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Defining a Project Outcome Measurement Approach for CX Design Company

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It feels really good to write this preface after the hard work and hours that have been put into this thesis. Significant amount of the work has been written at the airports of London, New York and Austin and between the airspace of USA and Europe and between Finland and India. Not sure whether it can be sensed in anyway in the work but most likely it had added some sort of a flavour to work. I hope at least.

At the case company I’d like to thank all the people who have participated in any way. There were many people interviewed during starting analysis and I’m thankful for all of these people greatly. Especially I would like to thank Jesse Maula, Jussi Hermunen, Suvi Hélen, Anne Oljelund and Susanna Laanikari. These people helped tremendously in different phases of the work and each of them definitely had an impact of this thesis. I’m truly grateful for these people.

At my school Metropolia the biggest thank you goes to my instructors Thomas Rohweder and Zinaida Grabovskaia. Both are great teachers equipped with unique and great personalities. Without the clear guidance, vision and support from Thomas this journey would have been way rockier. After every session with him I could continue with a clear mind on what to do next. For Zinaida I would like to thank her diligence and commitment to make my thesis and text better. I truly appreciate this.

And finally, I want to thank my wife and families for all the support I have received while being on this journey. Also big thanks to my daughter who have been patient with me on the weekends I had to focus on writing my thesis instead of playing with her. I'll make it up now! I promise!

Sauli Lehtovaara
Helsinki
May 3, 2018
This Thesis focused on defining an approach to measure the outcomes of the case company’s customer projects. Currently the case company is not measuring the outcomes of its projects systematically. Nevertheless, the company is interested in a wider understanding of the more holistic impact of its projects. This it needs among others to enhance reference-based sales & marketing, quality development etc.

The Thesis starts from the analysis of multiple data sources for holistic understanding of the topic. Firstly, key customers were interviewed to establish a customer point-of-view on expectations and outcomes for projects. Secondly, internal stakeholders were interviewed regarding the same topic and what is considered to be successful outcomes for the case company in addition to conducting a company-wide survey. After this analysis, existing knowledge and best practice were reviewed and conceptual framework was constructed for building the proposal. Based on findings from the analysis and conceptual framework, a proposal for the new approach was designed. After validation of this initial proposal, the final proposal was built.

As an output of the Thesis a new approach to measure the outcomes of customer projects was designed for the case company. It consists of a questionnaire for four selected measurement dimensions which are used to evaluate the outcomes of projects. The questionnaire is conducted both at the customer and case company’s project team side to establish a holistic understanding of the results.

The new measurement approach works as a new source of insight for the case company. It will help the company understand the outcomes of its projects systematically and take actions accordingly. It also enables the company to share results effectively inside the company’s organization which was not possible earlier. In the long-term the approach helps the company to improve its operations to produce better customer satisfaction, loyalty and service quality. Proven results help the company in sales situations also.

Keywords: Project outcome measurement, measuring customer satisfaction, measuring customer loyalty, measuring service quality, measuring knowledge creation
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1 Introduction

Focusing on delivering great customer experience correlates with financial success for companies. Research shows that successfully focusing on customer experience will increase revenues and customer experience leaders generated clearly better returns than the S&P 500 Index in comparison. Thus, investing into customer experience matters.

When measuring customer experience many companies struggle with the metrics and connection how to actually use the data to make the right conclusions. Moreover, while working on customer experience, some companies might discover that they are using the wrong approaches for measuring the experience. Or they might be even asking the wrong questions in the first place.

This study focuses on how to measure the outcomes of customer projects in a business to business environment in a holistic way. Measuring outcomes of projects holistically is challenging in a systematic way as projects may vary from each other a lot. Also, holistic measuring might require doing more thorough research instead of just relying for sending questionnaires to the persons involved in addition to monitoring traditional KPI’s produced throughout the project. By understanding more holistically the impacts of the projects would open new kind of possibilities for companies to improve their business.

1.1 Business Context

Case company of this Thesis is a global customer experience design company focused on delivering valuable customer experiences through user research, digital design, and front-end development. The company is originally from Finland but has now offices also in Germany, Norway and in US. Throughout the years, the company has delivered over 4000 projects for top brands and start-ups all around the world from various industries. The company employs about 230 professionals with a yearly turnover of 25 million EUR. Following the trend of design company acquisitions, a consultancy giant Capgemini Consulting acquired Idean at March of 2017.

The company is a consultant firm and the primary purpose, and a business model of a consulting firm is to provide access to industry-specific specialists/consultants and subject-matter-experts for a fee. The size of the global consultant industry is around $250 billion. The actual service offering varies between Design & Strategy consultant companies. Some companies are more focused on Experience Design as other might be more
focused on Management Consulting and Development capabilities. In addition to designing great products and services, Design & Strategy companies may offer also services to design the customers companies certain processes and ways of working in a way that they can more efficiently facilitate value to their customers. One example of this would be a project where a company needs to update its work processes and organizational structure to support their new service offering better.

Currently, the consulting world is undergoing a shift. Over the last four years, consulting firms have been rapidly launching new digital consulting divisions. Also, large consultant companies and IT service firms have acquired designs firms to expand their service offerings. The demand for services such as digital transformation, interactive design, customer experience and product innovation are on the rise for the consultant companies as services are becoming more and more digital on their nature. In fact, technology is virtually enabler of every business model for companies.

1.2 Business Challenge, Objective and Outcome

The case company provides its services through customer projects. There are four different project archetypes that the company delivers for its customers: (a) Customer Experience Strategy & Vision, (b) Design Thinking Transformation, (c) Omni-Channel Service Design, and (d) Digital User Experience Design. Figure 1 displays the archetypes and their descriptions.

Figure 1. Case company’s project archetypes.
Figure 1 shows the case company’s project archetypes. The outcomes of the projects are currently measured rather narrowly. Basically, the only things measured consistently is whether the project stayed on budget or not. The case company has a sense of the customer satisfaction, but it is not systematically measured.

Nevertheless, the company is interested in a wider understanding of the more holistic impact of its projects. This would help the company to sell its services more effectively through different channels as there would be more holistic information about the outcomes available. Also, it would help the company to improve the quality of its services in the long run.

The objective of this thesis is to define an approach to measure the outcomes of the case company’s customer projects in a holistic way. The outcome is an approach on how to measure the outcomes of the case company’s customer projects in a holistic way.

1.3 Thesis Outline

The study is conducted in a logical order. First in Section 2 the research approach and design are described in detail which dictates how the research in conducted. Section 3 analyses the finding of the starting analysis and produces general requirements for the work. Best practices and theory from existing literature related to the findings of Section 3 is the topic of Section 4. This section will also create a conceptual framework for the study. In Section 5 proposal for new project outcome measurement approach is constructed to be validated. The validation results of the proposal are discussed in Section 6 and final proposal is presented. Section 7 summarizes the study with final conclusions.
2 Method and Material

This section describes the research approach, how the research was designed and what data collection and methods were used in this study.

2.1 Research Approach

The purpose of research is to collect insights and answers to certain questions which has not been answered yet, which is conducted through scientific procedures (Kothari 2004:2). There are different approaches available for conducting research.

Applied research as a research approach aims to find a solution for a problem facing a business or industrial organization in contrast to Fundamental research which is mainly concerned of generalization and formulation of a theory (Kothari:3). In addition, Applied research is a problem-oriented and action-directed seeking a practical result for a problem. Applied research can be applied to social sciences such as technology, management and commerce. (Krishnaswami and Satyaprasad 2010:11). It is highly pragmatic in nature and generally grounded in scientific methodology. Even though the primary focus of applied research is to collect data to further understand problems it can also contribute to theory by generating new knowledge. (Guest et al 2013: 414).

Qualitative research utilizes such methods as in-depth interviews, focus groups and participant observation are practiced (Guest et al 2013:265). The methods are used to collect data on whys and hows on human opinions, behavior and experience. This kind of data is hard to collect using more quantitatively-oriented methods for collecting the data. (Guest et al 2013:406). Qualitative research comprises of collecting or working with mediums such as text, images and sound (Guest et al 2013:446).

This study uses applied research as its approach. The approach was selected mainly for two reasons. Firstly, this study aims to find a solution to a specific business problem instead of just studying the phenomenon, which is a requirement for applied research. Secondly, the method can be applied to the Design and Strategy consulting field of this study. The study uses qualitative research methods for data collection as the data needs to be more sophisticated compared to e.g. what more quantitatively-oriented methods could collect effectively.
2.2 Research Design

This sub-section discusses the research design of the study. Diagram of the research design is shown in Figure 2.
Figure 2. Research design of the study.
The study starts with identifying the objectives and continues as a four-phase research with three different data rounds where each of the phases produced an output to support the progress of the study. High level descriptions for the different phases can be found from Figure 2 above.

The study starts with a starting analysis. In this phase, insights are collected on project outcomes, expectations and how the current measurement approach is currently conducted. The output of the step is general requirements for the new outcome measurement approach. Second phase involves the exploration of existing literature related to the general requirements listed as an output for starting analysis. The output of this phase is a conceptual framework to be used to support the development of the proposal in the next phase. At the third phase, a proposal for a new project end-result measurement approach is co-created based on the outputs from phase 1 and 2. The proposal is then pilot tested at the next and last phase. In the last phase, the proposal is pilot tested and validated in practice. Based on the findings and feedback of the test, the approach is improved, and final approach is created.

Different data collection rounds related to all phases and their contents are discussed in the next sub-section.

2.3 Data Collection and Analysis

This study collected the data from multiple sources. The data was collected in three data collection rounds. Table 1 shows details of each of the rounds.
Table 1. Data 1-3 collection round details.

<table>
<thead>
<tr>
<th>Round</th>
<th>Content</th>
<th>Source</th>
<th>Informant</th>
<th>Date</th>
<th>Planned Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA 1</td>
<td>• Description of how project end-result measurement takes place to day</td>
<td>Internal and external stakeholder interviews.</td>
<td>8 Internal Stakeholders</td>
<td>January-Feb</td>
<td>General requirements for the new outcome measurement approach</td>
</tr>
<tr>
<td></td>
<td>• Customer point-of-view on project expectations and end-results</td>
<td>Survey results</td>
<td>6 Customers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Case company point-of-view on project expectations and end-results</td>
<td></td>
<td>57 Employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Internal key stakeholder expectations concerning new measurement approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DATA 2</td>
<td>• Co-creating on the foundations of previous phases</td>
<td>Internal meetings</td>
<td>2 Internal Stakeholders</td>
<td>March-April</td>
<td>Proposal for a new project outcome measurement approach</td>
</tr>
<tr>
<td></td>
<td>• Defining metrics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Defining questionnaires</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Defining a process for the new measurement approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DATA 3</td>
<td>• Pilot test for one project</td>
<td>Customer interview, internal discussions and meetings</td>
<td>1 Customer</td>
<td>April</td>
<td>Final approach</td>
</tr>
<tr>
<td></td>
<td>• Improving the approach based on one pilot test insights and feedback</td>
<td></td>
<td>4 Internal Stakeholders</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Next steps</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Data 1 was collected during the starting analysis through multiple internal and external interviews. In total six key customers were interviewed. In addition, nine internal stakeholders were interviewed including two executives. Also, a companywide survey was conducted by sending a link for an online questionnaire. The survey received 57 answers which was considered a good amount.

Most of the interviews were conducted in a structured face-to-face situation in either in the companies or customers' premises. Some interviews were conducted using online video conferencing tools as the interviewees were abroad. The questions used in the interviews can be seen in appendix 1. The interviews were recorded for further analysis and field notes were taken. Appendix 2 contains field notes for two selected internal interviews. The results of the survey can be seen in appendix 3.

Total of eight internal interviews with nine stakeholders were conducted. Table 2 shows the details of internal interviews.

Table 2. Details of internal interviews for Data 1 collection.

<table>
<thead>
<tr>
<th>Participants role in the case company</th>
<th>Date</th>
<th>Duration</th>
<th>Documented as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director of Insights</td>
<td>11.01.2018</td>
<td>28 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Business Development Director</td>
<td>17.01.2018</td>
<td>39 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Program Director</td>
<td>19.01.2018</td>
<td>38 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Senior Project Manager</td>
<td>19.01.2018</td>
<td>49 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Customer Experience Specialist</td>
<td>25.01.2018</td>
<td>31 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Director, Business Design &amp; Strategy</td>
<td>06.02.2018</td>
<td>58 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Chief Executive Officer &amp; Chief Design Officer</td>
<td>07.02.2018</td>
<td>46 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
</tbody>
</table>

As seen in Table 2, total of eight internal stakeholders were interviewed. The interviews were conducted in both face-to-face situations as well as using video conferencing tools. The interviews used semi-structured approach. These stakeholders were selected based
on discussions with two stakeholders who considered these persons to be relevant for the work. The interviews were recorded and later revisited to build appropriate field notes using a template in google spreadsheet built by the researcher.

Total of six key customer interviews were conducted during the starting analysis. Table 3 lists information on external interviews.

Table 3. Details of external interviews for Data 1 collection.

<table>
<thead>
<tr>
<th>Participants role in the customer company</th>
<th>Date</th>
<th>Duration</th>
<th>Documented as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>04.01.2018</td>
<td>46 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Vice President, Digital Transformation</td>
<td>18.01.2018</td>
<td>37 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Marketing Communications Director</td>
<td>19.01.2018</td>
<td>55 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Vice President, Digital Processes and Solutions</td>
<td>22.01.2018</td>
<td>59 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Head of CX and Design</td>
<td>26.01.2018</td>
<td>44 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
<tr>
<td>Project Manager</td>
<td>26.02.2018</td>
<td>30 mins</td>
<td>MP3 &amp; Field Notes</td>
</tr>
</tbody>
</table>

Table 3 shows the details about the customer interviews. As seen in Table 3, total of six customer were interviewed. The interviews were conducted in both face-to-face situations as well as using video conferencing tools. The interviews used semi-structured approach. These key customers were selected through discussion with two internal stakeholders. The selected customers were from different industries and projects done with the customer varied in size and approach to gain holistic data collection from different kinds of customers. The interviews were recorded and later revisited to build appropriate field notes using a template in google spreadsheet built by the researcher.
In the second data round, Data 2 was collected during three meetings with two stakeholders. The meetings were used to do further analysis based on the findings from starting analysis and conceptual framework and to ideate a new project measurement approach for the company. Table 4 lists the dates and roles of the stakeholders involved during this data collection round.

Table 4. Stakeholders involved during Data Collection Round 2.

<table>
<thead>
<tr>
<th>Participants role in the company</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director, Business Design &amp; Strategy</td>
<td>28.03.2018 &amp; 04.04.2018</td>
</tr>
<tr>
<td>Director of Insights</td>
<td>10.04.2018</td>
</tr>
</tbody>
</table>

Table 4 lists the stakeholders involved during Data Collection round 2.

Finally, Data 3 was collected from stakeholders while conducting the pilot test for the approach. Data 3 was used for creating the final approach. Table 5 lists the different stakeholders used as a source during Data Collection 3.

Table 5. Stakeholders involved in Data Collection Round 3.

<table>
<thead>
<tr>
<th>Participants role in the company</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications Manager (Customer)</td>
<td>17.04.2018</td>
</tr>
<tr>
<td>Senior Project Manager</td>
<td>17.04.2018</td>
</tr>
<tr>
<td>Customer Experience Specialist</td>
<td>17.04.2018</td>
</tr>
<tr>
<td>Creative Director</td>
<td>16.04.2018</td>
</tr>
<tr>
<td>Chief Design Officer</td>
<td>19.04.2018</td>
</tr>
</tbody>
</table>

Table 5 lists the stakeholders involved during Data Collection round 3.
In addition, the study also utilized observations by the researcher who has worked for 10 years in Design and Strategy industry and two and a half years at the case company at the time. All data were analyzed using Thematic analysis.

Next section of this study discusses the findings of the starting analysis.
3 Starting Analysis on the Project End-result Impact, Expectations and Current Measurement Approach

The goal of this analysis was to gather insights for building a holistic understanding of the topic which would be used to build the new measurement approach at the latter stages of the study. The section will also describe the current measurement approach.

3.1 Overview of the Starting Analysis Stage

Starting analysis was conducted in two steps. First step was the data collection. The data was collected through multiple internal and external interviews as well conducting companywide online survey to gain holistic understanding of the topic. The focus of the interviews was on the expectations for projects and their outcomes as well as the impact of them.

In the second step, the data collected was analyzed further to identify key insights. The key insights were discussed and used to summarize the starting analysis to give focus for the rest of the study. Next, the findings from the analysis are discussed in detail.

3.2 Description of the Current Project Outcome Measurement

Case company conducts its business and services through customer projects. The projects attributes vary in terms of size, duration and customer needs etc. Before this analysis was conducted, the general assumption in the company was that the case company would have some sort of a systematic process to measure the outcomes of its projects at the end of each project. However, the results of the interviews revealed that the company does not measure the outcomes of its projects systematically. As said by one internal stakeholder:

"We don't measure the outcomes. The team working on the project has a feel for them, but we don't have a process for it. We have a hunch for the end-results." - Internal stakeholder

Presently, the company collects and stores the information whether the project stay in budget into an online project management system. At the same time, as the interviews revealed, the information regarding the outcomes of the projects is not known to be stored anywhere. It relates also to such important information as whether the customer
was happy or not among other things. Moreover, the outcomes of projects are not systematically measured or analyzed. It happens because there are no metrics, or a process defined for measuring the outcomes.

The survey also revealed that most of the company is not aware how the measurement of project end-results is conducted. Only 5 percent of the people answering the survey knew how the end-results were measured in the company. Survey results can be seen in appendix 2.

It was also concluded that the company doesn’t have any systematic approach to measure the quality of the outcomes of its services. Quality is considered to be very important aspect of services and their outcomes. Quality is currently only evaluated informally within the project team and the customer during and after projects if at all. Sometimes other members of the company evaluate the deliverables as well. But also, this is lacking a systematic approach and data collection for further analysis and tracking. Table 6 lists the current approach for evaluating the outcomes of case company projects.

Table 6. Current practices related to project outcome evaluation.

<table>
<thead>
<tr>
<th>Project outcomes</th>
<th>Evaluation process</th>
<th>Done systematically</th>
<th>Shared inside of project team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgetary status</td>
<td>Customer Satisfaction</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>Customer Loyalty</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Quality of the deliverables</td>
<td>Service Quality</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 6 lists examples of the current approach on evaluation certain aspects of the project end-results.

The findings indicate that that the new measurement approach has to be built more or less from scratch to be more holistic and systematic. Desired metrics and goals has to be defined in addition to design the whole process around it. What to measure when and how. Who is the owner of the process and what kind of actions should be initiated based on different kinds of results.
The stakeholders could name few reasons for the limitations of the current measurement approach. For example, one stakeholder stated that measuring the outcomes more holistically had not been a top priority for the company before.

> It’s a question of focus. We have been focusing on something else instead of this.  
> *-internal stakeholder*

One stakeholder said that the company has just been lazy for not improving the approach instead of it being something too resource heavy or difficult to establish. It was also addressed that there are limitations on what can be measured especially on the customers side as they might not be willing to share everything with the case company due to confidentiality or other business reasons.

Nonetheless, stakeholders agreed that this is something that should be addressed, and they felt that the initiative is important. Also, the stakeholders already had ideas what and how to measure certain important metrics. It was not considered to be hard or something that would require too much resources.

> It is also fair to note that it is not known whether any other company in the industry a better job with measuring the end-results any better. The stakeholders were not able to say any examples where e.g. competitor would be doing any better with the topic.

### 3.3 Customer Point-of-View on Project Expectations and Outcomes

This sub-section analyses the findings from the customer interviews conducted during the starting analysis.

#### 3.3.1 Customer Expectations on Project Outcomes

There are some general expectations that the customers have when working in projects with the case company. Customers expect the case company to fulfill all contractual agreements and goals set to the projects reliably and with high quality. In addition, customers expect that the case company truly understands the business problem and the situation of the customer. This is important for true partnership to be established. As said by one customer:
"Successful partnership comes from the fact that the challenge is understood." - Customer

Customers also expect that the case companies team will bring expertise, energy and commitment for the projects. And that the team is able to adapt to the customers’ needs and working culture if needed. All deliverables should be in high quality to justify the premium pricing of the case company.

The overall goals and expectations for the outcomes of the projects are usually set before the project. Customers expect concrete results and that the outcomes will help them to achieve strategically important goals. Goals might be project related or come straight from the customer company’s strategy.

It was also discussed that sometimes clear goals have not been set for different projects which might make it harder to evaluate the outcomes of projects. One participant said that the case company could consult more on how to set better goals for the projects as they should have better experience on the matter. Appendix 4 lists the key expectations discussed with the customers.

3.3.2 Project End-result Impact for Customers

Customers were satisfied with the outcomes of projects with the case company despite that there is usually some level of challenges during the projects. All customers stated that they would like to work with the case company also in the future.

When discussing the different impacts of the projects the study shows that there are two types of impact for customers on a high level. The categories are Strategic and Cultural impacts. Figure 3 shows a high-level visualization of the impact for customer.
Figure 3 visualizes the project impact for customers. These two categories are discussed more below.

Strategic impact can be seen in projects where the case company delivers strategically important projects for its customers e.g. strategy and vision for their customer experience. Projects which are critical and key projects for the customers and therefore they are hiring external expertise for help. For these kinds of strategically important projects customers are willing to pay premium prices of the case company.

Strategically important outcomes of case company’s projects for the interviewed key customers were new services, new service concepts or other strategically important initiatives. One customer stated that the project done with the case company was the first step of implementing the new company strategy. Generally, the end-results of projects helps the customers’ business to create more value by e.g. saving them time or creating them competitive advantage against its competitors through new or improved services. In other words, the outcomes help the customer to sell more and operate more efficiently. Outcomes also helps the customers to save money at times as mentioned by one customer:

"Because of the project we saved three million euros." -Customer
It was also discussed how the outcomes helps the customer to provide desired customer experience for its customers. This will improve the lives of customers customer and enables them to create long-lasting relationships with them. In addition, as an impact successful outcome may open new business opportunities for collaboration with other companies what has happened with one customer interviewed.

As said, the projects have also cultural impact for customers and their organizations which were discussed with them. Especially design thinking transformation projects where the goal is to increase the customer organization’s capability to rapidly innovate in a customer-centric way.

"I can see how culture is changing and how things are discussed differently. What words are being used. People talk about validation, testing and custom-er centricity. That outside-in thinking is very important." -Customer

Customers seek for these kinds of projects when they start to feel that their business and organization is stagnant, and it needs to be transformed to match the competition. In these projects the case company provides tools and new kinds of thinking which will help the company to transform.

But also, other kinds of projects seem to affect the culture positively inside of customer organizations. As said by one long term key customer when discussing the impact of partnership with the case company.

"On a cultural level the impact is significant" -Customer

The cultural impact is relevant as it changes the thinking and mindset of the people in the company to work on more on customer centric way. In the long term this help the company to increase its customer experience which will help them compete better against competitors and to help it to achieve its strategic goals.

Appendix 4 lists the key impact areas discussed with the customers. Next subsection will discuss the point of view of the case company.
3.4 Case Company Point of View on Project Expectations and Outcomes

In addition, to creating value to customers the projects have an impact also at the case companies side. This section discusses what the stakeholders of the case company expects to be successful end-results for its projects for the case company. Stakeholders were able to list various successful outcomes for projects. Appendix 4 lists outcome areas discussed with the internal stakeholders. Similarly, as for the customers the projects impact can be organized into strategic and cultural impacts. Figure 4 shows a high-level visualization of the project impact for case company.

Figure 4. High-level visualization of the end-result impact for case company.

Figure 4 displays the types of impact the projects have for the case company. There are certain outcomes for projects which are strategically important for the case company. Successful outcomes help the case company to build long lasting relationships with the customers. Long lasting partnerships are more lucrative compared to one-off projects and helps to build competitive advantage in terms of business and therefore are strategically important. Successful outcomes mean that the problem of the customer has been understood fully and that the case company has been able to help the customer and provide good customer experience.

"Our expectations for the end-results are that we have solved a problem for the customer. We have understood what the customer needs." -Internal stakeholder
It is also strategically important that as an outcome for projects case company gains new kind of experience and knowledge. These help to build competitive advantage against competitors and enables the case company to seek new clientele, expertise and to build thought leadership around the industry where it operates.

Also, it was considered important that as a result the case company can create and tell unique story about the project. These stories also help the company to build competitive advantage and thought leadership. The stories when told in right circumstances helps the case company to convince the customer to buy services from them. As said by one stakeholder:

“With that one picture and story (from a project) we have sold around 20 projects inside of US. In fact, the whole company was sold with that picture.”—Internal stakeholder

Stakeholders also mentioned that important outcome of project would be that the project team which was responsible on delivering the project as well as the case company are proud of the outcomes. At best case company can create high value reference material out of the outcomes. These can be used to lure new clientele as well as build thought leadership around the industry.

The end-results have also impact for the case company’s culture. At best the members of the project team are more experienced after the project and can share new knowledge inside the company and utilize new skills in following projects. Also, different projects can have impact for the general wellbeing inside the company. As said by one stakeholder:

“The projects should increase well-being in the company”—Internal Stakeholder

This means that successful outcomes can make the whole company proud of the results and in that way increase the general wellbeing where the members of the company can feel that they are part of something important. Successful public outcomes might also increase the interest outside the company among professionals which helps with the recruitment process.
3.5  Internal Key Stakeholder Expectations Concerning New Measurement Approach

This subsection analyses the findings from the internal stakeholder interviews when discussing the expectations and ideas regarding the new measurement approach. Survey revealed that 90% of the responses at least agreed that the company should improve its current measurement approach. The findings can be divided into two categories: practical and long-term expectations. Appendix 4 lists the key expectations discussed with the internal stakeholders during the interviews.

In the survey it was asked what the participants considered to be something that should be measured as an outcome of case company’s projects. Table 7 lists the recommendations which appeared clearly the most.

Table 7.  Recommendations on what to measure based on survey results.

<table>
<thead>
<tr>
<th>Recommendations on what to measure based on survey results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Customer Satisfaction</td>
</tr>
<tr>
<td>2 Internal Satisfaction</td>
</tr>
<tr>
<td>3 Quality</td>
</tr>
<tr>
<td>4 Budgetary Goals</td>
</tr>
<tr>
<td>5 Impact on end-users in the long term</td>
</tr>
<tr>
<td>6 Impact on Customers Business in the long term</td>
</tr>
</tbody>
</table>

Table 7 lists the most popular recommendations from survey results on what should be measured from projects. The survey clearly revealed that both internal and customer satisfaction in addition to quality should be measured from projects. In addition, budgetary goals of the projects should be measured. This was a bit surprising as the case company is currently monitoring budgetary goals of projects. Perhaps this was related to the fact that not everybody has access to that data. Also, there were some replies which stated that the impact on customers’ business in addition to their end-users should be measured.
The stakeholders had various practical expectations for the new measurement approach collected during the interviews. As there currently is no existing approach it should start from the basics. It should include customer satisfaction as well as quality dimension. It shouldn’t be too resource heavy to conduct or otherwise it might not be feasible in practice. Also, the measurement results should be light to consume or otherwise people would not have the energy to go through them with detail.

In addition to measuring the quality aspects of outcomes it should also try to capture the story of the project in some way. How excited was the team and the customer etc. The story could be then shared around the company to be a new source for knowledge to all of the employees of the company. Ideally the approach would measure the impact periodically after the project instead of just one-time measurement. The latter was also recommended by somebody in the survey as well.

Stakeholders long-term expectations are that there would be various positive results of the improved measurement approach. 96% of the survey responses at least agreed that more holistic understanding of the end-results would help the company to improve its quality as it would have new metrics available for analysis. 85% of the responses at least agreed that more holistic understanding would help sales. New measurement approach would help to support sales as they would have new kinds of information available when discussing the actual impacts of the case company’s projects in sales situations.

It was also considered whether the approach itself could be used as a competitive advantage where the case company would have its unique way of measuring customer projects. It might be something which would turn into a standard around the consulting industry. As a long-term impact the outcome measurement and its implications might change how the company thinks about the outcomes altogether and discussing the impact of projects might come bigger part of the case companies design process.

Next section summarizes the insights from starting analysis.

3.6 Summary of the Starting Analysis

This section summarizes the starting analysis and lists the key requirements and focus areas for the new measurement approach. The analysis used multiple data sources to
get holistic understanding of the topic. Firstly, key customers were interviewed to establish a customer point-of-view on expectations and outcomes for projects. Secondly, internal stakeholders were interviewed regarding the same topic and what is considered to be successful outcomes for the case company. Appendix 4 lists the interview findings. Thirdly, insights were gathered through online questionnaire conducted to the whole company.

One of the key findings of the starting analysis was that there was no systematic approach for measuring the outcomes of projects. The stakeholder interviews indicated that this is something that should be addressed. Although some aspects of project outcomes are difficult to measure there was still various metrics identified which would be viable to measure.

The outcomes of project have impact in certain areas at customer and the case company. The outcomes of projects have both strategic and cultural impact for customers as well as for the case company. Figure 5 displays these areas.

![Figure 5. Impact areas of project outcomes.](image)

Figure 5 shows the type of impact projects has for both the customer and the case company. For the customer the strategic impact affects certain business goals within the organization e.g. outcomes of a project support customer company’s strategy. The cultural impacts transform the culture of the company through the projects done with the case company e.g. as an outcome the company learns new methods of designing its products and services in a customer-centric way.
For the case company there is also two impact areas on a high level where the projects outcomes have an impact. Strategic impact helps the case company to reach and support its strategic goals. Example of a strategic goal for the company is to build long-term relationships with its customers. To reach these goals the company has to reach high level quality for its projects to excellent customer satisfaction. Outcomes of projects also have impact on the cultural level for the case company e.g. when the general wellbeing is affected positively or if new crucial knowledge is created inside the company.

Survey results underlined the importance of the initiative. Over 90% of the participants agreed that the current measurement should be improved. Similarly, vast majority of the company agreed that new measurement approach would help the case company to improve its quality and help sales to sell more effectively.

As a result of the starting analysis stage requirements and focus areas for the new measurement approach were established and selected based on data analysis together with internal key stakeholders. The approach should be kept lightweight not to require too much resources to be conducted effectively. The approach should enable the possibility of monitoring the impact in a longer period of time for several measurement points in time. Also, it should help the case company to the share the results effectively inside the organization.

Table 8 shows the selected key focus areas for what should be measured as an outcome of projects in the new measurement approach.

Table 8. What should be measured as an outcome of projects

<table>
<thead>
<tr>
<th></th>
<th>What should be measured as an outcome of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Customer Satisfaction</td>
</tr>
<tr>
<td>2</td>
<td>Customer Loyalty</td>
</tr>
<tr>
<td>3</td>
<td>Service Quality</td>
</tr>
<tr>
<td>4</td>
<td>Knowledge Creation</td>
</tr>
</tbody>
</table>

Table 8 shows the selected key focus areas for what should be measured as an outcome of projects with the new measurement approach. These were customer satisfaction, customer loyalty, service quality and knowledge creation which were considered to be key
metrics for the new measurement approach. There were other metrics discussed as well but the selected metrics were considered to be the most relevant at this point. Some relevant metrics such as business impact and impact on competitive advantage were scoped out from this initial stage of the holistic measurement approach.

Next section will discuss the theory around the selected metrics, methods and tools on how to measure the selected metrics. It will also discuss theory around building a measurement approach needed for the case. In addition, it defines a conceptual framework for the topics discussed.
4 Existing Literature Concerning Measurement of Impact of Services

This section discusses findings from existing literature and knowledge related to the topic of this study. The topics discussed in the section were selected based on the focus areas selected in the previous section. The section will discuss theory and practice on how to measure customer satisfaction, customer loyalty, service quality and knowledge creation. In addition, the section will discuss the general principles for creating questionnaires. At the end of the section conceptual framework for the study is displayed and discussed.

4.1 Measuring Customer Satisfaction

According to Evangelos and Yannis (2010:4) the most popular definition for customer satisfaction is a standard of how the offered “total” product or service fulfils customer expectations. In literature the definition of customer satisfaction is discussed in parallel with related terms such as quality, customer value, service etc. (Evangelos and Yannis 2010:7). There is a difference between customer satisfaction and service or product quality. Customer satisfaction answers the question whether customers’ needs were met. Quality is based on the perception customer has on what quality is. (Gerson 1993:7).

Multiple metrics are used to measure customer satisfaction. Single indicator would not be sufficient indicator of overall performance of service or a product. Customer satisfaction information is generally gathered using research methods, operational data, marketing channels as well as other sources of information. The measurement systems can be divided into direct and indirect measurement systems. In direct systems the data is coming directly from the customers through surveys and interviews. In indirect systems the data is reflecting the results of the customer satisfaction by analyzing market share, sales etc. (Evangelos and Yannis 2010:13).

According to Hill and Alexander (2006:847) organization needs to define its total product to be able to measure customer satisfaction accordingly. The total product consists of everything related to how customers might experience the product or service. Figure 6 displays a diagram of the total product.
Figure 6. Customer satisfaction and the total product (Hill and Alexander 2006:891).

Figure 6 shows a diagram of which displays different dimensions of a total product according to Hill and Alexander (2006:891).

The critical incident technique is an approach to define metrics to be measured for evaluating customer satisfaction (Hayes Bob 2008:17). Critical incidents are events where customers interact with a product or service directly. Critical incidents can be either positive or negative. (Hayes Bob 2008:18). The strength of the approach is the fact that it utilizes customers for defining the requirements for questionnaires. Relying only on organizations point-of-view on customer requirements might lead to not ideal list of questions. (Hayes Bob 2008:17). Table 9 lists the six steps for conducting the approach.
Table 9. Steps for Critical Incident Approach (Hayes 2008:30).

<table>
<thead>
<tr>
<th>Critical Incidents Approach</th>
<th>Important Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steps</td>
<td></td>
</tr>
<tr>
<td>1. Generate critical incidents.</td>
<td>• Interview customers.</td>
</tr>
<tr>
<td></td>
<td>• Critical incidents should be specific examples of good or poor service or product quality.</td>
</tr>
<tr>
<td></td>
<td>• Each critical incident reflects only one example.</td>
</tr>
<tr>
<td>2. Categorize critical incidents into clusters.</td>
<td>• Categorization is based on similarity in content of the incidents.</td>
</tr>
<tr>
<td>3. Write satisfaction items for each critical incident cluster.</td>
<td>• Each satisfaction item should be a declarative statement.</td>
</tr>
<tr>
<td></td>
<td>• Satisfaction items should be specific.</td>
</tr>
<tr>
<td>4. Categorize satisfaction items into clusters, each cluster representing a customer requirement.</td>
<td>• Categorization should be based on similarity of satisfaction items.</td>
</tr>
<tr>
<td></td>
<td>• Customer requirement must reflect the content of satisfaction items.</td>
</tr>
<tr>
<td>5. Determine the quality of the categorization process.</td>
<td>• Two judges should do categorization steps.</td>
</tr>
<tr>
<td></td>
<td>• Calculate inter-judge agreement.</td>
</tr>
<tr>
<td>6. Determine the comprehensiveness of customer requirements.</td>
<td>• Remove 10 percent of the critical incidents before establishing customer requirements.</td>
</tr>
<tr>
<td></td>
<td>• Determine whether the 10 percent can be placed into the customer requirements.</td>
</tr>
</tbody>
</table>

Table 9 lists the six steps for conducting the critical incidents approach for defining customer requirements to be used for defining customer satisfaction questionnaires according to Hayes (2008:30). Figure 7 displays a hierarchical diagram between critical incidents, satisfaction items and customer requirements (Hayes 2008:22).
Figure 7. Hierarchical diagram between critical incidents, satisfaction items and customer requirements (Hayes 2008:22).

As seen in Figure 7 critical incidents are categorized under satisfaction items which relates to customer requirements. According to Hayes (2008) the hierarchy can be used for creating customer satisfaction surveys.

To summarize, measuring customer satisfaction evaluates how well the product or service fulfills customer expectations. Measuring customer satisfaction and service or product quality resembles each other but are still different constructs. There are tools available for organizations to get started on creating suitable customer satisfaction measurement approaches. How customer loyalty is measured is discussed next.

4.2 Measuring Customer Loyalty

Customer Loyalty encompasses of two dimensions to be measured: loyalty behavior and loyalty attitudes. Loyalty behavior, also referred as customer retention, evaluates the customers acts to make repeat purchases from a certain provider. Loyalty attitudes are customers opinions and feelings towards products, services and brands that are associated to customers desire to make repeat purchases. There is a clear difference between measuring customer satisfaction and customer loyalty. Customer satisfaction tells the
customer current attitudes towards e.g. service or a product. In comparison, measuring customer loyalty predicts customers behaviors and attitudes. (DeFranzo 2012).

According to Hill and Alexander (2006) the dimensions for measuring customer loyalty are customer retention, share of wallet, recommendation, accessibility to alternatives and attraction to other alternatives. Customer retention is a measure of whether customers are about to remain as customers e.g. in a span of certain timeframe. (Hill and Alexander 2006:4145). Customer retention can be measured through simple question from the customer such as: ‘Do you think you will still be a customer of ABC in one year’s time?’ or ‘Do you think you will re-visit the ABC restaurant’. According to Hill and Alexander (2006) questions should be asked as open question using five-point verbal scales. Share of wallet measures the average spend made by the customer. More loyal customer would be expected to spend more on average for organizations products or services. (Hill and Alexander 2006:4155). Recommendation is another dimension for evaluating customer loyalty. It is interpreted through questions which tries to find out customers willingness to recommend a product or a service to others or whether they have already done so. (Hill and Alexander 2006:4187). Accessibility to alternatives measures how easy it would be for the customer to switch to competing services or products. This metric tells how genuinely committed the customers are or e.g. the switching costs the main influencer for loyalty in the first place. (Hill and Alexander 2006:4200). The final dimension used for measuring quality is attraction to other alternatives. This can be evaluated by asking customers to compare the services providers product to other providers to understand their perception on alternatives. (Hill and Alexander 2006:4215).

According to Hayes (2008) there are three general types of customer loyalty: advocacy loyalty, purchasing loyalty and retention loyalty. Advocacy loyalty reflects how willing the customer are to be advocates for the service provider. Purchasing loyalty reflects the customers willingness to increase their purchasing behavior. Retention loyalty reflects the probability of the customer to remain using the services of the service provider. (Hayes 2008:114). Types can be measured reliably and each of them provides information about the loyalty of the customer and quality of the relationship with the service provider. (Hayes 2008:122).

The Net Promoter Score (NPS) was created Fred Reichheld in 2003 to measure how well company’s actions creates relationships worth of loyalty (Net Promoter System 2018). The approach is used by many of today’s top companies to monitor loyalty (Hayes
NPS is based on a perspective that customers can be divided into three groups: promoters, passives and detractors. Each of the groups are characterized by different behaviors, attitudes and therefore economic value for the company varies per group. Promoters are loyal customers who in addition to keep using the company’s services also promote the company to others. Passives are satisfied but not loyal customers who can easily switch to other providers services and products. Detractors are unsatisfied customers. Customers can be categorized by analyzing their answers to the one NPS question. (Net Promoter System 2018). Figure 8 displays NPS question, scale and equation for calculation.

![Net Promoter Score Question, Scale and Equation](image)

As seen in Figure 8 the Net Promoter Score is the percentage of promoters minus the percentage of detractors. According to Net Promoter System (2018) the number can be tracked periodically for various items related to a business e.g. for individual products, services and customer segments.

To summarize, approaches for measuring customer loyalty are quite simple and can be evaluated through few questions conducted with the customer. The questions try to reveal customers attitudes to stay as a customer and willingness to promote service or a product to others. Next sub-section discusses how to measure service quality.
4.3 Measuring Service Quality

Service quality as an abstract construct is challenging to define and therefore hard to measure explicitly. There have been many attempts by researchers on how to conceptualize service quality. (Powpaka 1996: 1). Functional quality and outcome quality are important aspects of service quality. Functional quality means how the service was delivered and the outcome quality refers to what was delivered. (Jain and Jain 2015: 1). European/Nordic perspective on service quality is considered to include both the functional and outcome aspects. The American school of thought tends to focus on functional quality alone. (Jain and Jain 2015: 2). Functional quality has been the primary focus of service quality related studies in the past (Jain and Jain 2015: 1).

SERVQUAL, developed by Parasuraman, Zeithaml and Berry (1988), is the most popular model for measuring service quality (Jain and Jain 2015: 1). SERVQUAL is a form of an opinion which results a comparison between customer’s expectations and perceptions of the performance of the service. The model is related but not the same as customer satisfaction. The model involves perceived quality. Perceived quality is the customers perception on services or products excellence or superiority. (Parasuraman et al. 1988: 15). The model consists of five dimensions to evaluate service quality: tangibles, reliability, responsiveness, assurance, empathy (Parasuraman et al. 1988: 23). Figure 9 displays the dimensions and their descriptions.

Figure 9. SERVQUAL dimensions (Parasuraman et al. 1988: 23).

<table>
<thead>
<tr>
<th>Tangibles:</th>
<th>Physical facilities, equipment, and appearance of personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability:</td>
<td>Ability to perform the promised service dependably and accurately</td>
</tr>
<tr>
<td>Responsiveness:</td>
<td>Willingness to help customers and provide prompt service</td>
</tr>
<tr>
<td>Assurance:</td>
<td>Knowledge and courtesy of employees and their ability to inspire trust and confidence</td>
</tr>
<tr>
<td>Empathy:</td>
<td>Caring, individualized attention the firm provides its customers</td>
</tr>
</tbody>
</table>
Figure 9 displays the SERVQUAL dimensions. Each of the dimensions are evaluated through pre-set statements for the customer to evaluate. There are 22 statements in total. (Parasuraman et al. 1988: 23). The original SERVQUAL instrument can be seen in Appendix 5. Each of the statements are evaluated with seven-point scale from 'Strongly Agree' (7) to 'Strongly Disagree' (1). Each statement was used twice. First, to measure expectations for the firms in general in a particular service industry. And then to measure the perceptions on a particular company for which services are being evaluated. (Parasuraman et al. 1988: 17). The model has been applied across multiple studies in various service industries. (Jain and Jain 2015: 1). It has also been used widely by service delivery organizations (Rodriguez et al 2013: 14).

One of the oldest models for measuring service quality is the one that Grönroos created in 1984 (Rodriguez et all 2013: 14). Figure 10 displays the Service Quality model by Grönroos.

![Service Quality Model Diagram](image-url)

Figure 10. The Service Quality Model (Grönroos 1984:4).
Figure 10 displays the The Service Quality Model by Grönroos (1984). According to Grönroos (1984:37) perceived service quality, i.e. service quality, is dependent on two variables: expected service and perceived service. The perceived quality of a service will be an outcome of customers evaluation process where expectations for a service are compared with the perceptions received experiencing the actual service. Perceived service is a result of consumers view on technical and functional quality of a service (Grönroos 1984:39). Technical quality refers to what the customer receives from the service as a result. It can be measured by a customer in an objective manner as any dimension of a product. (Grönroos 1984:38). Functional quality is the how the customer receives the service (Grönroos 1984:39). The Service Quality Model by Grönroos (1984:40) includes also corporate image dimension. According to Grönroos (1984: 39) the expectations for a service is influenced by customers views, the image, on the service provider itself.

Jain and Jain (2015) developed their own customer service quality model while measuring a quality of a service. SERVQUAL was used as a basis for the model but it was modified for the context of their study. Some items were dropped and some added. Also, technical quality aspect was added to their model. The selected dimensions were reliability, personal interactions, tangibles, outcome quality and overall service quality. Figure 11 displays the Service Quality Model by Jain and Jain (2015:8).
Figure 11 displays the Service Quality Model by Jain and Jain (2015:8). According to Jain and Jain (2015) the reliability, personal interactions and tangibles were considered to measure the functional quality of the service. Outcome quality was used to evaluate the technical aspect of the service. The model used in total of ten questions in five dimensions to evaluate service quality. Seven-point scale was used to evaluate different aspects of the service.

As a summary, there are existing models available for measuring service quality. The models use different dimensions and questions to evaluate the quality with seven-point scale or equivalent. Some models focus only the functional side of the service whereas some include also the technical side of the service to be measured for to establish a holistic understanding of the overall service quality. The models can be used in various industries providing services to measure the service quality. Next subsection discusses measurement of knowledge creation.

4.4 Measuring Knowledge Creation

Two predominant goals for organizations are creation and application of knowledge. Knowledge creation gives organizations two things. Firstly, it provides value to them. Secondly, it gives them potential to sustain competitive advantage. (Mitchell and Boyle 2010:1) Although knowledge management, sharing and transfer has been studied widely there remains to be scarce material related to measurement of knowledge creation. Knowledge contains specific characteristic which are tactless, subjectivity and embeddedness. These all imposes barriers to identification and evaluation and creates limitations for measuring knowledge creation. (Mitchell and Boyle 2010:2).

Knowledge creation can be defined as process, output or an outcome. When defined as a process knowledge creation refers to the initiatives and activities taken towards generation of new ideas or objects. In this definition knowledge creation is defined by methods and actions through which knowledge is created and can be excluded from the other outputs. When defined as an output it refers to creation of new ideas that are significant enrichment for the existing knowledge. It can also be thought to be the difference between what is known and what must be known for the project to be successful. Knowledge creation as an outcome means that the new knowledge is diffused, adopted
and embedded as new services, systems and products. In this definition the value created is considered to be value adding object. (Mitchell and Boyle 2010:3). A definition for knowledge creation which includes all three definitions according to Mitchell and Boyle (2010:4) is 'The generation, development, implementation and exploitation of new ideas'.

The basic concept of organizational knowledge creation theory is that employee’s individual tacit knowledge is converted to explicit knowledge for the whole organization (Song et al 2012: 4). The distinction between two kinds of knowledge, tacit and explicit, suggests four patterns for creating knowledge in organization. The patterns are: from tacit to tacit, from explicit to explicit, from tacit to explicit and from explicit to tacit. Tacit to tacit means situations where knowledge is transferred through observation, imitation and practice between individuals. Tacit to tacit is a limited form of knowledge creation and because it never comes explicit in cannot be utilized the organization as a whole. (Nonaka 1991:5) Explicit to explicit happens in a situation where individual combines existing knowledge into a new combination. However, this new knowledge although considered to be explicit does not increase companies existing knowledge base significantly. Tacit to explicit is considered to happen when individual is able to articulate the tacit knowledge and share it to others inside the organization. This is considered to be powerful in terms of knowledge creation. In explicit to tacit as new explicit knowledge is available the rest of the organization starts to internalize, and it becomes a norm inside the organization. The four patterns can also be named as socialization, articulation, combination and internalization which describes the way knowledge is being created. (Nonaka 1991:6).

To summarize knowledge creation can be defined as process, output or an outcome. All these affects the approach how to measure the knowledge creation. There are certain steps identified in the knowledge creation process which can be measured. These are socialization, articulation, combination and internalization phases. Next, the general principles for creating questionnaires are discussed.

4.5 General Principles for Creating Questionnaires

Creating an effective questionnaire content is a critical factor for any survey. Preparing effective questionnaire requires both experience and patience and is not as straight forward as one might think. (Evangelos and Yannis 2010:179). According to (Evangelos
and Yannis 2010:179) there are three principles for questionnaire design. Firstly, the questionnaire should be kept simple and comprehensive. Secondly, the questions should be specific and single-minded. Thirdly, the structure of the questionnaire should help the participant to give their answers. Regarding structure of the questionnaire the more simpler questions that are easier to answer should appear first (Evangelos and Yannis 2010:181). According to Hayes (2008:62) a good question is relevant, concise, unambiguous contain only one thought and should not contain double negatives. Following these principles when creating questions generates clear and simple questions for participants to answer. Hayes (2008:62). Diem (2004) has defined a 26-step tool for developing questionnaire and survey procedures. The process starts by determining the purpose of the questionnaire and what should happen as a result. Process continues by defining the audience and choosing a suitable data collection technique for the survey along with selecting a suitable scale to be used for the questionnaire. Diem (2004) also suggests testing the survey before conduction it for the actual participants.

The four major measurement scales for questionnaires and surveys are nominal, ordinal, interval and ratio (Evangelos and Yannis 2010:188). Figure 12 below shows examples of different measurement scales. The difference of the scales can be seen in the variables used. In nominal scale the variables are categorized objects for the participants to select. (Evangelos and Yannis 2010:21). In ordinal scale the variables indicate order between object related to preset attribute. Interval scale uses variables with a specific measurement unit with equal differences between objects. Interval scale does not have a meaningful zero point compared to ratio scale which has one. Ratio scale is similar to interval scale. Most of the measurement in engineering is done using ratio scale. (Evangelos and Yannis 2010:22).

Figure 12 displays examples of the different measurement scales.
(a) Nominal scale

Please indicate which product you have purchased today.

Product A  1
Product B  2
Product C  3

(b) Ordinal scale

How satisfied are you with product ______?

Dissatisfied  1
Somewhat dissatisfied  2
Neither satisfied nor dissatisfied  3
Somewhat satisfied  4
Satisfied  5

(c) Interval scale

Give in a 1-10 scale your satisfaction level with product ______?

1 2 3 4 5 6 7 8 9 10

(d) Ratio scale

Which is your percentage of satisfaction with product ______?

Completely dissatisfied  0%  100%  Completely satisfied
To summarize, there are general principles available in literature that can be followed when designing surveys and questionnaires. Designing questionnaires includes also selecting a suitable scale for individual items to be used. Next subsection will summarize findings from this section as a conceptual framework.

4.6 Conceptual Framework of This Thesis

The findings that are most applicable for this study are summarized as a conceptual framework in Figure 13. The conceptual framework consists of five key elements: measuring customer satisfaction, measuring customer loyalty, measuring service quality, measuring knowledge creation and general principles for creating questionnaires. Figure 13 shows the conceptual framework for the study.
Figure 13. Conceptual framework of the study.
As seen in Figure 13 the first element is measuring customer satisfaction. Customer satisfaction measurement tells whether customer expectations were met or not. It evaluates customers current attitudes toward a service and service provider. To able to measure customer satisfaction accordingly first the critical incidents for the customer has to defined together with the customer. After that the items to be used for measuring can be defined.

Next element is measuring customer loyalty. By measuring customers retention organization can evaluate how likely the customer is willingness to stay as a customer also in the future. Intentions to repurchase measures tells how willingness the customer is to increase his or hers spending with the service provider. Advocacy measurement interprets customers willingness to recommend the service provider to others.

Third element is measuring service quality. For this measurement multiple dimensions will be used to evaluate the service quality which consists of both technical and outcome quality of the service.

Fourth element is measuring knowledge creation. Also, for measuring knowledge creation there are multiple dimensions to evaluate knowledge creation holistically.

The last element is about general principles for creating questionnaires. It starts by defining the purpose and the audience for the questionnaire as well as the next steps after the questionnaire i.e. what should be done with the data collected. The items used should be simple and comprehensive and they should be used with appropriate scales.

In the next section, the conceptual framework and findings from the starting analysis are used to define an approach for the case company to measure the outcomes of the case company’s projects in a holistic way.
5 Defining a Project Outcome Measurement Approach

This section utilizes the findings from the starting analysis and conceptual framework to build a proposal for the new project outcome measurement approach.

5.1 Overview of the Proposal Building Stage

The findings of the starting analysis suggested that the company should define an approach to measure the outcomes of its projects with four selected dimensions. The dimensions were customer satisfaction, customer loyalty, service quality and knowledge creation. Supporting knowledge and best practices were found and conceptual framework was defined to support the building of the proposal.

The selected dimensions are measured using questionnaires conducted with stakeholders of the project as proposed by literature. For the questionnaires the crucial part was to define appropriate items for each of the dimensions. The items were defined by using findings from data 1 and conceptual framework as a starting point. Especially appendix x was found to be useful for building the items.

The proposal was built together with help of a one stakeholder. First initial set of items were defined for each of the dimensions using data 1 findings and best practices found from literature. In addition, using the final dimensions, another set of dimensions from literature for the items was created. The initial proposal was discussed and improved in the first meeting together with the stakeholder. Based on the feedback and suggestions made the proposal was improved between the first and second meeting with the stakeholder. In the second meeting the improved proposal went through another round of discussions on how to modify and improve it. After the second meeting the final proposal was complete which was discussed with another stakeholder. The stakeholder approved the proposal to be validated in a real customer project of the case company.

“I don’t see anything that I would change at this point. Go ahead with the validation pilot”—Stakeholder

The key suggestions for the proposal made by the stakeholder are discussed in Section 5.2. Originally the plan was to also utilize more stakeholders, but their schedules didn’t allow them to join. The final proposal is an approach to measure the outcomes of case
company’s projects in the selected dimensions. The final proposal is validated in Section 6.

5.2 Findings of Data Collection 2

Data collection round 2 used one stakeholder as a source for input and feedback. Originally the plan was to also utilize more stakeholders, but their schedules didn’t allow them to join. The stakeholders feedback and input were gathered in two separate meetings. This section will discuss the feedback collected from the meetings.

In the first meeting when reviewing the initial measurement approach which used SERVQUAL dimensions the stakeholder suggested not to use it. Not using it would make the questionnaire clearer with more familiar dimensions. Also, using the SERVQUAL dimensions it was not clear what kind of questions should be asked where and the dimensions seemed to start to overlap between each other. The second key suggestion made by the stakeholder was that in addition to conducting the questionnaire online at least one of the customers should be interviewed face-to-face. The face-to-face situation was considered to be a good place to dig deeper into customers perceptions with additional questions made by the interviewer. The third suggestion made by the stakeholder was to consider whether the different dimensions would need appropriate sub-dimensions. Table 10 lists the key suggestions made by the stakeholder at the first meeting.

Table 10. Key suggestions from stakeholder gathered in the first meeting during Data collection 2.

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.3 Workshop 1</td>
<td>Questionnaire</td>
<td>Use the four selected dimensions instead of using SERVQUAL dimensions. This would make the questionnaire clearer.</td>
</tr>
<tr>
<td>28.3 Workshop 1</td>
<td>Process</td>
<td>Conduct the questionnaire by interviewing a customer face-to-face to be able to ask ‘why’s’ effectively from customers.</td>
</tr>
</tbody>
</table>
Table 10 lists the key suggestions made by a stakeholder during the first meeting for Data collection 2. Based on the feedback and suggestions the approach was improved for the second meeting.

Table 11 lists the key suggestions made by the stakeholder during the second meeting.

Table 11. Key suggestions from stakeholder gathered at the second meeting during data collection 2.

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4 Workshop 2</td>
<td>Questionnaire</td>
<td>Measure first Service Quality and Knowledge Creation. Those dimensions are good ‘warm-up’ for the customer before assessing Customer Satisfaction which affects Customer Loyalty at the end.</td>
</tr>
<tr>
<td>4.4 Workshop 2</td>
<td>Questionnaire</td>
<td>To move some of the questions from Customer Satisfaction under Service Quality.</td>
</tr>
<tr>
<td>4.4 Workshop 2</td>
<td>Questionnaire</td>
<td>To reduce the amount of questions under Customer Satisfaction.</td>
</tr>
<tr>
<td>4.4 Workshop 2</td>
<td>Questionnaire</td>
<td>Additional descriptions and examples should be added to some of the questionnaire items.</td>
</tr>
<tr>
<td>4.4 Workshop 2</td>
<td>Questionnaire</td>
<td>For Service Quality the order of questions should reconsidered so that the questions feel more grouped. The order</td>
</tr>
</tbody>
</table>
Table 11 lists the key suggestions made by key stakeholder during the second meeting during Data collection round 2. Based on the discussions the order of the questionnaire dimensions was revised. Instead of starting with customer satisfaction it was decided to start with service quality related items following with knowledge creation items. It was considered that having these discussions first would make it easier for the customers to reflect on items related to customer satisfaction and customer loyalty.

Also, some of the items which were originally under customer satisfaction were moved under service quality. This reduced the number of items under customer satisfaction. It was also suggested by the stakeholder to include some of the items some extra descriptions to make them easier to understand explicitly. Items under service quality were organized logically. The categories roughly used were general, professionalism, personnel, project management, design management categories. Process related matters were also discussed at the second meeting. Stakeholder was considering who from the customers side should be interviewed at the face-to-face part of the measurement. Is it the one who buys the project or the one that is closely working on it, for example. In addition, stakeholder was thinking whether it would make sense to first conduct the online questionnaire before face-to-face interviews to collect insights already before the interview. This would enable the interview to focus on certain dimensions and topics which seemed to need more discussion instead of going through the whole questionnaire together.

| 4.4 Workshop 2 | Process | Consider also whether it makes sense to conduct the online interview first to able to have more meaningful discussion with the customer. |
| 4.4 Workshop 2 | Process | Consider how to choose the customer(s) to be interviewed. Is it the one who buys the project or the one that is closely working on it e.g. |
| 4.4 Workshop 2 | Process | Plan what people should be able to see the results and when. |
Next subsections will describe the proposal for the new project outcome measurement approach in more detail.

5.3 Description of the Overall Measurement Process

The overall project outcome measurement approach consists of at least one customer interview and an online questionnaire conducted with the stakeholders of the project. Project manager would be responsible of interviewing the customer in approx. one-hour face-to-face situation. At the interview the items of the questionnaire are filled in and discussed together with the customer in addition to taking field notes. The results of the interview and questionnaire are analyzed and discussed together between the internal project team and shared to the management of the company. Based on the results further actions can be taken.

5.4 Measuring Customer Satisfaction

The goal for measuring customer satisfaction is to get understanding how well customers' and case company’s team’s expectations for the project were met. Satisfaction is measured through selected seven items using a five-point scale from ‘Strongly Agree’ (5) to ‘Strongly Disagree’ (1). The items used for customers can be seen in Table 12.

Table 12. Items for evaluating satisfaction.

<table>
<thead>
<tr>
<th>Item for Customer</th>
<th>Item for Internal Project Team Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The goals of the project were reached</td>
<td>The goals of the project were reached</td>
</tr>
<tr>
<td>2 My expectations for the project were met</td>
<td>My expectations for the project were met.</td>
</tr>
<tr>
<td>3 The project and its outcomes have positive impact on</td>
<td>The project and its outcomes have positive impact on our company culture</td>
</tr>
<tr>
<td>our company culture</td>
<td></td>
</tr>
<tr>
<td>4 Idean team was committed to the project</td>
<td>Our team was committed to the project.</td>
</tr>
<tr>
<td>5 I can trust Idean</td>
<td>-</td>
</tr>
</tbody>
</table>
As seen in Table 12 there are five items for evaluating the customer satisfaction on the customer side. The internal satisfaction for the project is evaluated through 4 items.

5.5 Measuring Customer Loyalty

The goal for measuring customer loyalty is to help to predict customers behaviors and attitudes toward the case company. Loyalty is measured using a five-point scale from ‘Strongly Agree’ (5) to ‘Strongly Disagree’ (1). Table 13 shows the selected items for measuring customer loyalty.

Table 13. Items for measuring customer loyalty.

<table>
<thead>
<tr>
<th>Item for Customer</th>
<th>Item for Internal Project Team Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. If I could turn back time I would hire Idean again</td>
<td>-</td>
</tr>
<tr>
<td>2. I would like to work with Idean also in the future</td>
<td>-</td>
</tr>
<tr>
<td>3. I would recommend Idean to others</td>
<td>-</td>
</tr>
</tbody>
</table>

As seen in Table 13 customer loyalty is evaluated through three items. Loyalty aspect is not relevant to ask internally so there are no items related to this dimension for internal team members.

5.6 Measuring Service Quality

Perceptions for Service Quality is measured both from the customers and in the case company’s project teams side. Items for both parties can be seen in Table 14 below.

Table 14. Items for measuring Service Quality.

<table>
<thead>
<tr>
<th>Item for Customer</th>
<th>Item for Internal Project Team Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Deliverables (keynotes, designs, code etc.) during the project were concrete and of high quality</td>
<td>Deliverables (keynotes, designs, code etc.) during the project were concrete and of high quality</td>
</tr>
<tr>
<td></td>
<td>The final outcomes and deliverables of the project are of high quality</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>The final outcomes and deliverables of the project are of high quality</td>
</tr>
<tr>
<td>3</td>
<td>I'm satisfied how the project was delivered</td>
</tr>
<tr>
<td>4</td>
<td>Idean team was reachable and reacted fast when needed</td>
</tr>
<tr>
<td>5</td>
<td>Co-creation sessions and meetings in the project were of high quality</td>
</tr>
<tr>
<td>6</td>
<td>Idean team members are experts on their domain</td>
</tr>
<tr>
<td>7</td>
<td>The tools and methods used by Idean are modern</td>
</tr>
<tr>
<td>8</td>
<td>Collaboration between the project members worked well</td>
</tr>
<tr>
<td>9</td>
<td>Chemistry between project members worked well</td>
</tr>
<tr>
<td>10</td>
<td>Idean team communicated well</td>
</tr>
</tbody>
</table>

As seen in Table 14 there is a total of ten items for the customer related to service quality. This dimension has seven items for internal team. The items consider both the functional and outcome quality aspects of the service quality.

5.7 Measuring Knowledge Creation

Case company is also interested whether new knowledge was created during the project. Knowledge creation is measured through two items. Loyalty is measured using a five-point scale from ‘Strongly Agree’ (5) to ‘Strongly Disagree’ (1). The items used for both customer and internal team are listed in Table 15.
Table 15. Items for measuring knowledge creation.

<table>
<thead>
<tr>
<th>Item for Customer</th>
<th>Item for Internal Project Team Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the project I gained new knowledge or skills that are beneficial to me in the future</td>
<td>During the project I gained new knowledge or skills that are beneficial to me in the future</td>
</tr>
<tr>
<td>During the project I gained new knowledge or skills that also others inside my company should know</td>
<td>During the project I gained new knowledge or skills that also others inside my company should know</td>
</tr>
</tbody>
</table>

Table 15 list the items used for measuring knowledge creation. The items used for both of the parties are identical. Next sub-section will summarize the proposal draft.

5.8 Proposal Draft

The proposal draft is built using the findings from the starting analysis and the best practice and knowledge found from the existing literature. Figure 14 shows the proposal draft.
Figure 14. Proposal for a new project outcome measurement approach.
As seen in Figure 14 the proposal consists of 20 items which are divided into the four selected dimensions to produce holistic measurement of the outcomes of the projects. The items displayed in Figure 14 are the ones used with customers. The items used internally are somewhat different. Each of the dimensions and its items will produce a result based on the answers using ordinal scale with five-point scale from ‘Strongly Agree’ (5) to ‘Strongly Disagree’ (1). This produces results e.g. ‘Total customer satisfaction is: 4.6’. In addition to collecting data using ordinal scale participants have the option to enter free form text to elaborate more on each of the items. This is also valuable source of insights to be used on further analysis. As questionnaire is conducted both on the customer side as well as internally both parties’ views can be seen in the results.

The approach can be considered to be a significant effort for improvement for two reasons. Firstly, the case company is missing a systematic way to evaluating the outcomes of its projects which this new approach would establish. Secondly, the approach defines four key areas which the company should be measuring and how to measure them.

Next section will focus on discussing the validation of the approach described above. Based on the results and feedback gathered from validation, a final approach is built.
6 Validation of the Proposal

In this section the new project outcome measurement approach is validated with a real customer project involving both customer and internal stakeholders. Based on the validation the approach is improved and the final proposal is presented at the end of this section.

6.1 Overview of the Validation Stage

The proposal for the new project outcome measurement approach was constructed in the previous section. The approach is based on the findings of the starting analysis which suggested that the company should define an approach to measure the of its projects using four dimensions. The dimensions were customer satisfaction, customer loyalty, service quality and knowledge creation. Supporting knowledge and best practices were found and conceptual framework was defined to support the building of the proposal.

This section validates the approach. The validation was done by piloting the approach for a real customer project of the case company to test the approach accordingly. The project for the pilot was selected because of three reasons. Firstly, the project had ended recently. Secondly, the case company and the customer have a good relationship with the customer, so it was easy to test the pilot with them to collect open feedback. Thirdly, the researcher had participated with the project which made facilitation of the pilot more straightforward as stakeholders and context for the project was already familiar.

First a working online prototype of the questionnaire were built using Google Forms platform. Screenshot of the online questionnaire can be seen in Appendix 6. As the questionnaire is somewhat different for customers and case company’s side it required separate questionnaires to be built for both parties. There were some limitations with the service used to build the online questionnaire, but it still served the purpose for the pilot test. Also, a tool for conducting the face-to-face interview was created. The tool can be seen in Appendix 7. Project manager of the case company conducted the face-to-face interview using the tool with the customer while researcher was taking notes and observing.
After conducting the measurement approach the results were merged and compiled into a document which were shared to selected internal stakeholders. The document summarizes the scores and shares the most relevant customer quotes collected during the interview. Excerpts of the document can be seen in Appendix 8.

In addition, feedback for the approach was collected from the stakeholders. Firstly, from the customer and internal stakeholders who participated for the pilot. Secondly, the pilot results and the approach used to get the results were discussed with an executive level member.

Findings and feedback from the validation stage are discussed next.

6.2 Validation Stage Findings

This sub-section discusses the findings from the validation stage. Firstly, the general findings collected while conducting the approach are analyzed. Secondly, findings of Data collection round 3 are discussed.

6.2.1 General Findings

In general, the approach worked as planned and produced results as expected. Key parts of the approach were the face-to-face interview with the customer and the online questionnaire used to collect data from the rest of the project team.

The face-to-face session with the customer, Senior Project Manager and the researcher was a nice experience for all of the participants. The questionnaire tool used in the interview was easy to use for the Senior Project Manager almost without any preparation and practice. Senior Project Manager went through the questionnaire items logically at the order they were displayed in the tool as intended. For every item, customers answer was collected using the scale of ‘Strongly Agree’ (5) to ‘Strongly Disagree’ (1) in addition to making notes of the most important quotes by the customer. The customer seemed to understand all of the questionnaire items easily and it seemed to be easy for her to answer them. The questionnaire sparked also additional discussion at times between the participants which was considered to be a good thing. These discussions included spec-
ulation of future collaboration between the parties as well as reflection to various situations which occurred during the project. To conclude the approach with the face-to-face interview session using the questionnaire worked as planned.

The online questionnaire used in the validation stage worked as planned. The researcher shared a link for three internal project members as well as one customer for them to fill in the online questionnaire individually. Customer did not fill the questionnaire because of her busy schedule during the pilot test. All the internal project members completed the questionnaire successfully and their answers for different items were collected to the Google Forms system for further analysis as planned. Unfortunately, the Google Form did not support the collection of free form text per item nicely, so the data collected per item were only number between 1-5 which was used as a scale for the questionnaire. This was a limitation of the pilot and the Google Form platform used for test purposes for the pilot. Overall the approach to collect data for project outcome measurement using online questionnaire worked as planned without the need of modifications.

Next sub-section discusses the feedback collected from validation stage participants.

6.2.2 Findings of Data Collection 3

Data collection round 3 used one customer and four stakeholders as a source. Plan was to involve other customer as well, but the person had to cancel. The data from the customer and Senior Project Manager was collected immediately after the face-to-face interview. Feedback from the Creative Director was collected in a brief discussion after the person had completed the online questionnaire. Customer Experience Specialist filled in the online questionnaire, but his feedback did not make it into this study. Feedback from the Chief Design Officer was collected using an online video conferencing as the person is located in US.

Table 16 lists the key feedback received from the customer.
Table 16. Customer’s feedback for the approach.

<table>
<thead>
<tr>
<th>Customer Feedback for the Approach</th>
</tr>
</thead>
</table>
| 1 "Face-to-face interview was a nice approach. I rarely fill in online questionnaires."
| 2 "Felt like a discussion. Nice experience. Felt flattering actually."
| 3 "The form of the questionnaire items and the scale used was good. It would have been safe for me to give also negative feedback."
| 4 "The timing was good as we have recovered from the original project (6 weeks)."

As seen in table 16 the customers feedback was overall very positive regarding the approach. Customer preferred face-to-face situation prior to filling in a questionnaire and reflected that the situation felt nice and flattering. The customer also said that the form of the questionnaire was good and said that it would have been safe for her to share also negative feedback. The timing was also good based on the customer as the interview was not conducted immediately after the actual project.

Table 17 list the key feedback from the Senior Project Manager who conducted the customer interview.

Table 17. Senior Project Managers feedback for the interview

<table>
<thead>
<tr>
<th>Senior Project Managers Feedback for the Interview</th>
</tr>
</thead>
</table>
| 1 ‘Felt natural to discuss new opportunities to work together in addition on reflecting to the project just ended.’
| 2 ‘Nice way to reflect on the project. To build excitement once more.’
| 3 “The questionnaire should have been a print-out form instead of looking at it from a computer screen. This would have made the interview experience nicer.”
| 4 ‘There should be two persons conducting the interview so that the other person can focus on taking the notes. Somebody in addition to PM.’
As seen in Table 17, also Senior Project Managers feedback for the approach were positive. Based on the person it was natural in addition to discussing the project just ended to also explore other opportunities for collaboration in terms of new projects. The person also liked the fact that revisiting the project in this way allowed to build excitement towards the project once more. The Senior Project Manager also realized that the questionnaire should have been in a print-out form instead of using it in a digital form on a computer screen. This would have made the situation a bit better experience and intimate for him and the customer as there would not be a screen between them. Also, customer agreed with this. The approach suggested that a project manager would conduct the interview alone, but she suggested that there would be extra person who would be taking notes. This way the person conducting the interview could focus solely on the discussions.

Table 18 lists the feedback for the online questionnaire from the internal stakeholders.

<table>
<thead>
<tr>
<th>Source</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Creative Director</td>
<td>‘It felt holistic.’</td>
</tr>
<tr>
<td>2 Creative Director</td>
<td>‘Felt a bit too generic?’</td>
</tr>
<tr>
<td>3 Creative Director</td>
<td>‘What if we would organize the items around our design framework?’</td>
</tr>
<tr>
<td>4 Senior Project Manager</td>
<td>‘Should we have items related to budgetary and schedule goals as well?’</td>
</tr>
<tr>
<td>5 Senior Project Manager</td>
<td>‘I would have liked to elaborate using text per item’</td>
</tr>
<tr>
<td></td>
<td>(Known issue. Google form didn’t support this nicely)</td>
</tr>
<tr>
<td>6 Senior Project Manager</td>
<td>‘The possibility to enter free form text would have been beneficial.’</td>
</tr>
<tr>
<td></td>
<td>(Known issue. Google form didn’t support this nicely)</td>
</tr>
</tbody>
</table>

Table 18 lists feedback from two stakeholders for the online questionnaire. Based on Creative Director the questionnaire felt holistic but also a bit generic. Creative Director
considered whether questionnaire items could have been tied strongly to the case companies own design framework. Suggestion like this might mean that whole questionnaire should be constructed in a different way with extra phases in the questionnaire. Senior Project Manager suggested that perhaps include items related to budgetary goals somehow. The person was not sure how these items would have been constructed actually. There was a limitation with the online survey prototype which did not allow the participants to elaborate on individual questionnaire items. Creative Director and Senior Project Manager both gave feedback regarding that they would have wanted to elaborate on few of the items at least.

Feedback from Chief Design Officer was collected after he had seen the approach and the results. Table xx lists the key feedback.

Table 19. Chief Design Officer’s feedback for the approach.

<table>
<thead>
<tr>
<th></th>
<th>Chief Design Officer’s Feedback for the Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>‘This should be just taken into practice now. First in Finland then globally.’</td>
</tr>
<tr>
<td>2</td>
<td>‘This is what the company wants and needs now. Understanding customer’s satisfaction is important and in focus this year.’</td>
</tr>
<tr>
<td>3</td>
<td>“This initiative will get my full support. Let me know what is needed to get this done. And then get back to me.’</td>
</tr>
</tbody>
</table>

As seen in Table 19 the feedback from the Chief Design Officer focused on making sure that the initiative moves forward. It can be then considered that the person was satisfied with the overall approach. Based on the person the approach is something what company needs and wants now especially understanding the customer satisfaction is in focus this year. The person promised to give his full support to make the approach real and to be taken into use globally. It was agreed that the resources needed for this should be investigated as a next step.
Overall the feedback for the approach was positive from different stakeholders and the approach worked well. Based on Data collection 3 there was not any major issues found on how to improve the proposal. Nonetheless some improvements were made which are discussed in next sub-section where final proposal is shown.

6.3 Final Proposal

The final proposal can be seen in Figure 15.
Figure 15. Final proposal for the project outcome measurement approach.
Figure 15 shows the final project outcome measurement approach. The elements circled with green are improvements from the initial proposal and there were three improvements made in total. Firstly, two persons should join the session with the customer with the main roles of interviewer and note taker to ensure that insights and feedback from the interview are documented adequately. Secondly, to improve the experience of the interview the questionnaire should be in print-out form instead of using a computer. One item under Service Quality was mildly rephrased based on observation by the author based on the interview.

Next sub-section discusses the recommended next steps for the approach.

6.4 Recommended Next Steps

Based on the discussion with the Chief Design Officer in Data collection round 3 the approach for measuring the case companies project outcomes is something what should be taken into use globally. Figure 16 shows a high-level roadmap for achieving this.

Figure 16. High-level roadmap for taking the approach to use globally.

As seen in Figure 16 the first step would be to create a project plan for making the new project outcome measurement approach real and part of the case company’s processes. The plan should include description of resources and time needed for building the approach. It would be then presented again to the Chief Design Officer who would be able to approve the plan and provide the resources needed. In step 2 would happen the actual design and development of the approach. After finishing step 2 appropriately the approach would be first launched in Finland in step 3 for making the final adjustments and making sure that everything is ready for global launch. At the final phase 4, the new
approach would be launched globally. After that the approach would be part of companies processes globally and used in every customer project of the case company.

The next and final section will summarize the study with additional discussion and evaluation.
7 Conclusions

This section summarizes the thesis as well as lists the next steps for the initiative. It will also evaluate the outcomes, validity and reliability of the work.

7.1 Executive Summary

Case company of this Thesis is a global customer experience design agency which conducts its business through customer projects. The outcomes of the projects are measured rather narrowly covering more or less only sense of customer satisfaction and budget compatibility measurement. Nevertheless, the company is interested in a wider understanding of the more holistic impact of its projects. Therefore, the objective of this thesis was to define an approach to measure the outcomes of case companies customer projects in a more holistic way. This it needs among others to enhance reference-based sales & marketing, quality development and to monitor overall customer satisfaction and loyalty.

The Thesis starts with the analysis of multiple data sources for holistic understanding of the topic. Firstly, key customers were interviewed to establish a customer point-of-view on expectations and outcomes for projects. Secondly, internal stakeholders were interviewed regarding the same topic and what is considered to be successful outcomes for the case company in addition to conducting a company-wide survey. Altogether, six customers and eight internal stakeholders were interviewed in addition to conducting a company-wide online survey globally which received a respectable 58 replies. The findings of the analysis suggested that the company should define an approach to measure the outcomes of its projects through four selected dimensions. The dimensions were customer satisfaction, customer loyalty, service quality and knowledge creation. Also, as a general requirement there were three things identified. Firstly, it should be lightweight to conduct. Secondly it should support tracking the outcomes periodically if needed. And thirdly, it should help to share results inside the company effectively.

After this analysis, existing knowledge and best practice were reviewed and conceptual framework was constructed for building the proposal. Supporting knowledge and best practice were explored to support the building of the proposal for measuring the dimensions. Based on findings from the analysis and conceptual framework, a proposal for the
new approach was designed. After validation of this initial proposal, the final proposal was built.

As an output of the Thesis a new approach to measure the outcomes of customer projects was designed for the case company. It consists of a questionnaire for four selected measurement dimensions which are used to evaluate the outcomes of projects. The questionnaire is conducted both at the customer and case company’s project team side to establish a holistic understanding of the results.

The new measurement approach works as a new source of insight for the case company. It will help the company understand the outcomes of its projects systematically and take actions accordingly. It also enables the company to share results effectively inside the company’s organization which was not possible earlier. In the long-term, the approach helps the company to improve its operations to produce better customer satisfaction, loyalty and service quality. Proven results help the company in sales situations also.

The final proposal described an approach to measure the outcomes of projects. It consisted of at least one customer face-to-face interview and an online questionnaire conducted for the other project members both on the customer and case company’s side. In the interview and questionnaire, the project members views and perceptions would be asked for various items related to the four dimensions of customer satisfaction, customer loyalty, service quality and knowledge creation. As a result of the measurement approach, results for all of the dimensions would emerge to review holistically the outcomes of the project.

The approach was tested in one real customer project where it proved to work in practice. The feedback collected from customer and internally were mainly positive. Based on the feedback the initially proposed approach was improved only mildly. There was no need to consider major changes. The approach and results of the measurement were also discussed with an executive level member who said that the initiative should be taken into use globally. The person promised to provide all the resources needed to make this happen.
7.2 Managerial Implications and Next Steps

The proposed approach for measuring outcomes of the customer projects will provide various benefits for the case company. It will work as a new source of systematic insight to improve its service and operations. Measuring and improving customer satisfaction is crucial for any company to succeed in the long term and to build long relationships with customers. This is also goal of the case company. First, measuring customer loyalty helps the company to forecast the customers future actions and to get a sense of their overall desire to work with the case company also in the future. Second, measuring service quality helps the company to understand for each project the quality of service provided through various items used in the measurement. Taken together, monitoring and addressing these will enable the company to improve the quality of the service even more in the long run.

Moreover, another key element of a successful project is one where new knowledge is created inside the project. At best, this new knowledge can create competitive advantage for the case company and deepen the relationship with the customer. Therefore, knowledge creation dimension is important to measure as well as one outcome of projects, as this thesis proposes. In addition, analyzing the result will help the company to sell future work with proven and measured results.

The case company has also interest in the future to consider other dimensions of their projects to be measured. Some of these dimensions were left out of this thesis as the four selected were considered to be the most important at this point. The final approach presented in this Thesis can be scaled up with new dimensions in the future if the case company decides to do so.

Presently, as the initiative has executive level support, the next steps are clear. The first step would be to establish a project plan for making the new project outcome measurement approach real and part of case companies processes. The plan would then be presented to the executive level who can provide the needed resources to make the initiative real. After the actual design and development phase of the project the approach would be first taken into use in Finland for test purposes. After that the approach for measuring the outcomes of the case company’s customer projects would be taken into use globally in all of the projects.
7.3 Thesis Evaluation

This sub-section will discuss the initial objective vs. the outcome of this thesis. It will also evaluate the validity of the work.

7.3.1 Objective vs. Outcome

The objective of this Thesis was to define an approach to measure the outcomes of case company’s customer projects in a more holistic way. Initially the case company was not measuring the outcomes systematically at all. As an outcome an approach was defined and validated which measured the outcomes holistically through four dimensions. Thus, the objective was reached in this Thesis.

However, some parts of the research process could have been conducted better. Some questions used in the interviews during the starting analysis provided little value for the thesis itself. In addition, some aspects discussed in the interviews could have been emphasized more. To tackle both of these issues it would have been beneficial already before all the interviews were conducted to do at least some level of analysis of the findings. This would have allowed the following interviews to be approached slightly differently to gain extra insights.

Although the project plan for the thesis was planned well overall some of the details were filled in perhaps couple of times too late. This was risky as the decisions made involved other people to react to the work in short notice. If these people would have been too busy with their schedules it could have put the progress of the thesis in jeopardy.

7.3.2 Validity and Reliability

The four criteria of research quality are validity, reliability, logic and relevance. Validity has two aspects: internal and external validity.

*Internal validity* evaluates whether the findings response to what was originally asked. If not, the study would not be internally valid. (Quinton and Smallbone 2006: 127). For ensuring validity the thesis was conducted by following a project and data plan which...
were followed closely throughout the project. In addition, the thesis used multiple informant from both case company as well customers to gain holistic understanding of the topic. Also, literature used to guide the work was of high level to ensure validity of the Thesis.

*External validity* assesses if the results of the study can be applied to other contexts as well, and whether the results would be any relevant in other contexts (Quinton and Smallbone 2006: 129). This assessment makes more sense in more number-oriented than in qualitative studies. Therefore, this criterion is not a concern in this study.

*Reliability* is an assessment whether the same results would emerge if the study was repeated or even conducted by another person (Quinton and Smallbone 2006: 129). This study addressed reliability in various ways. It used differing data sources in addition to different data collection tools. The collected data is recorded and documented in detail for later audit with the informants. The conclusions are based on sufficient evidence and key findings were validated with key stakeholders in different stages of the study through discussions.

Two last criteria to take into account are logic and relevance. *Logic* of the study is mainly ensured by addressing the internal validity discussed above which this thesis does. *Relevance* of the study can be confirmed through four key issues. Firstly, this thesis is relevant as the solution helps to solve the initial business challenge. Secondly, relevance is ensured with the fact that the findings of the starting analysis were relevant for the case company. Thirdly, the thesis relied on relevant literature selected for building the conceptual framework. Fourthly, during the study, the progress and findings of the study were pro-actively communicated to the key stakeholders to ensure relevance of the study.

7.4 Closing Words

The outcome of this Thesis helps to solve a business challenge for the case company. The business challenge was that the company does not know the full impact of its customer projects as the results are not measured systematically and holistically. With the research conducted in this thesis the topic was confirmed to be important and relevant and something which makes sense to address. The outcome of this thesis is an approach to measure the outcomes of projects holistically to solve the business challenge. This thesis validated the approach and the plan is to take it into use globally within the case
company. The general understanding is that also other companies in the industry are not currently measuring the outcomes of their projects systematically. Most likely the approach designed in this thesis could work as an excellent starting point for other companies willing to do so.
References


Questions for the interviews

Internal interview questions:

1. Our expectations for project end-results?
2. Customer expectations for project end-results?
3. Successful end-results for projects in our perspective?
4. Strategically important end-results for projects in our perspective?
5. Successful end-results for projects for customers?
6. Strategically important end-results for projects for customers?
7. Impact of projects for us?
8. Impact of projects for customers?
9. What is your current understanding of the current project end-results measurement approach?
10. Could it be improved?
11. What challenges you see in there?
12. Are you aware of somebody doing it better?
13. How important would it be to improve the measurement approach?
14. Expectations regarding the new approach?
15. What could we measure?
16. What goals should we set?
17. What should we take into consideration?
18. What would be the opportunities in this?
19. How would it affect your work if we would measure the end-results better?
20. What would it mean for this company?
21. For this industry?

External interview questions:

1. Could you tell a bit of your role and history in your company?
2. How used to are you working with consultants?
3. What is your general opinion on working with consultants?
4. What is the value of consultants?
5. When is it a good idea to work with consultants?
6. Most common problems for working with consultants?
7. What makes a good consultant experience?
8. How would you compare the case company to other companies?
9. Why was the case company chosen for this project?
10. What were the expectations for the case company in the project?
11. How did the case company succeed compared to the expectations?
12. Were there any goals set?
13. Impact of the case company for the project?
14. What did the case company bring to project?
15. Was there anything unique that the company brought to the project?
16. Did you or your team learn anything while working with use?
17. Was the role of the company strategically important?
18. Most valuable thing you got from us?
19. What do you think about the end-results of the project?
20. Important end-results for projects like these?
21. How would you measure the end-results?
22. Impact of the project for your company?
23. Impact of the project for your customer?
24. What are strategically important end-results for your projects?
25. What does the project help you to achieve?
26. In what time frame will the projects impact start to show?
27. Do you generally measure the impact of your projects?
28. Was the project successful?

29. Would you work with us again?

30. What would you do differently?

31. How could we be a better partner for you?
Two interview summaries

Internal interview summary 1
(Translated from Finnish)

Our expectations for the end-results of our projects?
It is difficult to generalize. I'm starting to say that this is a consulting activity. And our thing is that consulting services help our customers. That we can designers to be happy. That we have been able to provide such a knowledge-intensive service and value it through the company. The customer buys for many reasons. It is a sign of success for us that the designer and the designers feel that they have succeeded. We have succeeded in creating new information. We have created intellectual property. Even if it is not legally left to us. However, we have still increase the information capital at the firm! believe that the results of a successful project will empower the entire organization. It's in many ways. It may be a new reference. You do so good job that it is a good reference.

Customer expectations for the end-results of our projects?
Customers expect that as a result of the job they will get the service or product they like. And the expectation is that we will create successful services for them.

What are successful end-results for us?
A good reference. The biggest value is the IP of what it is born of as it grows and leads us forward. There are different metrics for people here. That it stays in the budget e.g. Designers have had a good time to do it and make the project. Job satisfaction and job diligence. The sign of success is that if the project enable us to continue with the customer. Perhaps I could add that we have been successful in solving a customer's problem properly. It is natural that the scope may change during the project.

Something new can be discovered in that process. What I mean by being solved is a real problem or a real challenge. You do not have it unpacked so we have been done so smart work, for example, a possible such change management. We will not go to the field and be investigated and can be questioned the whole thing. That hey this was ordered, but now something else.

What are successful end-results for customers?
There may be many things to do. What has been sold and delivered. They usually have it when they ask us some expectations for the results.

When the end result is complete there can be many different goals. That is, if we are only looking for or studying. So, as a result, they can better evaluate how to continue or invest. You can not make internal decisions. It is for those early-stage projects. Sit where we talk about design when we formulate a service or product. So then the goal may be that they want more trade. Or that they want their own staff to take less time. For example, the number of calls becomes less when the network service is so easy to use. Or it may be that staff will spend less time on business background processes, so they will be free to make more productive work. Whatever the purpose is, the expectation is that they will get it filled with the solution. I think the measurement is still in the infancy. If you interview clients it may be that some are measuring long enough. Part of our work is so long-term work that it can take a couple of years to end up in the field. In an industrial setting even for 5 years. The second is our project model, we have only recently been involved with the service that will be introduced. Concepts were made before. We will not be long enough. So we miss the opportunity to measure the quality of the result you can not measure the quality of the project delivery and moods after the project.

What are strategically important end-results for customers?
I want to believe that in a large part of our projects we make strategic projects to customers. Here I would say that this depends on the size of the client and the department and where we are doing the job.

What is the impact of projects for the customers?
At best, we have been able to further develop its customer business. And it can be out or inward or both. It can be an external customer channel but at best it not only develops it for external business, it has helped even enhance internal processes. And at the same time as it has created a new business it has helped to save money. So that's a dream situation.

**Do you know our current measurement approach?**
Not terribly well. The customer is going through a decision party. And it may also be through the team. And usually out of the project team, I drift away from the basic satisfaction level. I measure success because of the fact that I can easily continue to shop with its customer in the future. The project manager looks at budgeting stuff. I do not know how different competencies are going through the results. This is my understanding.

**Could the measurement approach be improved?**
Yes, yeah. If there is any model and process and tools. It is possible to do so.

**Challenges?**
I challenge the fact that we have not yet developed a sensible model. In a way it is not any rocket science that we have a decision man, you no longer miss it and we will not collect it. And on this page it's going to measure the customer experience, but it's not another such a project manager or equivalent who has such a form asking the customer or someone. Sometimes it can be a bit difficult equation because the conversation can go to something else because there is already a close relationship. Do we have a full set of people who do not have any projects that are calling for such customer inquiries. Then it's easy to do a bit more neutral. Can we have some such an internal system, because I am a strategic force for us. Strategic issues should not be outsourced.

**What should we measure?**
What is interesting is the market and the results. It is not possible to get this done immediately but with a delay. This is an extremely important thing. Not when we're planning a solution. We're suggesting something. You will not do this. And you will not get used to it. And in that sense, the results are what we need to reach. When we are planning a solution.

**Setting goals?**
Yes, they should be there. If they are already in the bidding stage. It belongs to the work of eons of days. Most of the projects are yes, but you have to be able to set the meters as well. When you know the instruments and goals then you can do it by designing them against the meters. And develop new metrics. Another thing that is a quality criterion is how meaningful a client experiences its cooperation and how long it will continue to work. It's the performance of our project teams during its project. So, how to communicate with the customer. That is, all that is visible to that customer. It's then the meetings, the workshops. Telco e-mails. That is, how our staff communicates with the customer. Interactive means. This can already be measured. And this is important in that long-term.

**How would it affect our work if we could measure the end-results better?**
Our reputation would benefit from that. We would come more reliable.

**How would it affect your work?**
I could be more aware of the kinds of models we can deliver. When I get more understanding of what works and what does not. The second is that I get new sales arguments for customers. Now I have very little to give when a customer asks for results. It would increase sales to qualify the sales phase of the definition work. You were able to set projects smarter.

**How would it affect the industry?**
In many ways. We could gain though leadership how to measure quality.
Internal interview summary 2
(Translated from Finnish)

**How do currently measure the end-results of our projects?**
Not measured at all. The team knows, but we have no process for it. The project manager knows. We have a sense of it. We are constantly interacting with our customers. Live. And in that situation it senses it.

**Have we ever tried to measure the end-results of our projects?**
Not in this scale and in the degree of difficulty. When the person x was a seller then it made a customer satisfaction survey. At least one. They are all done. Email-based query. Sometimes it was a plan that the project manager sends a query after the project. But it has been left to the level of speech. There is nothing formally collected anywhere. The metric project goes right next to it.

**Is the end-result measurement on a adequate level at the moment?**
No!

**What kind of problems you see in this?**
This is paradoxical to me because we try to measure something that does not have a unit of measurement or quality. Can not be measured in the traditional sense. But I would not want to stick to it. You do not have the means to do that. If I'm thinking about a software company then it's much easier to measure the software quality. If you think about the user interface design, it is difficult to measure it before it is done. It can not be measured by a paper prototype. I see two parts here. So what's the effect there in your organization's organization. And then what is the effect the client's customers have.

For example, in the beginning of projects, we define what KPIs are. If you do not want to do something for the customer, then we will not determine them. If you think of xxxxxx, we did it as a concept step, and there was little discussion of what KPIs are for that product and concept. Yes, that is the guarantee of quality if they happen. This is just two things. Define those KPIs and still define those values. Though it's in xxx case. You do not do a terribly manual job. Well, there is a clear metric. I remember we did not think about the title goal but the numerical goals could not be determined. Ideally, they are the same. If a product or project is placed on a KPI, it does have one meter for them. But it can not be the only one, because so much happens in the middle of it. Almost every time we are bought we will make some change to the customer. That way, it can be measured. not if you are talking about a big picture of transformation that is a long story. If you can measure it. Or if we do for any concept. Now we are doing xxxxx for that fun work. That way you can measure it. I think about that. They have been there for nine months. Now they want it better. That is, there is some starting point. Where are the customers? And we'll do it again.. It requires its current state of understanding. You do not know how much the users are and how much time is going on. I got two levels. So what is the impact on the customer and the end of the customer. That is it a successful project if we are generating it to the customer with a terrific job and more to do. There must be two levels.

**Are there any other companies doing it better?**
There is little information on that. Is it that the Vincit that have the satisfaction guarantee. xxxxx has benchmarked the metrics project when Vincit gives satisfaction with the fact that a customer can never reclamate. Because satisfaction is measured along the way. It is a brilliant defense mechanism. There is a talk of a meticulously speaking project with xxxxx when the data rupture accumulates from the cumulative data to draw conclusions. It is as important as the data as well as the project control data whatsoever I feel about the teams and proccessors. The surprises are that it was good but... the metric project has gone quite as long. Better communication later. It is more of a process. It tries to smell the question of whether a customer gets what has been promised and is satisfied. It does not exactly get the exact quality of the result.

**What are successful end-results for us?**
At least what we are promised. Good if there’s something more. I’m cautious with what it adds. Because that wow-factor can not come from it, we do not do it every single time better. Because it is not durable, the roof will come. But we qualitatively produce something that the customer can not do. Do something that they can not ask for. So they've done something like this damn good.

That is, we see a bigger picture from our point of view. Suggesting that the end result is of some use. A good result can be that something is not worth doing. It may be that it is said that the idea does not fly. Save time and money. Others are doing good quality work. That even though the customer would not be able to continue with it, we can continue with someone else. You do not do it by yourself. We do not get something weird and obscure.

**Expectations for the new measurement approach?**

It can not be terribly awkward. Otherwise it will not be done. You can not demand too much from the customer and from us. If something new comes up and adds so they do not happen.I can not see that any interview is bad. But it's just to be right after its project addition to the sales agreed upon later. We have a strategy for our customers. But in general our relationships are short-lived. This is the best way to help it.

Here's where the cuddly hitch is in contact with the customer. What helps sellers sell more. It's their job. We find it hard to hear how the customer goes, but he does not want to contact more. But by this means I can of course contact you.

**What opportunities you see in this?**

We learn. We can innovate and develop our own business. The client can tell you something that does not come into our mind.
Questionnaire results

The participants were asked to answer to the claims in the questionnaire in a scale of 1-5 where ‘1’ was meaning ‘totally disagree’ and ‘5 totally agree’.

I'm part of:
56 responses

I'm aware how Idean is currently measuring the end-results of its projects.
57 responses
It’s important to improve our current project end-result measurement approach.

57 responses

Understanding the end-results of our projects more holistically would help us to improve our QUALITY.

56 responses
Understanding the end-results of our projects more holistically would help our SALES.

56 responses
Table of key interview findings

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<th>Case Company Expectations and Ideas for New Outcome Measurement Approach</th>
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<td>It collects new kinds of Information to be used to support sales</td>
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<td>Case company brings expertise and commitment to the project</td>
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<td>End-results are what the customer needs not perhaps what the customer originally wanted</td>
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<tr>
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<td>Customer buys more from the company</td>
<td>Brings impact of our projects to the center of our design process</td>
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<td>Able to entice new target groups and investments</td>
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<tr>
<td>Able to join design competition</td>
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<td></td>
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<td>Customer has learned customer centric development</td>
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<tr>
<td>Company saved significant amount of money</td>
<td>Positive impact on wellbeing at work</td>
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</table>
SERVQUAL Instrument

Parasuraman et al. (1988:39)

**DIRECTIONS:** This survey deals with your opinions of ———— services. Please show the extent to which you think firms offering ———— services should possess the features described by each statement. Do this by picking one of the seven numbers next to each statement. If you strongly agree that these firms should possess a feature, circle the number 7. If you strongly disagree that these firms should possess a feature, circle 1. If your feelings are not strong, circle one of the numbers in the middle. There are no right or wrong answers—all we are interested in is a number that best shows your expectations about firms offering ———— services.

E1. They should have up-to-date equipment.
E2. Their physical facilities should be visually appealing.
E3. Their employees should be well dressed and appear neat.
E4. The appearance of the physical facilities of these firms should be in keeping with the type of services provided.
E5. When these firms promise to do something by a certain time, they should do so.
E6. When customers have problems, these firms should be sympathetic and reassuring.
E7. These firms should be dependable.
E8. They should provide their services at the time they promise to do so.
E9. They should keep their records accurately.
E10. They shouldn’t be expected to tell customers exactly when services will be performed. (— )
E11. It is not realistic for customers to expect prompt service from employees of these firms. (— )
E12. Their employees don’t always have to be willing to help customers. (— )
E13. It is okay if they are too busy to respond to customer requests promptly. (— )
E14. Customers should be able to trust employees of these firms.
E15. Customers should be able to feel safe in their transactions with these firms’ employees.
E16. Their employees should be polite.
E17. Their employees should get adequate support from these firms to do their jobs well.
E18. These firms should not be expected to give customers individual attention. (-)
E19. Employees of these firms cannot be expected to give customers personal attention. (-)
E20. It is unrealistic to expect employees to know what the needs of their customers are. (-)
E21. It is unrealistic to expect these firms to have their customers' best interests at heart. (-)
E22. They shouldn't be expected to have operating hours convenient to all their customers. (-)

**DIRECTIONS:** The following set of statements relate to your feelings about XYZ. For each statement, please show the extent to which you believe XYZ has the feature described by the statement. Once again, circling a 7 means that you strongly agree that XYZ has that feature, and circling a 1 means that you strongly disagree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers—all we are interested in is a number that best shows your perceptions about XYZ.

P1. XYZ has up-to-date equipment.
P2. XYZ's physical facilities are visually appealing.
P3. XYZ's employees are well dressed and appear neat.
P4. The appearance of the physical facilities of XYZ is in keeping with the type of services provided.
P5. When XYZ promises to do something by a certain time, it does so.
P6. When you have problems, XYZ is sympathetic and reassuring.
P7. XYZ is dependable.
P8. XYZ provides its services at the time it promises to do so.
P9. XYZ keeps its records accurately.
P10. XYZ does not tell customers exactly when services will be performed. (-)
P11. You do not receive prompt service from XYZ's employees. (-)
P12. Employees of XYZ are not always willing to help customers. (-)
P13. Employees of XYZ are too busy to respond to customer requests promptly. (-)
P14. You can trust employees of XYZ.
P15. You feel safe in your transactions with XYZ's employees.
P16. Employees of XYZ are polite.
P17. Employees get adequate support from XYZ to do their jobs well.
P18. XYZ does not give you individual attention. (−)
P19. Employees of XYZ do not give you personal attention. (−)
P20. Employees of XYZ do not know what your needs are. (−)
P21. XYZ does not have your best interests at heart. (−)
P22. XYZ does not have operating hours convenient to all their customers. (−)
Screenshot of online questionnaire

**Project End Questionnaire**

You're opinion is highly valued! Based on your valuable insights we can improve our customer experience and quality even more.

* Required

**Deliverables (keynotes, designs, code etc.) during the project were concrete and of high quality.**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="0" alt="Strongly Disagree" /></td>
<td><img src="0" alt="Strongly Disagree" /></td>
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<td><img src="0" alt="Strongly Disagree" /></td>
<td><img src="0" alt="Strongly Disagree" /></td>
</tr>
<tr>
<td><img src="0" alt="Strongly Agree" /></td>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The final outcomes and deliverables of the project are of high quality.**

<table>
<thead>
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<th>1</th>
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<tbody>
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<td><img src="0" alt="Strongly Agree" /></td>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**I'm satisfied how the project was delivered.**

<table>
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<th>5</th>
</tr>
</thead>
<tbody>
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<td><img src="0" alt="Strongly Agree" /></td>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Our team was reachable to client and reacted fast when needed.**
## Project Outcome Measurement Tool

### Service Quality 1/2

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliverables (keynotes, designs, code etc.) during the project were concrete and of high quality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The final outcomes and deliverables of the project are of high quality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I’m satisfied how the project was delivered.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideaen team was reachable and reacted fast when needed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-creation sessions and meetings in the project were of high quality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Service Quality 2/2

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideaen team members are experts on their domain.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The tools and methods used by Ideaen are modern.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration between the project members worked well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry between project members worked well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideaen team communicated well.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Knowledge Creation

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the project I gained new knowledge or skills that are beneficial to me in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the project I gained new knowledge or skills that also others inside my company should know.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Customer Satisfaction

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The goals of the project were reached.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My expectations for the project were met.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The project and its outcomes have positive impact on our company culture.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Idean team was committed to the project.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can trust Idean.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Customer Loyalty

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>If I could turn back time I would hire Idean again.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to work with Idean also in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would recommend Idean to others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Excerpts from the results of the measurement**

<table>
<thead>
<tr>
<th></th>
<th>(Customer) Satisfaction</th>
<th>(Customer) Loyalty</th>
<th>Service Quality</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer score (1 participant)</td>
<td>4.8</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Internal score (4 participants)</td>
<td>4.56</td>
<td>5</td>
<td>4.68</td>
<td>4.75</td>
</tr>
</tbody>
</table>

### Service Quality 1/2

<table>
<thead>
<tr>
<th>Customer scores (1 customer)</th>
<th>Internal scores (4 participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliverables (keynotes, designs, code etc.) during the project were concrete and of high quality.</td>
<td>4.75 Deliverables (keynotes, designs, code etc.) during the project were concrete and of high quality.</td>
</tr>
<tr>
<td>The final outcomes and deliverables of the project are of high quality.</td>
<td>4.75 The final outcomes and deliverables of the project are of high quality.</td>
</tr>
<tr>
<td>I'm satisfied how the project was delivered.</td>
<td>4.25 I'm satisfied how the project was delivered.</td>
</tr>
<tr>
<td>Idean team was reachable and reacted fast when needed.</td>
<td>4.75 Idean team was reachable and reacted fast when needed.</td>
</tr>
<tr>
<td>Co-creation sessions and meetings in the project were of high quality.</td>
<td>4.25 Co-creation sessions and meetings in the project were of high quality.</td>
</tr>
</tbody>
</table>

### Service Quality 2/2

<table>
<thead>
<tr>
<th>Customer scores (1 customer)</th>
<th>Internal scores (4 participants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idean team members are experts on their domain.</td>
<td>5</td>
</tr>
<tr>
<td>The tools and methods used by Idean are modern.</td>
<td>5</td>
</tr>
<tr>
<td>Collaboration between the project members worked well.</td>
<td>4.5 Collaboration between the project members worked well.</td>
</tr>
<tr>
<td>Chemistry between project members worked well.</td>
<td>5 Chemistry between project members worked well.</td>
</tr>
<tr>
<td>Idean team communicated well.</td>
<td>5</td>
</tr>
</tbody>
</table>

Avg: 5 4.68
Appendix 8

KNOWLEDGE CREATION
During the project I gained new knowledge or skills that are beneficial to me in the future

Customer: 5

“Yes. There was lot of stuff that I felt that I need to remember after the project. Magic moments - thinking. The way you specified the experiences. How you could crystallize something fuzzy to something concrete.”

Internal: 4.75