collected on 18 week of 2017 year, collected 26/04/2017 (fulfilled 26/04/2017)	Audio recorded, skype meeting, received via e-mail / skype, field notes	

Appendix 4. Case Company Organizational Scheme.



Appendix 5. Architecture of DB and applications used globally and locally.



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Appendix 6. Details of Questionnaire (Data 1) – Data 1a.

Identifying the types of information critical for providing services to customers.

For collecting Data 1, the questionnaires were constructed to clarify the issues related to: (1) Identifying the types of information that are critical in providing services to customers (DATA 1a, in Appendix 1 and 6); (2) Description of how critical information is being provided today ("business" logic and IT-architecture) (DATA 1b in Appendix 2 and 7); (3) Analysis of the strengths and weaknesses in the current way of providing critical information (DATA 1c in Appendix 3 and 8). The information is marked as: (o) own opinion; (x) do not know, and standard answer (+) yes; (-) no for the questions stipulated in the questionnaires.

DATA 1a	ANSWERS ACCORDING TO THE COLUMN# OF INFORMANT (01-10) (+) – YES; (-) – NO; (?) – Do not know; (o) – own opinion: (o)+_own opinion with positive mood (o)-_own opinion with negative mood										**Quantity of answers:**			
											Positive (Y)	**Negative (NO)**	**Do not know**	**Own opinion**
Question I:	What is the *current situation regarding saving the data* necessary at the time of performing the job with customers and, *is this situation comfortable* at the time of co-operation with customers?										**Quantity of answers for the question DATA 1a №1**			
Answers:	-	-	-	-	-	-	(o)-	+	-	+	2	**7**	-	1
The current situation re. saving the data is uncomfortable – the issue is weakness														
Question II:	*Is this necessary to seek the information from additional sources* at the time of contacts with customers – *not only from internal company` sources*?										**Quantity of answers for the question DATA 1a №2**			
Answers:	+	+	-	-	+	+	+	(o)+	+	(o)+	**6**	2	-	2
It is always necessary to check additional sources – the issue is revised as weakness														
Question III:	*Are working instructions available for the Managers \ interviewee* at the time of contacts with customers or job performing?										**Quantity of answers for the question DATA 1a №3**			
Answers:	-	-	-	(o)-	+	+	-	+	-	(o)+	3	**5**	-	2
The working instructions are not available for the Interviewee – the issue is weakness														
Question IV:	If *the elements of data with previous references* from the customers or performed jobs *are available, can they be analyzed*?										**Quantity of answers for the question DATA 1a №4**			
Answers:	-	+	-	-	+	+	-	-	-	-	3	**7**	-	-
The data with previous references are not available in disposal of responsible personnel – the issue is weakness														

Question V:	If the *interviewed staff has access to the information with previous customer experience* at the time of contact with customer and presenting the actual proposal?										**Quantity of answers for the question DATA 1a №5**			
Answers:	-	-	-	-	-	+	-	-	-	(o)-	1	**8**	-	1
The interviewed staff has no proper access to the information with previous CE data – the issue is weakness														
Question VI:	What the *company action* in case of *existence the demand from the customer and absence the necessary knowledge* (standards, norms…) at the time of construction the proposal to the customer? Founding solution (+) / Rejection service (-)										**Quantity of answers for the question DATA 1a №6**			
Answers:	-	o(-)	o(-)	o(+)	o(+)	?	-	o(+)	-	o(+)	0	**3**	1	**6**
The company rejects supplying the services due to facing with claims. Nevertheless, the personnel is trying to find solutions. The personnel is trying to manage the situation by himself without proper management from the highest level. The issue is the weakness.														
Question VII:	What the *company action* in case of *existence the demand from the customer and absence the necessary knowledge* (internal procedures, methodologies, certified (verified) equipment for the job…) at the time of construction the proposal to the customer? Founding solution (+) / Rejection service (-)										**Quantity of answers for the question DATA 1a №7**			
Answers:	-	o(-)	o(-)	o(+)	o(+)	?	-	o(+)	-	o(+)	0	**3**	1	**6**
The company rejects supplying the services due to facing with claims. Nevertheless, the personnel is trying to find solutions. The personnel is trying to manage the situation by himself without proper management from the highest level. The issue is the weakness.														
Question VIII:	What the *company action* in case of *existence the demand from the customer and absence the necessary of relevant personnel* at the time of construction the proposal to the customer? Founding solution (+) / Rejection service (-)										**Quantity of answers for the question DATA 1a №8**			
Answers:	-	o(-)	o(-)	o(+)	o(+)	?	-	o(+)	-	o(+)	0	**3**	1	**6**
The company rejects supplying the services due to facing with claims. Nevertheless, the personnel is trying to find solutions. The personnel is trying to manage the situation by himself without proper management from the highest level. The issue is the weakness.														
Question IX:	What the vision of the company Headquarter? Is the current situation is suitable *from the point of view the company management*? YES (+) / NO (-) / Vision of necessity the changes (o)										**Quantity of answers for the question DATA 1a №9**			
Answers:	-	?	?	(o)	+	?	+	+	+	+	**5**	1	3	1
The company management accept the situation in the business. The company management also has no doubt in way of development the business.														

Appendix 7. Details of Questionnaire (Data 1) – Data 1b.

Identifying how critical information is being provided today.

For collecting Data 1, the questionnaires were constructed to clarify the issues related to: (1) Identifying the types of information that are critical in providing services to customers (DATA 1a, in Appendix 1 and 6); (2) Description of how critical information is being provided today ("business" logic and IT-architecture) (DATA 1b in Appendix 2 and 7); (3) Analysis of the strengths and weaknesses in the current way of providing critical information (DATA 1c in Appendix 3 and 8). The information is marked as: (o) own opinion; (x) do not know, and standard answer (+) yes; (-) no for the questions stipulated in the questionnaires. The issues below are revised from the point of view the conjunction the "business" logic and IT-architecture. Table below presents the summary of responses identifying how critical information is being provided today (based on DATA 1b).

DATA 1b	ANSWERS ACCORDING TO THE COLUMN# OF INFORMANT (01-10) (+) – YES; (-) – NO; (?) – Do not know; (o) – own opinion: (o)+_own opinion with positive mood (o)-_own opinion with negative mood										**Quantity of answers:**			
											Positive (Y)	**Negative (NO)**	**Do not know**	**Own opinion**
Question I:	Is the *current information available in the Database (global)* *is enough* in purpose *to present the core of services and requirements according to the global requirements* (European, world) for the company` services?										**Quantity of answers for the question DATA 1b №1**			
Answers:	-	-	-	(o)+	+	+	-	+	-	(o)-	3	**5**	-	2
The current situation re. existence the information in the database (global) is not enough or saving the data is uncomfortable (from DATA 1a-№1,№2) – the issue is weakness.														
Question II:	Is the *current information available in the Database (local)* *is enough* in purpose *to present the core of services and requirements according to the local standards and law requirements* for the company` services?										**Quantity of answers for the question DATA 1b №2**			
Answers:	-	-	-	(o)+	+	+	-	+	-	(o)+	3	**5**	-	2
The current situation re. existence the information in the database (local) is not enough or saving the data is uncomfortable (from DATA 1a-№1,№2) – the issue is weakness.														

Question III:	Is the *current information available in the Database (global \ local) is enough* in purpose *to present* to the customer information regarding *price and terms of performing the service*?										**Quantity of answers for the question DATA 1b №3**			
Answers:	-	-	-	(o)+	+	+	-	+	-	-	3	**6**	-	1
The current situation re.existence the information in the database (global\local) is not enough or saving the data is uncomfortable (from DATA 1a-№1,№2) – the issue is weakness.														
Question IV:	Is *the current information available in the Database (global \ local)* is enough in purpose to present to the customer information regarding possibility of *performing the service in conjunction with particular circumstances* available on the local level?										**Quantity of answers for the question DATA 1b №4**			
Answers:	-	-	-	-	+	+	-	(o)-	-	(o)+	2	**6**	-	2
The current information is not enough. This is weakness.														
Question V:	What the *key elements* available and make the "*first impression*" at the time of contact the customer?										**Quantity of answers for the question DATA 1b №5**			
Answers:	(o)	(o)	(o)	(o)	(o)	?	(o)	(o)	(o)	(o)	-	-	1	9
The next points were stipulated by interviewed staff: 1) Respect at the time of the discussion; 2) Quality of services and price; 3) Qualification and competence the personnel; 4) Terms of performing the services and honesty; 5) References via informational network and business; 6) The company goodwill and experience in the business; 7) Friendliness, sincerity, moderation, composure and intelligence														
Question VI:	What *is necessary to improve* in *co-operation with customer and making the proposa*l for effective business in the future?										**Quantity of answers for the question DATA 1b №6**			
Answers:	(o)	(o)	(o)	(o)	(o)	?	(o)	(o)	(o)	(o)	-	-	1	9
The next points were stipulated by interviewed staff: 1) Previous definition the terms; 2) Keeping the terms of performance the services; 3) Stipulate competitive prices; 4) Existence the previous information about customer and the customer` business; 5) Deeper understanding the customer requirements; 6) Orientation on the customer and willingness to improve the relationships; 7) more trainings of staff how to deal with sales														

Appendix 8. Details of Questionnaire (Data 1) – Data 1c.

Identifying the strengths and weaknesses in the current way of providing critical information.

For collecting Data 1, the questionnaires were constructed to clarify the issues related to: (1) Identifying the types of information that are critical in providing services to customers (DATA 1a, in Appendix 1 and 6); (2) Description of how critical information is being provided today ("business" logic and IT-architecture) (DATA 1b in Appendix 2 and 7); (3) Analysis of the strengths and weaknesses in the current way of providing critical information (DATA 1c in Appendix 3 and 8). Table below shows the summary of responses that identify the strengths and weaknesses (from point of view interviewed of the sales and other involved staff) in the current way of providing critical information (based on DATA 1c).

DATA 1c	ANSWERS BASED ON THE INFORMATION COLLECTED FROM THE INTERVIEWEED STAFF	
Question I:	What is helpful and useful (not helpful and useful) at the time of making the proposal and discussion with customers?	
Answers:	Helpful / Useful: 1) Definition the optimal price and time frameworks of service immediately at the time of contact 2) Meet the customer personally 3) Video presentations - sales strategy 4) Possibility to present the information about services worldwide 5) Co-operation with customers from branches – immediate answer on the questions	Not helpful / Not useful: 1) Co-operation with Head Office 2) Seeking the relevant staff in DB and absence the relevant staff 3) Seeking the information about previous similar jobs in internal DB 4) Discussion with customer via e-mail or telephone conversation 5) Waiting the information from the Head Office or management – delaying response

Question II:	What is helpful and useful (not helpful and useful) at the time of searching the information regarding global requirements?	
Answers:	Helpful / Useful: 1) Part of the global company DB available on the intranet – page. 2) Co-operation with professional staff located abroad in other country – only for final clarifying purposes 3) To use the internet searching engines but most part of information is not free 4) To use professional social networks 5) To use global DB with part of international documents – very uncomfortable usage with non-correct search engine 6) To use the documents found by co-workers and collected via @-mail from the country abroad 7) Actual hard copies of the global requirements	Not helpful / Not useful: 1) Explanation from colleagues or managers involved in the business on the global level as main source of information 2) To use the global DB as the main instrument for searching the information 3) Co-operation with global HQ 4) Absence the possibility to find the staff in the global DB at all. No possibility to solve the issue in the nearest future. 5) Absence the information re.similar jobs on global level in global DB at all. 6) Absence the structured information and good searching engine re. standards, norms and regulations in the global DB. 7) Out-dated hard copies of the documents with global requirements
Question III:	What is helpful and useful (not helpful and useful) at the time of searching the information regarding local and internal requirements?	
Answers:	Helpful / Useful: 1) Part of the global company DB available on the intranet – page. 2) Co-operation with professional staff located abroad in home country – only for final clarifying purposes 3) To use the internet searching engines but most part of information is not free 4) To use professional social networks 5) Local QMS DB with available local documents – very uncomfortable usage with non-correct search engine 6) To use the documents found by co-workers and collected via @-mail from the local country 7) Actual hard copies of the local requirements	Not helpful / Not useful: 1) Explanation from colleag. or mgrs in the business on the level of local country as main source of information 2) To use the local DB as the main instrument for searching the information 3) Co-operation with local HQ 4) Absence the possibility to find the staff in the local DB at all. No possibility to solve the issue in the nearest future. 5) Absence the information re.similar jobs on local level in local DB at all. 6) Absence the structured information and searching engine re. standards, norms and regulations in the local DB. 7) Out-dated hard copies of the documents with local requirements

<table>
<tr><td>Question IV:</td><td colspan="2">What is helpful and useful (not helpful and useful) at the time of discussion how to use the personnel in the business?</td></tr>
<tr><td>Answers:</td><td>Helpful / Useful:
1) Personnel qualification, involvement in the business and loyalty
2) Sharing the information between departments via video presentations and e-mail
3) Sharing the information at the time of meetings
4) Personal knowledge of the company managers and their familiarity with staff qualification and complexity of tasks</td><td>Not helpful / Not useful:
1) Absence the information re. existence the staff, staff accreditation status and disposal in the local country
2) To use the DB as the main instrument for searching the info. re.staff
3) Co-operation with HQ
4) Absence the possibility to find the staff in the global or local DB at all. No possibility to solve the issue in the nearest future.
5) Absence the information re.similar jobs in the DB at all.
6) Absence the structured information and good searching engine re. existence the personnel
7) Out-dated hard copies of the documents with qualification of personnel</td></tr>
<tr><td>Question V:</td><td colspan="2">What is helpful and useful at the time of conjunction the II, III, IV in purpose to make the fast response to the customer?</td></tr>
<tr><td>Answers:</td><td colspan="2">1) Information related to standards and documents
2) Information related to existence the personnel and qualification
3) Access to the well-constructed and well-managed company DB
4) Existence the information re. Certification the equipment and lab. Accreditation
5) To use the presentation strategy at the time of sales process via video connection or internet
6) To work via e-mail, chats 24/7
7) To build the relevant synchronized access to the DB by operational staff and management</td></tr>
<tr><td>Question VI:</td><td colspan="2">What is necessary to improve in order to make the fast responses to the customers?</td></tr>
<tr><td>Answers:</td><td colspan="2">1) To skill the relevant qualified staff
2) To have the good and fast access to the DB
3) Synchronize and update the DB in purpose of proper usage
4) To gather information about customer and hold this information in fast accessible way
5) To make the 24/7 service via phone and chat lines
6) To improve the price policy, construct the “draft of price construction” instrument, to give access to the instrument to the field businesses</td></tr>
</table>

Question VII:	Do you have own opinion how to present the proposal to customers in more fast and suitable ways?
Answers:	1) To use the previously implemented internal procedures and working instructions 2) To provide the periodical “sales” trainings how to discuss the proposals with customers 3) To use the company DB in purpose to improve co-operation and relationships between the company and customers 4) To organize, update and manage the “fast access” to the company DB and customer information. To construct more applicable “price constructor” as tool and give access to the tool by field businesses

Appendix 9. Details of Questionnaire (Data 2).

Data 2 was gathered from the company staff involved in daily business activity and highlights the vision of the company staff what is necessary in order to improve the information sharing at the site. Nine persons were interviewed.

Research Interview (Questionnaire / Discussion)

TOPIC: Developing an Action Plan to make Critical Customer Service Information Internally Available

Information about the informant (Interview _____/UA. DATA-2)

Details	DATA – 2 interviews related to input in Proposal Building Part
Name (code) of the informant	002, 003, 004, 005, 006, 007, 008, 009, 010 according to the list of informants.
Informant's position in the case company	Operational staff (002, 003, 005); Business development Manager and Operational Manager (004); Business Development and Operational Manager (006); Business development Manager, Sales Manager (007); Branch and General Operational Manager (008); QMS Auditor (009); Project Manager, Business Development Manager (010)
Informant's role	Staff involved in daily operational activity (002, 003, 005); Manager involved in development the business on EU border – EU neighbor (004); Manager involved in development the business on EU border – EU member (006); Manager involved in developing the business and sales operations on EU border – EU neighbor (007); General Manager of the local branch located at the border of EU – EU neighbor (008); Quality Management Systems (ISO, FSC, PEFC, ROHS, OHSAS) systems Lead Auditor (009); Project Manager and Business Development Manager in the country – EU neighbor (010). All staff involved in technical inspections, certification business on the border of EU.
Date of the interview	13-24/04/2017 (16-18 weeks in April, 2017)
Duration of the interview	The questionnaire – answers collected from the interviewed persons. The time is stipulated in each document.
Document	Field notes

Field notes (DATA-2/comments) – Preparation.

	Topic(s) of the interview	QUESTIONS	FIELD NOTES
1	**PREPARATION STAGE:**	1)The first step is necessary to identify the responsible staff on the local scale. It is necessary to see the clear statement the information with vision of changes, positions involved in the process at the site of local Branch and local country levels. The next positions are necessary to be identified as cross-functional Managers on the local level and ready to implement the changes: Managing Directors, Business Managers, Branch Managers and Quality and Improvement Managers in the local countries. It is necessary to ask the support from the senior Managers on the global level: CEO, COO, CTO, VP Sales & Marketing, R&D, Regional Managers, HR Department.	*Staff comments:* *Clarify vision of changes, Involvement the Executives and Highest Management. Period should not exceed more than 3 months (3m.) from the date of announcement.* *These changes are VERY expected and, staff is ready to spend additional time in order to improve the situation and help in the business. But please do not wait – no more than 3-6 months!*
2		2) The next step is connected with structural changes at the scale of one branch within one country in the one Region. These changes are necessary to be implemented and controlled within 1-year period of time. The changes are related to: 1) Distributing the critical information within the company; 2) Breaking Organizational Siloes; 3) Integrate the DB already available in the company.	*Staff comments:* *This issue can be divided by 3 areas connected with identification (choosing) and describing the future steps.* *It is necessary to identify the necessary changes, choose the necessary model within 3 months - (3m.) and create the roadmap of implementation within 6 months - (6 m.).*
3		3) The next step is connected with organizational structure. It is necessary to announce the appointment of persons responsible for using the critical information in the critical business processes.	*Staff comments:* *We expect these changes much faster – do not wait.* *They also can be divided by 4 areas:* *Discuss changes in organizational structure and protect bu siness activity at this time (3m.)* *Announce the responsible positions (6m.)* *Revise the company staff as resource and propose to join the activity and implementation (6m.)* *Define the roles of branch Administrators and Legal officer, business Admin.(6m.)*

Field notes (DATA-2/comments) – Preparation.

4		4) The next step is connected also with organizational structure. It is necessary to announce the appointment of User Experience Staff (UEX), Scrum-Masters and Project Managers within IT team for maintaining and governing the databases with (P, T, L) data.	*Staff comments:* *The issue connected with seeking and appointment the responsible staff as in previous target-area. In this way, Define the roles of UEX, Scrum Masters, Project Managers within IT Architecture. The changes are necessary to be implemented within 6 months.*
5		5) The next important step is connected with implementation the proposal plan at the site of the local Branch. It is necessary to announce the Initial steps that necessary to be performed within 1-year term at the site of the one local company Branch within one local country.	*Staff comments:* *This can be divided by two areas: It is necessary to clear identify the process of exchanging with critical information (6m.) and* *Announce the initial steps within local Branch in the nearest 1-year period of time (6m.).* *Please, reduce the time frames of implementation the changes on Regional and global levels. The changes are very impor tant and implementation the changes are expected by staff.*
6		6) It is necessary to prepare the ground for changes at the scale of two branches within one country in one Region or changes at the sites of the branches in two different countries. These changes are necessary to be implemented and controlled within 3-years period of time.	*Staff comments:* *Please, reduce the time frames of implementation the changes on Regional and global levels. The chan ges are very important and implementation the changes is expected by staff.*
7		7) It is necessary to prepare the ground for changes at the scale of different regions on global level or at the sites of the branches in different regions worldwide. These changes are necessary to be implemented and controlled within 5-years period of time.	*Staff comments:* *Please, reduce the time frames of implementation the changes on Regional and global levels. The chan ges are very important and implementation the changes are expected by staff.*

Field notes (DATA-2/comments) – Distribute Critical Company Internal Information.

	Topic(s) of the interview	QUESTIONS	FIELD NOTES
1	**DISTRIBUTE CRITICAL COMPANY INTERNAL INFORMATION:**	1) Identify the critical operations, owners of the business processes and necessary information flows for these operations. Stress the attention on the Information flows.	*Staff comments:* *It is necessary to add the understanding the "critical information" at the time of the operations. In this way: Identify the critical operations and informati on, processes owners and information flows. "Please, no more than 6 months! The changes are necessary on yesterday."*
2		2) Stop using inappropriate system of distributing the information within organization between the staff responsible for the processes.	*Staff comments:* *It is necessary to revise the alternatives before eliminating processess. In this way, it is necessary to Revise the alternatives and stop using inappropriate system of distributing the information. Time can be left within 12 months due to complexity of the changes.*
3		3) Depending on the market circumstances ask the personnel that involved in the operations about the critical information exchanging process at the time of their activity. Create the "informational map" what is critical and necessary for successful process of sharing the information. Identify the ways of exchanging the information and front-end user interface.	*Staff comments:* *The area is correct. Please only reduce the time of creation the "informational map". No more than 6 months.*
4		4) Create the working instructions for the personnel responsible for the "Informatio nal Lake" on the local branch level.	*Staff comments: Agreed. No changes.*
5		5) Create the working instructions for the personnel responsible for the "Informatio nal Lake" on the level of country	*Staff comments: Agreed. No changes.*
6		6) Re-construct the communication within local Branch. Revise the working instructions for the Branch Manager. Grant the necessary level of access to the Databases and "Informational Lake".	*Staff comments: Agreed. Please reduce the time to 6 months. It is critical to control the processes by Management.*
7		7) Re-construct the communication within local Branch. Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and "Informational Lake".	*Staff comments: Agreed. No changes.*

Field notes (DATA-2/comments) – Distribute Critical Company Internal Information.

8		8) Re-construct the communication within local Branch. Revise the working instruc tions for the local Branch Administ rator. Grant the necessary level of access to the Databases and "Informational Lake".	*Staff comments: Agreed. Please reduce the time to 6 months. It is critical to control the processes by Administrator.*
9		9) Delegate the responsibility of actualization the (P) database on the local Branch level to the local Branch Administrator.	*Staff comments: Agreed. No changes.*
10		10) Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	*Staff comments: Agreed. No changes.*
11		11) Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	*Staff comments: Agreed. No changes.*

Field notes (DATA-2/comments) – Breaking organizational siloes.

	Topic(s) of the interview	**QUESTIONS**	**FIELD NOTES**
1	**BREAKING ORGANIZATIONAL SILOES:**	1) Identify the critical operations, owners of the business processes and supporting information flows for these operations. Stress the attention on the owners of the business processes or persons responsible for the business.	*Staff comments:* *It is necessary to add the understanding the "critical information" at the time of the operations. In this way: Identify the critical operations and information, processes owners and information flows.* *"Please, no more than 6 months! The changes are necessary on yesterday."*
2		2) Stop using inappropriate organizational structures already approved their low efficiency at the time of performing the critical operations.	*Staff comments:* *It is necessary to revise the alternatives before. In this way, it is necessary to Revise the alternatives and stop using inappropriate organizational structures.* *Time can be left within 12 months due to complexity of required changes.*
3		3) Depending on the market circumstances ask the personnel that involved in the operations about the critical operations in their activity. Create the "operational map" what is critical and necessary for successful process. Identify the critical positions within the organization.	*Staff comments:* *The area is correct. Please only reduce the time of creation the "informational map". No more than 6 months.*

Field notes (DATA-2/comments) – Breaking organizational siloes.

4		4) Implement the changes within the organization by revising the organizational structure and appoint the cross-functional Managers in the Branches. Revise the WI.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*
5		5) Revise the working instruction for the local Branch Administrator and Business Administrators in the country local HO.	*Staff comments: Agreed. No changes. Please reduce the timeframes up to 6 months.*
6		6) Appoint the Sales Staff in the local Branch. Create the working instructions.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*
7		7) Delegate the necessary responsibility to the Branch Manager within local Branch and connection with positions in the country Head Office.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*
8		8) Delegate the necessary responsibility to the Sales Staff within local Branch and con nection with positions in the country Head Office.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*
9		9) Delegate the necessary responsibility to the Administrator within local Branch and connection with positions in the country Head Office.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*
10		10) Depending on the model of commu ni-cation within the Company Structure (high or low levels of trust) create the rules of contacts on the equal layers for the Branch Staff within the company structure.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*
11		11) Depending on the model of commu ni-cation within the Company Structure (high or low levels of trust) create the rules of contacts on the different layers within the company structure.	*Staff comments: Agreed. No changes. Please reduce the timeframes if possible. 6-12 months.*

Field notes (DATA-2/comments) – Integrating the databases.

	Topic(s) of the interview	QUESTIONS	FIELD NOTES
1	**INTEGRATING THE DATA – BASES:**	1) Identify the critical operations, owners of the business processes and supporting information flows for these operations. Stress the attention on supporting information (extracting the information from the databases) for the Information flows.	*Staff comments:* *It is necessary to add the understanding the "critical information" at the time of the operations with DB. In this way: Identify the critical information in process of extracting the information from the databases and use the DB. "Please, no more than 6 months! The changes are necessary on yesterday."*
2		2) Stop using inappropriate system of searching the information within organizational databases.	*Staff comments:* *It is necessary to revise the alternatives before. In this way, it is necessary to Revise the alternatives and stop using inappropriate system of distributing and searching the information in the DB.* *Time can be left within 12 months due to complexity of required changes.*
3		3) Depending on the market circumstan ces ask the personnel that involved in the operations about the critical information in their activity. Create the "informational map" what is critical and necessary for successful process. Identify the necessary informa tion and ways of delivering the informa tion to the user. Identify the necessary back-end platform for the "Informational Lake".	*Staff comments:* *The area is correct. Please only reduce the time of creation the "informational map" and understanding the requirements for the back-end platform at the time of construction the "Informational Lake". No more than 6 months.*
4		4) Identify the models of IT architecture for the DB and extraction the information from the DB in the right way.	*Agreed. No changes. Please reduce the timeframes up to 6 months.*
5		5) Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using "Informational Lake" technology.	*Agreed. No changes. Please reduce the timeframes up to 6 months.*
6		6) Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum Master. The DB should be in requirements stipulated by Sales Staff, Administrator, Inspect-s and Auditors in the local Branch	*Agreed. No changes. Please reduce the timeframes up to 6 months.*

Field notes (DATA-2/comments) – Integrating the databases.

7		7) Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors should be involved in process of fulfilling the DB according to the rules stipulated by Project Managers.	*Agreed. No changes. It is possible to left the period in 12-months due to complexities connected with organizational changes, complexity and importance of issue.*
8		8) To appoint the Project Managers that responsible for maintaining the DB with data: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	*Agreed. No changes. Please reduce the timeframes up to 6 months.*
9		9) Grant the relevant access to the DB via "Informational Lake" to Branch Manager	*Agreed. No changes. Please reduce the timeframes up to 6 months.*
10		10) Grant the relevant access to the DB via "Informational Lake" to Branch Administrator	*Agreed. No changes. Please reduce the timeframes up to 6 months.*
11		11) Grant the relevant access to the DB via "Informational Lake" to Branch Sales Staff	*Agreed. No changes. Please reduce the timeframes up to 6 months.*

Appendix 10. Details of Questionnaire (Data 3). Feedback to the final proposal.

PREPARATION STAGE.

The Initial "approach" – draft of the plan.

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
PREPARATION STAGE (7 target - areas)	- Clarify vision of changes, Involvement the Executives and Highest Management.	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Identification the necessary changes	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Discuss changes in organizational structures, Announce the responsible positions	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Define the roles of UEX, Scram Masters, Project Managers within IT Architecture	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Announce the initial steps within local Branch in 1-year period of time	- Less than 12 months	- Mngm-t Loc.,Reg., Global
	- Announce the plan of improvements at the site of one Region	- Less than 36 months	- Mngm-t Loc.,Reg., Global
	- Announce the plan of improvements at the site of several Regionas or globally	- Less than 60 months	- Mngm-t Loc.,Reg., Global

Stakeholders' comments on the draft of the plan and model of final plan.

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	STAKEHOLDERS COMMENTS:
PREPARATION STAGE (7 target - areas) transferred to 11 target - areas	- Clarify vision of changes, Involvement the Executives and Highest Management.	- Accepted. It is necessary to only reduce the time up to 3 months.
	- Identification the necessary changes	- Accepted. Please reduce the time frames 3m.
	- Cresting the roadmap of implementation within 3-6 months in the branch.	- Create this asap. No more than 6 months. The roadmap necessary asap. for the branch.
	- Choose AGILE or WATERFALL model	- Please add the model of implementation - 3m.
	- Discuss changes in organizational structures and protect business activity at this time	- Accepted. After explanation the mechanism of implementation please clear identify the changes in organizat., protect business – 3m.
	- Announce the responsible positions	- Accepted. Announce the key position – 6m.
	- Revise the company staff as resource and propose to join the activity and implementation	- The company staff is very interested in the changes. We CAN and WANT to IMPROVE. Please revise us as loyal resource. – 6m.
	- Define the roles of branch Administrators and Legal officer, business Administrators.	- The key staff at the time of implementation the changes – Administrators and Legal officer. Define their roles on the rare stages. – 6m.
	- Define the roles of UEX, Scrum Masters, Project Managers within IT Architecture	- Accepted. UEX, Scrum Mast., Project Mgrs. should be the new people with new vision. -6m.
	- Clear identify the process of exchanging with critical information	- Describe the process of exchanging the information for the staff involved. – 6m.
	- Announce the initial steps within local Branch in the nearest 1-year period of time. Reduce the time frames of implementation the changes on Regional and global levels. The changes are very important and implementation the changes are very expected by staff.	- Finalize the preparation stage. Announce the steps within local branch. – 6m. Please reduce implementation the changes as much as possible. We are very waiting for these changes. We feel that it is necessary. We in dangerous position at the market.

PREPARATION STAGE.

The final plan already validated by key staff.

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
PREPARATION STAGE (11 target - areas)	- Clarify vision of changes, Involvement the Executives and Highest Management.	- Less than 3 months	- Mngm-t Loc.,Reg., Global
	- Identification the necessary changes	- Less than 3 months	- Mngm-t Loc.,Reg., Global
	- Cresting the roadmap of implementation within 3-6 months in the branch.	- Less than 6 months	- Mngm-t Loc.,Reg., Global
	- Choose AGILE or WATERFALL model	- Less than 3 months	- Mngm-t Loc.,Reg., Global
	- Discuss changes in organizational structures and protect business activity at this time	- Less than 3 months	- Mngm-t Loc.,Reg., Global
	- Announce the responsible positions	- Less than 6 months	- Mngm-t Loc.,Reg., Global
	- Revise the company staff as resource and propose to join the activity and implementation	- Less than 6 months	- Mngm-t Loc.,Reg., Global
	- Define the roles of branch Administrators and Legal officer, business Administrators.	- Less than 6 months	- Mngm-t Loc.,Reg., Global
	- Define the roles of UEX, Scrum Masters, Project Managers within IT Architecture	- Less than 6 months	- Mngm-t Loc.,Reg., Global
	- Clear identify the process of exchanging with critical information	- Less than 6 months	- Mngm-t Loc.,Reg., Global
	- Announce the initial steps within local Branch in the nearest 1-year period of time. Reduce the time frames of implementation the changes on Regional and global levels. The changes are very important and implementation the changes are very expected by staff.	- Less than 6 months	- Mngm-t Loc.,Reg., Global

DISTRIBUTE CRITICAL COMPANY INTERNAL INFORMATION STAGE.

The Initial "approach" – draft of the plan.

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Distribute critical company internal information (11 target - areas)	- Identify the critical operations, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows.	- Less than 12 months	- Management Local, Q@lm., IT teams, Administrators, Auditors, Oper.staff
	- Stop using inappropriate system of distributing the information.	- Less than 12 months	- Management Local, Q@lm., IT teams
	- Create the "informational map" what is critical and. Identify the ways of exchanging the information and front-end user interface.	- Less than 12 months	- Management Local, Q@lm., IT teams Administrators, Auditors, Oper.staff
	- Create the working instruction for the personnel involved in construction the new model and has relationship to "Informational Lake - HADOOP" on the level of the local Branch	- Less than 12 months	- Management Local, Q@lm., IT teams, Administrators, Auditors, Oper.staff
	- Create the working instruct. for HADOOP responsible staff on the country level	- Less than 12 months	- Management Local, Q@lm., IT teams - Branch Manager
	- Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust)	- Less than 12 months	- Management Local, Q@lm., IT teams Sales staff
	- Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 12 months	- Management Local, Q@lm., IT teams, Branch Administrator
	- Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 12 months	- Management Local, Q@lm., IT teams, Branch Administrator
	- Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator.	- Less than 12 months	- Management Local, Q@lm., IT teams Legal Officer
	- Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	- Less than 12 months	- Management Local, Q@lm., IT teams
	- Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	- Less than 12 months	- Branch Administrator, Business Administrators in the country office

DISTRIBUTE CRITICAL COMPANY INTERNAL INFORMATION STAGE.

Stakeholders' comments on the draft of the plan and model of final plan.

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	STAKEHOLDERS COMMENTS:
Distribute critical company internal information (11 target - areas)	- Identify the critical operations, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows.	- Please stipulate the identification the critical information. It is very important. Please also no more than 6 months. We are waiting for these changes on yesterday. It is our salary also.
	- Stop using inappropriate system of distributing the information.	- Revise the alternatives before stop using any systems. Timeframes - 12 months are OK.
	- Create the "informational map" what is critical and. Identify the ways of exchanging the information and front-end user interface.	- Accepted. Please only reduce time of implementation. Less than 6 months. The map should be created and explained to the key staff.
	- Create the working instruction for the personnel involved in construction the new model and has relationship to "Informational Lake - HADOOP" on the level of the local Branch	- Accepted. Less than 12 months are OK.
	- Create the working instruct. for HADOOP responsible staff on the country level	- Accepted. Less than 12 months are OK.
	- Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust)	- Accepted. Please only reduce time of implementation. Less than 6 months. It is important to have access for the Managers and Administrators to the key instruments during the whole period of implementation.
	- Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Accepted. Less than 12 months are OK.
	- Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Accepted. Please only reduce time of implementation. Less than 6 months. It is important to have access for the Managers and Administrators to the key instruments during the whole period of implementation.
	- Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator.	- Accepted. Less than 12 months are OK.
	- Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	- Accepted. Less than 12 months are OK.
	- Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	- Accepted. Less than 12 months are OK.

DISTRIBUTE CRITICAL COMPANY INTERNAL INFORMATION STAGE.

The final plan already validated by key staff.

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Distribute critical company internal information (11 target - areas)	- Identify the critical operations and information, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows.	- Less than 6 months	- Management Local, Q@Im., IT teams, Administrators, Auditors, Oper.staff
	- Revise the alternatives and Stop using inappropriate system of distributing the information.	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Create the "informational map" what is critical and. Identify the ways of exchanging the information and front-end user interface.	- Less than 6 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff
	- Create the working instruction for the personnel involved in construction the new model and has relationship to "Informational Lake - HADOOP" on the level of the local Branch	- Less than 12 months	- Management Local, Q@Im., IT teams, Administrators, Auditors, Oper.staff
	- Create the working instruct. for HADOOP responsible staff on the country level	- Less than 12 months	- Management Local, Q@Im., IT teams - Branch Manager
	- Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust)	- Less than 6 months	- Management Local, Q@Im., IT teams Sales staff
	- Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 12 months	- Management Local, Q@Im., IT teams, Branch Administrator
	- Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and "Informational Lake" - HADOOP.	- Less than 6 months	- Management Local, Q@Im., IT teams, Branch Administrator
	- Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator.	- Less than 12 months	- Management Local, Q@Im., IT teams Legal Officer
	- Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	- Less than 12 months	- Branch Administrator, Business Administrators in the country office

BREAK ORGANIZATIONAL SILOS STAGE.

The Initial "approach" – draft of the plan.

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Break organizational silos (11 target - areas)	- Identify the owners of the business processes or responsible for the business.	- Less than 12 months	- Management Local, Regional, Q@Im
	- Stop using inappropriate organizational structures	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the "operational map" what is critical and Identify the critical positions	- Less than 12 months	- Management Local, Regional, Q@Im
	- Appoint the cross-functional Mangers. Create the working Instructions	- Less than 12 months	- Management Local, Regional, Q@Im
	- Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. Perform this in cooperation	- Less than 12 months	- Management Local, Regional, Q@Im Branch and Business, Administrators
	- Appoint the Sales Staff in the local Branch. Create the working instructions.	- Less than 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Branch Manager	- Less than 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Sales Staff	- Less than 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Administrator within local Branch	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the equal layers within the company structure	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the different layers within the company structure	- Less than 12 months	- Management Local, Regional, Q@Im

BREAK ORGANIZATIONAL SILOS STAGE.

Stakeholders' comments on the draft of the plan and model of final plan.

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	STAKEHOLDERS COMMENTS:
Break organizational silos (11 target - areas)	- Identify the owners of the business processes or responsible for the business. - Stop using inappropriate organizational structures - Create the "operational map" what is critical and Identify the critical positions - Appoint the cross-functional Mangers. Create the working Instructions - Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. Perform this in cooperation - Appoint the Sales Staff in the local Branch. Create the working instructions. - Delegate the necessary responsibility to the Branch Manager - Delegate the necessary responsibility to the Sales Staff - Delegate the necessary responsibility to the Administrator within local Branch - Create the rules of contacts on the equal layers within the company structure - Create the rules of contacts on the different layers within the company structure	- Please stipulate the identification the critical information. It is very important. Please also no more than 6 months. We are waiting for these changes on yesterday. It is our salary also. - Revise the alternatives before stop using any systems. Timeframes - 12 months are OK. - Accepted. Please only reduce time of implementation. Less than 6 months. The map should be created and explained to the key staff. - Accepted. 6-12 months are OK. - Accepted. Please only reduce time of implementation. Less than 6 months. - Accepted. 6-12 months are OK. - Accepted. 6-12 months are OK. - Accepted. 6-12 months are OK. - Accepted. 6-12 months are OK. - Accepted. 6-12 months are OK. - Accepted. 6-12 months are OK.

'BREAK ORGANIZATIONAL SILOS' STAGE.

The Final Action plan (validated by key stakeholders).

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Break organizational silos (11 target - areas)	- Identify the critical information in operations, owners of the business processes or responsible for the business.	- Less than 6 months	- Management Local, Regional, Q@Im
	- Revise the alternatives and Stop using inappropriate organizational structures	- Less than 12 months	- Management Local, Regional, Q@Im
	- Create the "operational map" what is critical and Identify the critical positions	- Less than 6 months	- Management Local, Regional, Q@Im
	- Appoint the cross-functional Mangers. Create the working Instructions	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. Perform this in cooperation	- Less than 6 months	- Management Local, Regional, Q@Im Branch and Business, Administrators
	- Appoint the Sales Staff in the local Branch. Create the working instructions.	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Branch Manager	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Sales Staff	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Delegate the necessary responsibility to the Administrator within local Branch	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the equal layers within the company structure	- 6 - 12 months	- Management Local, Regional, Q@Im
	- Create the rules of contacts on the different layers within the company structure	- 6 - 12 months	- Management Local, Regional, Q@Im

'INTEGRATE DATABASES' STAGE.

The Initial "approach" – draft of the Action plan.

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Integrate databases (11 target - areas)	- Identify the process of extracting the information from the databases and use the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff
	- Stop using inappropriate system of distributing and searching the information in the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Create the "informational map" what is critical and ways of delivering the information to the final user. Identify the necessary back-end platform for the "Informational Lake".	- Less than 12 months	- Management Local, Q@Im., IT teams Admin., Auditors, Operat.staff
	- Identify the models of IT architecture and extraction the information for the DB	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using "Informational Lake" technology.	- Less than 12 months	- Management Local, Q@Im., IT teams new members
	- Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master.	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	- Less than 12 months	- Management Local, Q@Im., IT teams new members
	- Grant the relevant access to the DB via "Informational Lake" to Branch Manager	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Grant the relevant access to the DB via "Informational Lake" to Branch Administrator	- Less than 12 months	- Branch Administr., Q@Im., IT teams
	- Grant the relevant access to the DB via "Informational Lake" to Branch Sales Staff	- Less than 12 months	- Branch Sales Staff, Q@Im., IT teams

'INTEGRATE DATABASES' STAGE.

Stakeholders' comments on the draft of the plan and model of final plan.

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	STAKEHOLDERS COMMENTS:
Integrate databases (11 target - areas)	- Identify the process of extracting the information from the databases and use the DB.	- Please stipulate the identification the critical information at the time of operation with DB. It is very important. Please also no more than 6 months. We are waiting for these changes on yesterday. It is our salary also.
	- Stop using inappropriate system of distributing and searching the information in the DB.	- Revise the alternatives before stop using any systems. Timeframes - 12 months are OK.
	- Create the "informational map" what is critical and ways of delivering the information to the final user. Identify the necessary back-end platform for the "Informational Lake".	- Accepted. Please only reduce time of implementation. Less than 6 months. The map should be created and explained to the key staff. The necessary platform should be identified within 6 months.
	- Identify the models of IT architecture and extraction the information for the DB	- Accepted. Please only reduce time of implementation. Less than 6 months.
	- Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using "Informational Lake" technology.	- Accepted. Please only reduce time of implementation. Less than 6 months.
	- Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master.	- Accepted. Please only reduce time of implementation. Less than 6 months.
	- Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors	- Accepted. 6-12 months are OK
	- Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	- Accepted. Please only reduce time of implementation. Less than 6 months.
	- Grant the relevant access to the DB via "Informational Lake" to Branch Manager	- Accepted. Please only reduce time of implementation. Less than 6 months.
	- Grant the relevant access to the DB via "Informational Lake" to Branch Administrator	- Accepted. Please only reduce time of implementation. Less than 6 months.
	- Grant the relevant access to the DB via "Informational Lake" to Branch Sales Staff	- Accepted. Please only reduce time of implementation. Less than 6 months.

'INTEGRATION of DATABASES' STAGE.

The Final Action plan (validated by key stakeholders).

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE
Integrate databases (11 target - areas)	- Identify the critical information in the process of extracting the information from the databases and use the DB.	- Less than 6 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff
	- Revise the alternatives and Stop using inappropriate system of distributing and searching the information in the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams
	- Create the "informational map" what is critical and ways of delivering the information to the final user. Identify the necessary back-end platform for the "Informational Lake".	- Less than 6 months	- Management Local, Q@Im., IT teams Admin., Auditors, Operat.staff
	- Identify the models of IT architecture and extraction the information for the DB	- Less than 6 months	- Management Local, Q@Im., IT teams
	- Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using "Informational Lake" technology.	- Less than 6 months	- Management Local, Q@Im., IT teams new members
	- Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master.	- Less than 6 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff
	- Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	- Less than 6 months	- Management Local, Q@Im., IT teams new members
	- Grant the relevant access to the DB via "Informational Lake" to Branch Manager	- Less than 6 months	- Management Local, Q@Im., IT teams
	- Grant the relevant access to the DB via "Informational Lake" to Branch Administrator	- Less than 6 months	- Branch Administr., Q@Im., IT teams
	- Grant the relevant access to the DB via "Informational Lake" to Branch Sales Staff	- Less than 6 months	- Branch Sales Staff, Q@Im., IT teams

Appendix 11.

Final Action plan in order to make Critical Customer Service Information Internally Available.

Final Action plan (‘*Preparation’* Stage).

TAR-GET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE	DATE OF COMPLET-ING THE ACTION
PREPARATION STAGE (11 target - areas)	- Clarify vision of changes, Involvement the Executives and Highest Management. - Identification the necessary changes - Cresting the roadmap of implementation within 3-6 months in the branch. - Choose AGILE or WATERFALL model - Discuss changes in organizational structures and protect business activity at this time - Announce the responsible positions - Revise the company staff as resource and propose to join the activity and implementation - Define the roles of branch Administrators and Legal officer, business Administrators. - Define the roles of UEX, Scrum Masters, Project Managers within IT Architecture - Clear identify the process of exchanging with critical information - Announce the initial steps within local Branch in the nearest 1-year period of time. Reduce the time frames of implementation the changes on Regional and global levels. The changes are very important and implementation the changes are very expected by staff.	- Less than 3 months - Less than 3 months - Less than 6 months - Less than 3 months - Less than 3 months - Less than 6 months - Less than 6 months - Less than 6 months - Less than 6 months - Less than 6 months - Less than 6 months	- Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global - Mngm-t Loc.,Reg., Global	

Final Action plan (‘*Distribute critical company internal information’* Stage).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE	DATE OF COMPLETING THE ACTION
Distribute critical company internal information (11 target - areas)	- Identify the critical operations and information, processes owners and information flows. Stress the attention on extracting the information from the databases for the Information flows.	- Less than 6 months	- Management Local, Q@Im., IT teams, Administrators, Auditors, Oper.staff	
	- Revise the alternatives and Stop using inappropriate system of distributing the information.	- Less than 12 months	- Management Local, Q@Im., IT teams	
	- Create the “informational map” what is critical and. Identify the ways of exchanging the information and front-end user interface.	- Less than 6 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff	
	- Create the working instruction for the personnel involved in construction the new model and has relationship to ”Informational Lake - HADOOP” on the level of the local Branch	- Less than 12 months	- Management Local, Q@Im., IT teams, Administrators, Auditors, Oper.staff	
	- Create the working instruct. for HADOOP responsible staff on the country level	- Less than 12 months	- Management Local, Q@Im., IT teams - Branch Manager	
	- Revise the working instructions for the Branch Manager, grant the access to HADOOP and define the model of communication (high or low level of trust)	- Less than 6 months	- Management Local, Q@Im., IT teams Sales staff	
	- Revise the working instructions for the Sales Staff. Grant the necessary level of access to the Databases and “Informational Lake” - HADOOP.	- Less than 12 months	- Management Local, Q@Im., IT teams, Branch Administrator	
	- Revise the working instructions for the local Branch Administrator. Grant the necessary level of access to the Databases and “Informational Lake” - HADOOP.	- Less than 6 months	- Management Local, Q@Im., IT teams, Branch Administrator	
	- Delegate the responsibility - actualization the (P) database on the local Branch level to the local Branch Administrator.	- Less than 12 months	- Management Local, Q@Im., IT teams Legal Officer	
	- Delegate the responsibility of actualization the (L – legal issues) database on the local level to local country Legal Officer.	- Less than 12 months	- Management Local, Q@Im., IT teams	
	- Delegate the responsibility of actualization the (T, L – norms and regulations, standards) databases to local Branch Administrator in the Branch and Country Business Administrators in the country Head Office.	- Less than 12 months	- Branch Administrator, Business Administrators in the country office	

Final Action plan (‘*Break organizational silos’* Stage).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE	DATE OF COMPLETING THE ACTION
Break organizational silos (11 target - areas)	- Identify the critical information in operations, owners of the business processes or responsible for the business. - Revise the alternatives and Stop using inappropriate organizational structures - Create the “operational map” what is critical and Identify the critical positions - Appoint the cross-functional Mangers. Create the working Instructions - Revise the working instruction for the local Branch Administrator and Business Administrators in the Head local country Office. Perform this in cooperation - Appoint the Sales Staff in the local Branch. Create the working instructions. - Delegate the necessary responsibility to the Branch Manager - Delegate the necessary responsibility to the Sales Staff - Delegate the necessary responsibility to the Administrator within local Branch - Create the rules of contacts on the equal layers within the company structure - Create the rules of contacts on the different layers within the company structure	- Less than 6 months - Less than 12 months - Less than 6 months - 6 - 12 months - Less than 6 months - 6 - 12 months - 6 - 12 months - 6 - 12 months - 6 - 12 months - 6 - 12 months - 6 - 12 months	- Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im Branch and Business, Administrators - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im - Management Local, Regional, Q@Im	

Final Action plan (‘*Integrate databases’* Stage).

TARGET-AREA	ACTION IN ORDER TO ACHIEVE THE TARGET	TIME FRAME	RESPONSIBLE	DATE OF COMPLETING THE ACTION
Integrate databases (11 target - areas)	- Identify the critical information in the process of extracting the information from the databases and use the DB.	- Less than 6 months	- Management Local, Q@Im., IT teams Administrators, Auditors, Oper.staff	
	- Revise the alternatives and Stop using inappropriate system of distributing and searching the information in the DB.	- Less than 12 months	- Management Local, Q@Im., IT teams	
	- Create the “informational map” what is critical and ways of delivering the information to the final user. Identify the necessary back-end platform for the “Informational Lake”.	- Less than 6 months	- Management Local, Q@Im., IT teams Admin., Auditors, Operat.staff	
	- Identify the models of IT architecture and extraction the information for the DB	- Less than 6 months	- Management Local, Q@Im., IT teams	
	- Identify the Scrum–Masters, Projects Managers and Software Engineers within the local country for re-construction the IT architecture using “Informational Lake” technology.	- Less than 6 months	- Management Local, Q@Im., IT teams new members	
	- Delegate the responsibility to fit the customer requirements (Managers, Sales staff and Administrators) and DB to Scrum-Master.	- Less than 6 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff	
	- Delegate the responsibility to fulfill the DB by branch staff. Sales Staff, Administrator, Inspectors and Auditors	- Less than 12 months	- Management Local, Q@Im., IT teams, Admin., Auditors, Operat.staff	
	- Identify the Project Managers that responsible for maintaining the DB with data related to: P-personnel; T-technologies; L-legislation, norms, regulations and standards.	- Less than 6 months	- Management Local, Q@Im., IT teams new members	
	- Grant the relevant access to the DB via “Informational Lake” to Branch Manager	- Less than 6 months	- Management Local, Q@Im., IT teams	
	- Grant the relevant access to the DB via “Informational Lake” to Branch Administrator	- Less than 6 months	- Branch Administr., Q@Im., IT teams	
	- Grant the relevant access to the DB via “Informational Lake” to Branch Sales Staff	- Less than 6 months	- Branch Sales Staff, Q@Im., IT teams	