

Emma Ollinmaa

Improved Framework for Service Adaptation and Development

Helsinki Metropolia University of Applied Sciences

Master's Degree

Industrial Management

Master's Thesis

29 July 2020

For an engineer, it was hard to admit that things did not go as I planned. Today, I can say that maybe that was meant to be. I started my Master's studies in autumn 2018 with the intention of graduating by spring 2019. Then life happened. After months of intense studies in the degree programme and a topic for my thesis project from my employer, I was offered an opportunity to expand my professional expertise by changing employment and industry. With a heavy heart, I left my employer and along with that, a promising thesis project. The following year I spent on getting to know my new employer and the service industry. In early spring 2020, the world was hit by a global pandemic, COVID-19, that drastically affected the whole world. The business impacts and challenges to the service industry were unprecedented and massive. As my daily work was affected dramatically and temporary layoffs announced, I knew that this was the right time to finish my studies and help my employer by taking on a thesis project aimed at finding improved ways of working for the future.

I would like to take this opportunity to thank all the people who have supported me during this long journey and made this day possible. First, I would like to thank my employers. Thank you to my previous employer and especially my previous manager Anu, who supported me when I first suggested going back to school. Second, I would like to thank my current employer, all the stakeholders who participated in the interviews and workshops, giving their priceless contribution to this thesis project. Special thanks go to my colleague Anna, who gave her insight and support during this thesis project.

I also give my special thanks to my instructor Dr. Juha Haimala, who gave me precious guidance, steering and support with flexible timetables in the heat of the summer. Thank you to also the brilliant lecturers of the Industrial Management Master's Program. A warm thanks to all my fellow students for sharing your expertise and humour.

Finally, I would like to express my gratitude to my mother Terttu who has always pushed me to go forward. A huge thank you also belongs to my fiancé Pekka who makes me feel that I can accomplish anything I put my mind on.

Emma Ollinmaa

Helsinki

July 29, 2020

Author Title	Emma Ollinmaa Improved Framework for Service Adaptation and Development
Number of Pages Date	98 pages + 5 appendices 29 July 2020
Degree	Master of Engineering
Degree Programme	Industrial Management
Instructors	Dr. Juha Haimala, Principal Lecturer, Head of Industrial Management Department
<p>The importance of speed and efficiency in developing new products and services has increased as time-to-market is a significant factor for customers. Smaller, possibly more agile companies often beat this race as larger companies may suffer from their size. A global, multi-national company can introduce global frameworks with the intention of copying best practices but it can also result in management and leadership systems that are too hard to understand or too heavy to obey. The case company has a need to develop its services faster, more efficiently and more collaboratively in the Nordic region, creating quality services that can be combined and offered to clients as customized solutions. Thus, the objective of this thesis was to establish an improved framework for service adaptation and development with an emphasis on collaboration and coordination within the Nordic region.</p> <p>This thesis used applied research methodology with qualitative research methods to provide firsthand information and insights from case company stakeholders with data collected from a variety of sources at multiple stages. The research design of this thesis included four stages. First, a current state analysis of the framework for service adaptation and development was investigated. The findings of the current state analysis were summarized and categorized to four categories: the process and its outputs, collaboration and communication, service portfolio strategy and leadership and human resources. The key findings of the two first listed categories were chosen for elaboration being most relevant to the objective of the thesis. Second, a survey on concerning literature was focused on finding solutions and best practice examples for business process development, service development and concepts and ideas on improving collaboration and communication. The third stage was the co-creation of an initial proposal for the improved framework. The fourth stage was a validation of the proposal by the executives and key stakeholders of the case company.</p> <p>As an outcome of this thesis, a proposal was introduced. It consists of four elements: an improved process for service adaptation and development, an improved master list of service outputs, an improved model for collaborative teamwork and a recommendation to use social technologies to improve cross-functional collaboration and communication. The proposal for an improved framework introduces a stage-gate model to support the existing process for service adaptation and development to improve the quality of the process and its outputs, as well as manage risks. Alternative or parallel development paths are introduced to match different development or innovation types. The model for collaborative teamwork acknowledges the benefits of having a cross-functional core team that is supported by cross-functional teams for each service output. Furthermore, social technology tools are introduced and recommended to facilitate collaboration and communication.</p>	
Keywords	process development, service development, collaboration

Contents

Preface

Abstract

List of Figures

List of Tables

Acronyms

1	Introduction	10
1.1	Business Context	10
1.2	Business Challenge, Objective and Outcome	11
1.3	Thesis Outline	12
2	Method and Material	13
2.1	Research Approach	13
2.2	Research Design	14
2.3	Data Collection and Analysis	14
3	Current State Analysis of the Service Adaptation and Development Framework	18
3.1	Outline of the Current State Analysis	18
3.2	Nordic Organization Structure	18
3.3	Services and Service Portfolio	21
3.4	Solution Delivery Process	21
3.4.1	Business Opportunity Assessment and Sales	22
3.4.2	Solution and Contract Design Process	23
3.4.3	The Global Service Life Cycle Process	26
3.4.4	Service Outputs	30
3.4.5	Mobilization Process	31
3.5	Collaboration and Communication	34
3.6	Summary of Strengths and Weaknesses	36
3.7	Key Findings to Elaborate	37
4	Improvement Ideas from Relevant Literature	40
4.1	Business Process Development and Modeling	40
4.1.1	Business Process Development	40
4.1.2	Business Process Model and Notation (BPMN)	43
4.2	Service Development Systems and Methods	44
4.2.1	Stage-Gate System	44

4.2.2	Lean Development System	46
4.2.3	Agile Methods	47
4.2.4	PDCA as a Continuous Development Model	48
4.2.5	New Service Development	49
4.2.6	Phase-Gate and Agile as Parallel Alternatives for Service Development	51
4.2.7	Service Outputs as Factors Affecting Perceived Service Quality	53
4.3	Cross-Functional Collaboration and Communication	56
4.3.1	Knowledge Sharing and Knowledge Sharability	56
4.3.2	Internal Service Quality	59
4.3.3	Improving Collaboration and Communication through Social Technology	60
4.3.4	Social Technology Tools	62
4.4	Conceptual Framework	63
5	Building the Proposal for Improved Framework for Service Adaptation and Development	67
5.1	Overview of the Proposal Building Stage	67
5.2	Findings from Data 1 and Data 2 Collection	70
5.2.1	Improving the Service Adaptation and Development Process and Its Outputs in Co-creation	72
5.2.2	Improving Collaboration and Communication in Co-creation	78
5.3	Co-created Proposal for Improved Framework for Service Adaptation and Development with an emphasis on Collaboration and Communication	79
5.3.1	Improved Process for Service Adaptation and Development	79
5.3.2	Improved List of Service Outputs for Food Services	82
5.3.3	Improved Model for Collaborative Teamwork	83
5.3.4	Recommendation for Improving Cross-Functional Collaboration and Communication via Social Technologies	84
5.4	Summary of the Co-created Proposal	85
6	Validation of the Proposal	87
6.1	Overview of the Validation Stage	87
6.2	Validation of the Proposal	88
6.3	Recommendations for Next Steps towards Implementation	89
7	Discussion and Conclusions	91
7.1	Executive Summary	91
7.2	Managerial Implications	94
7.3	Thesis Evaluation	95
7.3.1	Validity and Reliability	96

7.3.2	Logic and Relevance	98
7.3.3	Closing Words	99
	References	100

Appendices

Appendix 1. Interview questions and topics for company stakeholders

Appendix 2. Summary of field notes from Data 1 interviews

Appendix 3. Service Output Document Guide Food and FM

Appendix 4. Co-creating the service adaptation and development process

Appendix 5. Co-created proposal for service adaptation and development process

List of Figures

Figure 1. The Research Design.

Figure 2. A simplified illustration of the case company organization by main functions.

Figure 3. An illustration of the Food Platform Organization.

Figure 4. A combined and simplified illustration of the entire solution delivery process.

Figure 5. Project Evaluation Matrix (PEM) for Opportunity Assessment.

Figure 6. The Solution and Contract Design Process.

Figure 7. The Service Life Cycle Process.

Figure 8. The Service Life Cycle Intersections.

Figure 9. The Case Company's Global Service Development Approach.

Figure 10. A simplification of the Service Output Document Guide for Food and FM

Figure 11. The Mobilization Process.

Figure 12. A simplified illustration of the case company's Nordic Network Drive

Figure 13. Simplified view of a process with feedback streams.

Figure 14. The basic steps in process development.

Figure 15. An overview of a stage-gate system.

Figure 16. An illustration of an agile process flow.

Figure 17. The PDCA cycle.

Figure 18. The NSD Process Cycle.

Figure 19. Different approaches to different types of innovation.

Figure 20. An illustration of four different service quality models.

Figure 21. A hierarchical approach to conceptualizing perceived service quality.

Figure 22. Framework for Multidisciplinary Collaboration.

Figure 23. Integrating diverse knowledge through boundary spanning.

Figure 24. Service-Profit Chain.

Figure 25. A breakdown of data on an average workweek concerning interaction workers' tasks, value-added time and productivity.

Figure 26. Social technology benefits in organizations at different networking levels.

Figure 27. The tools and targets of Microsoft's Collaboration and Communication Tools.

Figure 28. The conceptual framework of this thesis.

Figure 29. An illustration of matching the key findings from the current state analysis (Data 1), the conceptual framework and the proposal building stage (Data 2).

Figure 30. Redefining service outputs in co-creation (Data 2)

Figure 31. Matching and Redefining outputs in Co-creation to produce different dimen-

sions of Perceived Service Quality.

Figure 32. Redefining service outputs based on case company internal documents from the global service operations.

Figure 33. Chain collaboration and communication efforts resulting in internal and external service quality.

Figure 34. A co-created proposal for the top-level process diagram for service adaptation and development.

Figure 35. A co-created proposal for improved comprehensive list of service outputs.

Figure 36. A co-created proposal for an improved model for collaborative teamwork.

Figure 37. Co-created recommendations for improving cross-functional collaboration and communication via social technologies.

List of Tables

Table 1. Details of interviews and discussions in Data 1-3.

Table 2. Internal documents used in the current state analysis, Data 1.

Table 3. Key focus areas for service development and marketing teams.

Table 4. Summary of strengths and weaknesses identified in Data 1.

Table 5: Categorization of strengths and weaknesses.

Table 6. The roles and tasks in a stage-gate system.

Table 7. Five-step process for implementing lean techniques.

Table 8. Categorization of New Services

Table 9. Internal service quality dimensions and expectations.

Table 10. Stakeholder ideas for improvement (Data 1) and Stakeholder suggestions and feedback (Data 2) grouped by the key focus areas.

Table 11. List of gate deliverables for the proposed improved framework for service adaptation and development.

Acronyms

BIGS	Business Improvement and Growth Support
BPMN	Business Process Model and Notation
CEO	Chief Executive Officer
CAPEX	Capital Expenditures
CMOE	Contract Management and Operational Excellence
FIN	Finland
FM	Facilities Management
HR	Human Resources
IT	Information Technology
LDS	Lean Development System
MOB	Mobilization
MS	Microsoft
OMG	Object Management Group
PCDA	Plan-Check-Do-Act
PEM	Project Evaluation Matrix
POS	Point of Sales
QHSE	Quality, Health, Safety and Environment
SWE	Sweden

1 Introduction

Newspaper mogul Rupert Murdoch once said:

"The world is changing very fast. We are moving from an old model economy to a new one, and every business has to find a way of transforming itself for this new economy which is coming upon us with lightning speed. Big will not beat small any more. It will be the fast beating the slow." (The Guardian 1999)

The importance of speed in developing new products and services has increased as customers demand new services and solutions, and want them to be delivered immediately. Although a big company has many advantages over smaller players, they can also suffer from their size: simply just the large number of employees, multiple layers of management and possibly a vast geography can slow them down.

As customers value speed to market, smaller players can form serious competition to larger players. In today's world, winning requires that you can deliver to your client faster and better than your competition. In order to become faster, many companies and organizations have adopted or tried to adopt more agile ways of working.

For the case company, the strategy has been to introduce a process of adapting, developing and deploying global service solutions to specified markets throughout the world utilizing a global framework for service adaptation and development, i.e. the Service Life Cycle Model. Regrettably, the model has not managed to produce the results expected in the Nordic region. Thus, this Master's thesis conducts a study on the case company's Nordic region's current framework for service adaptation and development and aims at finding ways to improve it.

1.1 Business Context

The case company is a multinational food services and facilities management company. Its core business includes on-site services in foodservices, soft facilities management and hard facilities management, benefits and rewards services as well as personal and home services. Globally, the company operates in more than 70 countries.

The case company has a very diverse pool of clients consisting of e.g. business organizations, business parks, schools, universities, senior service providers, municipalities

and healthcare organizations. In the Nordic Region, the company operates in Sweden, Finland, Norway, Denmark and Estonia. The target of this study is the Nordic Region.

The Nordic Region has a Nordic organization model that was introduced a few years back. The Nordic organization model includes functions, processes and positions that serve all Nordic countries instead of independent country organizations. The Nordic functions are expected to deliver value to all Nordic countries and resources have been aligned based on this assumption.

The Nordic market has become more competitive with a global competitor growing its role in the market. In addition, the COVID-19 pandemic has affected the case company's business dramatically and continues to affect its operations significantly in the coming months and years. The case company needs to develop its existing services and introduce new services even faster to meet the clients' current and future needs. In addition, it needs to be done more efficiently and with limited resources.

The case company has adopted, at least partly, a global framework for service development and adaptation, the Service Life Cycle model, but in order to satisfy local client needs more efficiently and faster, each Nordic country has developed its own ways of working. Local ways of working have resulted in losing some of the possible advantages of economies of scale, efficiency and productivity.

1.2 Business Challenge, Objective and Outcome

In recent history, the case company has suffered from insufficiently adapted and deployed global services which have resulted in less than optimal results, a great deal of customization, failure to meet financial targets and in some cases, poor customer satisfaction.

The company has decided to adapt and develop a few different (food) services to the Nordic Region, let us call them Service A, Service B and Service C. The company has already started the process of adapting and developing these services and the plan is to deploy these services to a large number of sites throughout the Nordic countries in the coming years. The development and adaptation of the services is not completed and the case company is seeking ways to improve and speed up the existing service

adaptation and development process. In addition, an improved framework is needed for possible new services to be adapted and developed in the future. Although the company provides different kinds of services, the focus of this study is in the foodservices development because the three above listed services are foodservices.

The case company's management needs to understand why the global process for service adaptation and development is not producing the results it is supposed to be and identify the areas that are most in need of attention or development. As the current service adaptation and development process has been globally selected as the way of working, this thesis does not aim to replace the existing process, but instead tries to improve and supplement the process by providing information and ideas for improvement to the managers. In addition, the case company needs to improve collaboration within the Nordic region to achieve economies of scale and more efficiency. Therefore, *the objective of this thesis is to establish an **improved framework for service adaptation and development** with an emphasis on improving collaboration and communication within the Nordic region. The outcome of the thesis is an **improved framework for service adaptation and development** for the case company.*

1.3 Thesis Outline

This thesis consists of seven sections. Sections 1 and 2 provide the reader information about the business context, business challenge and objectives for the thesis and give detailed information about the research methods used. Section 3 is a description of the case company's current state of the service adaptation and development process, resulting in a summary of strengths and weaknesses identified. In Section 4, the method is to explore existing academic literature on best practices and guidelines about improving processes and collaboration, which will then form the conceptual framework of this thesis. In Section 5 an initial proposal for an improved framework for service development and adaptation is co-created merging data from the current state analysis and literature, and then reviewed with stakeholders. This is then followed by Section 6 that describes the validation of the proposal by company executives and stakeholders and provides recommendations for next steps. Finally, Section 7 sums up the thesis, lists managerial implications and provides suggestions for future development.

2 Method and Material

This section discusses the method and materials used to conduct this study. First, the selected research approach is introduced. This is followed by a research design that describes the strategy and steps chosen to conduct this study. Finally, the tools for data collection and analysis are explained.

2.1 Research Approach

This thesis uses applied research methodology with qualitative research methods. According to Kothari (2004: 3), “applied research aims at finding a solution for an immediate problem facing a society or an industrial/business organization”. A qualitative research is “any type of research that produces findings not arrived at by statistical procedures or other means of quantification” (Kuada, 2012: 93). Qualitative data collection methods include e.g. participant observation, in-depth interviewing and conversational interviewing (Kuada, 2012: 93). As the objective of this study is to produce a practical and functional solution to a business problem, the design research follows the principles of design research (called sometimes also applied action research) and it combines development and research elements (Kananen 2013).

Qualitative research approach requires a research design that provides firsthand information from the participants. (Kuada, 2012: 94). It also allows participants to raise their own concerns or aspects that may not be recognized by the researcher but are critical to the results of the research (Kuada, 2012: 94). Qualitative research also can provide means to discover “the underlying motives and desires” (Kothari, 2004: 3) of the participants. This is often referred as “Motivation Research”, a research method that investigates how people think or act the way they do (Kothari, 2004: 3).

A qualitative research approach is chosen for this thesis as it provides methods and tools to gain new insights on the topic. In qualitative research approach, the results are “either in non-quantitative form or in the form which are not subjected to rigorous quantitative analysis” (Kothari, 2004: 5). Examples of methods used are focus group interviews, projective techniques and in-depth interviews (Kothari, 2004: 5).

The conceptual framework of this study is built on a survey of concerning literature. The focus of the survey is based on the development areas identified in the current state analysis as well as in contrast to the objective of the thesis. A survey of concern-

ing literature is a review of the already available material already done by others, finding concepts and theories applicable to the thesis (Kothari, 2004: 36).

For this thesis, in-depth interviews are selected as a method for gaining firsthand insight on the current state and to identify the development areas. Furthermore, the survey on concerning relevant literature is used for forming a conceptual framework to build the proposal for an improved framework for service adaptation and development.

2.2 Research Design

The research design of this thesis is illustrated in Figure 1. The design consists of four main elements. First, the current state analysis of service development and adaptation is investigated with an emphasis on cross-functional collaboration and communication. Second, ideas on improving development processes, cross-functional collaboration and communication are researched through existing literature. Third, the proposal for improved framework for service adaptation and development is co-created with stakeholders. Finally, feedback and improvement ideas are derived from key stakeholders for future development and follow-up.

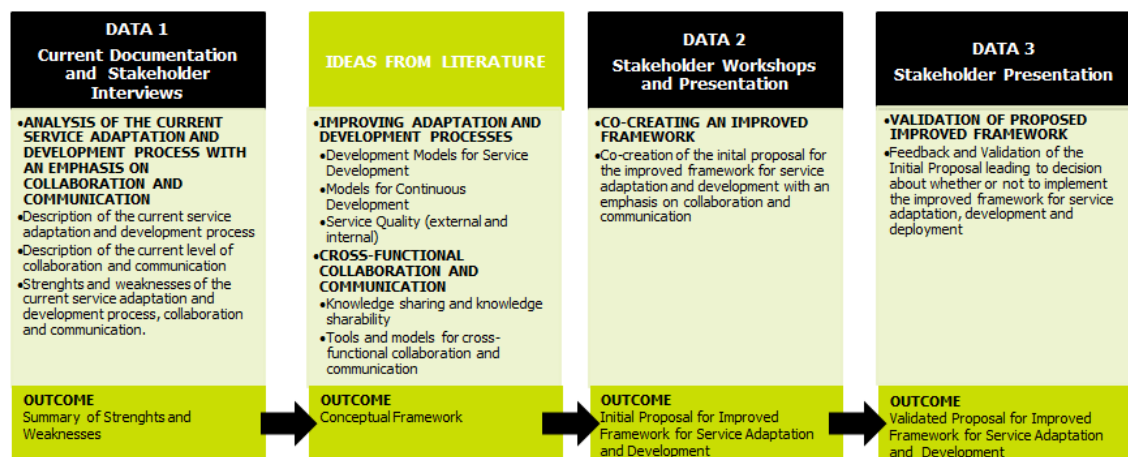


Figure 1. The Research Design.

2.3 Data Collection and Analysis

According to Martinsuo and Blomqvist (2010), improving performance requires adequate data regarding the current performance level and awareness of the factors af-

fecting the performance, either positively or negatively. This thesis consists of data from a variety of different data sources that is collected in several data collection rounds at different stages. The first round was collecting Data 1 for the current state analysis of the service development and adaptation process as well as for determining the level of collaboration within the Nordic organization. Data 1 consists of both focus group interviews and company documentation. The focus groups and individual interviewees were chosen from the case company organization based on their role and experience in the company.

In order to understand the current state of service adaptation and development comprehensively, as well as the level of Nordic collaboration, focus groups were chosen also outside the service adaptation and development team itself. As there are business functions leading up to and following after service development and adaptation, it was important to understand the views and experiences of the internal customers and stakeholders that depend on the service development and adaptation process to succeed.

Due to the COVID-19 pandemic occurring during the conducting of the thesis, the case company had implemented recommendations for remote working and avoidance of face-to-face meetings. Thus, all interviews, workshops and presentations were conducted remotely using MS Teams, MS Skype for Business and phone. Documentation was done by recording the Teams meetings, audio or video, or by field notes. The interviews were semi-structured with a framework of questions to steer the discussion, but allowing room for spontaneous discussion as well in order to tap in to the underlying motives and experiences the interviewees might have. The framework for questions can be found in Appendix 1. The summary of field notes can be found in Appendix 2.

Table 1 lists the details of interviews and discussions including details of participants, topics and documentation methods used.

Table 1. Details of interviews and discussions in Data 1-3.

#	Participants	Collected Data	Topic or Description of the Data	Date, Duration	Recorded
DATA 1 FROM THE CURRENT STATE ANALYSIS					
1	Respondent 1A: Project Manager, Mobilization (FIN)	Interview, audio online	Detailed description of the mobilization project model. Experiences of previous Service Adaptation, Development and Deployment projects. View on co-operation between different functions. Strengths, weaknesses, key factors for success.	24 April 2020, 55 mins	Field notes, audio recording
2	Respondent 1B: Nordic Culinary Chef (SWE)	Interview, audio online	Detailed description of the culinary team's co-operation and involvement in service adaptation, development and deployment. Strengths, weaknesses, key factors for success.	28 April 2020, 44 mins	Field notes, audio recording
3	Respondent 1C: Service Development and Adaptation Specialist (SWE)	Interview, audio online	Detailed description of the current service adaptation, development and deployment process. The inputs and outputs of service adaptation, development and deployment. Strengths, weaknesses, concerns and key factors for success.	30 April 2020, 1 hr 3 mins	Field notes
4	Respondent 1D: Service Deployment Specialist (SWE)	Interview, audio online	Detailed description of the current service adaptation, development and deployment process. The inputs and outputs of service adaptation, development and deployment. Strengths, weaknesses, concerns and key factors for success.	30 April 2020, 30 mins	Field notes
5	Respondent 1E: Senior Strategic Buyer (SWE)	Interview, audio online	Description of the supply chain's role in service development, adaptation and deployment. The inputs and outputs for supply chain. Strengths, weaknesses, concerns and key factors for success from supply chain point of view.	4 May 2020, 49 mins	Field notes
6	Respondent 1F: Service Deployment Specialist (FIN)	Interview, audio online	Detailed description of the current service adaptation, development and deployment process. The inputs and outputs of service adaptation, development and deployment. Strengths, weaknesses, concerns and key factors for success.	4 May 2020, 1 hr 17 mins	Field notes
7	Respondent 1G: Region Head of Food Culinary Intelligence (Nordics)	Interview, audio online	Detailed description of the current service adaptation from the culinary team's point of view. The inputs and outputs of service adaptation, development and deployment, culinary perspective. Strengths, weaknesses, concerns and key factors for success.	5 May 2020, 1 hr	Field notes and audio recording
8	Respondent 1H: Service Deployment Specialist (SWE)	Interview, audio online	Detailed description of the current service adaptation, development and deployment process. The inputs and outputs of service adaptation, development and deployment. Strengths, weaknesses, concerns and key factors for success.	5 May 2020, 42 mins	Field notes
9	Respondent 1I: Head of Supply Management Food (Nordics)	Interview, face-to-face online	Description of the supply chain's role in service development, adaptation and deployment. The inputs and outputs for supply chain. Strengths, weaknesses, concerns and key factors for success from supply chain point of view.	5 May 2020, 1 hr	Field notes and video recording
10	Respondent 1J: Project Manager, Mobilization (SWE)	Interview, face-to-face online	Description of the mobilization process, the inputs and outputs. The link between mobilization and other functions. The role of mobilization. Strengths, weaknesses and key factors for success.	6 May 2020, 1 hr 5 mins	Field notes
11	Respondent 1K: Key Account Manager (FIN)	Interview, audio	Experiences from previous service deployment projects from the operative point of view. Expectations of the operative organization towards service adaptation, development and deployment	29 April 2020, 50 mins	Field notes
12	Respondent 1L: Bid Project Manager (Nordics)	Interview, audio online	Description of the bidding process and link to service adaptation, usage of service portfolio, level of co-operation to other functions, materials and expertise used in the bidding process, key factors for success and concerns	5 May 2020, 1 hr	Field notes
13	Respondent 1M: Nordic Culinary Chef (FIN)	Interview, audio online	Detailed description of the current service adaptation from the culinary team's point of view. The inputs and outputs of service adaptation, development and deployment, culinary perspective. Strengths, weaknesses, concerns and key factors for success. The culinary team's involvement in the bidding and sales process.	7 May 2020, 1 hr 5 mins	Field notes, audio recording
14	Respondent 1N: Senior Strategic Buyer (FIN)	Interview, audio	Description of the supply chain's role in service development, adaptation and deployment. The inputs and outputs for supply chain. Strengths, weaknesses, concerns and key factors for success from supply chain point of view.	6 May 2020, 1 hr	Field notes
DATA 2 FROM PROPOSAL BUILDING					
15	Participant 2A: Region Head of Service Adaptation, Development and Deployment (Nordics)	1-to1 discussion, audio online	Proposal building. Presenting results from data 1 discussions. Further discussion of current ways of working and determining needs for future ways of working.	12 May 2020, 1 hr 10 mins	Field notes
16	Participant 2B: Sales Business Development Manager (FIN)	1-to1 discussion, audio and video online	Proposal building. Presenting results from data 1 company documents and interviews. Further discussion on sales function's role in the process and determining the outputs needed for successful sales.	15 May 2020, 1 hr	Field notes
17	Participant 2A: Region Head of Service Adaptation, Development and Deployment (Nordics)	1-to1 discussion, audio online	Proposal building. Validation and feedback of current state analysis. Focus points for proposal building. Determining outputs for improved process.	26 May 2020, 1h 15 mins	Field notes
18	Participant 2A: Region Head of Service Adaptation, Development and Deployment (Nordics)	1-to1 discussion, audio online	Proposal building: process development, service output re-definition and categorization, internal service quality in producing outputs. Collaborative methods for creating outputs. Tools for modern collaboration. Validation of outputs for service development.	9 June 2020, 1 hr 40 mins	Field notes
DATA 3 FROM VALIDATING PROPOSAL					
19	Participants: Director of Food Platform (Nordics) and CEO (Finland), Region Head of Service Adaptation, Development and Deployment (Nordics), Region Head of Culinary Intelligence (Nordics), Senior Specialist Food Production and Nutrition (FIN),	Presentation, audio and video online	Validation with Heads and Stakeholders of relevant business functions. Evaluation of the proposal for the improved framework for service adaptation and development. Discussion on business implications and next steps.	17 June, 2020, 1 hr 15 mins	Audio and video recording

Company documentation was collected from either the case company's intranet or from the interviewees' own personal files. The collection of company documentation followed the same path as the interviewees. As new phases or steps emerged, the relevant documentation was examined. Table 2 lists the internal documents of the case company used for the current state analysis.

Table 2. Internal documents used in the current state analysis, Data 1.

	Internal Document/Source	Description	Other Details
1	Mobilization Process Description	Illustrated description of the Mobilization process and its main milestones	1 page
2	Service Life Cycle Handbook	A description of the case company's service life cycle and the processes and functions involved	49 pages
3	Food Platform Way of Working Presentation	A written and illustrated description of the food platform's way of working and the role of food platform	10 pages
4	Solution and Contract Design Process	Illustrated description of the Solution and Contract Design process and its main milestones	1 page
5	Nordic Organization	Organizational Charts of the Nordic Region	25 pages
6	Service Outputs Document	Description of the standard documents and materials needed for a robust service description	2 pages
7	Portfolio Articulation Document	A presentation of the global portfolio articulation process	10 pages
8	Portfolio Articulation Template	A template for Portfolio Articulation describing the business need and status of portfolio	37 pages
9	Bid Planning Process	A detailed presentation of the Bid Planning Process, with Project Evaluation Matrix and stages of approval	8 pages
10	Retail Blueprint for Success	A framework and guidelines for retail development and a deliverables summary	2 pages

The internal documents were analyzed using thematic analysis. In order to form a comprehensive image of the current state of service development and adaptation as well as the level of Nordic collaboration, the documents were analyzed to provide more insight to how is the development and adaptation process linked to other processes and functions, how much detail the current process descriptions have, both globally and on a Nordic level, and how well are the service inputs and outputs defined and aligned with company needs.

This extensive analysis of data was made to establish the current state of the service development and adaptation process and the findings are discussed in Section 3 below.

3 Current State Analysis of the Service Adaptation and Development Framework

This section discusses the current service adaptation and development process and Nordic collaboration in the case company. As services are currently being developed on-the-go for specific client solutions, the current state analysis includes a top-level view of the company's entire solution design process as well as a view of the company's current global service adaptation and development process. The first part describes the outline of how the current state analysis was conducted. The second part describes how services are currently developed in the case company within the service solution design process. The third part lists and categorizes the strengths and weaknesses of the current service adaptation and development process. The fourth part concludes the chapter by identifying the parts of the process that need most improving.

3.1 Outline of the Current State Analysis

The data for the analysis of the current state was a sum of case company documents and interviews. As the company documents were not sufficient in providing information of the current process, it was critical to interview people to make an analysis of the current ways of working. People were chosen for the interviews based on their previous participation in selling services, developing or adapting services, deploying or mobilizing the services as well as roles supporting service development.

As service adaptation and development is a critical phase in delivering solutions to clients, it was important to understand the phases preceding and proceeding service adaptation and development. In addition, in order to understand the cross-functional links, a simplified version of the Nordic organization model is illustrated.

3.2 Nordic Organization Structure

The case company's Nordic Organization is a mix of both Nordic and country-specific roles. Most of the support functions are located in Sweden or Finland and the organizations of these countries support the rest of the market (Denmark, Norway and Estonia). The Nordic Region has a Region Chair Nordics who has Country Presidents reporting to him but the function heads have Nordic positions who report directly to the Nordic

chair. The company's documentation about the Nordic organization structure of the case company consists of tens of pages. As all of this is not relevant to this study, Figure 2 shows a simplified illustration of the main functions of the case company: Operations, Service Operations and Transversal functions.

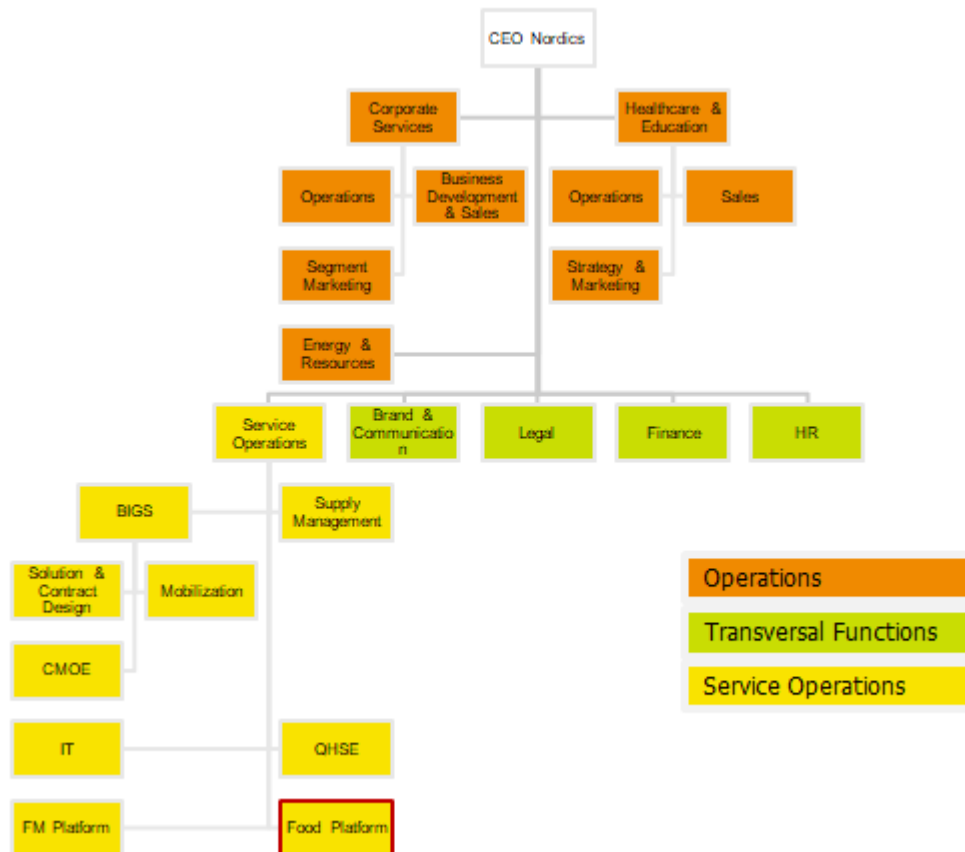


Figure 2. A simplified illustration of the case company organization by main functions.

The Nordic organization consists of segments and support functions that support the segments. The segments are supported by Service Operations and Transversal Functions. The Service Operations functions most relevant to this study are the functions of Business Improvement and Growth Support (BIGS), Food Platform and Supply Management. The BIGS function consists of functions: Solution and Contract Design, Mobilization and Contract Management and Operational Excellence (CMOE).

The focus of this study concerns mostly the Food Platform function. It has two main sub-functions: Service Adaptation, Development and Deployment and Food Culinary Intelligence. The Food Platform organization is illustrated in more detail in Figure 3.

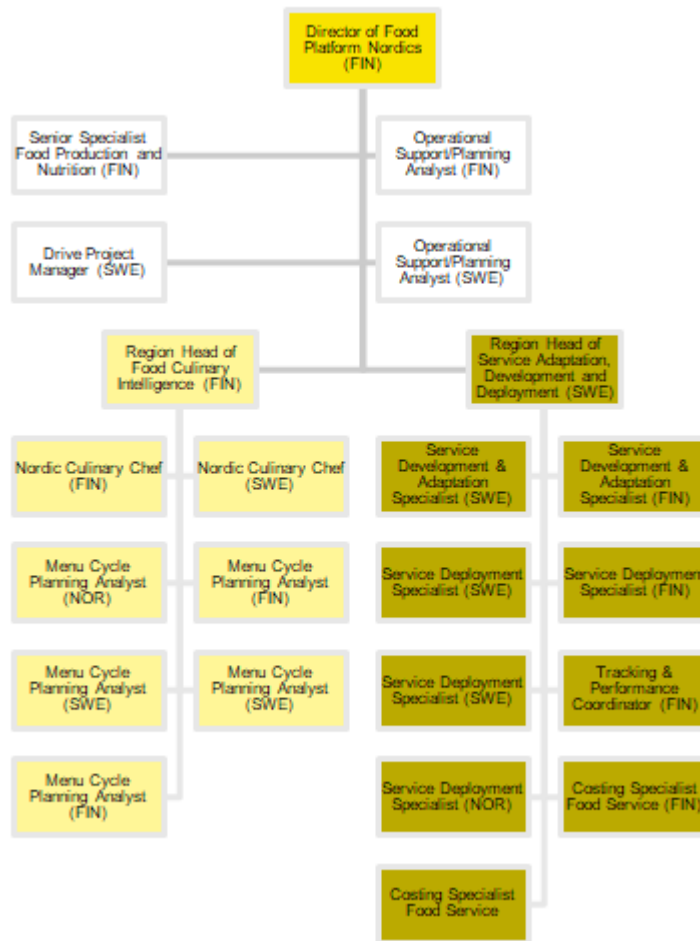


Figure 3. An illustration of the Food Platform Organization.

The team of Service Adaptation, Development and Deployment consists of Service Development and Adaptation Specialists, Service Deployment Specialists and Costing Specialists. The Food Culinary Intelligence team consists of Nordic Culinary Chefs and Menu Cycle Planning Analysts. Also these positions are country specific for Finland or Sweden. It is notable that the position for Service Development and Adaptation Specialist for Finland has been vacant for some while which is the reason this person could not be interviewed for this study and the vacancy has affected the service development and adaptation process in recent months. Excluding the function directors, all these positions are more or less country specific for Finland or Sweden, meaning that most of their resources are directed in serving the country they have their home office in. The collaboration between these two teams and within these teams is investigated in the current state analysis. Transversal functions include HR services, Finance, Brand and Communications and Legal functions that are not directly related to the study.

3.3 Services and Service Portfolio

In order to understand the current state of service development and adaptation in the case company, the company specific terminology needs to be explained. In the company documentation, a service in the case company is described to be “a defined way of doing something for a client/consumer to address a specific need (e.g. cleaning, food, ground maintenance).” In addition, the documentation states that: “Services are built by the Service Platforms.” (Case Company 2020). Secondly, in the case company context, an offer is described to be “a consumer and client driven value proposition*, conveyed by a physical and/or digital experience.” The documentation also states that: “Offers are built by Marketing.” (Case Company 2020). Thirdly, according to the company documentation, a solution is “a customized group of offers and/or services for specific client needs.” (Case Company 2020).

There is an ongoing initiative for service portfolio articulation that aims to align services, brands and products to consumer needs, killing of poor performing services, identifying future development needs, allocating resources to support initiatives and rationalizing the portfolio (Case Company 2020). As the focus of this study is the framework for service adaptation and development, the initiative to improve the service portfolio is not discussed in more detail, although it is acknowledged that the results of that initiative will affect the future framework for service adaptation and development.

3.4 Solution Delivery Process

The solution delivery process is a cross-functional one involving many functions throughout the process. The North Star for Service Development and Solution Delivery should be the corresponding segment’s Go To Market Strategy that should guide which business opportunities will be pursued.

The main stages for the process are Business Opportunity Assessment and Sales, Solution and Contract Design and Mobilization or Deployment after which the service solution is handed over to operations. There was no illustration to be found to illustrate the entire solution delivery process, thus Figure 4 is an attempt to show the top-level process for designing and delivering solutions. The most important services related to this study are drawn in the middle as building blocks for the Solution and Contract De-

sign phase, although the study showed that it does not work this way in real life. The stages are discussed in more detail in the following subsections.

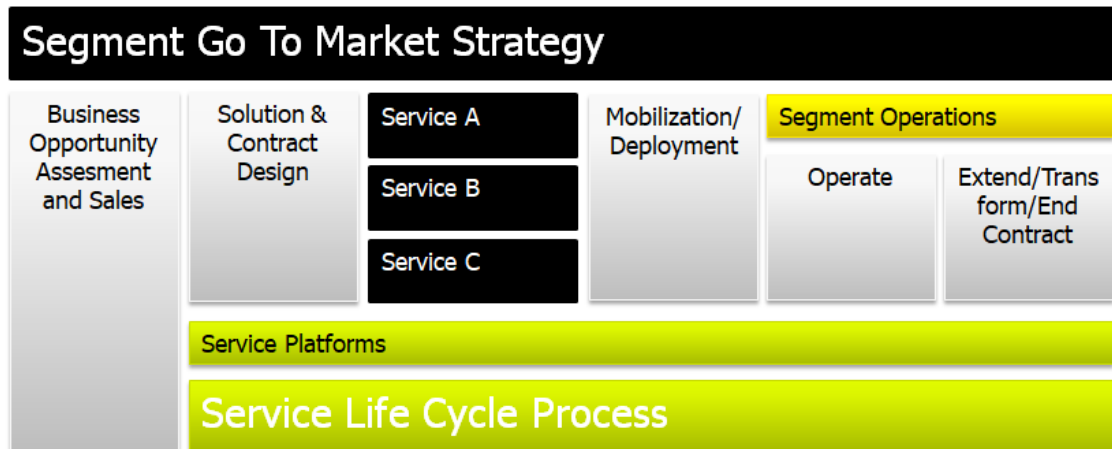


Figure 4. A combined and simplified illustration of the entire solution delivery process.

3.4.1 Business Opportunity Assessment and Sales

The service solution delivery process starts from a business opportunity being represented and assessed by the sales managers or district managers from one of the segments. This can be sales to entirely new clients, new services to exiting clients or re-bidding of existing services to existing clients. A business opportunity's complexity is assessed by different criteria which then lead to an assessment outcome which can be "simple", "medium" or "complex". The level of complexity determines the level of support needed for the solution and contract design process. This process is illustrated in Figure 5.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

Figure 5. Project Evaluation Matrix (PEM) for Opportunity Assessment (Case Company 2020)

For simple projects, standards and internal benchmarks can be used. For medium complex projects, expertise is needed from one or more services. For complex projects, full support is needed from the support functions, both service operations and transversal functions. Even though this PEM model looks like a straightforward approach to requesting and utilizing expertise from different from the early stages, the interviews showed that this is not the case always. According to Interviewee 1B, a Nordic Culinary Chef:

We (culinary) are not involved in the early stages of bidding, which is not ideal. The results in the structure [bid or solution] are being fixed before we know if we can deliver.

Data 1, Interview 1B: Nordic Culinary Chef

After the opportunity is assessed and approved, follows the Solution and Contract Design Process, which is discussed in more detail in the following section.

3.4.2 Solution and Contract Design Process

The service solution and contract design process is supported by the Business Improvement and Growth Support (BIGS) function. The function's role is to "support the end to end sales process from targeting to contract signature" (Case Company 2020). They provide the segments with processes, tools and a bid library. The team consists

of Bid Project Managers and Calculation/Costing experts. The service solution and contract design process is illustrated in Figure 6.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

Figure 6. The Solution and Contract Design Process (Case Company 2020).

After a decision is made to make a bid, comes the solution design phase, which is one of the most important phases concerning the focus of this study. The solution design phase is not described in the process diagram in detail. Interviews were conducted to get more information on what happens during this solution design phase. From the interviews, it became evident that a large amount of service development and adaptation is done at this stage by many people, also outside the service development and adaptation team. According to a Bid Manager (Nordics) in Interview 1L:

At the moment, I feel like we don't get that much information about how the services are being developed or adapted. It's not clear who decides on the services we offer. That's why we look at other markets to find elements and ideas to include in the bidding phase.

Data 1, Interview 1L: Bid Manager, BIGS

In other words, services are being developed, or at least brainstormed, on-the-go already in the bidding and solution-building phase without necessarily involving the service adaptation and development team. When asked why the existing services are not being used to build a solution, it was said that there is not enough information or materials about the services or they did not fit the case. When asked why the official process for requesting new services (the service brief) was not used, the answer was that it is seen to be too heavy and time-consuming for almost all the projects.

The service brief is a very heavy way of working. There's like 80 pages for the brief. There should be a lighter version. We meet clients a lot and we know a lot of their wants and needs. It should be more agile. People don't talk enough to each other. The structure seems so frigid.

Data 1, Interview 1L: Bid Manager, BIGS

The service brief initiates the global Service Life Cycle process, which is discussed in more detail in the following section. This seems to be the core problem affecting the later stages of the service solution delivery process, as non-existing services are sold to clients that then need to be developed very fast to meet client deadlines. This is either caused by an insufficient service portfolio that does not match the segments' strategies or that segment strategies are not clear and bids are being made that do not match the strategy.

It turned out that the sales and bidding support teams would be eager to utilize materials produced by the service development and adaptation team if they would be presentable to clients and also translated to also English so they can be utilized throughout the Nordic Region. Although customization of services and solutions is expected by many clients, it can be that this issue is over stressed throughout the organization.

We always need to customize to our clients' needs. Or we at least need to look like it has been customized.

Data 1, Interview 1L: Bid Manager, BIGS

After the solution design phase, the bid must have a financial, commercial and a legal sign off before being submitted to client. Depending on the case, the solution may be updated during the negotiation phase to meet the clients' needs or financial targets. If negotiations are successful, a sign-off follows. After this, the contract is passed on to mobilization or directly to operational function for deployment depending on the size and complexity of the contract.

3.4.3 The Global Service Life Cycle Process

If a client solution requires a new service that does not exist, a service brief should be made to initiate the global Service Life Cycle process. The process is depicted in an illustration, shown in Figure 7.

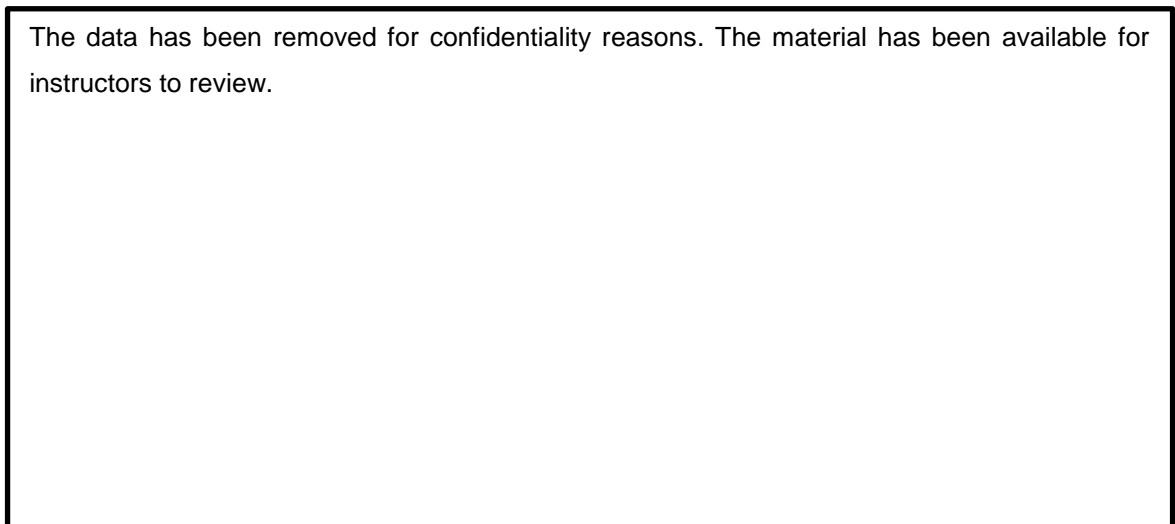


Figure 7. The Service Life Cycle Process (Case Company 2020).

The main phases of the process are: Service Brief, Co-Design and Planning, Design and Incubation, Business Launch and Service Portfolio Management. The process is initiated by the corresponding segment's Go To Market –strategy which lists the services needed which are then translated to a Service Brief. According to process, the service brief is submitted by the Segment Marketing and it should articulate the qualifications for the new service. It can be a single service or a group of services, a part of an offer or independent of an offer. According to company policy, a service brief is the only way to request support from region or global development teams. According to company guidelines, a service brief is needed for any new service, adaptation of a service or refresh of a service if the investment is greater than X euros. For a service refresh that is less than X euros, a brief is not required, however a service brief record needs to be added in the case company global service database to ensure all regions are notified that the service is under refresh.

The service brief is developed by Segment Marketing and validated by Global Segment Marketing. After the brief is approved, Segment Marketing uploads the brief to the case company's global service database. This is followed by a Discovery session, which is a

detailed review and understanding of the brief as well as setting timelines and priorities between the Service Platforms and Segment Marketing. The Discovery session is followed by a Development Scope meeting, where stakeholders agree on the Service Development approach, review specialized requirements and define resources. The Service Life Cycle Process diagram is supported by a Service Life Cycle Intersections Diagram, shown in Figure 8 that illustrates the responsibilities between different functions, with roles Lead, Execute and Contribute.

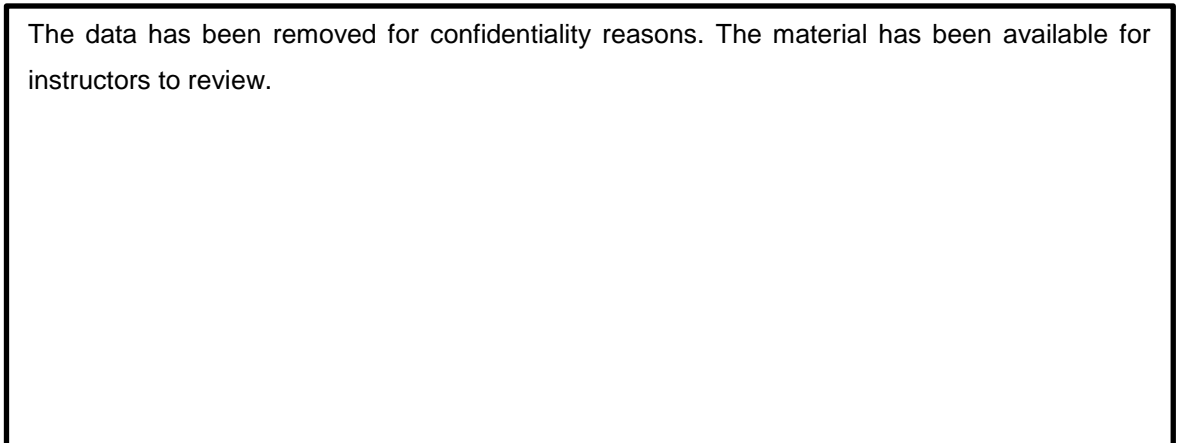


Figure 8. The Service Life Cycle Intersections (Case Company 2020).

According to the Service Life Cycle Process, the Service Design and Incubation phase is supposed to be done in sprints, as illustrated in Figure 9.

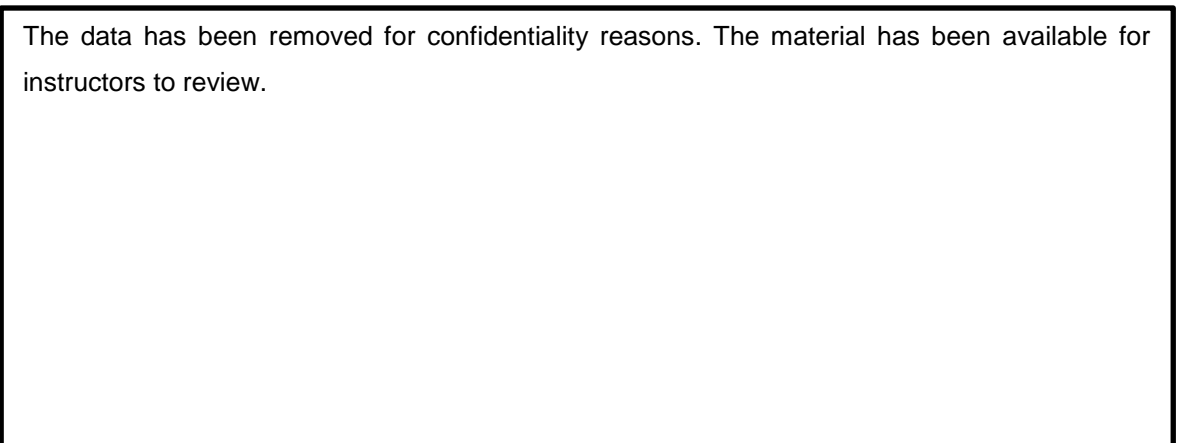


Figure 9. The Case Company's Global Service Development Approach (Case Company 2020).

In the Service Life Cycle Handbook the outputs for a service are e.g. Standard Operating Procedures, Sales Tools, Tracking Resources and Point of Sale Materials.

The global process lists key focus areas for service development teams, which are listed in Table 3.

Table 3. Key focus areas for service development and marketing teams (Case Company 2020).

<p>The data has been removed for confidentiality reasons. The material has been available for instructors to review.</p>

Experience on working with the global Service Life Cycle process was discussed with Interviewee 1C, a Service Development and Adaptation Specialist, who worked with the global team while adapting a new service for the Nordic Region.

The documents we got from them [global service development team] were quite vague, no specific solutions, so a lot is left for the region to decide. The concept is not ready in a global scale either, so they didn't have answers to all our questions.

Data 1, Interview 1C: Service Development and Adaptation Specialist

The global service outputs include supporting and guiding materials on e.g. service design and the service's look and feel. When adapting to the Nordic Region, some elements were not seen to be directly implementable. A quote from Interviewee 1C shows that a large amount of development and adaptation is done on the Region level:

We also changed the colors as we felt the existing colors for the concept were very dull. In the Nordics, we have a long history for architecture and use of colors; we wanted it to fit our needs. Also we had to change the clothing choices to fit our needs.

Data 1, Interview 1C: Service Development and Adaptation Specialist

The ownership of service development and adaptation turned out to be unclear both between different functions as well as within the Service Development and Adaptation team. The Service Life Cycle process should start with the Segment Marketing delivering a service brief, but the resources in segment marketing seem to be insufficient, both in Finland and in Sweden, as pointed out by interviewee 1C:

The process normally goes so that we get a service brief from marketing (working for the segment). We don't have one for corporate services, that's a problem. With the Healthcare segment it works better.

Data 1, Interview 1C: Service Development and Adaptation Specialist

Officially, the service owner for services is the Service Adaptation and Development Specialist, based in Sweden. However, some service ownership lies also in the Culinary Intelligence Team, e.g. menu planning. In real life, it turned out that these responsibilities might not be clear or communicated well throughout the organization. A quote from Interviewee 1C:

I think my role is a bit unclear in some service adaptations, e.g. in service "A", where Finland has already developed some aspects that should now be mobilized in Sweden. But for instance the food is not implementable for Sweden. Where's the responsibility? Who owns the menu planning?

Data 1, Interview 1C: Service Development and Adaptation Specialist

In sum, the current service development and adaptation process is not currently producing the services or the service outputs required by other teams or business operations. The problems start from the very beginning, where there are not sufficient resources, time or know-how to utilize Service Brief to initiate the Service Life Cycle process. Problems also exist in unclear roles and responsibilities within the Service Development team. The roles and responsibilities between Service Development and Adaptation Specialists and Deployment Specialists seem unclear as well. This is partly due to the fact that one Service Development and Adaptation Specialist position is vacant in Finland and the Deployment Specialist needs to take over development tasks as well.

However, the problem is also present in Sweden, where the only Service Development and Adaptation Specialist says the following:

One weakness of our current way of working is that it's unclear what level of ambition we should have (or have the resources to have) both in development/adaptation phase and during day to day management of the service. I have now all the food services for Sweden. Working also with the new school concept as project lead. We have discussed, the deployment specialists in Sweden and I, that it would perhaps be better to split the responsibility so that one person has both development/ownership and deployment for one service.

Data 1, Interview 1C: Service Development and Adaptation Specialist

However, the overall goal seems to be clear:

In a perfect world we hand out a ready service to mobilization who then mobilizes. Then after a while we would get feedback and further develop it.

Data 1, Interview 1C: Service Development and Adaptation Specialist

The global Service Life Cycle process includes many functions from the global and region organizations and the timespan for developing a new service is months, if not years. As stated in Section 1, the management of the Nordic Region feels that this process is too heavy and time-consuming for many of the Nordic needs. However, the qualifications and standards set by the global process need to be understood and fulfilled and the option of utilizing the global Service Life Cycle process kept available.

3.4.4 Service Outputs

The service outputs for a service are listed in a document called Service Output Document Guide for Food and FM. The outputs are categorized in five different categories, each serving different stages of the service solution delivery process: "Sell It", "Mobilize It", "Operate It", "Track and Measure It" and "Develop It". The original document can be found in Appendix 3. The outputs are prioritized a "must" or a "may" depending on their significance to that service. However, Data 1 interviews demonstrated that many of

these outputs are not being currently developed or that they are not finished. Furthermore, some of these outputs were seen less important or useless by their possible users and some outputs were needed that were not listed here. Figure 10 is a simplified list of the outputs defined in the Service Output Document Guide.

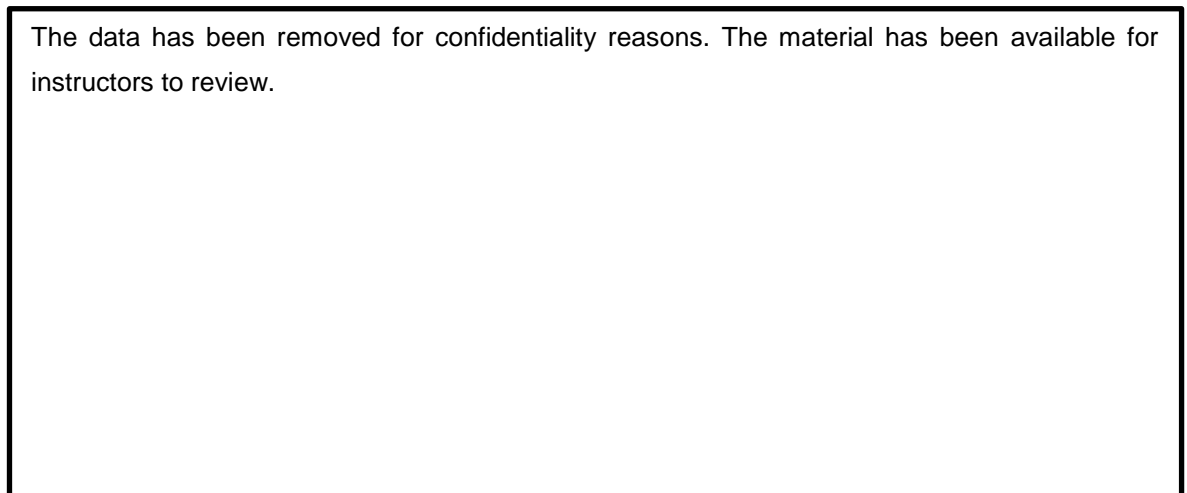


Figure 10. A simplification of the Service Output Document Guide for Food and FM

Furthermore, the Service Life Cycle Handbook also mentions service outputs on a general level. According to the handbook, outputs include elements such as "Standard Operating Procedures, sales tools, tracking resources, point of sale materials and more." (Case Company 2020).

Ideally, after the service outputs are ready, the mobilization or deployment of a service follows, depending on the size and complexity of the service solution. The mobilization phase is discussed in the following subsection.

3.4.5 Mobilization Process

After an agreement is made about a contract, follows the deployment or mobilization phase, depending on the complexity of the contract. Again, the mobilization is used only for medium complex or complex solution delivery projects. The mobilization process is led by the Mobilization Function, consisting of Mobilization Project Managers. The whole process is illustrated in Figure 11.

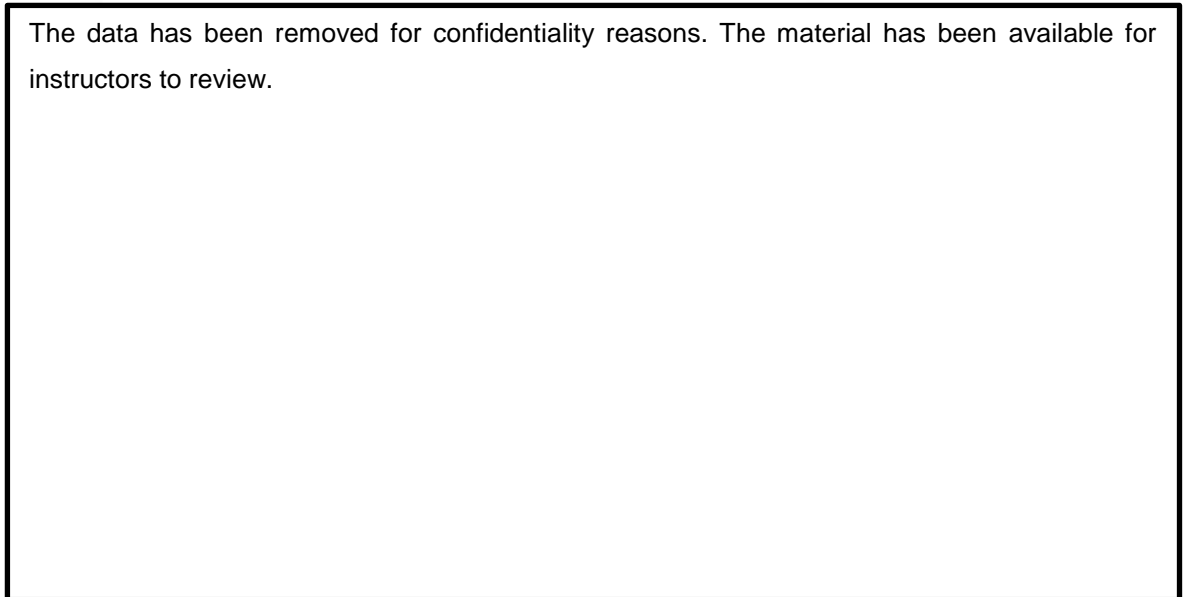


Figure 11. The Mobilization Process (Case Company 2020).

The process has three prerequisites, which are the Project Evaluation Matrix, Site Information and Project Risk Register. The process consists of ten milestones and three gates. This study will not discuss the steps in more detail, but this stage of the process was introduced because the quality of service development and adaptation affects the outcome of this process as well. This became evident from the first interview, where the Project Manager stated in interview 1A:

At this stage, everything concerning service adaptation should be ready (e.g. service descriptions and service level agreements). However, the service adaptation is not ready when handed to mobilization and things are being implemented constantly with a lot of changes very late in the process.

Data 1, Interview 1A: Project Manager, Mobilization

Developing and adapting services after the commercial handover to Mobilization causes hasty decisions and missed deadlines. Moreover, development and adaptation done so late in the process causes a large number of customized solutions that, in many cases, cannot be used for other projects. This is a very inefficient and hour consuming way of working. The core problem is that, the important must-have service outputs are completely or partly missing. According to the same Project Manager quoted in Interview 1A one solution would be on the lines of the following:

My dream is to have service solutions that are made of modules, so they can be mobilized to different needs and transparent as well as communicated so that the sales people also know them in the bidding phase.

Data 1, Interview 1A: Project Manager, Mobilization

On the other hand, the same participant from Interview 1A stated that:

Our adaptation and mobilization projects differ quite a lot because our client base is very mixed. Many clients want personalized solutions that look like them. To think of it, it's often just the look and feel, colors, or the logo that matter to them. We could have more fixed solutions for everything else.

Data 1, Interview 1A: Project Manager, Mobilization

The experience has been that simple or medium complex contracts have been easier to mobilize or deploy because the organization has existing knowledge and experience about those services. Most problems have occurred in complex projects, where, perhaps, the company has entered an entirely new business area with little or no previous experience of.

To sum up, the mobilization phase would ideally be project management with ready building blocks with a minimum amount of changes done to services this late in the process. However, it is important to identify the customers' needs and want for a customized feel in the Solution and Contract Design phase.

The mobilization phase is followed by the site going live. This is also the stage where the contract is handed over to operations. Most contracts are made for a period of time with options for contract extension, termination or transformation after the contract period. These stages are not discussed further because the focus of this thesis is service development and adaptation prior to going live. However, the follow-up of contracts and service performance is critical for continuous development of services done by the Service Adaptation and Development team.

3.5 Collaboration and Communication

As the objective of this thesis has an emphasis on collaboration and communication within the Nordic region, it was important to understand the current level of Nordic collaboration. Interviewees were asked about e.g. access to folders, common evaluation criteria for outputs and cross-functional follow-up meetings. Interviewee 1C said that:

I think the case company is lacking the infrastructure of team work and agreements on the way of working. Lessons learnt should be part of the discussions I mentioned in the previous answer. On a practical level, we need to talk more to each other. It shouldn't be too hard to set up.

Data 1: Interview 1C: Service Development and Adaptation Specialist

Language also seemed to form a barrier in some cases, especially when sharing documents within the Nordics. Many materials are produced in native languages for individual markets, usually in Swedish or in Finnish. This has caused a problem since very few are bilingual and cannot utilize the documents from other countries. A solution to this was suggested by Interviewee 1C:

For Nordic co-operation to be beneficial and efficient, we should do all our [master] documents in English. Then we could better utilize the materials done in another country. We can do translations in the native language where needed.

Data 1: Interview 1C: Service Development and Adaptation Specialist

The case company has shared Nordic folders for each business function but access to these folders is limited. Documents in progress are stored in each functions own folders and final outputs are shared either through these folders by granting access or through the case company's own intranet. The case company's network drive architecture and intranet with simplified information flows is illustrated in Figure 12.

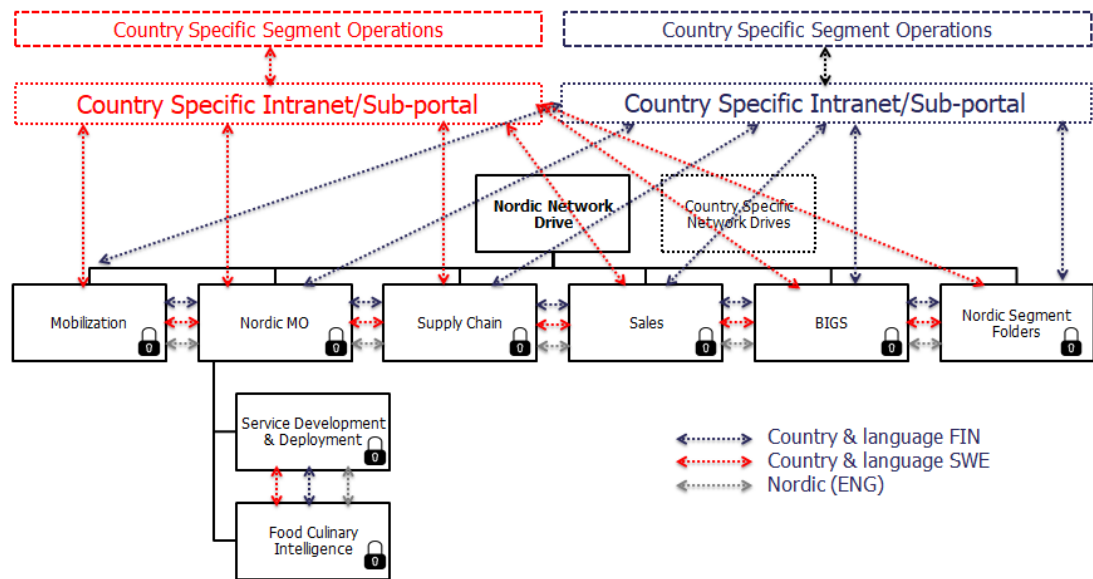


Figure 12. A simplified illustration of the case company's Nordic Network Drive, folders and information flow.

The case company has a Nordic Network Drive as well as country specific network drives. There is an ongoing project aiming at centralizing all the information to the Nordic Network Drive. The Nordic Network Drive has folders for each business function. Access to these folders is limited and access needs to be granted by the folder owner for each user. The case company also has a global, cloud-based intranet with sub-portals for each country. This intranet is used for communication between the different business functions and also to segment operations. The intranet is not collaborative in its nature, but more of a one way publishing tool. Each country has their own sub-portal in their local language. Moreover, information is not published in the intranet until it's finished or launched, thus there is very little information about ongoing projects. In addition, people find it hard to find information in the intranet.

We are very bad in internal communication. For me, as I know so many people, it's easier to get information. As a company we should have a smarter intranet. Operations don't find the information they're looking for or don't know who are the right people to contact.

Data 1: Interview 1J: Project Manager, Mobilization

The case company has a Microsoft Office 365 platform and utilizes its basic applications for communication. The most commonly used applications are Outlook email and

calendar and Skype for Business for instant messaging and online-meetings. The case company has started to shift towards Teams application for online-meetings. Some business functions have created cross-functional teams in Teams application. For example in Finland, the Segment Marketing has established team for Events Planning consisting of members from Segment Marketing, Brand and Communication, Operations, Finance and Food Platform. Also Segment Sales has established a cross-functional team for Service Innovation, including members from e.g. Segment Operations, Food Platform, BIGS and Mobilization (Case Company 2020). However, these teams include members only from the Finnish organization and do not serve the entire Nordic organization. A summarization of the strengths and weaknesses identified in the current state analysis are discussed in the following subsection.

3.6 Summary of Strengths and Weaknesses

This subsection provides an overview of the main strengths and weaknesses identified in the current state analysis in Section 3. Table 4 lists the strengths and weaknesses identified in green and red, respectively, as well as the source of that information.

Table 4. Summary of strengths and weaknesses identified in Data 1.

#	Strength or Weakness	Source(s)	#
1	Ongoing initiative to rationalize the service portfolio	Case company materials and interviews	1
2	Valid process description for Solution and Contract Design	Case company materials and interviews	2
3	Valid process description for Mobilization	Case company materials and interviews	3
4	Top-level understanding of the Service Life Cycle	Case company materials and interviews	4
5	There is no valid process description for the entire solution delivery process covering the the different phases	Case Company materials and interviews	5
6	The Service Life Cycle Process Description is ambiguous with unclear roles and responsibilities	Case Company materials and interviews	6
7	The Service Life Cycle Process and Service Brief is seen to heavy for small or medium-sized service development projects	Case Company materials and interviews	7
8	Various stakeholders have different understanding of outputs and expectations of the service development process	Case Company materials and interviews	8
9	Key service outputs are missing or incomplete	Case Company materials and interviews	9
10	The roles, responsibilities and tasks are not clear within the Service Adaptation, Development and Deployment function	Interviews	10
11	The responsibilities and tasks are not clear between the different functions involved in Service Development	Interviews	11
12	Collaboration between functions and countries is inconsistent and unstructured	Interviews	12
13	Nordic collaboration is limited because of access to materials and language barriers	Interviews	13
14	Nordic collaboration is limited because of limited market understanding	Interviews	14
15	Service outputs quality suffer from lack of expertise for new service areas	Interviews	15
16	There is no valid process description for regional service adaptation and no consistent way of working	Interviews	16
17	Meetings concerning service development or solution building are not prepared or structured	Interviews	17
18	There is no common evaluation criteria to assess the service outputs	Interviews	18
19	Service ownership is unclear within the organization	Interviews	19
20	Service portfolio and roadmap are not communicated to stakeholders	Interviews	20
21	Project leadership unclear or under resourced	Interviews	21
22	Service development team under resourced	Interviews	22
23	Service portfolio does not match business strategy	Interviews	23
24	Services are developed for individual client solutions very late in the process	Interviews	24

As seen from the list, the weaknesses occur in every phase of the service solution delivery process and some of the weaknesses may be caused by a same root cause. In order to find solutions, it is appropriate to try to categorize these issues.

3.7 Key Findings to Elaborate

The strengths and weaknesses are categorized into four categories in Table 5: Service Portfolio Strategy, Service Adaptation and Development Process, Leadership and Human Resources and Collaboration and Communication.

Table 5: Categorization of strengths and weaknesses.

Category	#	Strenght or Weakness
Service Portfolio Strategy	23	Service portfolio does not match business strategy
	24	Services are developed for individual client solutions very late in the process
	1	Ongoing initiative to rationalize the service portfolio
Service Adaptation and Development Process and its Outputs	5	There is no valid process description for the entire solution delivery process covering the the different phases
	6	The Service Life Cycle Process Description is ambiguous with unclear roles and responsibilities
	7	The Service Life Cycle Process and Service Brief is seen to heavy for small or medium-sized service development projects
	8	Various stakeholders have different understanding of outputs and expectations of the service development process
	9	Key service outputs are missing or incomplete
	16	There is no valid process description for regional service adaptation and no consistent way of working
	18	There is no common evaluation criteria to assess the service outputs
	19	Service ownership is unclear within the organization
	2	Valid process description for Solution and Contract Design
	3	Valid process description for Mobilization
Leadership and Human Resources	4	Top-level understanding of the Service Life Cycle
	10	The roles, responsibilities and tasks are not clear within the Service Adaptation, Development and Deployment function
	11	The responsibilities and tasks are not clear between the different functions involved in Service Development
	15	Service outputs quality suffer from lack of expertise for new service areas
	17	Meetings concerning service development or solution building are not prepared or structured
	21	Project leadership unclear or under resourced
Collaboration and Communication	22	Service development team under resourced
	12	Collaboration between functions and countries is inconsistent and unstructured
	13	Nordic collaboration is limited because of access to materials and language barriers
	14	Nordic collaboration is limited because of limited market understanding
	20	Service portfolio and roadmap are not communicated to stakeholders

Although all of these categories are interlinked and include weaknesses identified, the focus is on the categories most relevant to the objective of this thesis: *the Service Adaptation and Development Process and its Outputs* and *Collaboration and Communication*. The survey on existing literature will be targeted to tackle the issues under these two categories. The strengths identified related to processes will be taken into consideration as well when co-creating the initial proposal for an improved framework for service development and adaptation. Issues related Service Portfolio Strategy, Leadership and Human Resources will not be examined or discussed in detail, although managerial implications will be noted.

Issues related to unclear process description and output specification can possibly be solved by improving and complementing current process documentation and a more detailed specification for service outputs. Processes can be improved and streamlined using different service or product development models. Issues related to unclear roles and responsibilities within the process can be improved by improving the process documentation but also redefining ownership and tasks. Weaknesses concerning collaboration and communication can likely be improved by finding tools and guidelines that support them, both intra-teams and on a Nordic level. Existing knowledge is researched to find practical tools and methods to match these issues.

The next section will explore existing knowledge and introduce improvement ideas and best practices for the categories identified: Service Development Process and Its Outputs and Collaboration and Communication. The findings of the literature review will form the conceptual framework for this thesis.

4 Improvement Ideas from Relevant Literature

The aim of this section is to compare different approaches to reaching the objective of this study and increase the validity of the proposition for the improved framework. This section gathers existing knowledge on process improvement and collaboration and formulates it to the conceptual framework of this thesis. The basis for literature research was the findings done in Section 3. These findings were summarized and prioritized into categories and two categories were chosen for the basis of the literature research: Service Process Development and Its Outputs and Collaboration and Communication. The literature research aims at finding tools to fix the problems accordingly.

This section is divided into different subsections. Each subsection includes a description of the relevant idea and is followed by a discussion in relevance to this study. The last part of this section summarizes the ideas most relevant to this study and represents the conceptual framework.

4.1 Business Process Development and Modeling

This sub-section discusses the principles of a process and different development models to produce products or services. Furthermore, it introduces the Business Process Model and Notation, a diagramming language for business processes.

4.1.1 Business Process Development

Martinsuo and Blomqvist (2010:5) state that “Processes are customer value-adding chains of activities that utilize resources.” Their simplified illustration of a process in Figure 14 shows how the process starts and ends with a customer. Martinsuo and Blomqvist (2010:5) continue by saying the customer can be external or internal, known or unknown but “always sets expectations, needs, and requirements towards the process.”

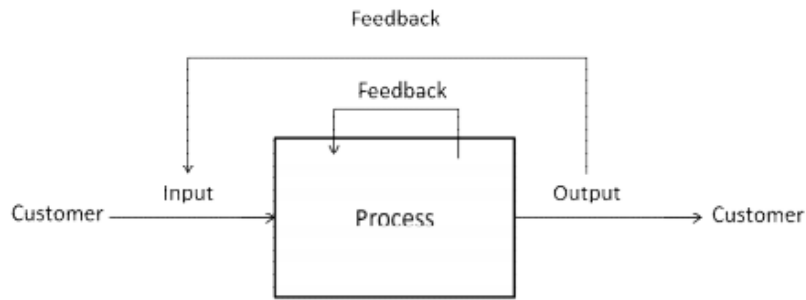


Figure 13. Simplified view of a process with feedback streams (Martinsuo & Blomqvist 2010: 8).

As depicted in Figure 13, the process starts with a customer giving input, preceding a process that adds value, resulting in an output to the customer. When developing the process as well as the inputs and outputs of the process, feedback is an important factor. According to Martinsuo and Blomqvist (2010:6), “a process is linked to a company’s organizational structure through its objectives and the resources it uses.”

In order to achieve its goals, an organization should manage and control its processes. “The key to process management is to set goals for processes based on company objectives, track and understand feedback from the processes, and use the feedback data for process development.” (Martinsuo and Blomqvist 2010:7). Furthermore, feedback is not just output-based performance feedback but also quality and functionality based feedback during the process.

Process development may be needed to create a new process, to change a current process or improve the current process. The basic steps of process development are still the same, illustrated in Figure 14. The steps are Defining the scope, Process Analysis, Process (re-)modeling, Process Piloting and Improvement, Process Launch and finally, Process Implementation and Monitoring.

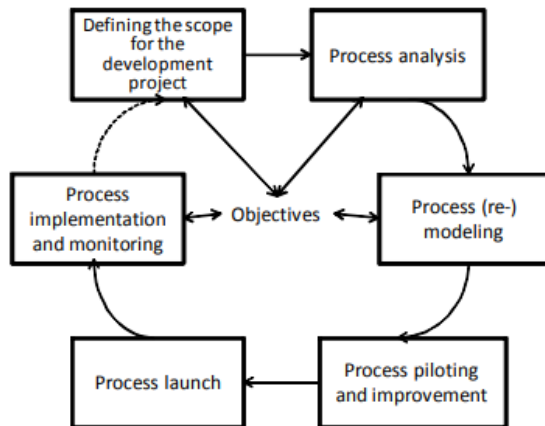


Figure 14. The basic steps in process development (Martinsuo and Blomqvist 2010: 8).

According to Martinsuo and Blomqvist (2010), the first step is defining the scope for the development project and choosing the process(es) that will be affected. Data on current processes can help defining the scope as well as company's objectives. The second step is a process analysis, either a study of the current process or for a new process, how the value-adding activities of the process have previously been performed. If improving an existing process, "the current state of the process should always be compared to the performance objectives" (Martinsuo and Blomqvist (2010: 9) and what kind of weaknesses can be detected, resulting in identifying the areas in need of development. The third step is (re-)modeling the process, or parts of the process, based on customer expectations and needs. The fourth step is piloting the process and receiving feedback for improvement, either in an actual work environment or in a simulation. This enables the process to be reviewed and adjusted before launching the process. The piloting step should bring forward data whether the improved process solves the problems compared to the old process. After piloting the process can be launched and implementation take place. Implementation may include e.g. replacing old practices, routines and guidelines with new ones to support the new process. Martinsuo and Blomqvist (2010) state that it is also important to communicate train and instruct all stakeholders to the new process and possibly adopt their new roles as well as have related monitoring and control systems in place to support the new process. Also constant monitoring and tracking is needed to identify additional areas for improvement and possible corrections to the process to be made.

4.1.2 Business Process Model and Notation (BPMN)

Process modeling can be done in many ways depending on the need for detail. For a detailed process description, Martinsuo and Blomqvist (2010) list four areas to include: the tasks, the interdependencies between tasks, roles and responsibilities as well as tools and information. The most commonly used methods for illustrating a process are flowcharts, process flow diagrams, task matrices and textual instructions (Martinsuo and Blomqvist 2010). Moreover, Martinsuo and Blomqvist (2010) list good practices for process modeling which are process clarity and logical entity, process consistency and straightforwardness, clear communication and illustration of the process and manageability of the process so that it achieves its objectives.

Business Process Model and Notation (BPMN) is a diagramming language for business process flows (Silver 2011). Silver (2011) describes BPMN to be an expressive language which is able to describe nuances of process behavior compactly in a diagram. The BPMN is not owned or controlled by a single tool vendor or consultancy which means that its use is not limited to users of particular tool. The standard is maintained by the Object Management Group (OMG). According to Silver (2011), BPMN is popular because of its “outward familiarity” (Silver 2011: 3) to business people. The symbols and illustration techniques used resemble traditional flowcharts that many business people are familiar with. As BPMN is based on formal specification (Silver 2011:3), it can also act as a bridge between the business and IT functions, if required. Silver (2011) lists four conditions for good BPMN, which are that the model is: correct, clear, complete and consistent. Moreover, “A process model is more than a drawing. Its purpose is to convey meaning, specifically the logic of the activity flow from process start to end.” (Silver 2011: 9).

According to Silver (2011) and the BPMN, a process model is a map of all the possible paths and sequences of activities from an initial state to an end state. The start of a process can be e.g. a request. Although a process can be performed repeatedly within the business, the process itself is discrete and not continuous (Silver 2011). According to Silver (2011) the BPMN model reveals only the order of activities, when they happen and under what conditions. The model does not say how, where or why the activity is performed. Who performs the activities or what the activity is, is described with labelling activities and flows as well as using swim lanes in the diagrams. BPMN has different level palettes for different purposes, the most elementary one being BPMN Level 1

palette. According to Silver (2011) it is easily understood by business users, sufficient to many and thus implementable to different purposes.

As one of the weaknesses identified in Section 3 was the vagueness of current process descriptions, the BPMN model seems to be a clear and consistent way of describing a process so that it could be understood throughout the organization. The next subsections will introduce and discuss different development models and methods.

4.2 Service Development Systems and Methods

This subsection introduces different service development systems and methods and discusses the possibilities of combining these systems to build a solid development system. It also discusses the role of service outputs as factors creating perceived value for the customer.

4.2.1 Stage-Gate System

According to Cooper (1990) a stage-gate system is a model that is both conceptual and operational, with the purpose of moving a new product (or service) from idea to launch while managing the process in order to improve effectiveness and efficiency. Cooper continues by saying product (or service) innovation can be seen as a process, and “like other processes, innovation can be managed” (Cooper 1990: 45). Companies can apply process-management methodologies using the stage-gate system to drive innovation. According to Cooper (1990), a company can improve the quality of its outputs by focusing on the process itself that produces those outputs, and to remove any variances in the process. The stage-gate divides the innovation process into stages and gates must be passed before proceeding to the next stage. Figure 15 is an overview of a stage-gate system illustrating an example of five gates and five stages. The number of stages and gates needed depends on the company or the process. The presumption is that the quality of information gets better by passing each gate, thus managing the risk.

Cooper (1990) states that each gate must be characterized by a set of deliverables or inputs, a set of exit criteria and an output. In order to proceed to the next stage, the work is judged against defined criteria. The outputs of the gates are typically

“Go/Kill/Hold/Recycle” decisions and an approval of an action plan to proceed to the next stage (Cooper 1990).

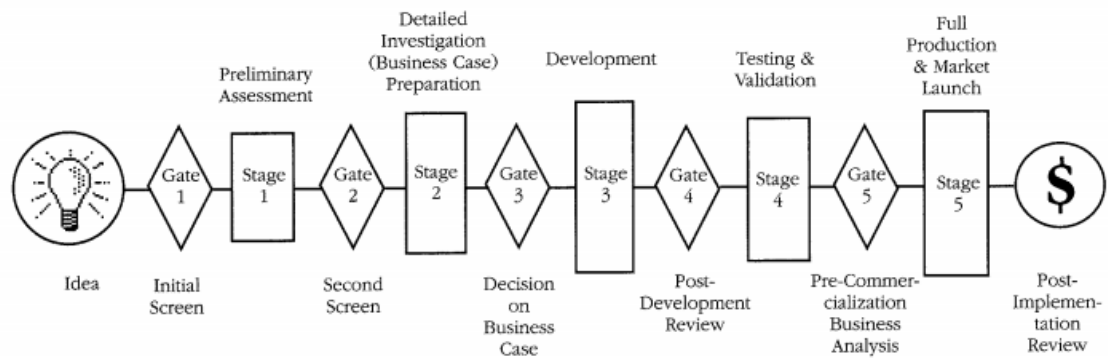


Figure 15. An overview of a stage-gate system (Cooper 1990: 46).

According to Cooper (1990) implementing a stage-gate system often requires organizational changes. Firstly, a project team approach is fundamental to stage-gate approaches. The team and its leader carry the project through the process. Secondly, successful implementation of the process requires commitment of top management.

According to Cooper (1990) the gates should be manned by senior managers, “gatekeepers”. This group usually consists of members from different functions with enough authority to approve the resources needed to finish the project. The roles and tasks of gatekeepers and project leaders is listed in Table 6.

Table 6. The roles and tasks in a stage-gate system (Cooper 1990)

Role	Tasks
Gatekeepers	Review of the quality of inputs or deliverables
	Assessment of the quality of the project from an economic and business standpoint, resulting in a Go/Kill/Hold/Recycle decision
	Approval of the action plan for the next stage (in the event of a Go decision)
	Allocation and approval of resources
Project Leader	Drive the project from stage to stage, gate to gate
	Is aware of what inputs are required to pass the next gate
	Organize the team to meet the input requirements of the upcoming gate

However, according to Cooper (1990), the stage-gate system produces quality outputs and effectiveness only if the project team and project leader builds quality in the inputs

preceding each gate and the gatekeepers check that no critical activities have been omitted, the action plan for the next stage is set and the deliverables for the next gate are clearly defined. Furthermore, the approach requires that the initial idea that started the project is still valid when the final stage and implementation take place.

4.2.2 Lean Development System

Dombrowski et al. (2014) state that as product life cycles become shorter and competition is increasing in many industries, enterprises have implemented Lean Thinking to product development in order to have shorter time-to-markets and lower development costs. These are called Lean Development Systems (LDS). The main goal of implementing LDS is to achieve a “value-oriented, resource efficient and fast product development process” (Dombrowski et. al 2014: 1462).

The idea of lean was and is to create more value to customers while minimizing waste (Lean Enterprise Institute 2000-2020/2). According to lean principles, this is done by changing the management’s focus from managing separate assets, technologies and vertical departments to “optimizing the flow of products and services through entire value streams that flow horizontally across technologies, assets and departments to customers” (Lean Enterprise Institute 2000-2020/2).

Jim Womack and Dan Jones (Lean Enterprise Institute 2000-2020/2) recommend that organizations need to consider three business issues when transforming an organization to lean thinking: purpose, process and people. Respectively, defining the purpose for both the customer and the organization itself, evaluating the processes and value streams to make sure each is working to expected standard and ensuring the organization has designated people responsible for continuous evaluation and improvement of the value stream.

The Lean Enterprise Institute (2000-2020/3) presents a five-step process for implementing lean techniques, which are seen in Table 7.

Table 7. Five-step process for implementing lean techniques (Lean Enterprise Institute 2000-2020/3)

#	Principle
1	Specify value from the standpoint of the end customer by product family.
2	Identify all the steps in the value stream for each product family, eliminating whenever possible those steps that do not create value.
3	Make the value-creating steps occur in tight sequence so the product will flow smoothly toward the customer.
4	As flow is introduced, let customers pull value from the next upstream activity.
5	As value is specified, value streams are identified, wasted steps are removed, and flow and pull are introduced, begin the process again and continue it until a state of perfection is reached in which perfect

4.2.3 Agile Methods

The history of agile methods date to 2001 when seventeen software developers met and produced the “Manifesto for Agile Software Development”. The manifesto by Beck et al. (2001/1) consisted of four values: individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation and responding to change over following a plan. Boehm and Turner (2005) define agile methods as “lightweight processes that employ short iterative cycles, actively involve users to establish, prioritize, and verify requirements, and rely on a team’s tacit knowledge as opposed to documentation.” According to them, agile methods are iterative, incremental, self-organizing and emergent. Iterative means that it takes several cycles to complete the product or service. Incremental means that the entire product or service is not delivered at once. Self-organizing means that teams determine themselves the best way to distribute resources and workload. Emergent means that the “processes, principles and work structures are recognized during the project rather than be predetermined” (Boehm and Turner 2005: 32). Figure 16 illustrates an example of an agile process flow with sprints.

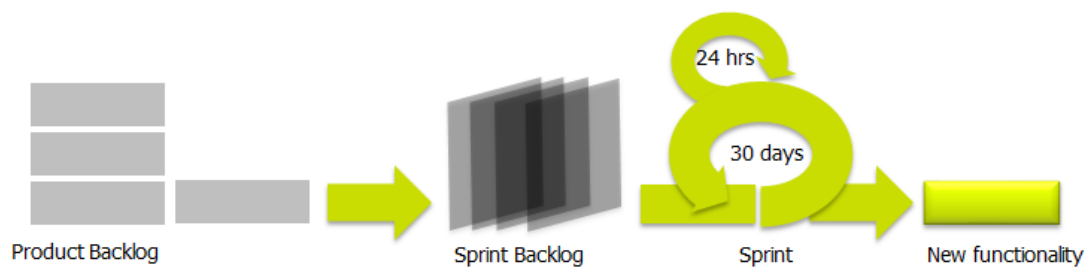


Figure 16. An illustration of an agile process flow (modified from Boehm and Turner 2005: 33)

Turner and Boehm (2005) state that the working with short development cycles force the team to focus on specific capabilities, require specific descriptions for functionality and can thus identify misconceptions between the customer and the developer earlier than with longer development cycles. Thus, Turner and Boehm (2005) see agile as a more suited method to respond to emerging requirements and capability-based requirements rather than traditional top-down approaches. While working, agile methods can produce value to customers much faster than traditional development methods. It may also empower developers that might be more constrained while working with more traditional development processes.

Although the agile principles and methods were originally developed for software developments, the concepts have migrated to traditional product and service development as well. The principles and values behind agile methods were studied in this section especially because the case company's Service Life Cycle process and the related Service Life Cycle Handbook refer to agile values and methods.

4.2.4 PDCA as a Continuous Development Model

The PDCA model of continuous development consists of four phases: plan, do, check and act, as illustrated in Figure 17 (Lodgaard et al. 2013: 647). Furthermore, an additional layer of seven steps is added to this version of the model. The plan-phase is divided into four steps: definition of improvement initiative with background and target, collection of facts, analysis of root cause(s) and choices of action with a corresponding action plan. The do-phase is the implementation. Results are studied and evaluated in the check-phase and steps taken back to earlier phases if required. Finally, knowledge is standardized and transferred as a last step in the act-phase.

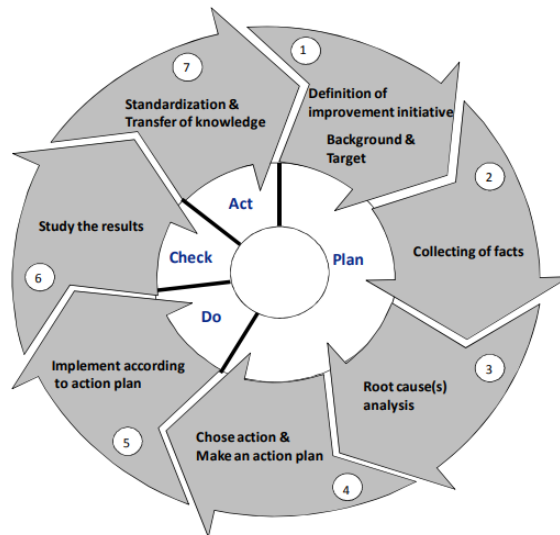


Figure 17. The PDCA cycle (Lodgaard et al. 2013: 647).

According to Lodgaard et al. (2013) the success factors for successful use of the PDCA model for continuous product development are management commitment, knowledge of usability of the model (how to use and when to apply), efficient performance and internal marketing activities.

4.2.5 New Service Development

Not all service development projects are of the same magnitude or require the same resources. Johnson et al. (2000: 3) define a new service as being “an offering not previously available to customers that results from the addition of offerings, radical changes in the service delivery process, or incremental improvements to existing service packages or delivery processes that customers perceive as being new.”

An organization may have to adjust their approach to developing a service depending on what type of a new service is concerned. Johnson et al. (2000) present a categorization of new services, illustrated in Table 8.

Table 8. Categorization of New Services (Johnson et al. 2000: 4)

<i>New Service Category</i>	<i>Description</i>
<i>Radical Innovations</i>	
Major innovation	New services for markets as yet undefined; innovations usually driven by information and computer-based technologies
Start-up business	New services in a market that is already served by existing services
New services for the market presently served	New service offerings to existing customers of an organization (although the services may be available from other companies)
<i>Incremental innovations</i>	
Service line extensions	Augmentations of the existing service line such as adding new menu items, new routes and new courses
Service improvements	Changes in features of services that currently are being offered
Style changes	The most common of all "new services"; modest forms of visible changes that have an impact on customer perceptions, emotions, and attitudes, with style changes that do not change the service fundamentally, only its appearance

Johnson et al. (2000) divide new services to two different categories: radical innovations and incremental innovations. Radical innovations include major innovation, start-up business and new service offerings. Incremental innovations include service line extensions, service improvements and different style changes. Johnson et al. (2000) acknowledge that new service development is often nonlinear, highly iterative and cyclical. This is illustrated in Figure 18 where the stages of service development are presented in a cycle.

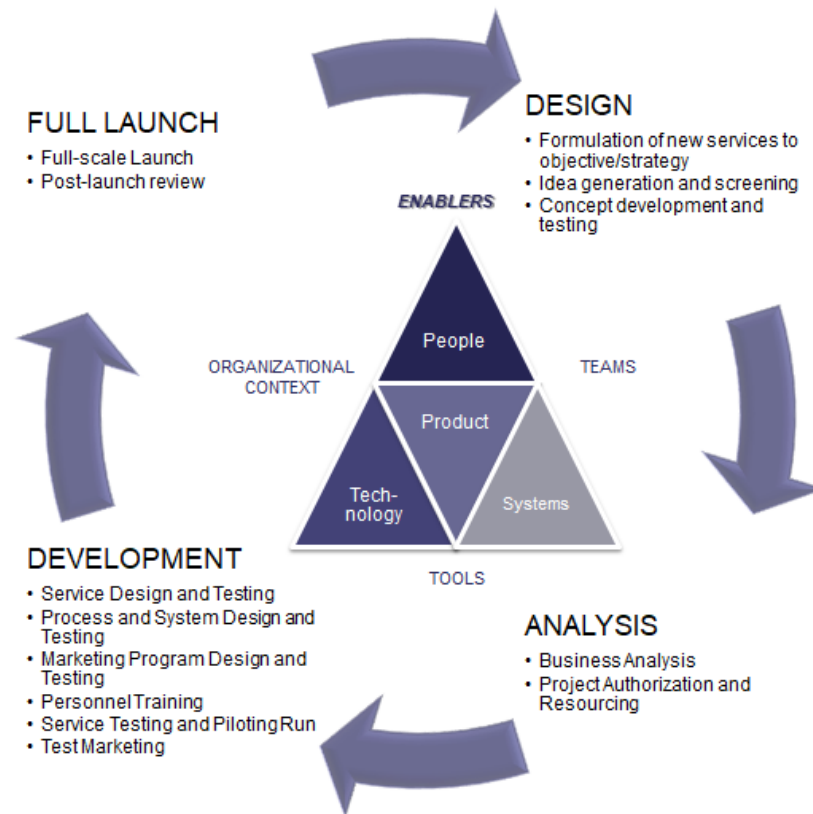


Figure 18. The NSD Process Cycle (modified from Johnson et al. 2000: 14)

The NSD Process Cycle starts with a design phase: formulation of new services aligned with company objectives and strategy. Then proceeding to idea generation and screening as well as concept development and testing. Next, in the analysis phase, a business analysis is carried out and project authorization gained.

4.2.6 Phase-Gate and Agile as Parallel Alternatives for Service Development

As stated earlier, the phase-gate system is a way of managing a development project with pre-determined stages and gates, with clear guidelines for inputs and outputs for every gate. The benefits are good management of the entire development process which can reduce the risks, improve the quality of inputs and outputs and a structured way of working. However, the disadvantage of a phase-gate system is that there is great emphasis on getting the initial idea for the project right in the first place and making sure the final output of the process still creates value to the customer when finished. For a phase-gate model, the requirements are clearly understood from very early on.

Agile methods, on the other hand, are iterative, incremental, self-organized and emergent, that enable the initial idea to be developed throughout the development process all the while being in touch with the customer. The advantage of agile methods is the ability to produce implementable or presentable solutions to customers very early on in the process making sure that the output is aligned to customers possibly changing expectations throughout the process. The disadvantage is that as it values individuals and interactions over processes and tools and customer collaboration over contract negotiation, the repeatability of the process and making sure the outputs create value both to customers and the company may be harder to manage. The agile approach also is set on building the process on a quite vague idea of the final output and might need more flexible requirements.

Beaumont et al. (2017) suggest that one alternative would be to have these two models in place in parallel, each providing an alternative process that best fits the business case at hand. In their model, the agile approach is used just for specific initiatives that require new, breakthrough innovation and the phase-gate model is used for the majority of development projects that require only incremental innovation. These parallel paths are illustrated in Figure 19.

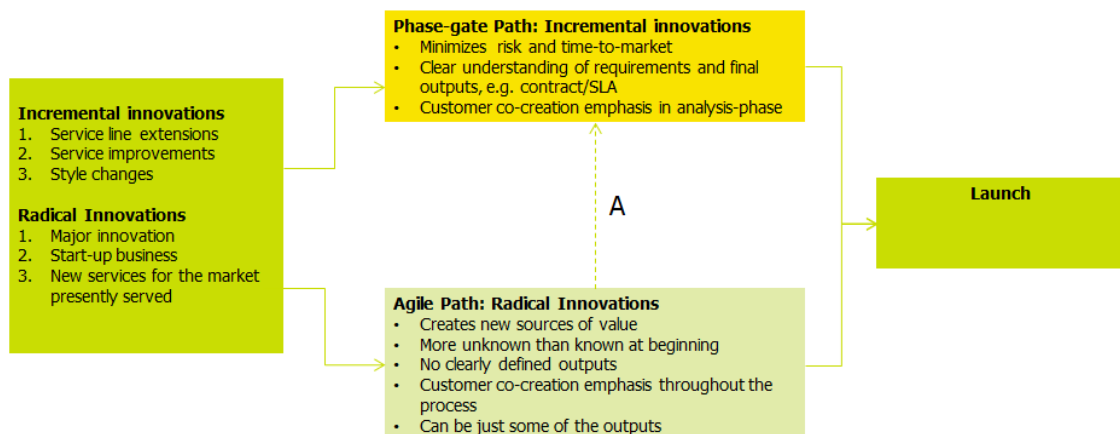


Figure 19. Different approaches to different types of innovation (modified from Beaumont et al. 2017: 23)

The process starts with categorizing the type of innovation. When these have been defined, a path is chosen depending on what kind of innovation is needed: a phase-gate path or an agile path. In this model, both paths lead to the same downstream functions leading to launch. The “A” path from the agile path to the phase-gate path

represents an option where the agile path is continued with a more conservative phase-gate path at later phases of the development. According to Beaumont et al. (2017), the creation of separate paths with utilizing agile principles has shown to be an effective way to manage product development. As key success factors they list e.g. portfolio management with guidelines on what path to use for different types of projects, utilizing the agile path in the exploratory part of product development, executive sponsorship and leadership for the agile teams and finally, internal or external experts with experience of agile processes and working methods.

4.2.7 Service Outputs as Factors Affecting Perceived Service Quality

In order to understand the essential outputs of a service development process, one needs to understand the dimensions against which the service quality is assessed. Brady and Cronin (2001) present a hierarchical approach to conceptualizing perceived service quality. As a basis for their model, they introduce and combine the ideas from most common conceptualizations of perceived service quality, as illustrated in Figure 20. First, they acknowledge the “Nordic model” introduced by Grönroos (1984) that service quality consists of both functional and technical quality which is weighed against expected service. Second, they acknowledge the characteristics used to describe the dimensions of service quality, commonly known as the SERVQUAL model that originally consisted of ten dimensions of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer and the tangibles (Parasuraman et al. 1985). Third, they present the Three-Component Model (Rust and Oliver 1994) that suggests service quality is a sum of service product, service delivery and service environment. Fourth, The Multilevel Model of Dabholkar et al. (2000) is introduced. The model divides the dimensions to primary dimensions and sub-dimensions.

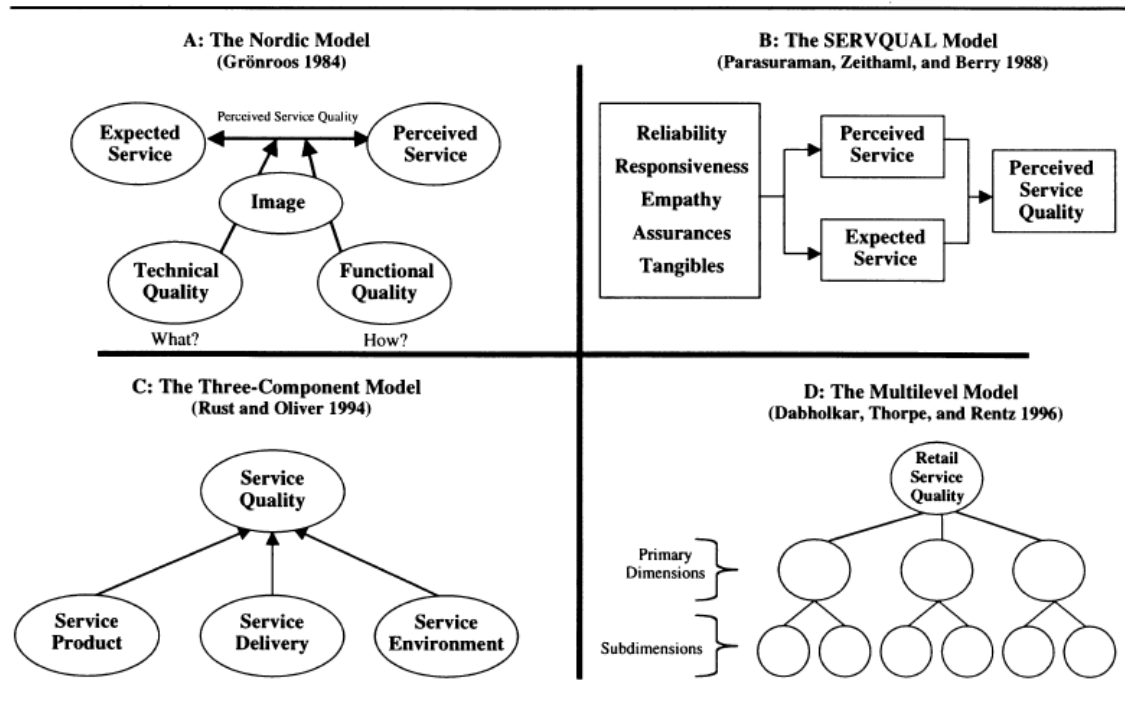


Figure 20. An illustration of four different service quality models (Brady and Cronin 2001: 35).

In their study, Brady and Cronin (2001), tested combining these four models to form a hierarchical, multidimensional and multilevel view on perceived service quality as illustrated in Figure 21.

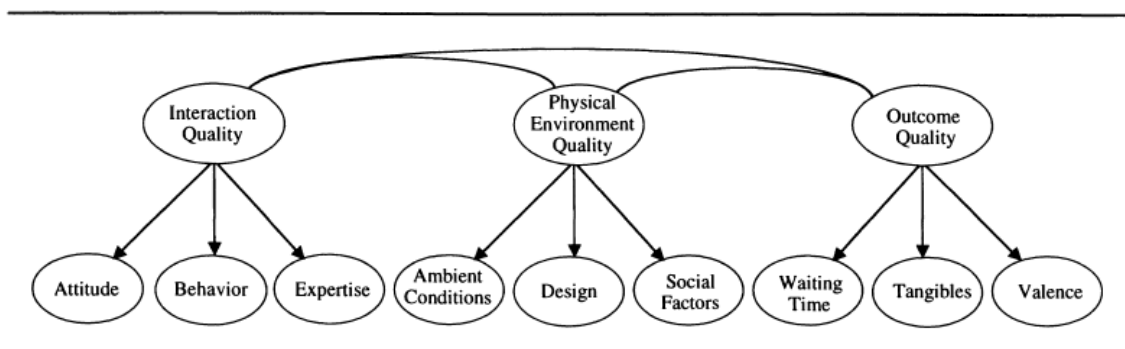


Figure 21. A hierarchical approach to conceptualizing perceived service quality (Brady and Cronin 2001: 43).

Brady and Cronin (2001) discuss further what actually are the actions that affect the different types of perceived quality and the sub-dimensions. They claim **interaction quality** has the greatest impact on perceived service quality (Brady and Cronin 2001).

The attitude, behavior and expertise of the service provider are the sub-dimensions for interaction quality and have a huge impact on the overall perceived quality. The justification for this claim comes from the fact that services are “inherently intangible and characterized by inseparability” (Brady and Cronin 2001: 38). Consequently, it is important to think of ways how to support the service providers’ attitude, behavior and expertise to better guarantee superior interaction quality. From the service development point of view, this could be e.g. through thorough training of employees to ensure the technical skills needed to provide the service and providing a working environment that fosters good attitudes and behavior towards the customers.

When delivering services on site, the physical environment quality has an impact on the overall perceived service quality. The physical environment is affected by three sub-dimensions: ambient conditions, design and social factors, as illustrated in Figure 22. Ambient conditions concern the elements of e.g. room temperature, scent and music, also referred to as the “servicescape” (Bitner 1992). Design refers to the site layout or architecture and can be either functional (i.e. practical) or aesthetic (i.e. visual). All these three sub-dimensions include elements that can be defined by the service provider, e.g. “lighting, color, signage, textures, quality of materials, style of furnishings, layout, wall décor and temperature (Bitner 1992: 65). The social factors refer to the characteristics of people in the setting as well as their behaviors (Brady and Cronin 2001). Bitner (1992) also includes different silent social cues, such as signs and symbols that communicate to the customer, to be social factors. Therefore, it is important to include all these elements when determining the outputs for a service description.

The third type of quality is the service outcome quality that consists of waiting time, tangibles and valence. The delivery of the “service product” or the “actual service” is a major factor in the overall perceived service quality (Brady and Cronin 2001). Obviously excessive waiting time and tangibles that do not meet the customers’ expectations affect the perceived service outcome quality. In addition, Brady and Cronin (2001) mention valence, which is a term to describe all the factors that affect the customer’s own belief of the service outcome, indifferent from the other factors affecting the perceived service quality, e.g. bad weather. Waiting time and tangibles are the elements the service provider has most power over for. E.g. adequate staffing, attention to delivery times and preparation methods are some examples to reduce waiting time. The tangibles, the “service product” itself, is actually one of the most important elements to consider in service design.

4.3 Cross-Functional Collaboration and Communication

This subsection discusses the terminology involving collaboration and communication as well as the importance of knowledge sharing and knowledge sharability when improving collaboration and communication. It also discusses the role of social technology as an enabler for collaboration and communication and introduces tools accordingly.

Bradley (2013) states that when discussing collaboration and communication, it is important to distinguish the two terms. Bradley's (2013) definition for communication is that it "is the exchange of information to achieve a better understanding". For collaboration, the definition is "the exchange of information, and things, to advance the state of a collaborative product". Furthermore, Bradley (2013) points out that "communication is required for collaboration but not all communication is collaboration."

More and more organizations rely on cross-unit, cross-functional and cross-organizational collaboration to achieve their goals (Boughzala and Briggs 2012). The recognition of inter-functional coordination based on aligned functional areas, the promotion of interdepartmental connectedness, information sharing and strategy integration are an imperative for creating value to customers (Plakoyiannaki and Tzokas 2002). Eichorn (2004: 128) suggests that "successful internal relationships are a prerequisite for successful horizontal integration and collaboration" (Eichorn 2004: 128) and that "internal relationships should be built around an overall context of business processes, not functional departments." (Eichorn 2004: 128). Factors affecting the level of collaboration and communication are knowledge sharing and knowledge sharability as well as internal service quality. These are discussed in the following subsections.

4.3.1 Knowledge Sharing and Knowledge Sharability

Collaboration can be internal or external. It can involve e.g. supply chain collaborations or outsourcing activities but it can also be within one organization. Boughzala and Briggs (2012) introduce two phenomena that affect the level of collaboration: "knowledge sharability" (Boughzala and Briggs 2012: 9) and "knowledge sharing" (Boughzala and Briggs 2012: 10). Knowledge sharability is defined as an individual's willingness and attitude towards to sharing some type of knowledge with people outside their own working unit. Knowledge sharing, on the other hand, is the physical act, the behavior, of exchanging knowledge among people or organizations. Sharing infor-

mation or knowledge involves at least two parties (Mueller 2012): the sender and the receiver. This can mean people, groups or companies. Both, the sender and the receiver need willingness and ability to share knowledge and receive knowledge, respectively. Boughzala and Briggs (2012) claim that knowledge sharing can be a critical success factor in collaboration and innovation, to say the least. Thus, gaining a better view on knowledge sharability and knowledge sharing actions within the organization can be beneficial in lowering the barriers to knowledge and result in better collaboration (Boughzala and Briggs 2012). These barriers to knowledge sharing can be e.g. an individual's motivation or attitude towards knowledge sharing, which can be fear of conflicts of interest or fear of colleagues "stealing" their knowledge. These barriers can be higher if the parties do not know each other personally (Mueller 2012).

The barriers can be physical as well. Knowledge sharing requires access to documents. Simply, just the lack of time or overwork can diminish the possibilities for cross-boundary knowledge sharing (Mueller 2012). If the parties gain positive experiences from sharing and receiving knowledge, e.g. by reduced workload or increased efficiency, it can increase the attitude and willingness to share knowledge in the future (Mueller 2012).

Although Boughzala and Briggs (2012) discuss the topics of collaboration, knowledge sharing and knowledge sharability mainly between different more or less independent organizations, the issues introduced can be seen relevant to collaboration within large multinational organizations as well, in addition to their external customers or suppliers. A multinational organization, with teams not co-located, require the management of organizational roles, norms and culture to support social interaction (Ratcheva 2009). Furthermore, if the e.g. project team or service development team is temporary or changing in its nature, routines for working together must be created every time to support real-time collaboration (Ratcheva 2009). A company culture that supports knowledge sharability and sharing can result in better use of best practices, increase the quality of process outputs and decrease an individual's workload (Mueller 2012).

Figure 22 illustrates a framework for multidisciplinary collaboration (Ratcheva 2009: 209). It illustrates how the team composition starts with acknowledging the interpersonal interactions and relational capital, the knowledge diversity and establishing working practices. This enables then knowledge integration and finally leads up to team's outcomes, the outputs.

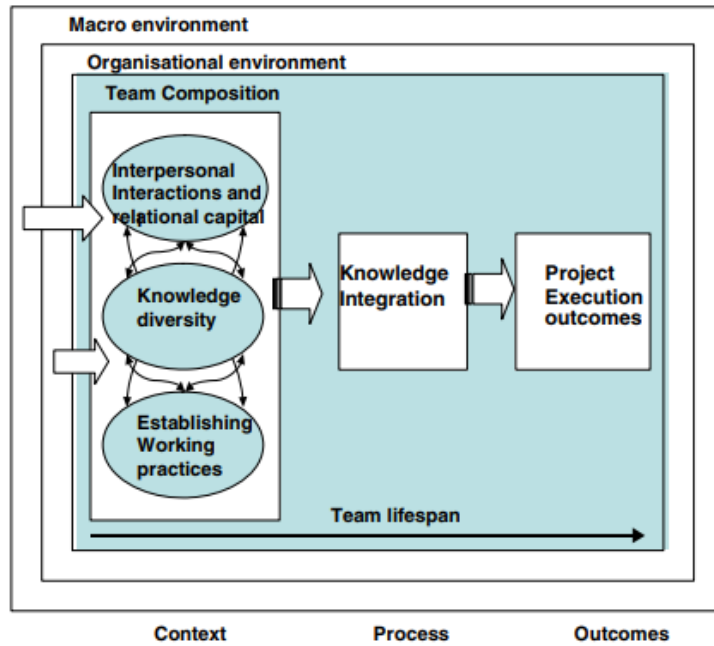


Figure 22. Framework for Multidisciplinary Collaboration (Ratcheva 2009: 209)

Figure 23 illustrates knowledge types in relation to project boundaries. The illustration includes three boundaries: project action boundary, project knowledge boundary and project social boundary; with corresponding knowledge types: occupational knowledge, contextual knowledge and project relevant knowledge.

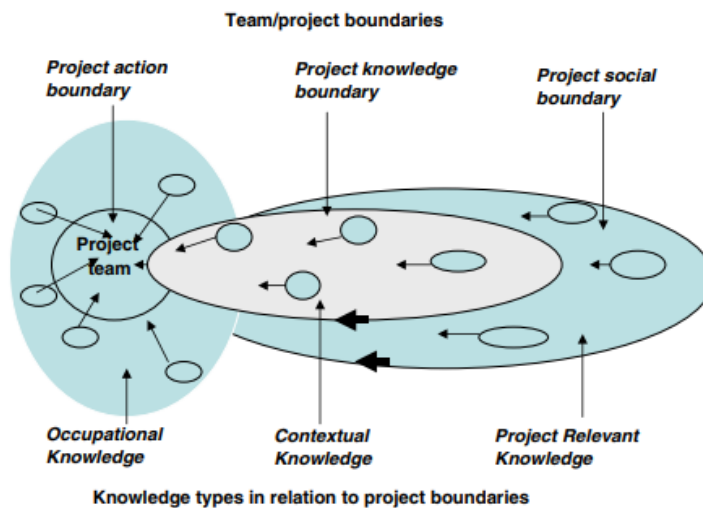


Figure 23. Integrating diverse knowledge through boundary spanning (Ratcheva 2009: 213)

The responsibility to plan, develop and accomplish the project, as well identify needs for external expertise lays in the project action boundary (Ratcheva 2009). The occupational knowledge within the project team often needs resources and knowledge outside the project team. Additional project related knowledge is sought from the core project team members' social and professional networks. This project related knowledge from the project social boundary is integrated to the contextual knowledge that then again is integrated in the occupational knowledge required by the core project team. The integration of diverse knowledge can be difficult if the different participants do not understand each other or speak "the same language" occupationally. Spanning the boundaries around the core project team enables the team to acquire better understanding and integrate multidisciplinary knowledge. For this boundary spanning to be successful, new ways of working are needed. According to Ratcheva (2009), new ways of working can only emerge and develop with intense interaction between the participants. Furthermore, it is notable that even if the team members are responsible for managing, organizing and integrating the relevant knowledge to meet the predefined project goals, integration of knowledge might happen already beyond the core project team's action boundary. This is a model that ideally can fill in the knowledge gaps of the project core team and contribute broad expertise and assistance timely and efficiently, as well as provide emotional support for decision making (Ratcheva 2009).

4.3.2 Internal Service Quality

According to Eichorn (2004), creating strong internal relationships between e.g. different functions of an organization improves the company's ability to align functions and share goals and objectives throughout a (development) process. Focusing on communication and promoting inter-functional collaboration throughout the process can lead to increased satisfaction for the employee and also for the customer, internal or external (Eichorn 2004). Increased employee satisfaction can affect internal service quality and can be linked to customer satisfaction, customer retention and ultimately to profit, as illustrated in Figure 24.

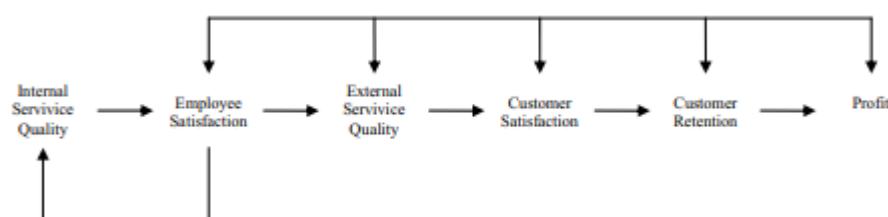


Figure 24. Service-Profit Chain (Eichorn 2004: 129).

Internal service quality is assessed by the internal customer (Minjoon and Shaohan 2010) but certain general dimensions can be listed. Table 9 lists some possible expectations regarding internal service quality.

Table 9. Internal service quality dimensions and expectations (modified from Reynoso and Moores 1995: 70)

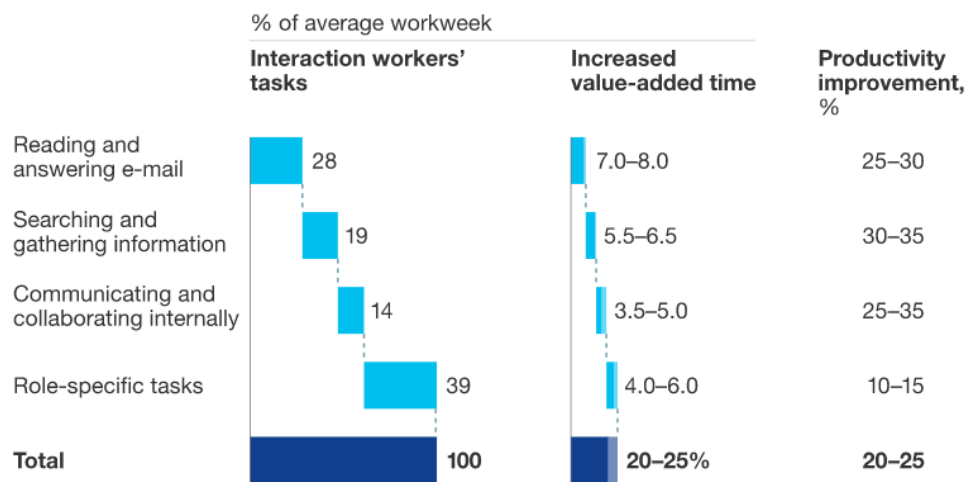
Internal Service Dimension	Expectations
Reliability	To perform the internal service right the first time To provide internal service at the promised time To provide correct information To perform the internal service required To show sincere interest in solving a problem To do something by a certain time
Responsiveness	To give prompt internal service To be willing to help To be flexible with working hours
Competence	To have the knowledge to understand and perform the internal service To perform efficiently To possess the necessary resources
Communication	To communicate what's going on/potential problems To ask for help To provide feedback To consult on decisions
Understanding	To pay attention to others' needs To understand others' specific needs
Courtesy	Courteous, friendly relationship
Access	To be approachable

The dimensions listed are reliability, responsiveness, competence, communication, understanding, courtesy and access. Although many of these dimensions might seem obvious or a “normal” for many organizations, it is justified to question whether these should be communicated and encouraged more within the case company organization.

4.3.3 Improving Collaboration and Communication through Social Technology

In order to improve communication and collaboration, organizations need practices and technologies that support it. Social technologies can be defined as technologies that “allow anyone within a group to access and consume content and communications” (Chui et al. 2012). Furthermore, they often include technologies that are referred to as “social media”. Examples of these are e.g. social networks, discussion forums, shared workspaces and media and file sharing applications. Chui et al. (2012) suggests that

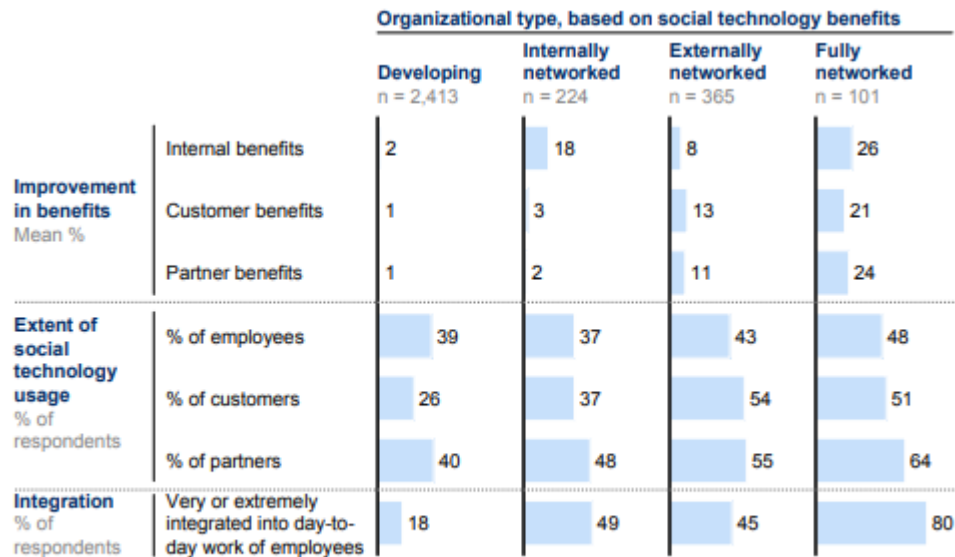
companies can enhance communications, knowledge sharing and collaboration by using social tools and technologies. According to Chui et al. (2012) the productivity of interaction workers can increase up to 20-25 %, as depicted in Figure 25. Tasks such as reading and answering emails and searching and gathering information can correspond to nearly half of the average workweek of an interaction worker. Chui et al. (2012) suggest that when companies use social media in internal collaboration and communication, the messages themselves become content available to others which can then reduce the time employees use to gathering information.



Source: International Data Corporation (IDC); McKinsey Global Institute analysis

Figure 25. A breakdown of data on an average workweek concerning interaction workers' tasks, value-added time and productivity (Chui et al. 2012: 152).

However, the increase in productivity and the overall benefits strongly depends on the organization type: whether its developing its networks, internally networked, externally networked or fully networks (Chui et al. 2012). In other words, social technology is only as powerful and meaningful as its users and contributors are.



SOURCE: "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011

Figure 26. Social technology benefits in organizations at different networking levels (Chui et al. 2012: 28)

With the intention of benefiting from social technologies, the organizations must pay attention to its knowledge sharability and knowledge sharing, i.e. create a company culture that promotes trust, transparency and openness as well as create processes that support the use of that technology (Chui et al. 2012, Boughzala and Briggs 2012, Mueller 2012).

4.3.4 Social Technology Tools

As the case company is already utilizing Microsoft Office 365 platform and its applications, it is practical to investigate the social technology tools within that platform. Furthermore, the Microsoft Teams application is currently utilized by more than 500 000 organizations worldwide (Wright 2019), giving it credibility to be also a feasible option of external collaboration. The MS O365 social technology tools are cloud-based tools that include e.g. Outlook, Teams, Yammer and SharePoint. Figure 27 illustrates the tools and targets of each. Outlook email and calendar is recommended for targeted communication, Teams for regular and close collaboration and Yammer to inform and engage a wider audience.



Figure 27. The tools and targets of Microsoft's Collaboration and Communication Tools (Microsoft 2018).

MS Teams can be described to be a hub for teams to connect and collaborate while working on projects (Wright 2019). SharePoint on the other hand, is the center for files to be shared within and outside of the team. All MS Teams use SharePoint as its content service. Companies utilizing MS tools benefit from the fact that MS Teams also integrates with the most commonly used office tools such as MS Word, MS Excel and MS PowerPoint as well as a wide list of other collaborative tools such as Planner for planning and Sway for presentations and Forms for making forms and queries (Microsoft 2019). Other benefits include that it is cloud-based and accessible with both desktop and mobile applications in contrast to traditional network drives. As the infrastructure and collaboration is based on defined member list in MS Teams rather than organizational boundaries, it is easy to share and co-create documents as well as communicate to a cross-functional team, thus lowering barriers to knowledge by making it easier to find the information and physically access the information.

4.4 Conceptual Framework

The conceptual framework of this thesis is addressing the two problematic categories identified in the current state analysis: *the service adaptation and development process and its outputs* and the cross-functional *collaboration and communication*. The conceptual framework searches for existing knowledge and best practices from literature to

improve the current service adaptation and development framework. As presented in Figure 28, the conceptual framework is divided to two categories with sub-elements. The first category involves elements of business process development and modeling as well as service development systems and methods. The second category is focused on elements related to cross-functional collaboration and communication, such as knowledge sharing and knowledge sharability, internal service quality and social technology tools.

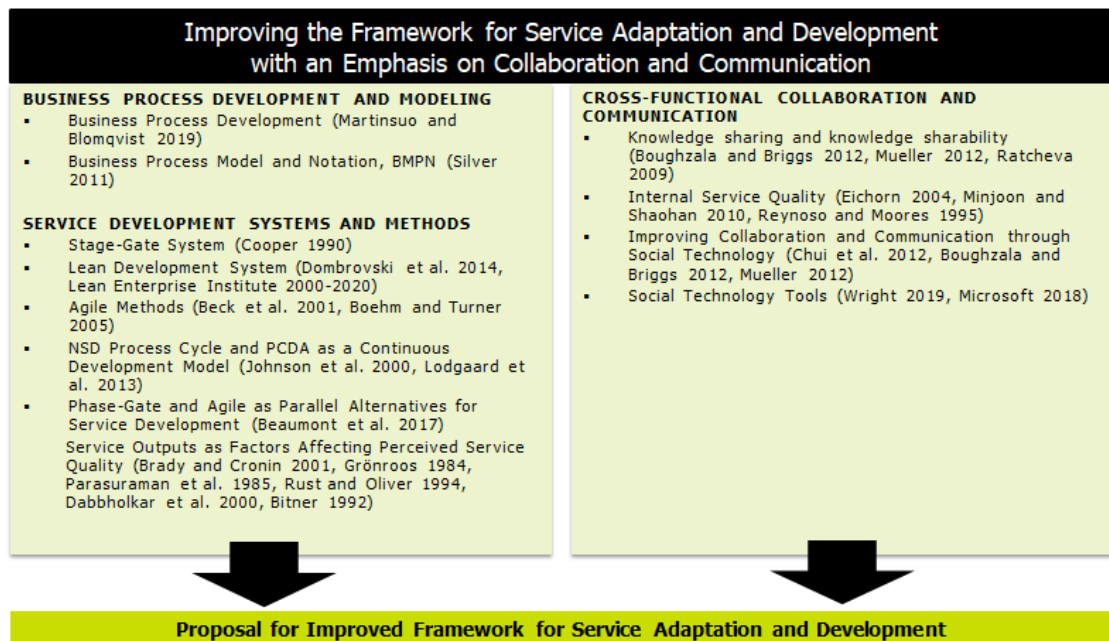


Figure 28. The conceptual framework of this thesis.

The literature investigated in subsection 4.1.1 suggests that successful business process development includes the steps of identifying the inputs and outputs, creates a process for feedback and most importantly, identifies the customer (internal or external) and the value adding activities. Furthermore, successful business process development links the process to the company's organizational structure and resources. In addition, following the basic steps of process development, improve the outcome of process development.

Business Process Modeling and Notation, a modeling language discussed in subsection 4.1.2, provide an illustrative tool with universal and familiar symbols for clear, logic and consistent process descriptions, especially suitable for business process flows.

The compactness and straightforwardness of BPMN Level 1 palette is suitable for the thesis purpose and thus chosen as a tool for process descriptions.

As different service development methods and systems were studied in subsection 4.2, the literature suggested that a stage-gate system is a valid model to move a project (a product or service development project) from an idea to launch while improving the effectiveness and efficiency of the process. As discussed in detail in subsection 4.2.1, the stage-gate system offers a model to manage innovation with a process, while improving the quality of outputs and removing variance in the process, both challenges identified in the current state analysis. Thus, a model with stages, gates, predefined deliverables and judgement criteria was chosen for the conceptual framework. Furthermore, literature on Lean Development Systems, discussed in subsection 4.2.2, suggest that shifting the focus from separate assets and vertical departments to optimizing the service development flow through entire value streams horizontally across departments and assets to customers creates a value oriented, resource efficient and fast product development system. In addition following the steps for lean implementation minimizes waste, e.g. time or money, objectives important to the case company.

The stakeholders suggested in the current state analysis that different models are needed for different development projects. Also the literature suggested that companies have a need for a lightweight process with short iterative cycles and close cooperation and co-creation with customers to meet the fast changing needs of today's customers. Literature, discussed in subsection 4.2.3 suggests that agile methods are applicable especially to projects emerge from requirements and are capability-based, rather than contract based with strict, predefined characteristics.

As the stakeholders also suggested that models are needed for continuous improvement, literature was studied concerning models for continuous development and new service development. Literature, discussed in subsections 4.2.4-4.2.6, suggest that companies need to identify different types of innovation. For incremental innovation and service development, a phase-gate model was recommended. For specific initiatives that require radical innovation and service development, agile methods were suggested as a parallel path. Furthermore, literature on PDCA and NSD suggested that a successful service development process is cyclical and follows the four phases of Design, Analyze, Develop and Launch.

As the Lean Development System suggested that companies should manage the entire value stream to create value to customers, literature on service outputs and perceived service quality was studied in subsection 4.2.7. The literature suggested that acknowledging the different dimension of perceived quality, interaction quality, physical environment quality and outcome quality along with their more defined subdimensions, can be used as a framework and basis for redefining and improving service outputs created by the service development process.

Literature on cross-functional collaboration and communication suggests that identifying the factors affecting knowledge sharing and knowledge sharability and finding tools and methods to improve them, is a major component to improving the framework for service adaptation and development. The literature studied in subsections 4.3.1 and 4.3.2 suggested that promoting company culture that affects the individuals' willingness and attitudes towards sharing information, identifying the physical barriers of exchanging information and knowledge between people and teams is pivotal to ensure knowledge diversity within the service adaptation and development process. Furthermore, working practices need to be established to integrate knowledge and produce more quality while identifying where the occupational and contextual knowledge resides. Literature also suggests that ultimately, these practices are linked to internal service quality and to creating profit. The literature on tools to enhance collaboration and communication was studied in subsection 4.3.3. The literature studied suggested that communication and collaboration can be enhanced and productivity improved by using social tools and technologies. These tools increase transparency, openness and trust within the organization and provide platforms for co-creation and information exchange. Microsoft's Office 365 platform was studied in detail as parts of the platform have already been utilized in the case company. Microsoft's general description of MS O365 tools and targets fits the case company's needs.

The initial proposal of an improved framework for service adaptation and development with an emphasis on collaboration and communication will be based on this conceptual framework as well as the findings from the current state analysis. The initial proposal is discussed in the next section.

5 Building the Proposal for Improved Framework for Service Adaptation and Development

This section is a description of the co-creating process to produce the initial proposal for an improved framework for service adaptation and development. It combines the results of the current state analysis and the best practice and existing knowledge introduced in Section 4, with utilization of Data 2.

This section is divided into three subsections. The first subsection is an overview of the proposal building stage. The second subsection divides the co-creation process of building the proposal. The third subsection presents the proposal for an improved framework for service adaptation and development and thus meets the objective set for this thesis.

5.1 Overview of the Proposal Building Stage

The current state analysis of the service adaptation and development framework revealed issues that need to be improved. After analyzing the company documents, summarizing the interviews and identifying the strengths and weaknesses, the key findings were categorized and two categories most relevant to the thesis objective were chosen to form the basis for the literature research. These categories were the service adaptation and development process itself, its outputs as well as inter-functional and cross-functional collaboration and communication.

Although there was a general understanding and knowledge about the Service Life Cycle process, it was seen to be lacking proper process descriptions and the process itself was seen as too heavy for many development projects, too slow and too ambiguous to be followed throughout the organization for every service development project. The service outputs produced by this process were seen to be incomplete, missing or not serving the needs of internal or external stakeholders. However, the process description preceding service design, the process for Solution and Contract Design, was regarded valid. Also the process proceeding service design, the Mobilization Process, was regarded valid.

The current state analysis also revealed that collaboration between the different functions involved in service development is inconsistent and unstructured. Access to information and language barriers form obstacles and the respondents also felt that there is not enough market understanding in different countries to collaborate on Nordic development projects. Furthermore, there is not enough communication to stakeholders about the service portfolio, service development roadmap and service descriptions, leading to a situation where the stakeholders are left blind to what is happening in service development.

For building the conceptual framework of this study, literature and best practices were studied to find tools for business process development and modeling, improving the service development system and its outputs and how to improve cross-functional collaboration and communication. For process modeling, the literature suggested that the simplest and most universal tools often prove to be most beneficial and easily understood by many, e.g. the BPMN diagramming language. For improving the service development system, different systems and methods were investigated and the literature suggested that by using stage-gate model a company can improve the quality of outputs by evaluating the outputs throughout the process, remove variances in the process and thus, manage risks. However, the literature research also suggested that for radical innovation projects, more agile methods may be applicable and a company needs to distinguish the different needs of different innovation types. Partly parallel models are suggested for radical and incremental innovations: a phase-gate model for incremental innovation and an agile model for radical innovation. The literature also stressed the importance of cyclical product development to enable continuous development with great emphasis on a feedback session after launch to provide insight for future development. The service outputs and their effect on service quality was studied from literature both from an internal and external point of view. The literature suggested that perceived service quality is a combination of interaction quality, physical environment quality and outcome quality. Furthermore, these are affected by a series of dimensions that can be addressed with carefully developed service outputs.

As this thesis had an emphasis on collaboration and communication, literature was also studied to determine how they can be improved and what tools could be beneficial for cross-functional collaboration and communication. The literature suggests that collaboration requires knowledge sharing and knowledge sharability and a company can affect these by removing different obstacles, either physical or mental. Furthermore,

internal service quality is a result of collaboration and communication. Internal service quality leads to external service quality and ultimately profit. Literature also suggested that social technology can be beneficial in removing obstacles for knowledge sharing and thus improve collaboration and communication.

The proposal for the improved framework for service adaptation and development was co-created in five stages. First, the current state analysis was presented and a discussion followed to validate the findings of Data 1 stage and determining the focus areas for development most relevant to the thesis objective. Second, the Data 1 and focus areas for development were presented and discussed with a stakeholder from Operations to gain cross-functional insight and feedback to proposal building regarding e.g. the Operations' role in the improved framework for service adaptation and development, with an emphasis on collaboration and communication. Third, a workshop was held to redefine and categorize the service outputs to better serve the entire organization using knowledge from Data 1, Data 2 and the literature review. Fourth, the initial proposal for improved framework for service adaptation and development with all its elements was presented to the Head of Service Adaptation and Development for feedback and comments on the overall proposal. Finally, the proposal was presented to the case company's Heads of Department and other relevant stakeholders for evaluation and validation.

The proposal building section consists of three subsections. First, subsection 5.2 discusses the findings from Data 1 stage on both categories chosen for investigation: the service adaptation and development process and its outputs, and inter-functional and cross-functional collaboration and communication. Second, subsection 5.3, introduces the initial co-created proposal for improved framework for service adaptation and development. The co-created proposal is divided into four categories. Two categories match the findings on service development process and its outputs and two categories to match the findings on collaboration and communication. The proposal for each category is discussed in relevance to Data 1, Data 2 and the best practices found from the literature review. Development and improvement ideas from stakeholders that emerged in the Data 1 stage were included in the proposal building as well as the co-creating stages of Data 2.

5.2 Findings from Data 1 and Data 2 Collection

For the proposal for an improved framework for service adaptation and development, information and knowledge was gathered both in the Data 1 and Data 2 stages. In the Data 1 stages, the stakeholders were interviewed on development ideas and examples of best practice in addition to describing the current state of the framework. The improvement ideas most relevant to the objective of the thesis from the Data 1 and Data 2 stages are listed in Table 10.

Table 10. Stakeholder ideas for improvement (Data 1) and Stakeholder suggestions and feedback (Data 2) grouped by the key focus areas.

Key Focus Area from Data 1	Ideas for Improvement from Stakeholders (Data 1)	Suggestions from Stakeholders (Data 2)
Service Adaptation and Development Process	A clear process description with roles and responsibilities defined	The overall solution delivery process also involves a client retention programme which focuses on getting feedback from clients.
	Collaboration with Sales and BIGS from the early stages	The Sales function has a lot of insight on clients' and customers' needs. A structured way to get that feedback to Platforms is needed.
	A plan and a budget for continuous development	
	Common goals and evaluation criteria	Clear ownership for Service Development is needed and needs to be communicated throughout the organization.
	A lighter process for more simple service development projects	The Sales team uses a Project Evaluation Matrix for solution building that could be utilized to assess the complexity of service development
Service Inputs and Outputs	Standardized and modular, cost-smart solutions. Ready options for different needs (for basic, for standard and for premium solutions)	Outputs should include more Client Presentation materials which can also be used for internal communication: Client Presentation, Bid Ready Text, Case Studies with Financial information
	3M document to be used always	
	Cross-functional, wider scope of expertise for service development, for all the service outputs	Simplifying and deleting all non-essential outputs that no one uses.
	Rules for customization	
	Use English for (Nordic) master documents and translate to local language only when needed (e.g. for site employees)	Determining what can be done on a Nordic level and what on a country level
	Use guest survey feedback, POS data, profitability data to assess services and distribute that information	
Collaboration and Communication	Standard formats for documents so they are easily understood and found	
	Operational involvement in development projects from the early stages	Acknowledging the Segments' Go to Market strategies and their implications on service development
	Sharing service outputs and documents throughout the organization	
	Creating guidelines and workspaces for collaboration	

As seen from the table, the stakeholders were suggesting a more clear process with clearly defined roles and responsibilities could result in increased efficiency and better outputs. Stakeholders also saw that collaboration with the Sales and BIGS functions is essential to provide quality results. Stakeholders also suggested that the reason for lack of continuous development is the lack of a development budget and a development plan or roadmap. Stakeholders were also suggesting that common goals and evaluation criteria would increase collaboration and the probability of meeting the same requirements. The experts also saw that the company needs to identify the types of service development it is doing and choose a development model that best fits that type of a project. For service inputs and outputs, stakeholders were suggesting efficiency could be achieved by more standardized service modules and a set of rules for

customization to limit the amount of client specific solution building. For sharing information and knowledge on a Nordic level, stakeholders suggested English language could be used more widely for master documents and translations to local language done only when needed. For cross-functional collaboration, a standardized set of service related documents could provide better results, efficiency and improve internal service quality. For collaboration and communication, stakeholders saw that involving the Operations function throughout the solution delivery process is crucial for successful service development. Stakeholders also suggested that modern technology could be used and is already being used to some extent, to provide shared workspaces and collaboration tools for cross-functional teams.

In the proposal building stage (Data 2), the stakeholders involved mentioned that there is a process for client feedback that could be utilized as a tool for continuous development, the Clients for Life –process. However, the aims and objectives of that process do not fully meet the requirements for continuous service development and thus, other insight is needed for thorough feedback on the services, e.g. from the Sales function. Stakeholders also reminded that it is not enough to improve a framework or change the framework as it is also important to communicate those changes to the entire organization. Stakeholders also suggested that the service output lists can be somewhat outdated and should be redefined and checked for improvement. For developing the outputs, it was suggested that some kind of guidelines could be made for each output whether they should be developed on a Nordic level or on a country-level. Finally, the stakeholders also acknowledged that the Segments' Go to Market strategy is an important starting point for the entire solution delivery process.

For co-creating and building the proposal the findings from Data 1 and suggestions from Data 2 were combined with the conceptual framework, illustrated in Figure 29.

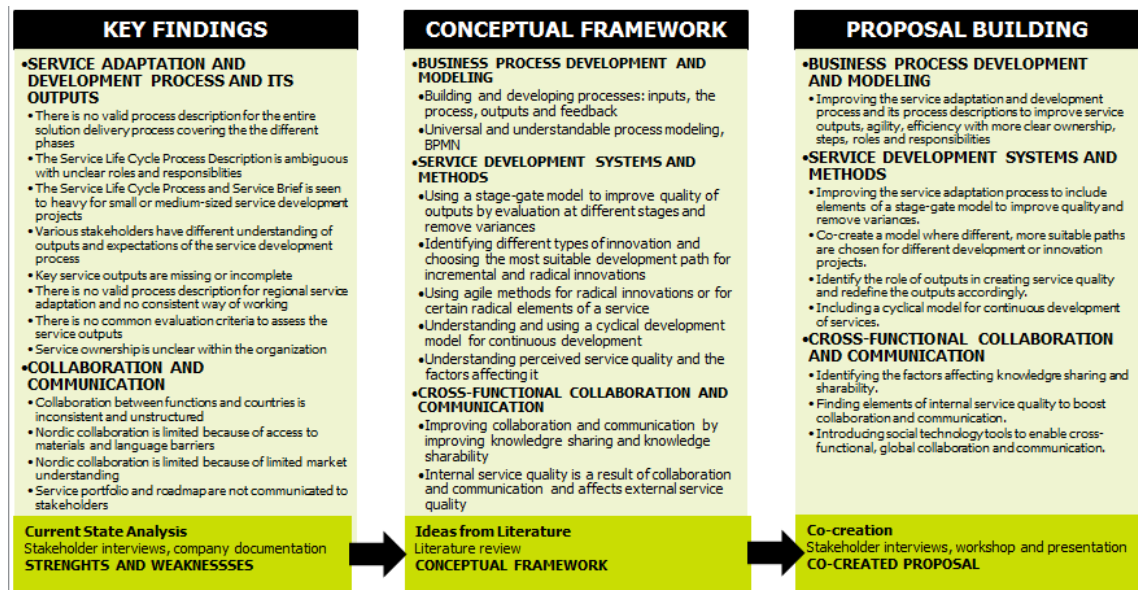


Figure 29. An illustration of matching the key findings from the current state analysis (Data 1), the conceptual framework and the proposal building stage (Data 2).

5.2.1 Improving the Service Adaptation and Development Process and Its Outputs in Co-creation

In the Data 1 stage, eight weaknesses and three strengths were identified concerning the current service adaptation and development process (listed in Subsection 3.7, Table 5). In summary, these process-related weaknesses concerned inadequate and ambiguous process descriptions with unclear roles and responsibilities and a missing distinction between different types of development projects. For the service development process outputs, stakeholders have different views on the outputs required to build a service as well as experiences of missing and incomplete outputs that do not serve the company goals. In addition, a process and a responsibility matrix was missing for the Nordic service development team.

Generally, these weaknesses can be addressed by improving the process descriptions, improving the service development system itself and by redefining the service outputs to better serve the case company to produce outputs efficiently, cost-effectively and creating value for the clients and customers. In the Data 1 and Data 2 stages, stakeholders suggested to co-create a clear process description for the entire service development process including the feedback elements. Second, the stakeholders suggested that collaboration with the Operations' Sales team and BIGS team needs to be built in

the process from the early stages and a structured way to distribute customer insight needs to be built in the process. Third, stakeholders suggested that a plan and budget for continuous development needs to be introduced. Fourth, common goals and evaluation criteria need to be defined and agreed upon. Fifth, the stakeholders suggested that a “lighter” or more agile process should be developed for less complex service development projects and the evaluation of a project should be done before entering the service development stage.

The proposal for an improved process for service adaptation and development is based on the Data 1 interviews, case company documents, the conceptual framework and Data 2 suggestions. The process improvement co-creation started with a simplified illustration of the entire solution delivery process and placing the service adaptation and development process in it. This work resulted in Figure 4 that was introduced in Section 3 to illustrate the interdependencies and top-level blocks of the solution delivery process and how different services are part of that solution delivery process. As the objective of this thesis is to improve the service development and adaptation framework, it was important to co-decide where the sub-process of service adaptation and development actually starts and ends. Knowledge from the conceptual framework suggested that the process model should include all the possible paths and sequences of activities from an initial state to an end state. The initial state i.e. the starting point of the process, the instances and the end state were jointly agreed with a stakeholder based on the objective of the thesis. Knowledge from literature and Data 1 and 2 also suggested that the framework for service adaptation and development could be improved by a stage-gate model that includes elements of common evaluation to improve the quality of outputs and manage risks. Moreover, different paths were co-determined for different service development projects, as suggested by stakeholders, including a parallel model for service innovation within the service adaptation and development process.

The initial state of the process, the list of instances and the end state were co-created with reference to Data 1 ideas, Data 2 suggestions and best practice examples of service development following a stage-gate model. As the case company has an ongoing project for service portfolio articulation that should initiate all service development projects in the future, it was co-decided to be the initial state for the process. The process was co-determined to be completed when all service related materials are standardized and transferred, i.e. made available to the stakeholders and communicated throughout

the organization. The materials used in co-creating are illustrated in Appendix 4. Furthermore, literature suggested that the gate decision should include the options of Go/Hold/Recycle/Kill to evaluate the deliverables at each gate. These options were included in the proposal. The stage-gate model also includes a defined set of deliverables for each gate. These deliverables were included in the proposal.

The literature suggested that although a process can be performed repeatedly within the process, the process itself is discrete and not continuous. On that note, it was important to include a cyclical model to illustrate the nature of continuous service development and include the instance of a post-launch review to gain feedback on the process. The cyclical model co-created presents the same main elements of Design, Analysis, Development and Launch, as the stage-gate model, but as a cycle. For the Design stage of the process, two parallel paths were co-created as Data 1, Data 2 and literature suggested that alternative paths might be needed for different types of innovation. The path is chosen according to the guidelines presented in literature and validated in Data 2 stage.

As the Data 1 showed, the service outputs produced by the service adaptation and development process were seen to be incomplete or missing, the objective of improving the framework also includes the element of improving the outputs. The case company documents listed outputs that stakeholders regarded somewhat insufficient or not matching business needs. Two workshops were held to redefine the service outputs and the work is illustrated in Figure 30.

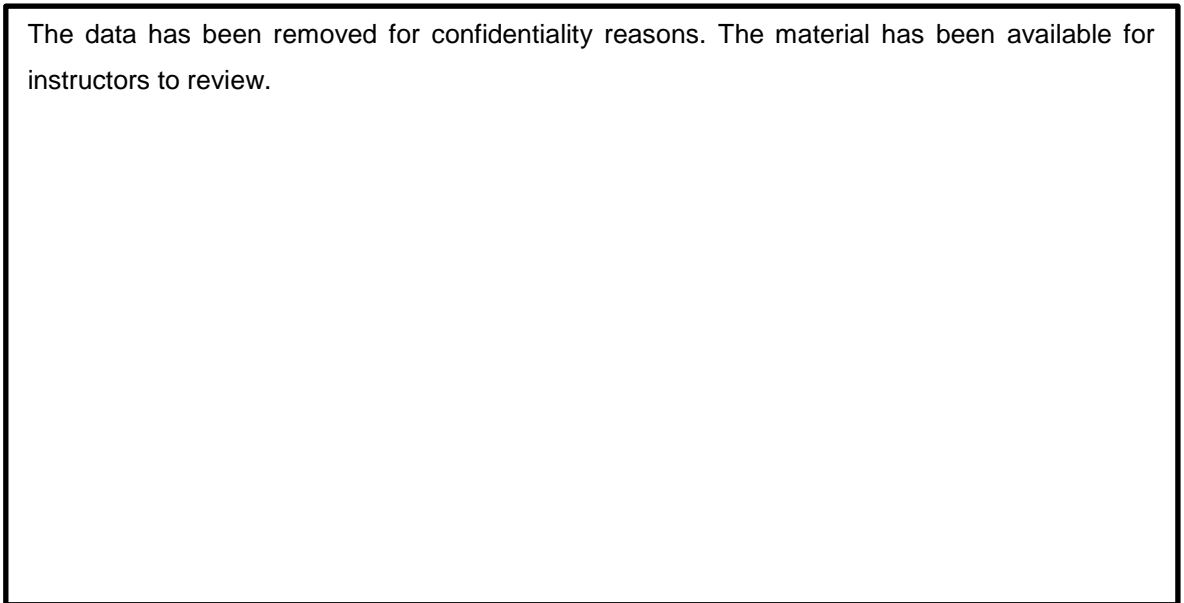


Figure 30. Redefining service outputs in co-creation (Data 2)

For the “Sell-It” stage, the interviewees listed the missing outputs to be e.g. a general library of available services, a service development roadmap, a communications and training plan for sales and operations functions, a representation of modules and costing options for each service. Three outputs were regarded unnecessary: an elevator pitch, a sales video and a brand card.

For the “Mobilize It” phase, the data gathering and analysis baseline was not seen as a service output, but more of a prerequisite before developing a service. Outputs such as a list of suppliers and partners, detailed planograms and display guides and different check-lists were seen to be important already in the mobilization phase. These additions are actually included in the Operations Manual, an output for the “Operate It” phase but seen important to be available already in the Mobilization stage. In other words, the Operations Manual should be completed for already before the mobilization phase in order it to be aligned for the operative phase.

For the “Operate It” phase, none of the outputs were seen unnecessary but additions were made by interviewees: training videos, recipes complemented with imagery, a master recipe list for each service, marketing materials and pricing guidelines for individual meals and products. Many of these outputs can actually be seen as parts of the Operations Manual for a service, which is a massive document that should have all the building blocks and guidelines of how to operate the service.

For the “Track and Measure It” phase, setting financial targets and communicating them for each service was seen as a necessary new output, missed by many interviewees. For the “Develop It” phase, many elements were seen to be missing that actually help develop the service. It did not become evident, what the author of this document meant by developing the service with Service Brand Standards, Image Library or Digital Communications or a Legal Review, as these are more or less building blocks needed for service development in the earlier phases. The most important output for continuous development of the service was seen to have an output or a framework that would enable structured feedback from operations and clients to include in future development and a plan for updates and continuous development.

Furthermore, knowledge from literature was included in the proposal, introducing the idea of matching service outputs to create perceived service quality. This knowledge was used to re-categorize the outputs for better collaboration and communication as Data 1 suggested that many of the outputs are needed in the earlier stages than what they are currently produced for.

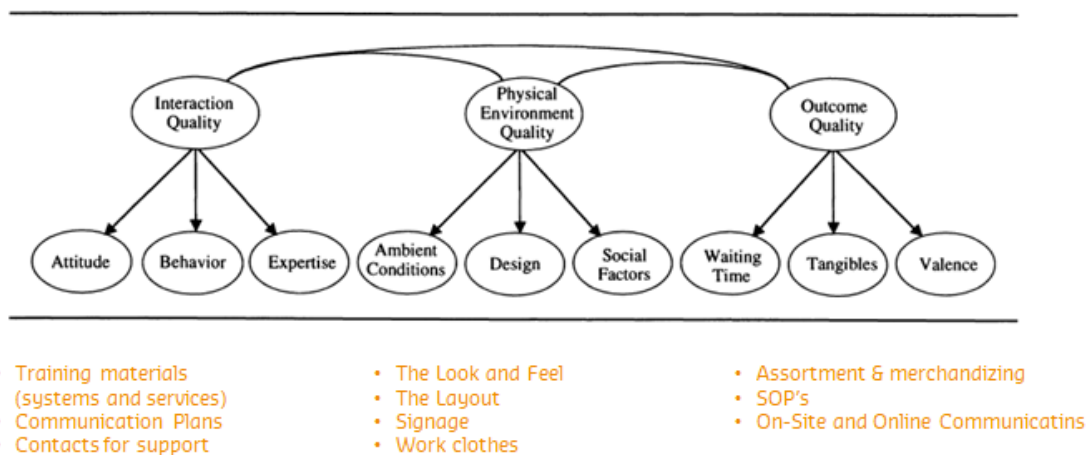


Figure 31. Matching and Redefining outputs in Co-creation to produce outputs to serve different dimensions of Perceived Service Quality.

For best practice within the case company global organization, an internal document defining service outputs for retail was examined for ideas and suggestions to include in the proposal. These additions were discussed with a stakeholder and included in the proposal.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

Figure 32. Redefining service outputs based on case company internal documents from the global service operations.

Data 1 and Data 2 suggested also that more collaboration is needed to produce quality service outputs and include cross-functional expertise throughout the creation of those outputs. Stakeholders suggested that including all relevant functions in producing each service output could be done by having cross-functional teams consisting of experts from Service Adaptation, Development and Deployment, Culinary Food Intelligence, Supply Chain, Marketing and Operations. This is currently done as a way of working in some of the cases but there are no clear roles or responsibilities or leadership defined. A model was co-created to stress the importance of cross-functional expertise in producing the outputs. Literature suggested that such a model is based on a core team that utilizes defined cross-functional teams. In addition, internal or external support may be included if needed from other parts of the organization or outside the organization.

According to Data 1, Data 2 and ideas from literature, this model could help to produce better service outputs that utilize the expertise of different functions.

5.2.2 Improving Collaboration and Communication in Co-creation

Stakeholders in Data 1 suggested that collaboration between functions and countries is currently inconsistent and unstructured. In addition, Nordic collaboration is limited because of barriers to knowledge, physical and mental. Stakeholders also suggested that the service portfolio and development roadmap are not communicated to stakeholders to a satisfactory level. These key findings were validated in Data 2 and an additional remark was made about the collaboration with Operations concerning their Go To Market strategies and ongoing portfolio articulation process.

Literature suggested that collaboration and communication are affected by knowledge sharability and knowledge sharing. Furthermore, collaboration and communication affect internal service quality which then affects external service quality. The co-created chain of events is illustrated in Figure 33.

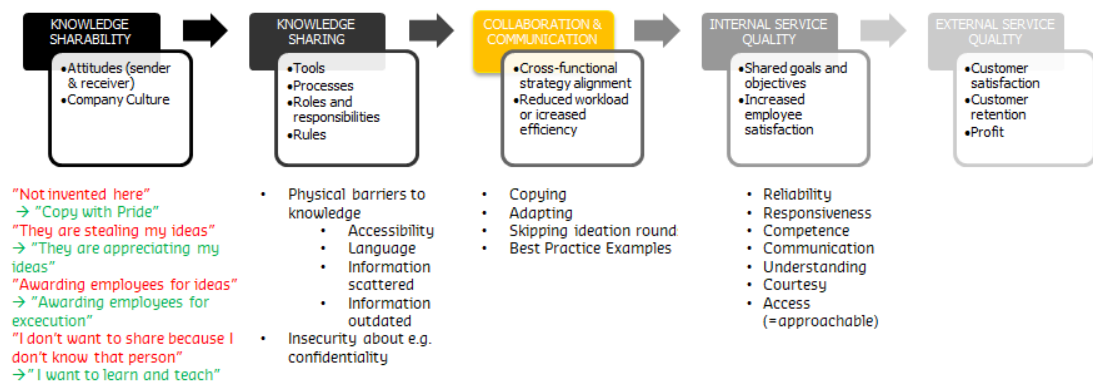


Figure 33. Co-created chain of collaboration and communication efforts resulting in internal and external service quality.

A stakeholder suggestion in Data 1 stage suggested shared workspaces as best practice examples improving cross-functional collaboration and communication. This idea was further investigated in the literature review and ideas were found on how to use social technologies to benefit and increase the productivity of cross-functional teams. In the literature review, internal service quality dimensions were listed with matching expectations (in subsection 4.3.2, Table 9). These dimensions and expectations were discussed in a workshop with a stakeholder and vali-

dated to serve the case company. For the social technology tools, MS 0365 was reviewed from the viewpoint of collaboration and communication as the logical tool already somewhat utilized in the case company. The proposal to use the MS 0365 team working tools for collaboration and communication was validated in a workshop with a stakeholder.

5.3 Co-created Proposal for Improved Framework for Service Adaptation and Development with an emphasis on Collaboration and Communication

The proposal for an improved framework for service adaptation and development was co-created with stakeholders and with an emphasis on collaboration and communication. The proposal consists of four elements which are presented in the following subsections. First, an improved version of the service adaptation and development process is introduced. Second, a re-defined and improved list of service outputs is proposed. Third, a model for collaborative teamwork is proposed. And fourth, recommendations are given to improve cross-functional collaboration and communication in the Nordic region via social technologies.

5.3.1 Improved Process for Service Adaptation and Development

The proposal for an improved process for service adaptation and development within the Nordic region of the case company is illustrated in Figure 34 as a top-level process diagram with the main activities collapsed. A more detailed diagram is available in Appendix 5.

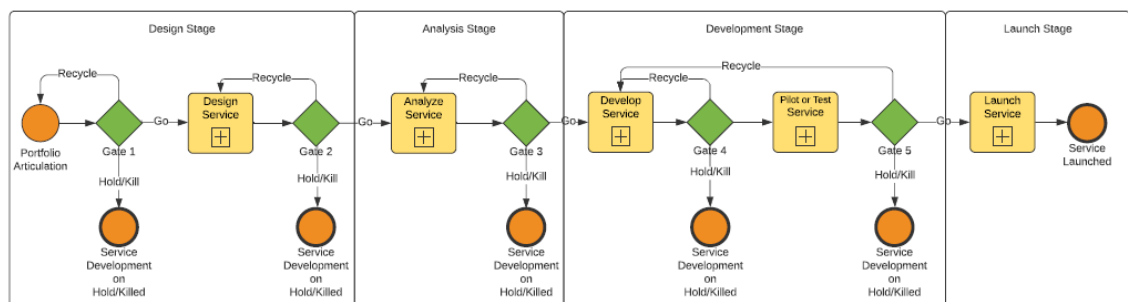


Figure 34. A co-created proposal for the top-level process diagram for service adaptation and development.

The process diagram is co-designed using the principles of BPMN, a stage-gate model and stakeholder feedback and suggestions. For visual purposes, the process is

grouped to four stages. The stages are the design stage, the analysis stage, the development stage and the launch stage. This grouping was added to illustrate the progressive nature of the process and to link the process to the four stages of a cyclical service development model, discussed in Section 4.2.5. The more detailed process diagram, illustrated in Appendix 5, includes two lanes, each for one of the two main functions included in the service adaptation and development process: the segment function and the service operations function. The process diagram includes five gates, or gateways in BPMN language, that are guarded by gatekeepers, a pre-determined group of people. The gatekeepers are responsible for reviewing the quality of deliverables to each gate, assessing the quality of the project and making the Go/Recycle/Hold/Kill decisions at each gate. The list of gate deliverables is listed in Table 11.

Table 11. List of gate deliverables for the proposed improved framework for service adaptation and development.

Gate #	Gate Description	Gate Deliverable	Deliverable Description
Gate 1	Initial Screen	Service Portfolio Articulation	A document describing the need for new service development with reference to the segment's go to market strategy and business needs
Gate 2	Second Screen	New Service Categorization	An evaluation of the complexity and type of the project (incremental or radical, one service or group of services).
		Service Brief or Simplified Service Specification Document	The Service Brief is used for projects estimated to be over x € and complex in its nature. The Simplified Service Specification Document is used for projects estimated to be under x € and simple or moderate in its nature.
Gate 3	Decision on Business Case	Revised Service Categorization	The case is revised and complexity assessed (e.g. need to initiate the global life cycle process to support the development).
		Budget Estimation	A budget is estimated for developing the service.
		Business Case Preparation	A business case is prepared where expected revenue and cost targets are assessed, assessment criteria is set, aspects of replicability, scalability and ease of operation taken into consideration.
		Service Output Specification	A detailed specification of what service outputs are needed for the individual development case.
		Resource Specification	A detailed specification of what kind of expertise (internal or external) is needed to complete the project.
Gate 4	Service Design Evaluation	Project Organization	A proposition for project organization.
		Defined service outputs (for piloting or testing)	All defined service outputs ready for piloting or testing.
		Personnel Training plans (for piloting or testing)	A plan to train personnel on the service for the piloting phase.
Gate 5	Pre-Launch Business Analysis	Pilot/test plan	A plan to deploy the service for piloting/testing.
		Pilot/Test Analysis	An analysis of the results of the pilot/test
		Final Service Outputs	Final service outputs, possibly revised based on the results of the pilot/test.

The process starts with the design stage. The initial state, i.e. the start event of the process, is the portfolio articulation done by the segment, i.e. it is the segment leading the initiative forward at the early stages of the process. This is followed by the first gate where the segment determines with a Go/Recycle/Hold/Kill decision whether service adaptation and development is needed. If needed, the next activity is to evaluate the complexity of the development project and proceed with either a full service brief or a simplified service specification template, depending on the complexity and expected cost of the upcoming project. Next, the service brief or template is assessed by the service operations function in a gate meeting where again a decision is made whether the specification needs revising (recycle decision), is there need for service development or can the requirements of the service brief or template be met by existing service offering (kill/hold) or whether to go forward with the process (go). After a decision has been made to proceed with the process, follows the analysis stage.

The activities include determining the project scope and budget, analyzing the business case and determining service requirements (i.e. service outputs to be designed). The analysis stage is followed by a gate meeting where a decision is made whether to proceed to the development stage. If the activities included in the analysis stage have not been carried out satisfactorily, a recycle decision can be made at the gate to ask for supplement the deliverables before proceeding. Also if the business case or any other aspect of the project does not meet the evaluation criteria set by the gatekeepers, the project can be also killed or put on hold. If a decision is made to go forward, a decision is made whether service design includes types of innovation that are incremental or radical.

Developing a service can include both incremental and radical innovations and both paths can be taken parallel. The process diagram illustrates the different development paths as parallel sub-processes that are collapsed in order to illustrate the entire service adaptation and development process from end-to-end. The sub-process symbol is used to emphasize that a sub-process exists and consists of numerous activities. After the service outputs have been designed, they are evaluated in a gate meeting and a decision is once again made whether the service outputs have been completed to match the criteria (go-decision), whether they need to be corrected (recycle-decision), is the project still valid (kill-decision) or whether to proceed to the next activities. If given a go-decision, follows the activities of making a personnel training plan, a piloting or testing phase and an analysis of the pilot or test. These results are taken into a gate

meeting where a final decision is made whether to launch the service if all requirements and conditions have been met. In the launch stage, a decision is made whether to ask the BIGS function for support on Mobilization or do a Deployment plan within the Service Operations function. Next, the service is finally launched. For continuous development, the service is then evaluated and revised and a development plan and a communication plan made to make sure all stakeholders are being updated on service development. Only then can the process be determined to be completed, ending in an end state of a launched service added to service portfolio.

5.3.2 Improved List of Service Outputs for Food Services

The co-created proposal for an improved and comprehensive list of service outputs for the case company's food services is illustrated in Figure 35. The list was co-created using feedback and ideas from Data 1 and Data 2 stages as well as the ideas from literature about the different dimensions of perceived service quality, discussed in subsection 4.2.7.

BUSINESS OPPORTUNITY ASSESSMENT, SALES AND SOLUTION & CONTRACT DESIGN	MOBILIZATION/DEPLOYMENT	OPERATIONS	TRACKING & CONTINUOUS DEVELOPMENT
<ul style="list-style-type: none"> • Portfolio & Service Development • Communication • Library of Available Services (Overview with Service Positioning) • Financial Workbook (variable costs, i.e. food cost, avg. price) • Investment Levels (capex estimates) • Service Development Roadmap • Communication and Training Plan/Schedule to Stakeholders • Client Communication • General Sales Presentation of Service with Text, Images and Case Studies (ENG) • Presentation of modules and costing options/investment levels/guidelines for customization 	<ul style="list-style-type: none"> • Layout Communication • Best Practice Site Layout Communication/Module Options • Culinary Station Layout Options • Packaged Assortment Layout Options • Contract Suppliers and Partners • List of Contract Suppliers for Non-Food Items • List of Partners for Design and Ambience Planning • Design and Ambience Communication • Customer Tables and Seating • Interior Design Guidelines • Lighting Guidelines • Serving Furniture • Display Cases, Ambient and Refrigerated • Green Plant Design • Kitchen Equipment • Food Preparation • Drink Preparation • Storage • Serving Equipment • Trays, Plates, Glasses, Cups, Cutlery, Napkins • Take Away Packaging • Culinary Serving Guidelines • Serving Dishes, Servers • Labeling and Signage • Label guidelines for culinary and packed products • Stickers • Work Clothes • Aprons, Shirts, Trousers, Vests, Hats, Name Tags 	<ul style="list-style-type: none"> • OPERATIONS MANUAL/ TRAINING MANUAL • General Brand Guidelines ("W3 document") • Mission, Vision, Target Group • Values & QHSE Principles • Standard Operating Procedures (composed of previous #) • QHSE self-monitoring (volumes, waste) • Evaluation / Audit Forms / Check-Lists • Ordering Systems and Reporting Tools • IT systems training plan (POS, machine, reporting tools) • On-Site and Online Brand Communication • Logo, Typography/Fonts, Colors, Patterns • Promotional Stands • Guidelines for Digital Communication (digital screens, online, social media, mobile apps) • Operational Digital Tools • Operational Marketing Materials (seasons, pop-ups) • Assortment and Merchandizing Communication • Culinary Menu Plan (modular) • Packed Assortment per Category (modular) • Planograms and Display Guidelines/Videos • Product Cards with Recipes, Images and Nutritional information • Rules for Menu and Assortment Customization • Pricing Guidelines for Culinary • Pricing Guidelines for Packed Assortment • List of Key Contacts / Support 	<ul style="list-style-type: none"> • KPI SCORECARD PER SERVICE • Financial targets for each service and procedures for continuous tracking • Service Life Cycle Management Plan (annual) • Service Output Update Cycle (monthly, quarterly) • Plan for Client and Consumer Insight and Trend Review

Figure 35. A co-created proposal for improved comprehensive list of service outputs.

In the proposal, the service outputs are categorized to four categories, corresponding to the primary users of those outputs. The first category is the service outputs related to business opportunity assessment, sales and solution and contract design. This category lists the outputs needed to communicate the service both internally and externally. The second category includes all the service outputs needed to mobilize or deploy the service, e.g. materials supporting site layout and design as well as in-depth materials about the equipment needed to deliver the service tangibles. The third category is out-

puts that are needed to operate the service, e.g. an extensive operating and training manual and plans for employee training. The fourth category lists service outputs or tools that are needed to continuously develop the service and gather insight about the service performance. The co-created list of service outputs aims at improving communication about the service earlier in the service delivery process than currently and providing a comprehensive list of all the service outputs needed by the organization involved in service adaptation, development and deployment. It is noteworthy that this is a comprehensive master list of all possible service outputs and only some parts of it may be needed, depending on the scope of the service. The service outputs needed for each service is determined in the analysis stage of the service adaptation and development process.

5.3.3 Improved Model for Collaborative Teamwork

The co-created model for improved collaborative teamwork is illustrated in Figure 36. The improved model was co-created by using feedback and ideas from Data 1 and Data 2 stages as well as ideas from literature about knowledge sharing and knowledge sharability, acknowledging the contextual knowledge and other project relevant knowledge outside the core team, discussed in subsection 4.3.1. This model aims supporting the improved process for service adaptation and development and addresses the concerns raised by stakeholders concerning collaboration and utilization of different fields of expertise in producing the service outputs. As illustrated in Figure 36, the model includes a core team consisting of members from the Service Adaptation, Development and Deployment function (specialist or manager), Food Culinary Intelligence function (culinary chef), Supply Management function (defined senior buyer), an Operations function representative and a defined external or internal resource, if needed. The person responsible in the core team is marked with an orange border. Each service output is then designed within a cross-functional team consisting of the resources needed to complete that particular output. Each output also has one person defined responsible for delivering that service output to the core team. Additional internal or external resources can be utilized outside this pool of resources. For external resources, it could be e.g. an interior designer, an IT service provider or even a client. As additional internal resources expertise may be needed e.g. on IT, QHSE or nutritional aspects. This model was co-created to include experts from different functions to collaborate on service outputs, thus bringing cross-functional knowledge and expertise in the early phases of development, thus improving the quality of the service outputs.

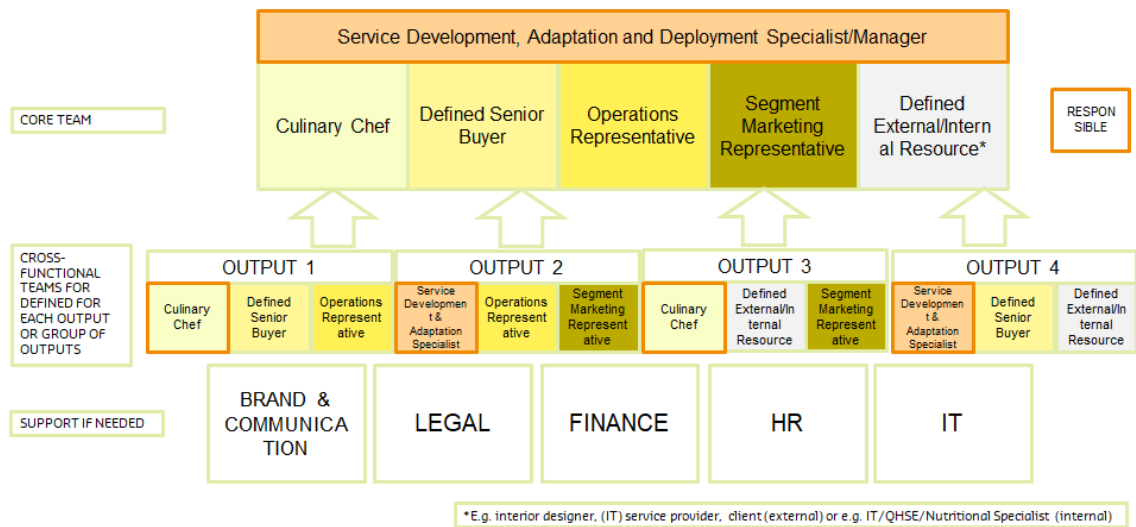


Figure 36. A co-created proposal for an improved model for collaborative teamwork.

5.3.4 Recommendation for Improving Cross-Functional Collaboration and Communication via Social Technologies

The co-created recommendations for improving cross-functional collaboration and communication by using social technologies is illustrated in Figure 37. The recommendations are based on Microsoft's social technologies and their recommended practice, discussed in subsection 4.3.4. The social technologies recommended include MS Outlook, MS Teams, MS Yammer and MS SharePoint and the case company's existing intranet. Figure 37 illustrates a recommendation for the primary social technology to be used during each stage of the service adaptation and development process. In the design stage, MS Outlook may be needed to communicate before an initiative is given a Go-decision in the first gate meeting. The co-created recommendation is that after a go-decision is made at the first gate meeting, a team is set up in Teams including all the members of the core team and cross-functional team members associated with developing the service. The Teams environment enables the project team to share and collaboration throughout the design, analysis and development stages of the service. In the end of the development stage, just before the launch stage, Yammer can be used to communicate the service to a wider audience, internally or externally. As the case company's intranet is a crucial tool for communicating to sites, it is also included as the tool for communicating in the launch stage. All files and content developed after setting up the Teams environment, is stored in SharePoint and it can act as a data storage.

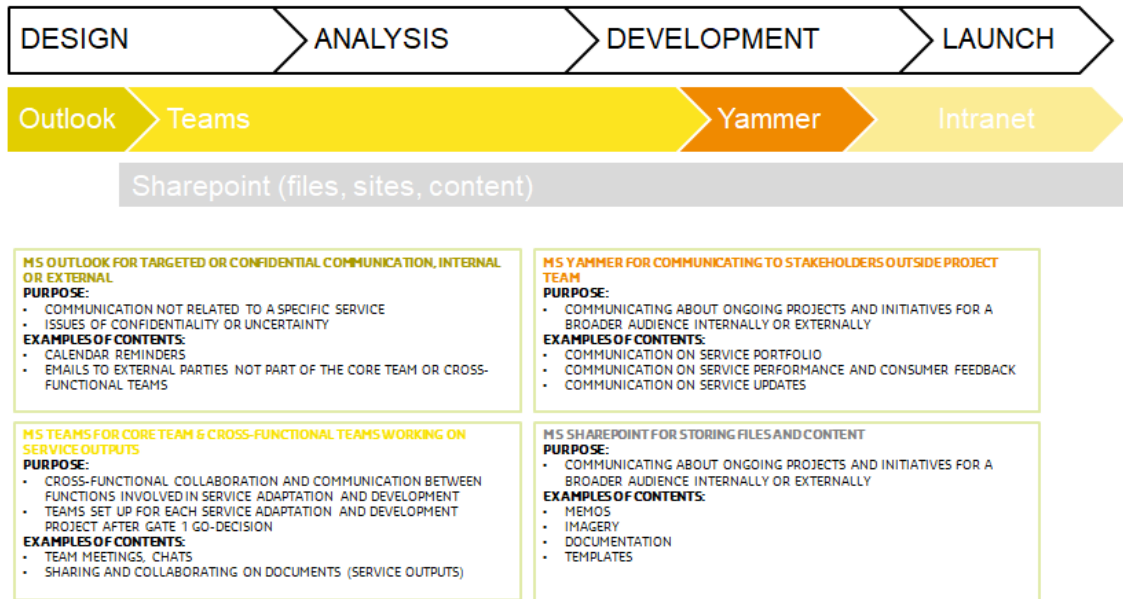


Figure 37. Co-created recommendations for improving cross-functional collaboration and communication via social technologies.

5.4 Summary of the Co-created Proposal

In summary, the co-created proposal for an improved framework for service adaptation and development with an emphasis on collaboration and communication consists of four elements. First, an improved process and a visual process diagram was co-created with stakeholders to make the service adaptation and development process more efficient and understandable to stakeholders, thus proposing a solution to the key concerns that were identified in the current state analysis of not having a valid process description for the entire solution delivery process, having an ambiguous process description for service development, suffering from a heavy process for small or medium sized projects and missing opportunities to evaluate the service outputs during the development process.

Second, a proposal was made to improve the comprehensive master list of service outputs to deal with issues concerning stakeholders' different views and expectations on service outputs and missing outputs. Best-practice examples from stakeholders and recommendations from the global service operations were taken into consideration and included in the proposal.

Third, a model is introduced to produce the service outputs in the development stage using cross-functional teams and social technologies throughout the service adaptation and development process to improve service development ownership, improve collaboration between functions, improving access to materials and improving communication on service portfolio and its development more widely within the case company's organization.

The stakeholders' improvement ideas, suggestions and feedback were critical in co-building this proposal. Ideas from literature gave general models to utilize but acknowledging the interdependencies of activities, roles and responsibilities are specific to the case company and in-depth internal knowledge is needed to take in those in the proposal. Luckily, the stakeholders were enthusiastic in co-developing an improved framework and find solutions to the issues they themselves have identified and suffered from for a long time. The co-created proposal is validated in the following Section 6.

6 Validation of the Proposal

This section reports on the results of the validation stage of the co-created proposal for an improved framework for service adaptation and development with an emphasis on collaboration and communication. First, an overview of the validation stage is provided. This is followed by a description of the validation session with feedback and improvement ideas from stakeholders. At the end of this section, next steps towards implementation are presented.

6.1 Overview of the Validation Stage

This section validates the proposal developed in Section 5. The initial proposal was built on the findings from the current state analysis of the case company's service adaptation and development framework with an extensive analysis of company documentation and stakeholder interviews (Data 1, Section 3), ideas and suggestions from literature (Section 4) and complemented by stakeholders insights and ideas (Data 1-2, Section 5).

The validation of the initial proposal was done by presenting the proposal to the case company's key stakeholders and executives for evaluation, feedback and improvement ideas. The proposal was built on the two main challenge areas identified in the current state analysis, which were issues related to the service development process and its outputs, as well as issues related to collaboration and communication. Co-building the proposal with the stakeholders provided insight and improvement and best practice ideas to solve the issues identified in the current state analysis as well as guidance on focus points most relevant to the objective of this thesis, thus fulfilling the purpose of co-creating the proposal.

The proposal for an improved framework introduced in the same structure as in Section 5. First, an improved process and process diagram was presented. Second, an improved list of service outputs was provided. Third, an improved model for cross-functional and collaborative teamwork was introduced. After the presentation, a discussion session was held. The feedback and improvement ideas from the company executives and key stakeholders form the third data collection round for this thesis. Findings of Data 3 are discussed in the following subsections.

6.2 Validation of the Proposal

The validation of the proposal was done in an online Teams meeting consisting of a presentation followed by a discussion. The participants were the Director of Food Platform for Nordics and CEO of Finland, Region Head of Service Adaptation, Development and Deployment for Nordics, Region Head of Culinary Intelligence (Nordics) and the Senior Specialist Food Production and Nutrition (also former Director of Food Platform for Nordics). The presentation consisted of a comprehensive view on the different elements of the proposal and of the data used to build it. The presentation started with reminding the participants of the objective and outcome of the thesis. Second, different stages of the research design were described to ground the ideas presented in the proposal. Time was taken to go through the current state analysis and to agree on the findings made in Data 1. Next, the participants were given a brief summary of the literature review leading up to the conceptual framework used to co-create the proposal. Majority of the time was used to go over the three elements of the proposal for an improved framework.

First, a proposal for improved process and process diagram for service adaptation and development was introduced. The participants' feedback on the process was that it is a welcomed improvement to the current state and could in fact improve efficiency and speed in developing and launching services. The parallel paths for incremental and radical innovations were seen as a solid match to dealing with different kinds of service development requests.

Second, the proposal for an improved list of service outputs was introduced. The list was seen to be a comprehensive list of service outputs needed in a big "360 degrees" service. However, not all services require all the outputs listed to build a service and thus, the outputs needed for each individual service development project need to be determined in the analysis stage of the process. Also some more clarification was needed on which of the service outputs are actually for internal use and which are external. These could be defined as deliverables for Gate 3, the gate preceding the actual development stage.

Third, an improved model for cross-functional and collaborative teamwork was introduced. The proposal was seen as a solid description of how the project team should be built and, in some cases, a version of this has been unofficially used. It was seen im-

portant that this way of working would become the official way of working. However, one participant pointed out, that as human resources are scarce, many experts working in the Food Platform function already struggle with participating in many development tasks and producing the service outputs with this model could pose more workload to them. These concerns were also key findings in the current state analysis, but as issues concerning human resources, were not included in the proposal for an improved framework for service adaptation and development. All the same, it was important that it was pointed out also in the Data 3, that the concerns about the availability of resources are a major obstacle for efficient and high-quality service development.

The final element of the proposal, the recommendations for improving collaboration and communication by utilizing social technologies, was only briefly introduced because of time constraints. This section was given less emphasis in the validation stage because of time-restraint issues and the main objective of the thesis being on improving the service adaptation and development framework itself. However, the importance of having the right tools to enable collaboration were brought up by a participant saying that it is crucial to find new ways of working and tools to support collaboration for the improved framework to produce the results expected.

In conclusion, the extensive current state analysis was widely appreciated by the participants and validated as a comprehensive description of the case company's current ways of working: a work that had not been done before to this extent. Furthermore, the proposal was validated as a viable option for improving the framework for service adaptation and development in the Nordic Region. However, as it is a major change to current ways of working and causes major managerial implications and changes to organizational structure, a decision could not be made to implement the improved framework without further analysis and revision. It was agreed that this further analysis will take place after the summer vacation period in autumn 2020. Recommendations for next steps to be taken towards implementation are discussed in the following subsection.

6.3 Recommendations for Next Steps towards Implementation

The key findings of the current state analysis of the case company's framework for service adaptation and development were that the case company is struggling with several issues related to service portfolio management, process descriptions, leadership, hu-

man resources and collaboration and communication. In relevance to the objective of this thesis, *an improved framework for service adaptation and development with an emphasis on collaboration and communication*, two topics were chosen to be the most relevant to the thesis. These were *the service adaptation and development process and its outputs* and *collaboration and communication*. However, all the key findings affect the overall framework for service adaptation and development, as the process starts with *portfolio articulation* and needs *leadership and human resources* to be carried out successfully. The current state analysis revealed that there is an ongoing initiative to rationalize and renew the service portfolio. Logically, this project will be followed by new service development, if and when needs for new services emerge. Moreover, the persisting situation with the global pandemic, COVID-19, has already forced the case company to find new services to serve its clients and customers in the “new normal”. Thus, it is recommended that the improved framework for service adaptation and development in the Nordic region would be implemented as soon as possible.

Although the proposal was validated, more work and analysis on managerial implications is needed before implementing the framework. First, the management needs to find and allocate the resources to complement and implement the proposal for an improved framework. Second, the management needs to re-define the roles and responsibilities within the Food Platform function, taking the whole Nordic organization under revision. Third, an O365 environment needs to be planned, set up and trained to employees as the new tool for cross-functional collaboration and communication. Fourth, a comprehensive change management and communication plan is needed to inform the entire Nordic organization of the changes taking place and how it affects an individual employee’s current ways of working.

Moreover, in reference to the steps of developing or improving a process by Martinsuo and Blomqvist (2010) only the first three steps have now been completed. First, the scope was defined, second the current process was analyzed and third, the process was remodeled. The next steps to follow are piloting the process, launching and implementing the process and finally, monitoring the process. Thus, the next logic step towards implementation would be to set up a pilot to test the improved framework on named service development projects. Piloting the remodeled process could provide valuable feedback for improvement before proceeding to actual launching and implementing the improved framework. The following section 7 summarizes the findings and evaluates the credibility of the thesis.

7 Discussion and Conclusions

This section is a summary of the key findings of this thesis. The first subsection is an executive summary that gives the reader a summarization of the thesis project with key findings and main conclusions. The second subsection describes the managerial implications of the proposed improved framework. The third subsection evaluates the thesis and the final subsection concludes the thesis.

7.1 Executive Summary

Clients and customers value speed and agility when looking for service providers to fulfill their needs. Companies may have many ongoing projects to develop services and the "new normal" created by the global pandemic COVID-19 has further increased the need for rapid service development to match clients' changing needs and government regulations. Although large companies often have more resources available, they can also be slower to respond to changing needs because of multiple layers of managers, a large number of employees located in different business functions or possibly a vast geography to deal with.

A global company can introduce global processes and frameworks with the intention of copying best practices globally and efficiently but they can also result in management systems that are hard to understand and too heavy to obey when trying to develop services to clients fast and efficiently. International companies may have organizational structures that consist of global, regional and country specific structures that may become hard to manage and lead.

There are many ways to develop and deliver services and companies need to find the ones that are most suitable for their needs and produce the results expected and helping the company the reach is objectives, either financial or other. For a global company that has the initiative to streamline its processes and share processes globally, it would be irresponsible to suggest a framework that would completely contradict these ideas. However, the existing global framework can be used as a starting point and a red thread when proposing improvements to the framework. In addition, some general and universal best practices can help the company to improve the framework by adding elements already proven to accelerate and improve service development. Hence, the objective of this thesis was to establish an improved framework for service adaptation

and development with an emphasis on improving collaboration and communication within the Nordic region.

This thesis uses applied research methodology with qualitative research methods to provide firsthand information from stakeholders. In-depth interviews were selected as the method for gaining these insights. Participants were also allowed to raise their own concerns and development ideas that may not have been recognized by the researcher but could be critical to the results of the research. The conceptual framework of this study is built on a survey of concerning literature most relevant to the objective of the thesis and key findings from the current state analysis.

The research consisted of four stages. The first stage, an extensive current state analysis, was done with a thematic analysis of company documents and stakeholders interviews to identify the strengths and weaknesses of the current service adaptation and development framework and level of collaboration and communication. In order to describe the entire solution delivery process and how the service development framework fits in that equation, focus groups for interviews were chosen also outside the service adaptation and development team itself. As there are business functions leading up to and following after service development and adaptation, it was important to understand the views and experiences of the internal customers and stakeholders that depend on the service development and adaptation process to succeed. This collection round formed the first data set for this thesis. This list of key findings was categorized to four corresponding categories. The categories were *Service Adaptation and Development Process and its Outputs*, *Collaboration and Communication*, *Service Portfolio Strategy* and *Leadership and Human Resources*. The first two categories were chosen for further investigation being most relevant to the objective of the thesis.

For the second stage, ideas corresponding to the key findings were researched through existing literature covering topics of business process development and modeling, service development models and knowledge on improving cross-functional collaboration and communication.

The third stage presents the proposal for an improved framework for service adaptation and development co-created with stakeholders. The discussions and workshops held in the third stage form the second data set for this thesis. The fourth stage and final stage was to get feedback and improvement ideas from company executives and key stake-

holders for validation, future development and next steps, forming the third data set for this thesis.

The proposal to improve the service adaptation and development framework consists of four elements, with two elements matching both problem categories. In order to improve the service adaptation and development process and its outputs, an **improved process** was co-created along with an **improved master list of service outputs**. The improved process was co-created using stakeholders improvement ideas and best practice from literature. The improved process is illustrated as a top-level diagram with sub-processes for the major activities. The process follows a stage-gate model with pre-defined stages, gates and deliverables to each gate in order to manage risks and improve both the quality of the process and the service outputs. The process diagram is done by a universal diagramming language to provide clarity and conciseness. Alternative development paths are introduced both in the design stage of the process (complex or simple service) and in the development stage of the process (incremental or radical innovation). The improved process for service adaptation and development is expected to make service development more efficient, less ambiguous regarding roles and responsibilities and produce more quality to service outputs and outcomes.

For improving collaboration and communication a **model for collaborative teamwork** for development and adaptation was co-created with stakeholders to enable cross-functional collaboration with clear roles and responsibilities. Furthermore, **recommendations for using social technologies** to ease collaboration and communication were co-created based on stakeholders' best practice examples and ideas from literature.

The proposal was validated in one round, although with a list of managerial implications and further analysis to be taken place. The proposal was presented to case company key stakeholders and executives with a discussion session followed. The proposal for improved framework was seen as welcomed improvement to the current state and the participants could envision it to speed up development projects and to produce more quality. The alternative paths for service briefing and specification as well as alternative or parallel paths for service development were seen to be a solution to dealing with different kinds of service development requests. The proposal for an improved master list for service outputs was seen to be comprehensive, although further analysis is needed to provide guidelines on which outputs are needed for which service types. The model for collaborative teamwork was seen to be a solid and logical way to organize

teamwork but risks were seen on how these teams would be resourced due to scarce resources and employee experiences of overwhelming workload, a key finding also made in the current state analysis. The recommendations for improving collaboration and communication by utilizing social technologies were only briefly introduced because of time constraints. This section was given less emphasis in the validation stage because of time-restraint issues and the main objective of the thesis being on improving the framework itself. However, the importance of having the right tools to enable collaboration were brought up by a participant saying that it is crucial to find new ways of working and tools to support collaboration for the improved framework to produce the results expected. In conclusion, the proposal was validated as a viable option for improving the framework for service adaptation and development within the Nordic Region. Support for the proposal came especially from the Head of Service Adaptation, Development and Deployment, who had also been involved with co-creating the proposal. However, as it is a major change to current ways of working and causes major managerial implications and possible changes to organizational structure, a decision could not be made to implement the improved framework without further analysis and revision.

7.2 Managerial Implications

The improved framework for service adaptation and development requires the will to replace old practices and ways of working with a detailed process. The global Service Life Cycle model highlights agile methods, putting individuals and interactions over processes and tools. However, the current state analysis showed that for a big company that needs to develop services that are part of detailed client specific solutions, a more detailed process is needed to manage risks and produce quality outcomes. Implementing a remodeled process needs creating new practices, new routines and guidelines to support it. And in many aspects, a change in company culture to shift slightly to a more process-oriented way of working. However, agile methods can be used in the stages most suitable for agile methods, e.g. in the development stage for radical innovations that are not bound by strict contracts or predefined requirements for final outputs.

Second, the company needs to pay attention to its employees' experiences of unclear roles and responsibilities, overwhelming workload and missing expertise and leadership in developing services. This can be very stressful as individuals do not see how

they fit in the picture and that can result in inefficient work as duplicated tasks, tensions and conflicts about decision-making, lack of motivation, decline in overall performance and loss of accountability. Ultimately, it can affect employee satisfaction and retention.

Third, the ongoing work to rationalize the service portfolio by the segments needs to be supported by the entire organization from operations to service operations and transversal functions for a robust, value-creating service portfolio. The root-cause for many of today's problems is that service development has somewhat slipped to creating very customized, client-specific services that are hard to update, when clients should in fact be offered customized solutions that are built from modular services and complemented with new services that are developed through the improved framework for service adaptation and development.

7.3 Thesis Evaluation

The objective of this thesis was to establish an *improved framework for service adaptation and development with an emphasis on improving collaboration and communication within the Nordic region* of the case company. The outcome of the thesis is an *improved framework for service adaptation and development* for the case company.

The proposal for an improved framework consists of four co-created elements. The first element is an improved process for service adaptation and development that acknowledges different development needs and innovation types. The remodeled process brings clarity, consistency, straightforwardness and manageability, all attributes that were missing from the existing process descriptions. For the process to be communicated to company executives, the process is illustrated as a top-level diagram with just the main sub-processes expanded. For practical work, more details are needed regarding the roles and responsibilities of individual employees throughout the process as well as manning the gates by senior managers that have enough authority to approve the resources.

The second element is an improved master list of service outputs. Redefining and improving this service output list was regarded mandatory as the current state analysis revealed major gaps and quality issues. The improved list is a comprehensive, co-created master list that acknowledges the needs of internal and external customers in an organized way. However, as many of these service outputs are massive documents

and guidelines, more standardization and description is needed for the list to fully serve the organization. In addition, the outputs should be analyzed from the perspective of which could be fully developed on a Nordic level and which would be left for each country to develop. This analysis is an extensive research of its own but out of the scope of this thesis.

The third element is an improved model for collaborative teamwork. It is a simple illustration of a cross-functional core team that manages various sub-teams in charge of delivering different service outputs. It conceptualizes the idea of working collaboratively while showing accountability. The improved model does not make a distinction whether a position is in Finland or in Sweden but more on the expertise provided by that person and thus can be used as a model for Nordic service development. However, as mentioned in the previous paragraph, some outputs can be designed on a Nordic level and others not. A further analysis on Nordic and local service outputs will affect this model as well.

The fourth element is a recommendation for utilizing social technologies to improve cross-functional collaboration and communication. The proposal does not include concrete suggestions for the actual infrastructure for the social technologies but proposes introducing new tools to supplement or replace existing, somewhat inaccessible network-drive based tools. More insights and expertise is needed on the current IT infrastructure, information security and data protection issues before proceeding fully with shifting data to cloud-based tools.

Nonetheless, the proposal was accepted as a viable and solid recommendation for improving the framework for service adaptation and development and thus, fulfills the objective of this thesis. Further analysis and research is needed to support practical work and change management, but these actions are out of scope of this thesis. The validity, reliability, logic and relevance of this thesis are discussed in the following subsections.

7.3.1 Validity and Reliability

According to Kothari (2004: 73), "validity refers to the extent to which a test measures what we actually wish to measure." Reliability, on the other hand, is about the "accuracy and precision of a measurement procedure." This thesis utilized applied research

methodology with qualitative research methods in the form of focus group in-depth interviews, conversational interviews and workshops and a thematic analysis of company documents. The conceptual framework of this study was a survey of concerning literature most relevant to the objective of the thesis.

According to Kuada (2012: 100-101) qualitative studies are usually evaluated on *trustworthiness* and *authenticity*. Trustworthiness is measured on four dimensions: *credibility*, *transferability*, *dependability* and *confirmability*. For the current state analysis, a total of fourteen interviews were made covering the major business functions involved in service solution delivery and service development. The participants were chosen based on their position and experience but additions to interviewees were made based on the suggestions of the interviewees. A semi-structured framework was used to conduct the interviews but the interviewees were also given a possibility for open commenting. Kuada (2012: 100) also notes that the interviewer's personality and position may have an influence on the data collected as some may be hesitant to express their deepest thoughts and ideas. Interviewees were assured about the confidentiality of their answers and that the interviewees would only be referred to us by title. Each interview was validated by the respondent with a summarization of the strengths and weaknesses at the end of the interview. Due to the COVID-19 pandemic, all interviews and workshops were held remotely using Teams or Skype for Business. Most interviews were either audio or video recorded and field notes were made from all interviews. The field notes were then summarized and analyzed utilizing thematic analysis method to categorize the strengths and weaknesses emerged from the interviews. The choice for the company internal documents to be analyzed for the current state analysis was based on the suggestions by interviewees. Analysis of the documents was supported by stakeholders to avoid misinterpretations or generalizations. The findings of the current state analysis were validated by stakeholders in Data 2 discussions and workshops.

The survey of concerning literature was targeted to match the key findings of the current state analysis and the objective of the thesis. According to Kuada (2012), when reviewing literature three main factors need to be considered: date of the publication, location of the study (if empirical) and the meta-theoretical approach and data collection methods used. The literature studied for this thesis extends from the fundamental works of established researchers to more recent publications in journals of relevant fields as well as materials produced by well-established institutes.

The transferability of this thesis is enabled with a detailed description of the business context, current state and a definition of the objective of the thesis. For dependability, a detailed record was kept of all interviews made and discussions and workshops held. The audio and video recordings as well as field notes are available if needed for further analysis.

When it comes to the confirmability of this thesis, it can be noted that this thesis was conducted in good faith with the aim of improving the service adaptation and development framework for the thesis. The objective for the thesis was given by the case company and as a fairly new employee working in a business function not directly related to this framework, the sole interest was to establish an improved framework for the case company.

The authenticity of this thesis was guaranteed by involving informants from different business functions involved in service solution design. All viewpoints were examined and stakeholders involved in co-creating the proposal, thus enabling them to bring their insights to the table.

7.3.2 Logic and Relevance

According to Kuada (2012:35), “a research process is not a straight line” and thus, a structure and logic is needed to conduct the study in a logical and comprehensible way. A research design plan was created to determine the most essential issues and information required to reach the objective. First, the objective and outcome of the thesis were defined. Second, a current state analysis was carried out with summarization of strengths and weaknesses identified. Third, a literature review was carried out to find existing knowledge and examples of best practice to match the key findings made in the current state analysis and in relevance to the objective of the thesis, forming the conceptual framework of this thesis. Fourth, a proposal for an improved framework for service adaptation and development was co-created with stakeholders and validated by company executives and key stakeholders. This research design plan was followed throughout the thesis project.

The business challenge that started this thesis project was identified by the case company, thus bringing relevance to this study. The business challenge of not being able to develop or adapt services quickly and efficiently in the Nordic region has been an un-

derlying issue within the company and the urgency of finding improvements accelerated with the COVID-19 pandemic changing the business environment significantly. Thus, improving the framework for service adaptation and development with an emphasis on improving collaboration and communication was chosen as a thesis project. An improved framework can help the company in transforming its current services to better fit its customers' needs and open new business possibilities as the organization has a clearer view on the service development framework and tools for collaboration and communication. Even though the proposal will not immediately be implemented but further analyzed and possibly tested before implementation, the extensive current state analysis has brought new insights to key stakeholders and company executives and thus, support decision making in the case company.

7.3.3 Closing Words

Improving a framework for service adaptation and development means to improve the basic structure that holds in all the activities and tasks of adapting or developing a service. In a global company with global, regional and local ways of working, it is a massive framework of functions, positions and processes with inputs, outputs and feedback streams. All the more, a clear, streamlined description of the framework is needed to communicate it to participants within the framework as well as stakeholders outside the framework but who are all the same affected by the performance of that framework. As Albert Einstein once said: "Make everything as simple as possible, but not simpler." This could be interpreted to mean that we should try to keep things as simple as possible so that we can focus on the things that really matter and need our attention.

References

- Beck, K., Beedle, M., van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., Grenning, J., Highsmith, J., Hunt, A., Jeffries, R., Kern, J., Marick, B., Martin, R., Mellor, S., Schwaber, K., Sutherland, J. and Thomas, D. 2001. Manifesto for Agile Software Development. Available at: <https://agilemanifesto.org/> [Accessed 28 May 2020]
- Beck, K., Beedle, M., van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., Grenning, J., Highsmith, J., Hunt, A., Jeffries, R., Kern, J., Marick, B., Martin, R., Mellor, S., Schwaber, K., Sutherland, J. and Thomas, D. 2001. Principles behind the Agile Manifesto. Available at: <https://agilemanifesto.org/principles.html> [Accessed 28 May 2020]
- Beaumont, M., Thuriaux-Alemán, B., Prasad, P. and Hatton, C. (2017) "Using Agile approaches for breakthrough product innovation", *Strategy & Leadership*. Volume 45, 2017, Issue 6. Available at: <https://www-emerald-com.ezproxy.metropolia.fi/insight/content/doi/10.1108/SL-08-2017-0076/full/html> [Accessed 29 May 2020]
- Bitner, M.J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, Vol. 56, April 1992. Available at: <https://www.ida.liu.se/~steho87/und/htdd01/9208310667.pdf> [Accessed 4 June 2020]
- Boehm, B. and Turner, R. (2005). Management Challenges to Implementing Agile Processes in Traditional Development Organizations. *IEEE Software*. Volume 22, 2005. Available at: <https://ieeexplore-ieee-org.ezproxy.metropolia.fi/stamp/stamp.jsp?tp=&arnumber=1504661> [Accessed 28 May 2020]
- Boughzala, I. and Briggs, R. (2012). A value frequency model of knowledge sharing: An exploratory study on knowledge sharability in cross-organizational collaboration. *Electronic Markets*. March 2012. Available at: https://www.researchgate.net/publication/257786296_A_value_frequency_model_of_knowledge_sharing_An_exploratory_study_on_knowledge_sharability_in_cross-organizational_collaboration [Accessed 1 June 2020]
- Bradley, A.J. (2013). Email is Anti-social Part 1: Communication is Not Collaboration. 29 August 2013. *Gartner Blog Network*, Gartner, Inc. Available at: https://blogs.gartner.com/anthony_bradley/2013/08/29/email-is-anti-social-part-1-communication-is-not-collaboration/ [Accessed 10 June 2020]
- Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., Sarrazin, H., Sands, G. and Westergren, M. (2012). The social economy: Unlocking value and productivity through social technologies. July 2012. *McKinsey Global Institute*, McKinsey & Company. Available at: https://www.mckinsey.com/~media/McKinsey/Industries/Technology%20Media%20and%20Telecommunications/High%20Tech/Our%20Insights/The%20social%20economy/MGI_The_social_economy_Full_report.ashx [Accessed 11 June 2020]
- Cooper, R.G. (1990). Stage-Gate Systems: A New Tool for Managing New products. *Business Horizon*. May-June. Available at:

<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.474.1777&rep=rep1&type=pdf> [Accessed 28 May 2020]

Dabholkar, P., Shepherd, C. and Thorpe, D. (2000). A Comprehensive Framework for Service Quality: An Investigation of Critical Conceptual and Measurement Issues Through a Longitudinal Study. *Journal of Retailing*. Volume 76(2). Available at: https://www.researchgate.net/publication/229348117_A_Comprehensive_Framework_for_Service_Quality_An_Investigation_of_Critical_Conceptual_and_Measurement_Issues_Through_a_Longitudinal_Study [Accessed 3 June 2020]

Dumbrowski, U., Schmidtchen, K. and Krenkel, P. (2014). Impact of Lean Development System Implementation on the Product Development Process. *2014 IEEE International Conference on Industrial Engineering and Engineering Management*, Bandar Sunway, 2014. Available at: <https://ieeexplore-ieee-org.ezproxy.metropolia.fi/stamp/stamp.jsp?tp=&arnumber=7058881> [Accessed 28 May 2020]

Eichorn, F.L. (2004). Applying Internal Customer Relationship Management (IntCRM) Principles to Improving Business/IT Integration and Performance. *Problems and Perspectives in Management*, 2(4). Available at: https://businessperspectives.org/images/pdf/applications/publishing/templates/article/assets/1045/PPM_EN_2004_04_Eichorn.pdf [Accessed 2 June 2020]

The Guardian. Murdoch's spin on the web. *The Guardian*. 2 July 1999. Available at: <https://www.theguardian.com/uk/1999/jul/02/3> [Accessed 11 May 2020]

Grönroos, C. (1984). A Service Quality Model and Its Marketing Implications. *European Journal of Marketing*, Volume 18, Issue 4. Available at: https://www.researchgate.net/publication/233522386_A_Service_Quality_Model_and_Its_Marketing_Implications [Accessed 3 June 2020]

Johnson, S.P., Menor, L.J., Roth, A.V. and Chase, R.B. (2000). *New Service Development: Creating Memorable Experiences. A Critical Evaluation of the New Service Development Process: Integrating Service Innovation and Service Design*. Thousand Oaks, CA. SAGE Publications, Inc. Available at: <http://sk.sagepub.com/books/download/new-service-development/n1.pdf> [Accessed 5 June 2020]

Kananen, J. (2013). *Design Research (Applied Action Research) as Thesis Research: A Practical Guide for Thesis Research*. Jyväskylä. Publications of JAMK University of Applied Sciences.

Kothari, C.R. (2004). *Research Methodology – methods & techniques*. New Age Limited Publishers. Available at: <https://ebookcentral.proquest.com/lib/metropolia-ebooks/reader.action?docID=431524&query=kothari> [Accessed 11 May 2020]

Kuada, J. (2012). *Research Methodology. A Project Guide for University Students*. Samfundslitteratur. Available at: <https://ebookcentral.proquest.com/lib/metropolia-ebooks/reader.action?docID=3400854&query=kuada> [Accessed 11 May 2020]

Lean Enterprise Institute (2000-2020). A Brief History of Lean. Lean Enterprise Institute, Inc. Available at: <https://www.lean.org/whatslean/history.cfm> [Accessed 28 May 2020]

Lean Enterprise Institute (2000-2020). What is Lean? Lean Enterprise Institute, Inc. Available at: <https://www.lean.org/WhatsLean/> [Accessed 28 May 2020]

Lean Enterprise Institute (2000-2020). Principles of Lean. Lean Enterprise Institute, Inc. Available at: <https://www.lean.org/WhatsLean/Principles.cfm> [Accessed 28 May 2020]

Lodgaard, E., Gamme, I. and Aasland K.E. (2013). Success Factors for PDCA as Continuous Improvement Method in Product Development. In: Emmanouilidis C., Taisch M., Kiritsis D. (eds) *Advances in Production Management Systems. Competitive Manufacturing for Innovative Products and Services. APMS 2012. IFIP Advances in Information and Communication Technology*, vol 397. Springer, Berlin, Heidelberg. Available at: https://link.springer.com/content/pdf/10.1007%2F978-3-642-40352-1_81.pdf [Accessed 2 June 2020]

Martinsuo, M. and Blomqvist, M. (2010). Process Modelling for Improved Performance. *Aalto University, School of Science and Technology, Department of Industrial Engineering and Management*, Teaching Material 2010/1, Espoo. Available at: <https://aaltodoc.aalto.fi/bitstream/handle/123456789/4850/isbn9789526033792.pdf?sequence=1&isAllowed=y> [Accessed 27 May 2020]

Microsoft. A foundation for modern collaboration: Microsoft 365 bolsters teamwork. 16 May 2018, *Microsoft*. Available at: <https://www.microsoft.com/en-us/itshowcase/a-foundation-for-modern-collaboration-microsoft-365-bolsters-teamwork> [Accessed 11 June 2020]

Minjoon, J. and Shaohan, C. (2010). Examining the Relationships Between Internal Service Quality and Its Dimensions, and Internal Customer Satisfaction. *Total Quality Management & Business Excellence*, 21:2. Available at: <https://www-tandfonline-com.ezproxy.metropolia.fi/doi/full/10.1080/14783360903550095?scroll=top&needAccess=true> [Accessed 2 June 2020]

Mueller, J. (2012). Knowledge sharing between project teams and its cultural antecedents. *Journal of Knowledge Management*. Volume 16, Issue 3. Available at: <https://www-emerald-com.ezproxy.metropolia.fi/insight/content/doi/10.1108/13673271211238751/full/html> [Accessed 1 June 2020]

Parasuraman, A.P, Zeithaml, V. and Berry. L. (1985). A Conceptual Model of Service Quality and its Implication for Future Research (SERVQUAL). *The Journal of Marketing*. 49. Available at: https://www.researchgate.net/publication/225083670_A_Conceptual_Model_of_Service_Quality_and_its_Implication_for_Future_Research_SERVQUAL/link/5429a4f80cf277d58e86faab/download [Accessed 3 June 2020]

Plakoyiannaki, E. and Tzokas, N. (2002). Customer Relationship Management: A capabilities portfolio perspective. *Journal of Database Marketing & Customer Strategy Management*. 9. Available at:

<https://link.springer.com/content/pdf/10.1057/palgrave.jdm.3240004.pdf> [Accessed 2 June 2020]

Ratcheva, V. (2009). Integrating Diverse Knowledge Through Boundary Spanning Processes – The Case of Multidisciplinary Project Teams. *International Journal of Project Management*. Vol. 27. Available at: <https://www-sciencedirect-com.ezproxy.metropolia.fi/science/article/pii/S0263786308000379> [Accessed 2 June 2020].

Reynoso, J. and Moores, B. (1995). Towards the Measurement of Internal Service Quality. *International Journal of Service Industry Management*, Vol. 6, No. 3. Available at: <https://www-emerald-com.ezproxy.metropolia.fi/insight/content/doi/10.1108/09564239510091349/full/pdf?title=towards-the-measurement-of-internal-service-quality> [Accessed 3 June 2020]

Rust, R.T. and Oliver, R.L. (1994). *Service Quality: New Directions in Theory and Practice Service Quality: Insights and Managerial Implications from the Frontier*. Thousand Oaks, CA: SAGE Publications, Inc. Available at: <https://sk.sagepub.com/books/download/service-quality/n1.pdf> [Accessed 3 June 2020]

Silver, B. (2011). *BPMN Method and Style with BPMN Implementer's Guide*. 2nd Edition. Aptos, CA: Cody-Cassidy Press.

Wright, L. (2019). Microsoft Teams wins Enterprise Connect Best in Show award and delivers new experiences for the intelligent workplace. *Microsoft*. Available at: <https://www.microsoft.com/en-us/microsoft-365/blog/2019/03/19/microsoft-teams-experiences-intelligent-workplace/> [Accessed 11 June 2020]

Appendix 1. Interview questions and topics for company stakeholders

DETAILS	
Name (code) of the informant	
Position in the case company	
Date of the interview	
Duration of the interview	
Document	

	TOPICS OF THE INTERVIEW	QUESTIONS	FIELD NOTES
0	INTERVIEWEE'S EXPERIENCE AND ROLE	What is your role in the company and in service adaptation projects?	
1	DESCRIPTION OF THE CURRENT SERVICE ADAPTATION PROCESS	<p>How is the service adaptation process being carried out currently? Give a clear, step by step description. Start with a general overview and zoom into particular steps.</p> <p>Who are involved?</p> <p>Where does it start? Where does it end?</p> <p>What are the steps or milestones?</p> <p>Is it always the same process?</p> <p>Is there documentation?</p> <p>Is there some service adaptation case you want to discuss about or use as an example?</p>	
2	INTERVIEWEE'S ROLE AND EXPERIENCE IN PREVIOUS SERVICE ADAPTATIONS	<p>Please give further details how you participated in previous adaptation processes and in what capacity?</p> <p>Is it always the same role?</p>	
3	DESCRIPTION OF THE PREVIOUS	Give a clear, step by step description. Start with a general overview	

	ADAPTATION PROCESS	and zoom into particular steps.	
4	AVAILABILITY OF BACKGROUND MATERIALS, E.G. SERVICE DESCRIPTION AND DOCUMENTATION	<p>What kind of materials you have from Nordic or Global?</p> <p>How do you experience the depth and quality of the materials?</p> <p>What would you like to have more? What would you like to have less (if so)?</p>	
5	INPUTS AND OUTPUTS OF SERVICE ADAPTATION. ROLES, RESPONSIBILITIES AND GOAL SETTING.	<p>What kind of resources and expertise is involved (=inputs)?</p> <p>Who decides the roles and responsibilities of the experts involved?</p> <p>What kind of result follow (=outputs)?</p> <p>Who sets the goals for outputs? Who evaluates the progress?</p> <p>How would you evaluate the results, immediate and long-term?</p> <p>Is there a follow-up plan or plan for continuous development?</p>	
6	KEY STRENGTHS	<p>Does the current adaptation process work from your point of view?</p> <p>What do you see as the key factors in successful adaptations?</p> <p>What are the company's specific strengths in service adaptation?</p> <p>What metrics could be considered as indicators of success?</p>	
7	KEY CONCERNS	<p>Outline your key concerns about successful service adaptation. Please be specific rather than general.</p>	

		<p>If something has not been successful, what were the reasons from your point of view?</p> <p>Are there some specific steps/areas that were especially challenging?</p>	
8	LESSONS LEARNT/DEVELOPMENT NEEDS	<p>Is there common evaluation of the level/quality of service adaptation? Are the lessons learnt discussed or taken into development? By whom/how?</p> <p>In which areas do you feel there is space for improvement? In what way?</p> <p>Do you have suggestions on how to act in the next case?</p>	
9	BEST PRACTICE IN THE COMPANY	<p>Does our company have good guidelines on service adaptation?</p> <p>Can you remember some successful examples or service adaptation?</p> <p>Do you have some suggestions for best practice examples (from the company or outside the company)?</p>	
10	TO ADD	<p>Would you like to add something to the topic that we have not yet discussed?</p>	

Appendix 2. Summary of field notes from Data 1 interviews

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

Appendix 3. Service Output Document Guide Food and FM

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

Appendix 4. Co-creating the service adaptation and development process

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

Appendix 5. Co-created proposal for the service adaptation and development process

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.

The data has been removed for confidentiality reasons. The material has been available for instructors to review.