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Measuring the Operational Maturity of Business Services

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This thesis was made to decrease the service maturity variation level of the case company's customer facing business services. In this context, the maturity refers to the operational quality of a customer facing business service, and how ready the services are for the production environment.

The thesis was carried out as an action research. To be able to develop the current maturity of the service, the first step was to create a way to measure the service maturity. The thesis explored the service maturity measurement concept and utilized the current best practices. To find out which aspects affect the current service variance the most, certain stakeholders who were daily affected by the service maturity variance, were interviewed. With the help of these interviews, the most important components that affect the service maturity were recognized. In addition, related literature and best practices were utilized.

This thesis produced a tool for measuring business service maturity and utilized it to measure currently active business services. With the help of the measurement tool, the company gained a visibility over the most critical causes of the maturity variation. By focusing development actions into these entities, the case company can now enhance the service development, which will in turn lead into decreased service maturity variance.

Keywords	Service Maturity, Maturity Measurement, Business Services, Production Readiness



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1 INTRODUCTION

1.1 Overview

The art of designing good services is demanding. Many different aspects need to be considered and these aspects can vary greatly depending for example on the user base and branch. When services are designed for businesses and moved into operational state and available for sales, it means they must be ready for use – the service must reach a certain level of maturity before it is ready for the market. Services released to production in a too early stage, may cause damage to the business on many levels and most likely at least as a bad customer experience which may have a damaging echo.

This thesis will explore further the concept of how to measure service maturity and create a business service measurement concept for the case company. The results of the thesis will help to ensure a service will have a certain level of maturity as it will make the service maturity state visible. This way the service can be developed more efficiently and the variation around the service maturity can be decreased.

1.2 Business context

The case company is a Finnish ICT company offering wide range of ICT services to Finnish SME's. By the request of the case company, the name of the case company will remain anonymous.

1.3 Business challenge, objective and outcome

Anyone who has had something to do with processes, has probably explored the concept of variation. It can be seen as the troublemaker that causes processes to turn less lean and into a labor-intensive mess.

The case company has identified variation in the maturity of customer facing business services. Maturity in this context means operative capability to support and produce the service and the overall service knowledge. The services which are not mature enough to be in the operational state, may cause bad customer satisfaction, reclaims, uncertainty in employees and even loss of business as some crucial parts of the services are inadequate.

The research objective is to find a way to measure the maturity of a service and point out the flaws in whatever stage the service is on. The research outcome will be a proposal of the business service measurement model for the case company.



1.4 Outline of the thesis report on hand

First, the thesis will begin on a research of the key elements, which effect the overall service maturity. Key stakeholders will be interviewed who are daily affected by the service maturity variance and any current ways to measure service maturity, will be investigated and analyzed, to be able to point out the challenges with the current situation. The key stakeholders will represent different teams. In order to get the best out of the interviewees, a best practice or a good coming way will be utilized to find out adequate questions.

As the current maturity measurement concept or the lack of it, could be causing the service maturity variance, its pros and cons are analyzed before looking for best practices. This way it is easier to point out how these challenges are taken care of with the other measurement concepts.

Second, existing literature around measuring maturity and operational service readiness, will be used as a supporting best practice. Several existing maturity measurement concepts will be explored, and their best practices will be utilized when developing the measurement model for the case company.

Third, the components which affect most to the case company service maturity variance, will be listed and a way to measure the maturity of each of these components will be presented.

Fourth, the proposal of the service maturity measurement tool will be used for some current active service offerings.

The approach is based on the common way f beginning with qualitative research and continuing with quantitative research. The research will be supported by the existing literature and voice of the employees.

1.5 Key Terms

Maturity In the concept of this thesis, the maturity describes the oper-

ational capability of a customer facing business service and more simplified – how ready the service is for the production

environment.

Lean Lean is common framework or method which describes tools

and best practices for operating agile and quality processes

and ways to avoid waste.

Service Design In the concept of this thesis, the service design is the process

of new service development where the business service is

born and designed for the market.



Service Operations In the concept of this thesis, the service operations is the

stage where the service is operational, up and running. The

production environment.

Service Transition In the concept of this thesis, the service transition process is

the process which is responsible for escorting the newly developed services from the design phase into operational

phase.

Strategic Alignment

Maturity Model (SAMM) A model which describes a way to measure the alignment of

IT with the other functions inside an organization.

Information Management

Maturity Model (IM3) A maturity measurement model developed for Victorian gov-

ernment to measure information management practices.

Digital Maturity Model

(DMM) A maturity measurement model developed by TM Forum to

measure digital transformation capability of businesses.

Service Level

Agreement (SLA) Service Level Agreement is a documentation, usually an ad-

dendum to contract, which describes the agreed service lev-

els between service provider and customer.

2 PROJECT PLAN

2.1 Research Design

The research design included in the project plan is presented below in the figure 1.

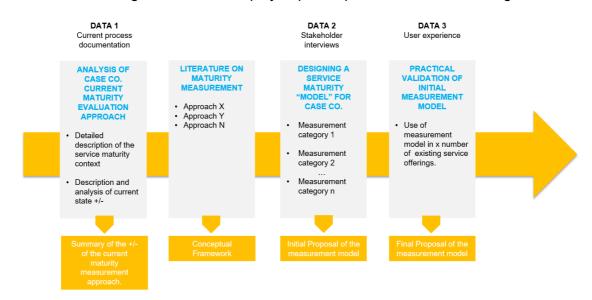


Figure 1 The Research Design



2.1.1 Analysis of the case company's current maturity evaluation approach

Current processes and operational manuals around the service maturity concept will be explored and analyzed.

Key stakeholders will be interviewed who are daily affected by the service maturity variance to be able to point out the problems and challenges with the current situation.

2.1.2 Literature on maturity measurement

Literature will be explored around the maturity measurement concept. The aim is to explore several different concepts and best practices around maturity measurement to find out which kind of approach would suit best the case company. One existing maturity measurement concept will then be used as the main source of best practices.

2.1.3 Designing a service maturity model for the case company

Based on the challenges pointed out regarding the current situation, a way to measure the maturity variance will be presented. The measurement will be divided in the logical categories to be able to point out which categories do have variance and where the development actions should be focused at.

The existing literature and key stakeholder interview results will be utilized when designing the best service maturity measurement model for the case company.

2.1.4 Practical validation of the initial measurement model

The new designed measurement model will be used in active service offerings and the ability to measure service maturity will be presented.

2.2 Validity and reliability

The reliability will be enhanced by choosing multiple stakeholders around the company in different teams and roles. All the roles will be somehow affected by the service maturity variance in their daily operations. The results will then lead into listing the most challenging entities which cause service maturity variance, which can then be divided into logical measurable categories.

Existing best practices will be utilized to be able to design an effective and reliable way to measure and present the service maturity.

The practical validation will be done if the designed measurement model will be able to measure the current service maturity and point out the most challenging areas causing most of the maturity variations.



3 ANALYSIS OF CASE COMPANY'S CURRENT SERVICE MATURITY MEASUREMENT APPROACH

3.1 Overview of this data stage

At this stage the project plan of the thesis has been done and there is a clear challenge, objective and outcome described.

3.2 Overview of the Case Company's Current Service Maturity Measurement Tools

The case company's current material regarding business service maturity measurement, was searched and investigated. There is currently a simple check list document to ensure that certain criteria will be met before the service is transitioned from the design state to the operational stage. The tool is called a service readiness checklist. This checklist document is divided in six sections which all have several subcategories or concrete steps which status and existence must be documented. A practical example of the service readiness checklist is illustrated below.

SERVICE NAME: EXAMPLE

SALES & MARKETING	STATUS	COMMENT	MATERIAL LOCATION
Sales Presentation	Done		Knowledge Base
Price List	Done		Knowledge Base
Sales Training	Done		Knowledge Base
Website Updates	Not Required		
Go-To-Market Plan	Done		Service Offering workspace
BUSINESS	1		
Profitability & Margin calculations	Done		Service Offering workspace
Innovation Canvas	Done		Service Offering workspace
SYSTEMS			'
Billing Automation	Missing		
ERP Service Data	Missing		
PRODUCTION & SUPPORT			'
Approval from Head of Operations	Missing		
Approval from Head of Service Offering	Missing		
Support Team Training	Done		Knowledge Base
DOCUMENTS			·
Service Description	Done		Knowledge Base
Internal Training Material	Done		Knowledge Base
SLA Documentation	Done		Knowledge Base
Supplier Contracts	Done		Service Offering workspace
OTHER			·
Internal Communication	Done		
Customer Manuals	Missing		www.company.fi/support
Billing Process Defined (If custom)	Not Required		



The status of each of these 19 concrete tasks has to be determined and the status can be either Missing, Not Required, In Progress or Done. The list also demands information about where the specific document will be located regarding each task.

As a summary, there is a document in place which purpose is to restrict a service to move to operational stage with low maturity. Other than the service readiness checklist, the case company does not have tools nor processes to ensure service maturity.

3.3 Pros of the Service Transition Checklist

The current check list points out several required documents to provide knowledge around the business service. It is also beneficial, that with using the current tool, the actual existence of the documentation must be proved and the whole transition must be validated from certain stakeholders.

3.4 Cons of the Service Transition Checklist

There are several problems with the current model in the context of measuring a current state of maturity. There are no criteria which define whether each of these 19 steps has been made with a reasonable effort. The current model neither represents the responsible regarding the service. For example, who is the commercial or the technical owner responsible for each of the listed documentation.

The current model does not ask opinion from the real operative point of view. For example, when the technical support team has been given a training session, the check list shows that the task of service training is ready. It does not consider the fact that maybe the training was not enough or somehow incomplete. Or maybe half of the team was not able to join at the given time.

The current model is also a bit generic about the documentation used in the operational stage, as the service maturity variance in operational stage is the actual problem. The current check list focuses on the single moment when a service is being transitioned to the operational state. For example, there should be some documentation ready at that point but maybe just the most critical ones. The documentation will develop during the service lifetime and the check list is not able to present, what the employees think of the documentation state currently: Is it poor, moderate or excellent?

The major defect in the current model is that the check list does not actually measure anything. Something is either done or not done. So, as the target is to develop the maturity variation amongst business services, the service maturity has to be measured first. The second major defect is that there is no defined process, which would include filling the service transition checklist. This means that it cannot be confirmed or validated, whether the document has been used or not. On top of that, as the variance has been



noticed with services that are already in the operational state, it means that there has to be a problem with the quality check in the service transition process.

3.5 Summary of the Pros and Cons of the Service Transition Checklist

I believe these 19 aspects has been recognized as important entities which must be completed to begin the service transition from the design phase to the operational stage. There are certainly important aspects which will act as a great basis for the new service maturity measurement model. However, the check list is a bit generic and it could represent the state of readiness with more detail. The check list could also consider the responsible with more detail to assure the business service in question has the basic responsible determined.

To summarize, the current tool appears to be ineffective regarding the service maturity variance. However, it is certainly a tool only for the service transition phase when the service has been created – not for continuous use for later service lifetime stages. The basic objective of the tool differs from the one being created in this thesis.

4 EXPLORING LITERATURE ON MATURITY MEASUREMENT

4.1 Introduction

As the business problem is linked to service maturity variance, some literature around the concept of service maturity, will be explored. In more detail, to get rid of the maturity variance, the research will try to find tools which can help to decrease the variance or at least make the cause of the variance visible, so that it can be fixed. Given that, this chapter will focus on finding best practices in maturity measurement.

As the usage and impact of the current service maturity concept seems to be unsubstantial, this chapter will focus to find a suitable best practice to add something to it to make it work or even replace it completely.

4.2 Information Management Maturity Measurement tool (IM3)

The first literature explored around the concept of measuring maturity, is the IM3, Information Management Maturity Measurement tool. It was developed by the Public Record Office Victoria to help Victorian government to be able to measure the maturity of their own information management practices (Prov.vic.gov.au, 2018).

The information management in this context means the way how organizations for example identify, create, collect, organize, govern, secure, control and maintain its information. 'The primary aim of information management is to ensure that the right information is available to the right person, in the right format and medium, at the right time' (Prov.vic.gov.au, 2018).



The IM3 states that it helps to identify the pros and cons of the current information management to be able to develop it further. The IM3 measurement assessment is suggested to be used by the ICT managers, record managers and business managers (Prov.vic.gov.au, 2018).

4.2.1 Question areas

The IM3 is based on set of questions where each answer reflects the state of maturity. To be able to point entities to develop, the questions are divided in four different areas which are:

- People
- Organization
- Information Lifecycle & Quality
- Business Systems & Processes (Prov.vic.gov.au, 2018).

The questions have five different levels where the lowest number 1 stand for the least mature stage and number five stands for the most mature stage. These five stages are shown in the next list (Prov.vic.gov.au, 2018).

(1) Unmanaged	The organization is unaware or has not taken any action to address
	the issue.
(2) Aware	The organization is aware of the issue but there is little evidence of
	the actions done.
(3) Formative	The organization is currently addressing the issue and there will be
	practical evidence about the actions.
(4) Operational	The organization has already completed an implementation based
	on beforehand planned actions.
(5) Proactive	The organization has an innovative response to a complex issue or
	dedicated commitment to achieve the highest maturity on a partic-
	ular area.





Figure 2 IM3 Maturity Levels

With these questions the organization can obtain an overall view about the current state of the information management maturity, but it also helps to point out where to begin with the development work (Prov.vic.gov.au, 2018).

The IM3 guidance suggest that after the measurement has been done, one should examine the results and identify the areas which needs further development (Prov.vic.gov.au, 2018).

The IM3 guidance contains 17 questions but since they are quite explicitly related to information management of Victorian government, utilizing them in this thesis would not be rather effective. However, the maturity measurement model itself seems functional.

4.3 Strategic Alignment Maturity Model (SAMM)

The second existing literature investigated is the Strategic Alignment Maturity Model (SAMM) presented by Jerry Luftman (Van Grembergen, 2004). 'Strategic alignment focuses on the activities that management performs to achieve cohesive goals across the IT (Information Technology) and other functional organizations (e.g., finance, marketing, H/R, R&D, manufacturing)' (Van Grembergen, 2004).

The SAMM seems to be a great supporting best practice to measure maturity for the case company as according to Van Grembergen (2004) SAMM is an approach for assessing the maturity of the business-IT alignment. 'Once maturity is understood, an organization can identify opportunities for enhancing the harmonious relationship of business and IT' (Van Grembergen, 2004).



4.3.1 Levels of Maturity

The SAMM identifies five different levels of maturity which are listed next in order starting from the least mature stage. Each level also follows a description of the stage in the next list (Van Grembergen, 2004).

(1) Initial / Ad-hoc processes
 Meaning a very ineffective stage.

 (2) Committed Process
 Meaning low level of maturity.

 (3) Established Focused Process
 Meaning a moderate level of maturity.

 (4) Improved / Managed Process
 Meaning mature in some parts of the organization.

 (5) Optimized Process
 Meaning mature throughout the organization.

4.3.2 Measuring criteria

SAMM also presents six different criteria which should be measured. 'Each of the five levels of alignment maturity focuses, in turn, on a set of six criteria based on practice validated with an evaluation of 25 Fortune 500 companies' (Van Grembergen, 2004).

The six criteria with summarized descriptions are as follows:

Communications Maturity

The stage of ongoing knowledge sharing across the organizations.

Competency / Value Measurement Maturity

A value to the business. Accepted and understandable service levels and the associated rewards and penalties.

Governance Maturity

Clearly defined decision-making authority. A process of formally discussing and reviewing the priorities and resource allocation.

Partnership Maturity

The relationship between the business and IT organizations. The IT should be given an equal role to affect to the business strategies. All organizations sharing the risks and rewards.

Scope & Architecture Maturity

IT can support effectively the entity of flexible IT infrastructure which is visible to all other organizations and customers, implement new technologies effectively, drive standardized business processes and provide customizable solutions.

Skills Maturity

Traditional human resource aspects like training, feedback and career opportunities as well as the aspects beyond the traditional aspects like business innovation responsibility,



learning from experience, organizations capability of thriving innovative ideas and entrepreneurship (Van Grembergen, 2004).

4.4 Digital Maturity Model (DMM)

TM Forum is an industry association with 'vision is to help communications service providers (CSPs) and their suppliers to digitally transform and thrive in the digital era' (TM Forum, 2018). TM Forum is a global, non-profit organization with over 850-member companies. The revenue of the member companies is over two trillion dollars and they serve over five billion customers in 180 countries (TM Forum, 2018).

TM Forum, together with other companies and advisory firms have come up with industry survey to measure the communications service providers digital maturity with a tool called Digital Maturity Model (DMM). With the help of the DMM an organization can provide a snapshot of the business and identify where they currently are regarding the digital transformation and which areas should be developed. (Tmforum.org, 2017).

4.4.1 DMM Dimensions

The DMM has been split into five dimensions with altogether 28 sub-dimensions which are shown in the next chart (Tmforum.org, 2017).



CUSTOMER

Customer Engagement

Customer Experience

Customer Insights & Behavior

Customer Trust & Perception

TECHNOLOGY

Applications

Connected Things

Data & Analysis

Delivery Governance

Network

Security

Technology Architecture

CULTURE, PEOPLE, ORGANIZATION

Culture

Leadership & Governance

Organizational Design & Talent Management

Workforce Enablement

STRATEGY

Brand Management

Ecosystem Management

Finance & Investment

Market & Customer

Portfolio, Ideation & Innovation

Stakeholder Management

Strategic Management

OPERATIONS

Agile Change Management

Automated Resource Management

Integrated Service Management

Real-Time Insight and Analytics

Smart and Adaptive Process

Standards and Governance Automation

In addition with the above-mentioned dimensions, DMM includes over 175 digital criteria to help organizations measure the digital maturity of their organization. The measurement tool consists of questions which should be asked from people across the entire organization (Tmforum.org, 2017).

4.4.2 The Five States of Digital Maturity

To be able to measure the state of the maturity on each dimension, there are five different states, where the survey recipient must choose from. The five stages are described as follows. As similar to the previous maturity models presented in this thesis, the first stages are the one presenting the lowest state of maturity. The digital maturity stages are shown in the next list (Tmforum.org, 2017).

(1) **Initiating** Discussions are on early stage regarding this specific area.

(2) Emerging Discussions have developed and already affecting the daily opera-

tions.



(3) Performing	Clear objectives have been set and they are being followed	
	throughout the entire company.	
(4) Advancing	The formerly set objectives and plans are being expanded to come	
	up with new innovations to develop this specific area even further.	
(5) Leading	The company is a leader in this area. The subject area has been	
	mastered and the company leads the industry discussions.	

The DMM suggests combining two or more departments that are not usually working together and that at least 5 to 10 percent of people from each department should participate to the survey (Tmforum.org, 2017).

It is also guided by DMM to present the digital maturity in a form of a spectrum where one can illustrate the target as well as the current state (Tmforum.org, 2017).

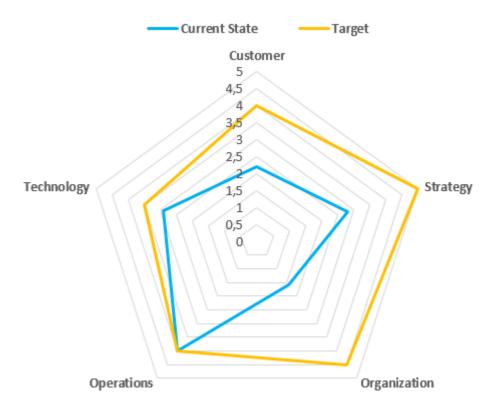


Figure 3 Spectrum Example

4.5 Conceptual Framework

As the current literature has shown, one crucial part of a maturity measurement tool is the measurement areas and the sub-areas under them. The areas are used to point out the maturity entities where the development actions and resources should be focused at.

The measurement areas presented so far will be utilized when designing the maturity measurement areas for the case company. Before selecting the measurement areas for



the case company, the case company's employees will be interviewed around this specific matter.

Below in figure 4, is listed all the measurement categories of the related literature covered as well as the current service readiness checklist.

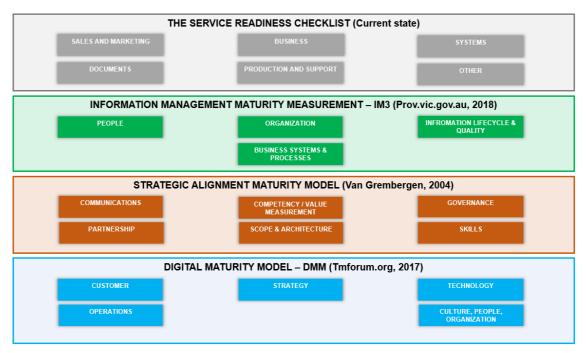


Figure 4 Measurement categories of different maturity measurement models.

4.6 Chosen literature for common best practices

Regarding the existing literature and other maturity measurement concepts, the Strategic Alignment Maturity Model (SAMM) has been chosen for the main source of best practices for the case company's maturity measurement model. The SAMM was chosen because it has the most comprehensive way of measuring the maturity and as it is all about business and IT alignment, it is most relevant model for the case company.

5 DESIGNING A SERVICE MATURITY MODEL FOR THE CASE COMPANY

5.1 Overview of this data stage

The case company employees were interviewed. With the help of the interviews, the measurement categories for the case company's maturity model will be designed. The current service readiness checklist will be also utilized as it includes relevant content, even if it currently does not measure service maturity effectively.

Another major defect was found during the interviews regarding the service readiness checklist as none of the interviewees had never seen or heard about it before. The restricted visibility of the tool may have been conscious decision by the company. However, the lack of visibility causes the tool to be unreliable as it can be assumed that the content is only an opinion of limited number of employees.



5.1.1 Interviews

Four employees were interviewed from three different teams: Marketing, Account Management and Service Operations. There was a total of 20 questions asked which all were related to the services of the case company.

The interview questions are based on the Futures Fit® service concept and methods (Nousiainen, 2018) which were introduced during the service design course at Metropolia University of Applied Sciences.

The total of 18 questions were divided into seven different categories which were

- Roles and Practices
- Goals & Resources
- Favourites
- Frustrations
- Desired & Dreams
- Fears & Nightmares (Nousiainen, 2018).
- Service Maturity

The last category was added for the thesis work to ensure interview relation to the thesis topic of service maturity. Chiefly, in every interview, all question categories gave output related to the thesis topic. The questionnaire used in the interview is presented in the next chapter.

5.1.2 Interview questionnaire

The interview questions are based on the Futures Fit® service concept and methods (Nousiainen, 2018). The questions are cherry-picked from a given list of questions and the headlines of the question groups presented below are based in the headlines presented in the Futures Fit® material.

The questions have been slightly modified to turn them into a question related to the services of the company. It is totally taken into account, that not all the questions are explicitly related into the services. Some questions are playing a major role in process of understanding the role of the interviewee and opening up the interviewee to better understand the deeper feelings of the person, around the topic.

ROLES & PRACTICES

What kind of role(s) do you have in your (work) life? Please describe your role(s) (as a consumer or as a company employee).

What kind of services you are involved with during the week?

Can you make independent decisions when choosing the services, you use? Who needs to be involved, does someone decide for you?



GOALS & RESOURCES

What kind of goals do you have?

What kind of services do you need to reach your goals?

What other resources do you need to reach your goals?

FAVORITES

What are your favourite services in the everyday? Why? What kind of characteristics you admire in a service / product...? Why?

Which services or products you have recommended to somebody? Why?

FRUSTRATIONS

What are the challenges, difficulties and obstacles you have faced when using services?

What/who is needed to remove frustrations/ obstacles?

What kind of advice/help have you received?

DESIRES & DREAMS

What service(s) would you like to have/use?

What would your dream service be like?

FEARS & NIGHTMARES

What are the services you could not live without?

What kind of fears or concerns do you have related to the current or upcoming services, and have they prevented you from using them?

SERVICE MATURITY

If you would have a magic wand to correct three areas of services immediately, which would they be?

Define areas of services which you think are the most advanced / mature?

Define areas of services which you think are the least advanced / mature?

5.1.3 Persona cards

Four persona cards were created based on the interviews, one from each interview. The persona cards were created based on the Futures Fit® service concept and methods (Nousiainen, 2018) which were introduced during the service design course at Metropolia University of Applied Sciences. The persona cards will be utilized to create as effective measurement tool for the case company as possible in terms of user experience.

Creating personas can help to recognise that different people have different needs and expectations. 'Personas make the design task at hand less complex, they guide your ideation processes, and they can help you to achieve the goal of creating a good user experience for your target user group' (The Interaction Design Foundation, 2018).



The thesis appendix includes the persona cards. The interviewee names appearing in the persona cards have been changed for privacy reasons.

5.1.4 Summary of the interview findings

After analysing the interviews and the persona cards, there are some clear entities which came up as the favourites, frustrations, desires and dreams which all affect the service maturity. By focusing on the development of these entities, the service maturity can most likely be enhanced or at least by measuring them, the new maturity measurement model has a change to produce a realistic vision of the service maturity. The areas that were mentioned more than once were by the interviewees were:

- Training and orientation.
- Documentation and knowledge sharing.
- Communication.
- Roadmap & Development.
- Roles and responsibilities.

Many other points mentioned could also be part of the above-mentioned areas. For example, the effective service management policies and visibility can be most likely fixed by having effectively pointed out the related roles, responsibilities and organizing comprehensive trainings.

5.2 Building the Measurement Categories

The measurement categories will be designed in the next chapters. The categories will be built around the combination entities which were mentioned in the service readiness checklist, entities which were mentioned in the related literature and the entities which were mentioned most often during the interviews.

x.1 Measurement Category Y: <NAME>

What is the category called? What is it related to?

x.1.1 The sources and referrals of the case category

low did the idea of the category came up? Who mentioned it and where?

x.1.2 Related evaluation questions

How is the case category measured in the service maturity measurement model?

Figure 5 Designing the Measurement Categories

For every category chosen, the first section will introduce the category shortly. The first sub-section will explain the sources and expressions where the case category has been



mentioned and explain why it was chosen to be part of the maturity measurement questionnaire. The third sub-section will present the question, which will then measure, what is the actual maturity stage of the presented category.

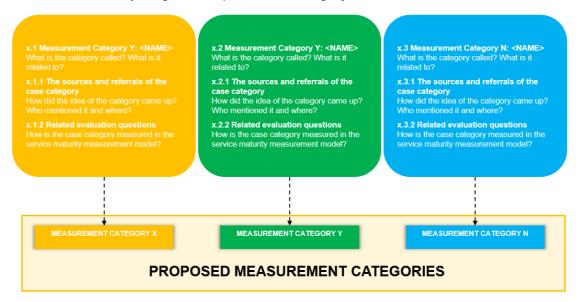


Figure 6 Proposed Measurement Categories

In the last sub-chapter, the questions will be pulled together, and the entire questionnaire will be presented.

5.3 Measurement Category 1: Training and Orientation

The first measurement category is training and orientation. The category covers all the business service related training and orientation.

5.3.1 The sources and referrals of the case category

The training was mentioned in the current service readiness checklist, but it was not mentioned as an own category but a sub-category of sales and production. Measurement areas related to training and orientation, was mentioned in all the earlier presented maturity measurement models. The SAMM has measurement categories of communications, which includes sub-category of learning/education and measurement category called skills, which includes a sub-category called Education, Cross-Training (Van Grembergen, 2004). Training and orientation was also recognized as one critical aspect affecting the service maturity, as it was mentioned by all the employees during the interviews.

There are basically two kind of groups that do always require the service training which are also in the current service readiness checklist. The commercial training for the sales and the technical training for the service operations.



5.3.2 Related evaluation questions

How would you best describe the state of training and orientation regarding the service in question? (Are there trainings arranged? Are the trainings comprehensive? Is the content of the trainings relevant?)

- Commercial Training
- Technical Training

5.4 Measurement Category 2: Documentation and Knowledge Sharing

Documentation and knowledge sharing covers all the documentation and knowledge sharing related to a specific business service.

5.4.1 The sources and referrals of the case category

Documentation and knowledge sharing is also an entity which came up in the related maturity measurement concepts. The SAMM has a sub-category of knowledge sharing under communications category (Van Grembergen, 2004). During the employee interviews the knowledge was mentioned more than once.

In the current service readiness checklist there were several sub-categories which are linked into documentation and knowledge, which are spread over several different categories. They are sales presentation, price list, service description, internal training material, Service level agreement (SLA) and customer manuals. To make to make it more clear and simple, the materials can be divided into commercial and technical documentation, but also to external and internal material.

5.4.2 Related evaluation questions

How would you best describe the state of each of the listed documentation? (Is the knowledge location clear? Is the documentation up to date? Is the content of the documentation relevant?)

- Service Description (External)
- Service Level Agreement (External)
- Price List (External)
- Sales Presentation (External)
- Service Instructions (External)
- Service Instructions (Internal)
- Commercial Training Material (Internal)
- Technical Training Material (Internal)

5.5 Measurement category 3: Communication

Communication covers all the internal and external communication done regarding the specific business service.



5.5.1 The sources and referrals of the case category

Communications is one of the measurement categories of SAMM. SAMM states that in order to achieve a high maturity in its context, there should be effective exchange of ideas and too often there is too little awareness regarding the business (Van Grembergen, 2004). Inefficient communication was also mentioned as a cause of frustration during the interviews.

The current service readiness checklist mentions internal communication as a sub-category but does not mention the external communication and it is assumed to be a notable thing to affect service maturity as well.

5.5.2 Related evaluation questions

How would you best describe the state of communication done? (Is there enough communication? Is it clear? Is the communication done at the right time?)

- External Communication (Customers and Partners)
- Internal Communication (Employees)

5.6 Measurement Category 4: Roadmap and Development

The measurement category number four is about the roadmap and development visibility regarding the specific business service.

5.6.1 The sources and referrals of the case category

The case of roadmap and development visibility came up more than once during the interviews, but the current service readiness checklist does not mention it. The SAMM has many categories which cover at least something related to roadmap and development like for example the sub-categories regarding continuous improvement, strategic planning, investments, goals and program management. (Van Grembergen, 2004).

During the interviews, it was mentioned, that there should be visibility to service development roadmaps to be able to show it to customers. There are again the two sides of the category, the internal and external roadmap visibility.

5.6.2 Related Evaluation Questions

How would you best describe the state of the service roadmap and development visibility? (Meaning how the service will be developed in the future. For example, what are the upcoming new features and when will they be launched? Are they communicated clearly to customers as well?)

- Roadmap Visibility (Internal)
- Roadmap Visibility (External)



5.7 Measurement Category 5: Roles and Responsibilities

The category of roles and responsibilities measures how well the roles and responsibilities of a specific business service are determined and known.

5.7.1 The sources and referrals of the case category

The roles and responsibilities is a category, that may also affect the other categories regarding the maturity. For example, if there are not clear roles and responsibilities defined for a service, it may be the maturity of communication, knowledge and training which will be affected. The entity of roles and responsibilities was mentioned more than once during the employee interviews.

The current service readiness checklist does not include a category about the roles and responsibilities. The SAMM however has a category about governance and also states that the authorities and decision-makers need to be defined clearly (Van Grembergen, 2004).

5.7.2 Related Evaluation Questions

How would you best describe the state of service roles and responsibilities regarding effective resourcing and visibility? (Are the service technical and commercial owners clearly visible? Does the service responsibilities have enough resources for the service?)

- Resourcing.
- Visibility of roles and responsibilities.

5.8 Measurement Category 6: Systems and Tools

The category of systems and tools, includes measuring the maturity relating to how the specific business service appears in the systems and tools.

5.8.1 The sources and referrals of the case category

The current service transition checklist included some tasks related to the internal systems. The SAMM model did not present any closely related category. It is understandable since this category of internal systems and tools is quite company specific or it might be covered in some other topic, like knowledge sharing.

However, in the context of the case company it means tools like service catalog and billing systems, which require some actions to be able to order and invoice the services. During the interviews the complexity of the internal systems was mentioned more than once.



5.8.2 Related Evaluation Questions

How would you best describe the state of systems and tools related to the case business service? (Are there new and legacy tools where the case service management is divided? Are the right roles able to execute the right actions with the tools? Are the tools clear and easy to use?)

- Availability, Accessibility
- Integrity and Clarity
- Usability

5.9 Measurement Category 7: Processes

The Processes includes all the process related matters regarding the case service.

5.9.1 The sources and referrals of the case category

The idea of category around processes came from the current service readiness checklist which had listed a sub-category related to processes. The SAMM does not include a single entity covering processes but again, the processes are really closely linked to knowledge sharing, documentation and training.

The category of processes seems to be reasonable to separate as an own entity, because even if it relates closely to the above-mentioned categories, it apparently requires its own physical material and most likely dedicated responsible stakeholders.

5.9.2 Related Evaluation Questions

How would you best describe the state of processes regarding the case business service? (Is there process descriptions and illustrations? Are the processes simple and lean?)

- Order & Delivery Process
- Service Termination Process
- Billing Process

5.10 Measurement Category 8: Business Development and Marketing

The business category includes the commercial management around the business service.

5.10.1 The sources and referrals of the case category

The business has a strong presence in the current service readiness checklist as well as in the SAMM model. Even though the points mentioned in the service readiness checklist might be necessary, they are entities which are known and seen only for restricted amount of people in the organization and that is why they are not suitable for the questionnaire. The reason is that when the employees would be asked for example about the



existing margin calculations, the category would be most likely always get a bad result about the overall maturity, since they are not visible to the whole organization and it can be assumed that they neither should be. That is the reason why, the questions should include entities which are visible to the entire organization.

The service readiness checklist included a business innovation canvas. This document is also something that is not visible for the whole organization and it is more like an internal design tool. However, it includes some matters that probably should be understood by all the employees. For example, the matter of why the service exists and who is the focus customer group. The questions are designed around these matters.

5.10.2 Related Evaluation Questions

How would you best describe the state of the business and marketing entities related to the service in question? (Are the marketing materials up-to-date? Is there any required development or corrections in the marketing content? Can you recognize the most relevant competitors? Can you explain why the customer should choose the case company's services?)

- Website content and outlook
- Business understanding (Customer Segment, Customer pains and gains)
- Market (Competitors, Advantages)
- Service Promise (Why the product exists? Why the customer should choose the case company?)

5.11 Summary of The Proposed Measurement Model (Maturity Categories)

In order to avoid situation where employees have to answer questions around matters they are not working with or do not know anything about, the questions were separated into commercial and technical set of questions. In the beginning of the survey, the employee chooses the team.

It can be recognized that there are teams who work daily with the technical side of the services, and teams who work daily with the commercial side of the services. The chosen team affects to the set of questions, the employee will get.

The next list shows what set of questions the employee will get, based on the chosen team. The different sets of questions are marked with a number.

- (1) = Commercial set of questions
- (2) = Technical set of questions

Each team is marked with a number which corresponds the number of the set of questions.



TEAM	QUESTION SET
Service Operations; Billing; Change, Order & Delivery (2)	2
Sales, Account Management (1)	1
Service Offering (1)	1
Marketing (1)	1

Below are presented the chosen categories and sub-categories for the measurement model for the case company. After each subcategory is a number which defines is the question in the commercial set of questions, technical set of questions or both.

TRAINING & ORIENTATION	QUESTION SET
Commercial Training	1
Technical Training	2
DOCUMENTATION & KNOWLEDGE SHARING	
Service Description	1
Service Level Agreement	1
Price List	1,2
Sales Presentation	1
External Service Instructions	2
Internal Service Instructions	2
Commercial Training Material	1
Technical Training Material	2
COMMUNICATION	
External Communication	1,2
Internal Communication	1,2
ROADMAP & DEVELOPMENT	
Internal Roadmap Visibility	1,2
External Roadmap Visibility	1,2
ROLES & RESPONSIBILITIES	
Visibility	1,2
Resourcing	1,2
SYSTEMS & TOOLS	
Availability	2
Integrity	2
Usability	2
PROCESSES	
Order & Delivery Process	1,2



Service Termination Process	1,2
Billing Process	1,2
BUSINESS DEVELOPMENT & MARKETING	
Website Content and Outlook	1
Business Understanding	1
Market Knowledge	1
Service Promise	1

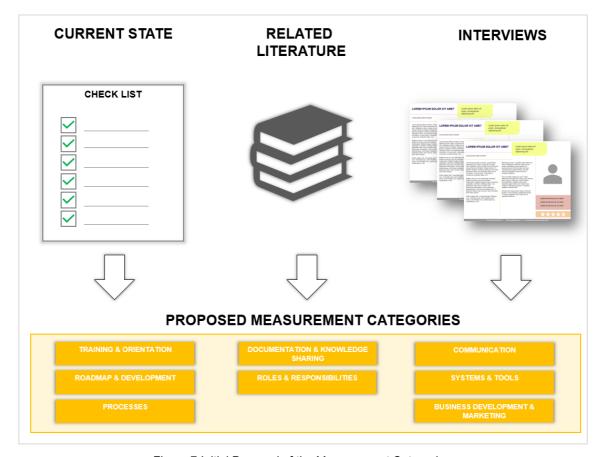


Figure 7 Initial Proposal of the Measurement Categories

It is important to understand that the proposed model is the one to begin with. If at any state of time someone recognizes a category or subcategory that should be added, deleted or modified, the survey can be modified before the next measurement. The practical validation and testing phase of the tool will be done in the next section.

5.12 Maturity stages and target

The case company's maturity measurement model will utilize the common five stages of maturity which was used in all of the different maturity measurement models which were explored as the related literature. The maturity stages are:

1. Poor – The described entity / action does not exist.



- 2. Low The described entity / action party exists.
- 3. Moderate The described entity / action exists and is commonly utilized.
- 4. High The described entity / action is commonly used, and it has been improved several times in the past.
- 5. Excellent The described entity / action is commonly used, it is being continually improved and it has been developed to its most optimized state.



Figure 8 Stages of Service Maturity

The targets are set for each service and it may not be cost-effective or relevant to develop every category and sub-category of service maturity to stage five. The target stages may also change from time to time after some specific stage of maturity will be reached. However, during the measurements done in this thesis, the stage five will be used as the default target. This is mostly something that will affect the visualization of results regarding the practical validation.

6 PRACTICAL VALIDATION OF INITIAL MEASUREMENT MODEL

6.1 Overview of this data stage

The measurement survey has been designed and build using a 3rd party questionnaire tool and it has been tested to be working correctly. The survey was shared to company employees by using email which contains a simple web link to the survey.



6.2 Service Maturity Measurement: Measurement #1

The first measurement was done for a single business service. The actual name and function of the service will remain unpublished and will only be released for company internal use for privacy reasons.

6.2.1 Basic Information

The first measurement survey was sent for 109 employees from which 39 employees answered to the survey. The survey recipients were chosen from the following teams: Service Operations; Billing; Change, Order & Delivery Management; Sales; Account Management; Service Offering and Marketing. These teams were chosen based on the fact that the employees in these teams work daily with the business services.

The survey was open for one week. 56% of the recipients answered the technical set of questions and 44% answered to the commercial set of questions.

6.2.2 Results

A table showing the results per maturity measurement category is shown below following with radar chart visualizing the results.

MEASUREMENT CATEGORY	RESULT	TARGET
TRAINING & ORIENTATION	2,63	5
ROADMAP & DEVELOPMENT	2,29	5
PROCESSES	2,54	5
DOCUMENTATION & KNOWLEDGE SHARING	2,86	5
ROLES & RESPONSIBILITIES	2,64	5
COMMUNICATION	3,57	5
SYSTEMS & TOOLS	2,67	5
BUSINESS DEVELOPMENT AND MARKETING	2,83	5





Figure 9 Service Maturity Measurement #1Results Spectrum

6.2.3 Analysis

As the results indicate, the maturity of the case business service most like requires holistic development. The service maturity could be better in every category. The results indicate that the most critical defect is in the roadmap and development visibility and right after that comes the category of processes. By developing these two categories, the average maturity for the case service could likely be developed most effectively.

It seems that the best situation is with the category of communication with average of 3,57. None of the other categories reached the average of 3. There is still room for development regarding communication, but it is not the most critical maturity category to be developed.

It can be difficult to develop a complete area of maturity with simple concrete action, as one measurement category can consist of several separate measurement sub-categories which are not linked to each other. To see more detailed information about the results, the detailed resources can be reviewed.

For example, when starting to develop the category of documentation and knowledge sharing, the technical training material has the lowest maturity of 2,13 and therefore developing that specific sub-category could be the most critical area to develop and could



bring results most effectively. The detailed results can be found in the addendum section of the thesis.

6.2.4 Employee Feedback

At the end of the survey is a feedback section, where the respondents can optionally leave feedback for the survey. There were several feedbacks related to the separation of technical and commercial questions. Some employees were concerned if the technical personnel can give reliable answers about commercial matters and vice versa. This was already taken care of as there were two sets of questions, the technical and the commercial one. This just was not communicated to the respondents clearly enough.

There were also several feedbacks saying that the questions were good, and questionnaire was comprehensive.

There were several feedbacks relating to the service itself and not the survey. For the second measurement round, the feedback section will be divided in two parts. Feedback for the survey and feedback for the case business service. The service feedback will be forwarded to the service owners.

6.3 Service Maturity Measurement: Measurement #2

The second measurement was done for another single business service. The actual name and function of the service will remain unpublished and will only be released for company internal use for privacy reasons.

6.3.1 Basic Information

The second measurement survey was sent for slightly different recipients as the previous measurement. The second measurement survey was sent for total of 79 employees. The recipients were chosen from the following teams: Service Operations; Change, Order & Delivery Management; Sales; Account Management; Service Offering and Marketing. These teams were chosen because the employees in these teams work daily with the business services.

The survey was open for one week. The survey got 9 answers of which 67% answered the technical set of questions and 33% answered to the commercial set of questions.

6.3.2 Results

A table showing the results per maturity measurement category is shown below following with radar chart visualizing the results.

MEASUREMENT CATEGORY	RESULT	TARGET
TRAINING & ORIENTATION	3,11	5
ROADMAP & DEVELOPMENT	1,85	5



PROCESSES	2,89	5
DOCUMENTATION & KNOWLEDGE SHARING	2,82	5
ROLES & RESPONSIBILITIES	2,50	5
COMMUNICATION	3,15	5
SYSTEMS & TOOLS	2,43	5
BUSINESS DEVELOPMENT AND MARKETING	2,67	5



Figure 10 Service Maturity Measurement #2 Results Spectrum

6.3.3 Analysis

The second measurement results show, that most likely the case business service maturity needs holistic development, as in the case of the first measurement. When analysing the worst and the best measurement category results, the spectrum in Figure 10 indicates, that the communication and training tends to be the most mature categories. Then again, the maturity of roadmap and development area seems to be dragging down the average maturity of the case service as its stage of maturity is poor.

The detailed results can be found in the addendum section of the thesis.

6.3.4 Feedback

In the second measurement, there were two different feedback sections, the service feedback and the survey feedback. With the second measurement there was not any feedback given regarding the survey via the questionnaire tool.



However, several employees gave feedback personally after receiving the survey email, saying that they cannot answer to the survey because their knowledge about the service is so insufficient, that they could not have given reliable answers. Based on this personal feedback, the lack of knowledge regarding the case business service may have affected the overall answering percentage. The answering percentage of the second maturity measurement survey was 11,4% as in the first maturity measurement survey it was 35,8%.

6.4 Lessons learned from case-based practical model use

It is challenging to build a survey for which every employee of the case company can give reliable answers to. Therefore, the questions of the survey were divided in two sections in the first place: the technical and the commercial questions. Based on the personal feedback from the employees during the second survey, it may be that there are still people who cannot answer to the survey due to lack of knowledge. For example, some employees cannot give reliable answer to questions about the state of the documentation, if they have never seen or used the case business service documentation in their work.

It may be acceptable that every employee does not have knowledge about every area of every business service, if it is a decision done by the company. This exact matter was covered in IM3 which described what to do in a case where the individual does not know the answer. The IM3 introduced the options of Unknown, which can be used when there is not enough knowledge and Not Applicable, which can be used if the question is not relevant for the individual (Prov.vic.gov.au, 2018).

Each question of the case maturity measurement survey could be also added the options of Not Applicable and Unknown, to gain more insights and obtain more reliable results. In summary, the maturity measurement tool seems to be working correctly, as it creates visibility towards the service maturity. Not only when looking the service as an entity, but when looking different areas of the service down to the concrete items and actions. With the help of this visibility, the measured service could be developed more efficiently as the development actions can be focused on areas which need development the most.

6.5 Summary of the final proposal: Maturity Measurement Survey

The purpose of the next survey is to measure the maturity of a service: "Add name and short description of the service here."

In this concept the maturity describes the operational quality of a customer facing business service and more simplified – how ready the services are for the production environment.



Answer to every part of the questions asked, with a number corresponding one of the following maturity stages as they appear to you.

STAGE	DESCRIPTION
1 – POOR	The described entity / action does not exist.
2 – LOW	The described entity / action party exists.
3 - MODERATE	The described entity / action exists and is commonly utilized.
4 – HIGH	The described entity / action is commonly used, and it has been
	improved several times in the past.
5 - EXCELLENT	The described entity / action is commonly used, it is being con-
	tinually improved and it has been developed to its most opti-
	mized state.
NOT APPLICABLE	The presented entity / action is not applicable to my work / role.
UNKNOWN	The lack of knowledge prevents me giving a reliable answer.

Please select the team you are currently working in.

Service Operations; Billing; Change, Order & Delivery	0	
Sales, Account Management	0	
Service Offering	0	
Marketing	0	
Finance, HR	0	
Project Services & Consulting	0	
Core Services	0	

How would you best describe the state of training and orientation regarding the service in question? (Are there trainings arranged? Are the trainings comprehensive? Is the content of the trainings relevant?)

	1	2	3	4	5	Not Applicable	Unknown
Commercial Training	0	0	0	0	0	0	0
Technical Training	0	0	0	0	0	0	0

How would you best describe the state of each of the listed documentation? (Is the knowledge location clear? Is the documentation up to date? Is the content of the documentation relevant?)

	1	2	3	4	5	Not Applicable	Unknown



Service Description (External)	0	0	0	0	0	0	0
Service Level Agreement (External)	0	0	0	0	0	0	0
Price list (External)	0	0	0	0	0	0	0
Sales Presentation (External)	0	0	0	0	0	0	0
Service Instructions (External)	0	0	0	0	0	0	0
Service Instructions (Internal)	0	0	0	0	0	0	0
Commercial Training Material (Internal)	0	0	0	0	0	0	0
Technical Training Material (Internal)	0	0	0	0	0	0	0

How would you best describe the state of communication done? (Is there enough communication? Is it clear? Is the communication done at the right time?)

	1	2	3	4	5	Not Applicable	Unknown
External Communication	0	0	0	0	0	0	0
Internal Communication	0	0	0	0	0	0	0

How would you best describe the state of the service roadmap and development visibility? (Meaning how the service will be developed in the future. For example, what are the upcoming new features and when will they be launched? Are they communicated clearly to customers as well?)

	1	2	3	4	5	Not Applicable	Unknown
Roadmap Visibility (Internal)	0	0	0	0	0	0	0
Roadmap Visibility (External)	0	0	0	0	0	0	0

How would you best describe the state of service roles and responsibilities regarding effective resourcing and visibility? (Are the service technical and commercial owners clearly visible? Does the service responsibilities have enough resources for the service?)

	1	2	3	4	5	Not Applicable	Unknown
Resourcing	0	0	0	0	0	0	0
Visibility of roles and responsibilities.	0	0	0	0	0	0	0

How would you best describe the state of systems and tools related to the case business service? (Are there new and legacy tools where the case service management is divided? Are the right roles able to execute the right actions with the tools? Are the tools clear and easy to use?)



	1	2	3	4	5	Not Applicable	Unknown
Availability, Accessibility	0	0	0	0	0	0	0
Integrity & Clarity	0	0	0	0	0	0	0
Usability	0	0	0	0	0	0	0

How would you best describe the state of processes regarding the case business service? (Is there process descriptions and illustrations? Are the processes simple and lean?)

	1	2	3	4	5	Not Applicable	Unknown
Order & Delivery Process	0	0	0	0	0	0	0
Service Termination Process	0	0	0	0	0	0	0
Billing Process	0	0	0	0	0	0	0

How would you best describe the state of the business and marketing entities related to the service in question? (Are the marketing materials up-to-date? Is there any required development or corrections in the marketing content? Can you recognize the most relevant competitors? Can you explain why the customer should choose the case company's services?)

	1	2	3	4	5	Not Applicable	Unknown
Website Content & Outlook	0	0	0	0	0	0	0
Business Understanding	0	0	0	0	0	0	0
Market	0	0	0	0	0	0	0
Service Promise	0	0	0	0	0	0	0

7 DISCUSSION & CONCLUSIONS

7.1 Executive summary

The goal of the thesis was to create a visibility towards business service maturity to decrease the overall service maturity variation of the case company's customer facing business services. In this concept the maturity describes the operational quality of the services.

The maturity variation means that there are services which are not mature enough to be operational, which require development to reach the required level of maturity. To gain visibility to service maturity for each service, the service maturity needs to be measured. The measurement should be detailed enough to be able to point out areas and concrete actions of development to increase the service maturity.



Several maturity measurement tools were explored to gain insights about the maturity measurement concept and best practices. As it was acknowledged that most of the maturity measurement tools consisted of questionnaire, the same approach was utilized with the case company. To find the right questions, the case company's current material was explored, and several employees were interviewed around the matter of service maturity. The 26 questions were divided into eight logical areas which were called as maturity categories. With the help of the maturity categories, it is easier to point out areas of maturity which need development and it can make the development more effective. As the qualitative interview approach was done and the questionnaire was ready, it was implemented into a 3rd party questionnaire tool. The service maturity measurement survey was then utilized in a form of qualitative interview with tens of employees, using two separate business services of the case company.

The results were analyzed, and certain maturity categories and their sub-categories could be pointed out, which had either lower or higher maturity when compared to the average. With the help of the results, the service maturity can be visualized, and the development actions can be steered into areas which seem to be having low maturity and this way decrease the overall service maturity variance.

7.2 Practical next step recommendations

As the case company's service maturity measurement concept, it should be done with regular basis. At least once a year, there should be a larger measurement event including the measurement of the strategic services which are under continuous development. By measuring the service maturity regularly, the results could be compared, and the effect of the development actions could be seen and presented to the company employees. The service maturity should be included to the targets and interests of the service owners, to ensure to effective and continuous service development.

The service maturity measurement concept and results should be visible and acknowledged by the entire company to activate employees to participate on measurement and to create understanding around the development actions done to the services.

7.3 Self-evaluation of thesis project credibility

To be able to present holistic evaluation with reliable and valid arguments, the evaluation section will utilize the methods presented in the strategies for ensuring trustworthiness in qualitative research projects (Shenton, 2004).

The evaluation method is divided in four different sections, which are credibility, transferability, dependability and confirmability.



7.3.1 Credibility

The area of credibility is focused on internal validity and whether the thesis measures or tests what was intended in the first place (Shenton, 2004).

POSSIBLE PROVISION MADE BY RESEARCHER	APPEARANCE IN THE THESIS
Adoption of appropriate, well recog- nized research methods	Qualitative research method was applied in the form of employee interviews. The quali- tative research was the supported with quantitative research for case company employees.
Development of early familiarity with culture of participating organizations	The researched and all the project participants were employed at the case company. Hence, all participants were familiar with the organizational culture.
Random sampling of individuals serving as informants	Not fully utilized. The qualitative research respondents were selected based on the recommendation of the superiors of the interviewees. Then again, the qualitative survey was sent to all related teams of the case company and the answers were given by random individuals of the target group.
Triangulation via use of different methods, different types of informants and different sites	Different research methods and therefore different data sources were used. The case company interview and survey participants were representing several different teams in the case company.
Tactics to help ensure honesty in informants	All participants of interviews and surveys were kept anonymous and this was also clearly communicated to boost the honesty of the answers and feedback.
Iterative questioning in data collection dialogues	The interviews were based on iterative questioning. The interview results were build using rounds of questions around the same concept and interviewee was able to freely build the answer.



Negative case analysis	Not applicable / partly utilized. The results of the thesis can be assumed to be utilized to enhance the service maturity variation. Therefore, the hypothesis or the result may be utilized with all the services and all the possible matters related to service maturity variation in the case company.
Debriefing sessions between re-	Partly utilized. There were debriefing ses-
searcher and superiors	sions around the thesis subject while defin-
	ing the research work and building the pro-
	ject plan. During the research work debrief-
Bara a sentino a familia d	ing sessions were not arranged.
Peer scrutiny of project	There were free discussions around the
	thesis matter with thesis supervisor and the team members of the researcher.
Use of "reflective commentary"	The first version of the thesis was returned
Ose of Tenective commentary	to the thesis instructors in case company
	and in the university. The comments re-
	ceived from the instructor in the case com-
	pany did not cause any changes to the re-
	search. The comments received from the
	university instructor included development
	proposals which were applied in the thesis.
	The initial project plan was developed to
	the final form during several separate dis-
	cussions rounds with both of the instruc-
	tors.
Description of background, qualifi-	Not utilized. The thesis does not include
cations and experience of the re-	any written content about the background,
searcher	qualification and experience of the thesis
	researcher.
Member checks of data collected,	Party utilized. The results of the quantita-
and interpretations/theories formed	tive research and the hypothesis were
	shared with the entire case company after
	it was done. The qualitative research,
	meaning the interview results were not



	checked through with all the participants
	but with one of the interviewee participant
	and it was accepted without changes to the
	content.
Thick description of the phenome-	The section 1.3 includes a description of
non under scrutiny	the business challenge, objective and the
	outcome. The results shown in sections
	6.3.2 and 6.3.3 give some practical infor-
	mation about the challenges faced in the
	concept of the thesis.
Examination of previous research	The current research model was explored
findings	in the section 3 and several best practices
	were explored during the chapter 4.

7.3.2 Transferability

The area of transferability is focused on external validity and whether the findings of the thesis can be applied in similar situations elsewhere (Shenton, 2004).

POSSIBLE PROVISION MADE BY RESEARCHER	APPEARANCE IN THE THESIS
Provision of background data to es-	The research was applied to only one or-
tablish context of study and detailed	ganization which was the case company.
description of phenomenon in ques-	More information about the case company
tion to allow comparisons to be	can be found in the section 1.2.
made	The research data was collected using
	face-to-face interviews (qualitative) and
	web-based survey (quantitative) including
	free-text feedback and analyzing the cur-
	rent process documentation.
	The research was applied to several differ-
	ent teams and roles of the case company.
	There were total of four employees inter-
	viewed face-to-face. Each interview lasted
	60-70 minutes. The interviews were ar-
	ranged during May and June of 2018.
	There were total of two digital surveys
	which each had the answer time-frame of



one week. The first quantitative survey round had 39 answers (around 20% of the company employees) and the second had 9 answers (around 5% of the case company employees). The digital surveys were sent during June and July of 2018.

7.3.3 Dependability

The area of dependability is focused on the reliability, consistency and accurateness of the research (Shenton, 2004).

POSSIBLE PROVISION MADE BY RESEARCHER	APPEARANCE IN THE THESIS
Employment of "overlapping meth-	The results on the thesis were obtained by
ods"	utilizing the best practices and models from
	different environments than the one in the
	thesis. All the related literature and the pre-
	sented concepts were designed to be used
	in different environments.
	The focus on the thesis in hand was to de-
	velop certain process and tool for the case
	company and therefore it is designed for
	the case company only. It can be assumed
	that the tool / process presented in the re-
	sults can be utilized in similar environments
	and businesses facing similar challenges.
In-depth methodological description	Described in the section 1: Introduction and
to allow study to be repeated	section 2: Project plan.

7.3.4 Confirmability

The area of confirmability is focused on the objectivity of the researcher and assurance that the research findings are based on the statements of the interviewees and not the researcher himself/herself. (Shenton, 2004).

POSSIBLE PROVISION MADE BY RESEARCHER

APPEARANCE IN THE THESIS



Triangulation to reduce the effect of	The quantitative and qualitative research
-	·
investigator bias	was done for case company employees
	from different teams and roles. The inter-
	view questionnaire content and the sum-
	mary of the interview results were created
	with the help of objective 3 rd party best
	practices which are described in the sec-
	tion 5.1.2, to ensure that the things pointed
	out are not affected solely by the decisions
	of the researcher.
Admission of researcher's beliefs	Not utilized.
and assumptions	
Recognition of shortcomings in	An operational overview of the shortcom-
study's methods and their potential	ings and the effects are described in the
effects	section 6.4.
In-depth methodological description	The methods used in the research are de-
to allow integrity of research results	tailly explained in the section 2 which con-
to be scrutinized	sists of the project plan.
Use of diagrams to demonstrate	The diagram of the research approach is
"audit trail"	shown in the section 2.1.and further ex-
	plained in the other sub-sections of the
	section 2.

7.4 End notes

The feedback given by the case company employees has been positive during the thesis and no critical problems appeared. All the results have been shared with the entire case company instantly.



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Futures Fit® Persona Card 1

DIGITAL MARKETING MANAGER

Employee, Marketing Decision Maker, MBA graduate

Mia works as a Digital Marketing Manager at

the case company. The company offers a

wide range of ICT services to Finnish

includes growing the brand knowledge of the company's digital channels. Her role has

businesses. Her role at the case company

the possibility to do independent decisions.

service offering could be

cannot say if something is missing. Maybe the current brought out better.



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Mia really likes concrete and clear products understanding may cause some frustration. customers. She thinks that all the services the knowledge around them is too narrow of her company are not like this because which are easy to describe for the and the lack of knowledge and

and to the changes the marketing actions vision to the future service development Mia thinks that there should be a better cause to the business.

test and use all services. At least some kind customers which would make it possible to Mia desires of a mobile application for the of mobile application business should be considered.

story. The service solution offering supports her goals as they are already built from

building blocks which support each other

service offering team and the support from

the product manager is beneficial when

doing decisions. She gets feedback

Mia gets the services she needs from the

appear as a clear package with a common to the small businesses should be built to

services of her company, which are offered

In order to reach her goals, she thinks the

the marketing actions may not have enough What concerns her is that she is not sure if some services which are in the middle of strategic services enough. Then again, her company is speaking about the esources

She thinks that generally the service offering

of her company is good, but the some services could be brought out better.

regarding her work from her superior and

from the product managers.

- CLARITY AND VISIBILITY
- STORY BEHIND THE SERVICES
- KNOWLEDGE AND COMMUNICATION



Metropolia University of Applied Sciences

nuflow.anuk@gmail.com I Anu Nousiaii

Futures Fit® Persona Card 2

HANNAH, SYSTEM SPECIALIST

A comprehensive training

causes less uncertainty and more comfort zones.

Employee, Operational multitasker, ICT specialist and marketing graduate

Hannah works as a system specialist, in the case company. The company offers a wide services range of ICT services to Finnish businesses. Hannah's role includes inbound customer service, technical operational tasks, IT better. S server management, incident management, order processing and invoicing tasks. She which in works daily with numerous of different kind

In order to reach her goals, she needs agile cloud services and enough visibility and permissions to be able to support the customers efficiently. As Hannah is still going through the orientation, she cannot truly make independent decisions and the superior is needed for the decision making.

of IT services.

She thinks that there should be more resources spent in orientation and internal training. She thinks there should be trainers with pedagogic knowledge and enough time to train. The trainers should have clear roles in her company which all the other employees can recognize.

Hannah thinks that the cloud platform services in her company are great and comprehensive services and she thinks that they will be developed further to be even better. She also likes the service packages, which include all the needed services in one simple solution.

The lack of communication frustrates her as sometimes she hears about the recent changes from the customer for the first time.

Hannah desires of comprehensive orientation, continuous training and efficient documentation. She also desires of simplifying the current services for the internal users. She thinks that it would be good to reduce the saturation of internal tools and develop easier, centralized access to them for internal users.

Hannah thinks that more responsibility should be delegated to the operational workers as well and mentions that she is always ready to help when asked.



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- VISIBILITY AND ACCESS
- TRAINING AND DOCUMENTATION
- RESPONSIBILITY AND CLEAR ROLES



ered by Futures Fit ® I nuflow.anuk@gmail.com I Anu Nousiainen & Minna Koskelo 2018

Futures Fit® Persona Card 3

ACCOUNT MANAGER

Employee, Customer Experience Leader, Information Technology and Leadership Graduate

The current service offering is great - we just need more training!



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in the case company. The company offers a wide range of ICT services to Finnish Sophie works as a Major Account Manager, businesses. Her role includes claiming the experience, developing the customerships customer promises, leading the customer and developing the sales.

needs operational resources like IT experts needs. In order to reach her goals, she satisfaction and fulfilling the customer Her main goals are high customer and architects. Sophie gets to decide herself what services presales person to challenge her decisions. However, she thinks that there should be more support in a form of an innovative she will be offering to the customer.

from the right people and in order to get help She gets help when needed when she asks efficiently, you have to know the people.

mentions that she likes clear services which which have clear development path and the or knowledge. She says that when services one's she is not lacking neither resources have these features, she can recommend Sophie's favourite services are the ones are customizable and not locked into a them to her friends as well. Sophie certain frame.

The things that frustrates her are tasks left development roadmap and the lack of unfinished, lack of visibility in service operational resources.

present to her customers. She also desires Sophie desires of visibility for the service development roadmap which she could of more efficient employee training.

areas the prices should be decreasing and What concerns her is the services without concerns her as she thinks that in some increasing prices is also something that clear development roadmap. The not going up.

CLAIMING THE CUSTOMER PROMISE

EFFECTIVE RESOURCING

CLEAR DEVELOPMENT ROADMAP



I nuflow.anuk@amail.com I Anu l

SUSIE, SYSTEM SPECIALIST

The services with command line interface are my favourites!

Futures Fit® Persona Card 4

Employee, Problem Solver, Service Producer

Susie works as a System Specialist in the case company. The company offers a wide range of ICT services to Finnish businesses. Her role includes technical customer service and solving technical problems in order to keep the services up and running.

Her biggest goal is to learn and gain knowledge as much as possible to build her career and proceed in more advanced positions. In order to reach her goals, she needs open source services which are managed by the employees of her company. By managing the inhouse-built services, she is able to learn to manage the deeper technical service platforms.

In order to keep learning, Susie thinks that in the key position regarding her learning are her colleagues like the senior specialists and core system engineers.

Her favorite services are the ones which are completely managed by the company itself. For example, where one is able to use the command line interface management tool to truly manage the whole service entity.

Her biggest frustrations are the missing service instructions for customers. At least the customers cannot find them so they might not be located in the most logical location. She thinks the company website should be designed and rebuild again.

Susie desires on a new service management tool and getting rid of the old legacy tools. She also would like to have new features on the customer management portal.

Susie thinks that the most mature services currently being offered in her company are the cloud platform services. Instead, the hosting services offered for small busineses could need some update.



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- SELF-MANAGED SERVICES
- KNOWLEDGE AND LEARNING
- CLEAR SERVICE INSTRUCTIONS



Service Maturity Measurement Detailed Results: Service #1

CATEGORY	SUBCATEGORY	MATURITY AVERAGE
TRAINING & ORIENTATION		2,63
	Commercial Training	2,80
	Technical Training	2,46
DOCUMENTATION & KNOWLEDGE SHARING		2,86
	Service Description	3,07
	Service Level Agreement	3,20
	Price List	3,33
	Sales Presentation	2,67
	External Service Instructions	3,00
	Internal Service Instructions	2,46
	Commercial Training Material	2,40
	Technical Training Material	2,13
COMMUNICATION		3,57
	External Communication	3,54
	Internal Communication	3,59
ROADMAP & DEVELOPMENT		2,29
	Internal Roadmap Visibility	2,44
	External Roadmap Visibility	2,13
ROLES & RESPONSIBILITIES		2,64
	Visibility	2,79
	Resourcing	2,49
SYSTEMS & TOOLS		2,67
	Availability	2,71
	Integrity	2,54
	Usability	2,75
PROCESSES		2,54
	Order & Delivery Process	2,78
	Service Termination Process	2,33
	Billing Process	2,50
BUSINESS DEVELOPMENT & MARKETING		2,83
	Website Content & Outlook	3,06
	Business Understanding	2,71
	Market	2,71
	Service Promise	2,82



Service Maturity Measurement Detailed Results: Service #2

CATEGORY	SUBCATEGORY	MATURITY AVERAGE
TRAINING & ORIENTATION		3,11
	Commercial Training	3,50
	Technical Training	2,71
DOCUMENTATION & KNOWLEDGE SHARING		2,74
	Service Description	3,50
	Service Level Agreement	4,00
	Price List	3,05
	Sales Presentation	2,00
	External Service Instructions	2,10
	Internal Service Instructions	2,40
	Commercial Training Material	2,50
	Technical Training Material	2,40
COMMUNICATION		3,15
	External Communication	3,20
	Internal Communication	3,10
ROADMAP & DEVELOPMENT		1,85
	Internal Roadmap Visibility	1,90
	External Roadmap Visibility	1,80
ROLES & RESPONSIBILITIES		2,50
	Visibility	2,78
	Resourcing	2,22
SYSTEMS & TOOLS		2,43
	Availability	2,71
	Integrity	2,14
	Usability	2,43
PROCESSES		2,89
	Order & Delivery Process	2,89
	Service Termination Process	2,67
	Billing Process	3,11
BUSINESS DEVELOPMENT & MARKETING		2,70
	Website Content & Outlook	2,33
	Business Understanding	3,00
	Market	2,33
	Service Promise	3,00

