

“Diagnosing and Changing Organizational Culture to Meet the Necessary Conditions for Implementing the Lead User Method”

Company X

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"Necessity is the mother of invention" - Plato

Preface

This master thesis is the result of a half-year research at Company X, department XX (XX). This master is written to get my master degree in Business Administration at the university of Twente.

The research started 12 January 2015 after Company X placed an assignment for a business administration intern student who would do research in the field of innovation process. The research ended 31 July 2015. The first goal of this research was developing an innovation process that was customer centred, later this goal transformed into investigating the possibilities for Company X to innovate radically, by using the Lead User Method, a method developed by Eric von Hippel in 1986.

After the literature study on radical new service development and radical innovation, it turned out that before radical innovations take place at companies, the dominant organizational culture must be an adhocracy culture. Therefore, the organizational culture of Company X was diagnosed and an organizational culture change plan was developed.

I would like to thank my examiners from the university of Twente: Dr. Rik van Reekum and Dr. Frans Jonkman, for guidance during this research and for giving feedback on the thesis.

Secondly I would like to thank the people of Company X and the department XX, the 301 participants who responded to the questionnaire and the participants of the group session, who were very open during the group session on formulating actions for initiating the organizational culture of Company X. My special thanks go to my supervisors from Company X: Dr. Martijn Rijdsdijk and Dr. Meindert Sterenberg and also the people from the department XX for having me for the last six and a half months, for the collaboration and the guidance during the research.

I hope that this research can contribute to an innovative and sustainable future for Company X and the department XX.

Jurjen Abbink

Enschede, 20 august 2015

Management Samenvatting

Innovatie is tegenwoordig een belangrijke element in organisaties. Verschillende organisaties hebben hun relevantie verloren door nieuwe innovaties die de totale markt overhoop hebben gehaald. Hierbij kun je denken aan het internet en de opkomst van verschillende web services. Denk hierbij aan de e-mail als nieuwe technologie wat de post markt compleet heeft doen veranderen. Het is dus belangrijk om als organisatie relevant te blijven en aan te sluiten bij de behoeften en wensen van de markt.

Binnen het Company X wordt er veel innovatie verricht op het proces en de door ontwikkeling van bestaande producten. Het Company X is de laatste jaren niet succesvol als het gaat om radicale innovatie, new-to-the-world innovaties. Hierdoor loopt het Company X kans om nieuwe mogelijkheden die mogelijk gemaakt worden door nieuwe technologieën, te missen en relevantie te verliezen als semioverheid organisatie. Verder ondervindt de afdeling XX (XX), hinder om snel en adequaat te kunnen handelen. Dit blijkt uit het volgende voorbeeld:

Het Company X kwam op het idee om een applicatie te ontwikkelen voor de smartphone, waarin de gebruiker gegevens over XX kon opvragen. De gebruiker zou zo tijdens een feestje, via de applicatie, op zijn telefoon kunnen bekijken XX. De ontwikkeling van de applicatie was niet ingewikkeld. In samenwerking met een bedrijf dat gespecialiseerd is in applicaties ontwikkeling voor de smartphone was er binnen enkele dagen een draaiende demo beschikbaar. De moeilijkheid zat hem in de wetgeving. Het Company X is vanwege haar publieke taak verplicht vaste prijzen te rekenen voor bepaalde producten, dit is vastgelegd in de wet. De App-store van Apple eist 30% van de inkomsten die gegenereerd zijn door de applicatie uit de App-store. Hierdoor zou het Company X 30% van de opbrengsten moeten afstaan aan Apple. De vraag in deze case is of dat maatschappelijk te verantwoorden is als semioverheid organisatie. Het antwoord op dit vraagstuk, wat behandeld moest worden door het hoogste management kwam circa één jaar later. Dit voorbeeld laat zien hoe de hiërarchische organisatie structuur van het Company X, snelle en adequate handelingen van de afdeling XX belemmeren.

Het Company X wil in staat zijn om radicale innovaties te ontwikkelen, om op de hoogste te blijven van de ontwikkelingen van de technologie en hier nieuwe toepassingen voor te vinden voor het Company X om zo dicht bij de markt behoefte te blijven, zodat het Company X haar bestaansrecht blijft behouden.

Een gestructureerde manier om aan nieuwe informatie te komen en deze te gebruiken voor de ontwikkeling van nieuwe producten en diensten is de Lead User Methode ontwikkeld. Lead Users zijn mensen of organisaties die een probleem ondervinden in hun expertise of vanuit hobby of sport en daarnaast ook het initiatief hebben om dit probleem op te lossen en er zelf op vooruit te gaan, maar ook bereid zijn samen te werken met andere Lead Users en de organisatie om tot nieuwe concepten te komen. Met een multidisciplinaire team binnen de organisatie moet een traject van vijf fasen worden doorlopen. Van het vaststellen van de doelmarkt en het projectdoel tot het selecteren van de Lead Users en het organiseren van een workshop. Het doel van deze vierde fase is het bedenken van nieuwe concepten die een toegevoegde waarde kunnen hebben voor de organisatie. De laatste stap (volgens de Von Hippel, onderdeel van stap 4) onderzoekt of de concepten aansluiten bij de markt behoeften, het kan namelijk voorkomen dat de concepten te revolutionair zijn dat de markt nog niet zo ver is.

Onderzoek heeft echter aangetoond dat organisaties die succesvol zijn in het ontwikkelen van radicale innovatie allemaal een dominante adhoc-organisatie cultuur hebben volgens de Brentani (2001). Hieruit is geconcludeerd dat de organisatie cultuur waarschijnlijk de belangrijkste, bepalende factor is voor een organisatie om radicaal te kunnen innoveren. Cameron & Quinn (2006) hebben een model ontwikkeld waarmee de organisatie cultuur gemeten kan worden. Dit model gaat ervan uit dat een organisatie cultuur uit vier cultuurtypen bestaat; Hiërarchie, Familie, Adhoc en Markt. Alle cultuur typen zijn vertegenwoordigt in een organisatie cultuur, echter zijn er vaak één of twee cultuur typen dominant.

Het hoofddoel van dit onderzoek is kijken of het Company X een geschikte organisatie is om de Lead User Methode toe te passen voor radicale innovatie. De centrale onderzoeksvraag luidt:

“Kan de Lead User Methode bijdragen aan een effectief, ‘front-end’ voor nieuwe service innovatie, binnen het Company X?”

Om deze onderzoeksvraag te beantwoorden is huidige en de gewenste organisatie cultuur van het Company X in kaart gebracht door middel van een enquête. Hieruit is gebleken dat de huidige dominante organisatie cultuur hiërarchie-cultuur is (38,7 punten). De adhoc-cultuur is derde (17,26 punten). In de gewenste situatie is dit bijna anders om. De adhoc-cultuur (31,53 punten) is flink toegenomen, en de hiërarchie-cultuur (21,68 punten) is flink afgenomen in de gewenste situatie.

Om een organisatiecultuur-verandering te initiëren is er een groepssessie gehouden met de afdeling XX om te kijken met welke acties de huidige cultuur kan veranderen in de gewenste cultuur. Hieruit is gekomen dat de collega's van XX meer toerusting willen omtrent onderwerpen als organisatie cultuur, externe focus ect. Tevens willen de collega's meer verantwoordelijkheid in de eigen projecten en moeten de bevoegdheden die de werknemers hebben duidelijk zijn.

Ook moet er een verschuiving plaatsvinden van een interne focus naar een externe focus als organisatie. Verschillende marketing modellen en concepten zijn aangereikt om radicaal innovatie op te nemen in de strategie van het Company X, hoe marktgeoriënteerd te zijn en tot slot is het koopproces van consumenten behandeld zodat het Company X inzicht krijgt in de principes van het koop gedrag van de markt.

De aanbeveling van dit onderzoek luidt dat de Lead User Methode niet direct moet worden toegepast, eerst moet de top van de organisatie radicale innovatie opnemen in de strategie van het Company X. Parallel kan de afdeling XX beginnen met de acties voor de cultuurverandering concreet en meetbaar te maken en te implementeren.

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1 Introduction

This chapter describes the research area of the thesis. It starts with a discussion of the background, an explanation of the importance of customer involvement in new service development (NSD) and the fuzzy front-end. It also describes the context in which the study was conducted and the relevance of this research for 'het Company X'. Finally, the goal and the approach of this research are defined.

1.1 Background to the research

In recent years, innovation has become a trend phenomenon. Innovation has become one of the major focus areas of many companies and academics. Since innovation is considered a major driver of the economy, the factors that lead to innovation are considered to be critical for organizations. Over the past six decades the concept and the understanding of innovation has evolved considerably (Rothwell, 1994).

Tidd and Bessant (2009) define innovation as follows: "The process of turning opportunity into new ideas and of putting these into widely used practice". Innovation is a continuous and time-demanding process with different phases. An innovation may be incremental, such as an improvement of a product, process or method, or radical, like a completely new service or technique.

The innovation process may be divided into three parts; the front-end of innovation, the development process, and commercialization (Koen, Bertels and Kleinsmith, 2014, p34). The front-end of innovation forms the foundation for future product and service development activities since the decisions made in this early stage determine the innovation options available for later development and commercialization (Koen, Bertels and Kleinsmith, 2014). When in the front-end phase poor business cases are constructed, customers and users will be unsatisfied. That is why the first stage of the innovation process is a critical component of the innovation process (Koen, Bertels and Kleinsmith, p34).

Company X represents legal certainty and has to be relevant to its customers. The strategic plan of Company X emphasizes customer focus. The purpose of this aim is offering products and services that meet the needs of the customer. Empirical evidence shows that customers are involved in and provide important contributions to service innovation processes within companies (Matthing et al., 2006). This research is focussed on the front-end of innovation.

Achieving successful outcomes for projects that differ radically in terms of innovativeness requires that firms adjust the innovation process practices in line with the type of new product project they are developing (de Brentani, 2001). For low innovativeness new business services, managers can enhance performance by leveraging the firm's unique competencies, experiences and reputation through the introduction of new services that have strong corporate fit. For example, installing a formal 'stage-gate' new service development system, particularly at the front-end and during the design stage of the development do not lead to high cost or unnecessarily complex service offerings (de Brentani, 2001).

For radical, new-to-the-world business services, the primary distinguishing feature impacting performance is the corporate culture of the firm: one that encourages entrepreneurship and creativity, and that actively involves senior managers in the role of visionary and mentor for new service development (de Brentani, 2001).

In this research the focus is on new-to-the-world innovativeness, because Company X already has installed a formal stage-gate development system. Therefore, it is more relevant to focus on radical innovations. The manager of the innovation department of Company X wants his team to be able to deliver radical innovations, certainly in a time and environment where new technologies can disrupt entire markets.

A breakthrough product is one that has a major impact on customers' habits and marketplace competitors. In general, 90% or more of new products are only incremental improvements of existing products, a disproportionate share of profits and sales growth frequently comes to firms who successfully introduce breakthrough products or services (Olson and Bakke, 2004). The Lead User Method has been found to increase the likelihood of breakthrough product concepts (Olson and Bakke, 2004).

The Lead User Method was popularized and refined by Eric Von Hippel, and over the past few years many well-known firms have successfully adopted the Lead User method into their innovation process (e.g. 3M, Nestle, Philips and Kellogg). One key factor why the Lead User Method provides such good results compared to traditional methods can be explained by instead of collecting information from the 'average' customer, the Lead User Method seeks out product users facing challenges and opportunities involving the product months or years ahead of the general marketplace (Olson and Bakke, 2004). Von Hippel describes the Lead User Method in four steps. Olson and Bakke splitted the fourth step into two separate steps. The five steps are:

- Step 1: Planning the project
- Step 2: Determine key trend(s)
- Step 3: Identify Lead Users
- Step 4: Development of innovative ideas and product concepts
- Step 5: Concept testing

A research on the adoptability of the Lead User Method in the innovation process of Company X is very relevant, because Company X has the need to release new-to-the-world innovations in order to avoid technology disruption.

As mentioned earlier the primary distinguishing feature for radical innovations that impacts performance, is the organizational culture. Therefore, before addressing the adoptability of the Lead User Method, it is useful to diagnose the organizational culture of Company X. This leads to the following research questions, which will be answered in this research:

"Can the Lead User Method contribute to an effective front-end of the new service innovation process within Company X?"

Before the main research question can be answered the following sub-questions need to be answered. First the sub-question in the field of fuzzy front-end will be formulated:

"Why is the front-end often considered fuzzy?"

"How can fuzziness be removed from the front-end of innovation?"

Secondly, the sub-questions related to Lead User Method and organizational culture will be formulated:

"What are the necessary conditions for a successful implementation of the Lead User Method?"

"What are the relations between the organizational culture, the Lead User Method and radical innovation?"

"In the current situation, is Company X suited to adopt the Lead User Method?"

"How can Company X initiate change of their organizational culture towards an adhocracy culture?"

"How can Company X structure the front-end of radical innovation?"

The Organizational Culture Assessment Instrument (OCAI) is practical, timely, manageable and valid method for diagnosing the organizational culture of an organization. Cameron and Quinn (2006) develop this instrument. The instrument is in the form of a questionnaire and measures the current and the preferred organizational culture (Cameron and Quinn, 2006).

Concluding, this leads to the theory that for increasing the success rate of the implementation of the Lead User Method, the adhocracy quadrant of the organizational culture mix should be dominant.

The outcome of the OCAI-instrument showed that in our case of Company X in the current situation, the dominant organizational culture is hierarchy culture (38,70 points) followed by a family organizational culture (30,54 points). The third scored the adhocracies-organizational culture (17,26 points) and also market organizational culture is present (13,50 points).

But in the preferred situation adhocracy increases enormously (+14,27 points) at the cost of hierarchy (-17,02). These two organizational culture types are two extremes. This explains why the increase of adhocracy could lead to the decrease of hierarchy. Since the adhocracy needs to be the dominant organizational culture, this is promising for the adoptability of the Lead User Method in the innovation process of Company X.

More understanding is needed for changing the organizational culture. Cameron and Quinn offer six steps methodology for identifying what changes are necessary in the organizational culture. The methodology relies on a process of dialogue among individuals charged with initiating and managing the change. In our case a group session was organized. Different actions have emerged from this session for initiating the

organizational change, but most of the actions need further discussion with the team for making it more concrete and measureable before the actions can be implemented.

1.2 Problem Statement

This paragraph describes the background of the organization and the problem statement. This paragraph consists of two sub-paragraphs. The first sub paragraph describes the background of the Company X. The second describes the problem Company X is facing, and explains why the Lead User Method in a new service development perspective is relevant for Company X.

1.2.2 The Problem

Company X faces two main problems; the first problem is situated within the context of radical innovation. Company X is not able to deliver new-to-the-world innovations. This first problem is the focus in this research. The second problem is delivering products and services that meet the needs of the customer or user. Appendix 1 describes a process of the front-end of innovation and related tools that might help Company X to solve this second problem.

This research is conducted within the unit XX. Because Company X wants to serve society, Company X is constantly looking for new opportunities. In 2014 various innovations have come through the innovation process of XX, but 12 of the 15 innovations are focused on process innovation. Company X is very successful with regard to process innovations. The process innovations often lead to small changes in existing services. For example, an additional option in an existing service, faster availability, faster updates or more detailed data. A weakness of Company X is the ability to develop complete new services. Company X is looking for a method to develop new-to-the-world services.

In this research the focus is on new-to-the-world innovativeness, because Company X already has installed a formal stage-gate development system. Therefore, it is more relevant to focus on radical innovations. The manager of the innovation department of Company X wants his team to be able to deliver radical innovations, especially in a time and environment where new technologies can disrupt entire markets.

An example that reveals a part of this problem is an application that Company X wanted to develop. XX had this idea to develop an app, where people could check for XX. The technical part of this app was not that hard, within a week Company X had developed a demo of the app together with another organization that was specialized in building apps. But then a decision had to be made about the prices for the data. Apple claims 30% of purchases through the app. This dilemma had to be discussed internally. However, the organizational structure of Company X is hierarchical, many different layers within the organization had to discuss this dilemma. It took about one year before the highest level of the organization took a decision on the case.

This example shows that the organizational structure is hierarchical. The decision needs to go through different layers within the organization. This makes decision making a

time consuming process, which may hinder the ability of the organization to act and develop quickly.

It is necessary and strategically important that Company X will radically innovate. Therefore, it is necessary and strategically important for Company X to be aware and monitor the technological developments, and specifically the developments that could be disruptive technologies, which may lead to substitution. Any kind of substitution that will be technically possible will be tried. The right to exist of the department XX (GVA) could brought into question if the department does not provide radical innovations concepts. The starting point for radical innovation is the strategic focus. In this focus the management wants to see radically new initiatives in which directions, or product groups, services are established.

The second problem of Company X is delivering products and services which are meeting the customers' needs. This ambition is described in the strategic business plan (Company X, 2014). A customer satisfaction survey, measured by an external party in 2014, shows that in different cases the customer need was not met. An example is the application called 'Watchdogs'. Company X developed this application because they heard a need of the notaries, which was brought to the attention by the accountant managers. There were too many different information sources for notaries. Company X developed watchdogs, an application to bundle the different sources, but when this application was ready for market launch, notaries responded very negative. After this negative experience Company X decided to recall the application. In this research this second problem has less attention, but in the appendix 1 a front-end of innovation process is depiction for incremental innovation. In this process customers interaction, especially in the first stages of the front-end of innovation, are discussed which will help to meet the customer needs.

Concluding, there are two major needs for Company X. The first need is the ability to develop new-to-the-world services. The second need is meeting the customers' needs in delivering the services. The first problem is the focus of this research. This research investigates the usability of the Lead User Method, which is a method for breakthrough innovations. The starting point is strategic focus of the method. The second problem is shortly discussed in appendix 1 that presents a structured front-end of innovation and related tools which can help meeting customers' needs.

1.2.3 Research Scope

The research takes place within the department 'Product and Process Innovation' of Company X, but for my survey every division of Company X is taken into account. The conclusions of this survey covers the entire organization of Company X. However, because of the physical place of this research, and the participants of the group session, most conclusions will be relevant for the department 'Product and Process Innovation.' Hence they are most familiar with the innovation-process.

The content of this research is;

- Front-end of innovation
- Incremental vs. radical innovation
- Lead User Method
- Organizational culture.

In the current situation Company X has already created a design for the innovation process. Company X also works with an innovation funnel to show the projects and where these projects are located in the process. The design of the innovation-process of Company X is pictured below, see figure 2.

Figure 2 – *Schematic design of the innovation process of Company X.*

Figure 3 below shows the innovation-funnel designed by Company X. On top the different stages are displayed. The ‘swimming-lanes’ are composed by the strategy topics of Company X. This clarifies which project contributes to that specific strategic topic.

Figure 3 – *The innovation-funnel of Company X.*

1.3 Research Goal

After the literature study the research is divided into two parts. During the literature study a feedback-session with a professor at the Radboud University Dr. L.J. Lekkerkerk took place. Dr. L.J. Lekkerkerk has a PhD degree in the field of innovation and organisation structures. After the literature study it became clear that culture is an important factor for radical innovation.

The first part, is a survey for measuring the organisational culture. The Organisational Culture Assessment Instrument (OCAI) is used to measure the organisational culture. Kim Cameron and Robert Quinn (2006) developed this instrument.

The second part is focussed on writing a recommendation report that gives advices on how to improve their innovation process, with the focus on the front-end and what needs to be done to use the Lead User Method. Therefore, the main research goal of this research is:

Diagnosing the organizational culture of Company X and writing a recommendation report with practical actions for Company X on how to make a move from the current organizational culture towards the desired organizational culture in such a way that the implementation of the Lead User Method will be more successful.

1.4 Research questions

To realize the research goal, formulated in the previous paragraph, the following research question is formulated:

“Can the Lead User Method contribute to an effective front-end of the new service innovation process within Company X?”

Before the main research question can be answered the following sub-questions need to be answered. First the sub-question in the field of fuzzy front-end will be formulated:

“Why is the front-end often considered fuzzy?”

“How can we remove fuzziness from the front-end of innovation?”

Secondly the sub-questions in the field of Lead User Method and organizational culture will be formulated:

"Which conditions are necessary for using the Lead User Method successfully?"

"What is the relation of the organizational culture with the Lead User Method and radical innovation?"

"Is Company X, in the current situation suited to adopt the Lead User method?"

"How can Company X change their organizational culture towards an adhoc-culture?"

"How can Company X structure the front-end of radical innovation?"

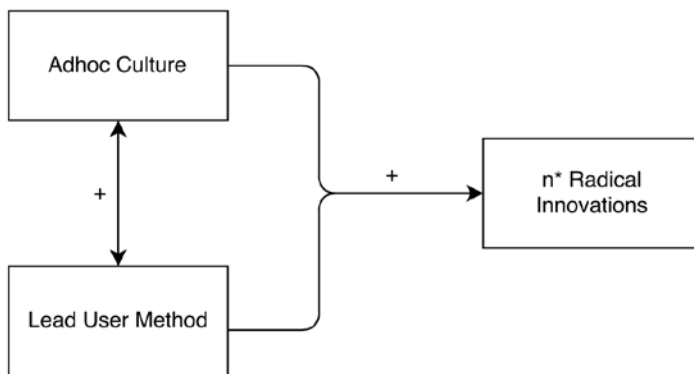


Figure 4 – Research theory

1.5 Relevance

There is an academic relevance and a practical relevance. The academic relevance can be found in the theory, the application of the Lead User Method and the OCAI-instrument. The practical relevance is diagnosing the current and the desired organizational culture mix and overcoming these differences. Additionally, the recommendation report for Company X with actions for initiating the organizational culture change is of practical relevance. It also provides information about the usability and critical conditions for using the Lead User Method within Company X.

1.5.1 Academic relevance

In the literature study the relation between front-end of innovation and the Lead User Method became clear, and also the relation between the usability of the Lead User Method and the organizational culture. The difference between radical- and incremental innovations and the consequences on the stages in the front-end of innovation is also of academic relevance. The organizational culture of the current and the desired situation is being measured. After implementing the actions from the recommendation report, it will be valuable to measure the organizational culture again and see if there are changes. Finally the prediction model is my theory about the relation between, organizational

culture, the Lead User Method and the number of successful radical innovations. The outcome of this research may contribute to the innovation capabilities of service companies, through lead user involvement in the front-end.

1.5.2 Practical relevance

The practical relevance of this research is the measurement of the organizational culture and the recommendation report for Company X. With this report Company X will be able to know how successfully the Lead User Method is when directly applied and what can be done to increase the success-rate. Time and money can be saved, and the new way of idea generation, idea screening, concept development and testing can lead to services that meet the customers' needs, with better chances of adoption.

1.6 Research design

The research started 12 January 2015 and is planned to be finished 31 July 2015. The research takes six and half months. The research started with some weeks of desk research and informal unstructured interviews to get a better understanding of Company X, the different types of products and innovations and also to get a better understanding of the problems Company X and unit XX (Product en Process innovation) are facing.

After the desk research, a literature study took place in which four main topics are studied.

1. Front-end of innovation;
2. Incremental vs. radical innovation;
3. Lead User Method;
4. Organizational culture.

After exploration of the topics, the literature study will end with a schematic research theory, that shows the relations between the topics.

After the literature study the corporate culture will be measured with the OCAI instrument. This OCAI instrument will be implemented in a survey and will be sent to a thousand co-workers within Company X. The results were analyzed.

The final part of the research is manifesting an recommendation report based on the literature study and data collected from the survey for Company X on how to organize the front-end of innovation by using the Lead User Method. The manual gives an overview of which steps to be taken but also in what way it has to be executed.

In the next section figure 5 shows the research model. First the literature research leads to a better understanding of the topics and creates a theoretical (ideal) situation on how these topics can be useful for the front-end of innovation. Secondly, there will be a survey held within Company X to find empirical evidence for the current culture of Company X. Finally, the goal is to compare those two situations and write a recommendation report on how the Lead User Method can be used to structure the front-end of innovation.

1.6.1 Research model

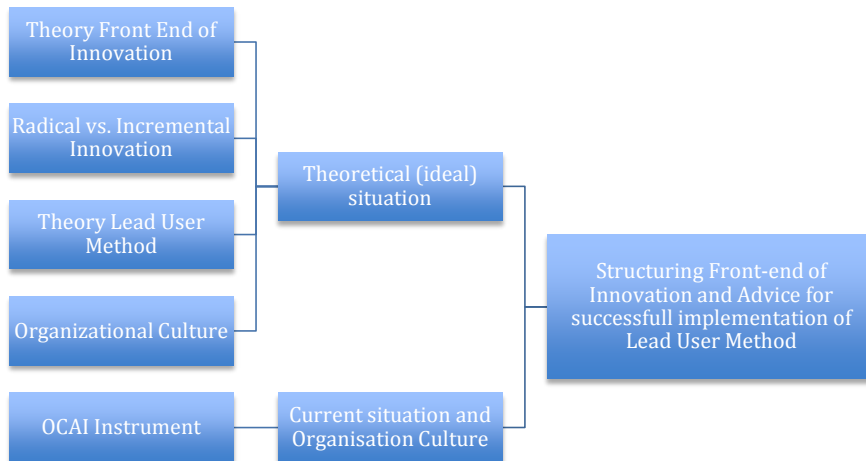


Figure 5 - Research model

In summary, this chapter defined the problem of Company X. Company X does not know if their organization is able to radically innovate and how to organize radical innovations. Secondly, the goal of this research is describes, to measure the organizational culture of Company X and write a recommendation report for Company X on how to make a move from the current organizational culture towards the desired organizational culture, in such a way that the implementation of the Lead User Method is more successful. Thirdly, the research questions are formulated in paragraph 1.4. The end of this paragraph outlined the path which will be followed through the research model, the research design and towards the thesis' conclusions.

The next chapters describe the research which is being conducted. The theoretical topics of this research are elaborated. To answer the research questions more theoretical background is necessary about the front-end of innovation, the differences between radical and incremental innovation, the Lead User Method and about organizational cultures. The second chapter discusses these topics more thoroughly.

2 Literature review

This chapter aims to build a theoretical foundation upon which the empirical research is based. The relevant literature described in this chapter is needed for solving the identified problem described in section 1.2, which is central in this thesis, and answering the research questions formulated in section 1.4 in the previous chapter. Four main topics are used to answer the research questions.

- Front-end of innovation; also called the fuzzy front-end, this section will answer the questions about, what is the front-end of innovation, and why is the front-end of innovation often considered as fuzzy?
- 'Incremental vs. Radical Innovation'; a distinction between radical and incremental innovation needs to be made, because both need a different approach to structure the front-end of innovation (de Brentani, 2001). This research focuses on radical innovation.
- Lead User Method; the focus is on radical innovation, the Lead User Method has proven to be an effective method for breakthrough innovations and to structure the front-end of radical innovation. This method will be described in chapter 2.3.
- Organizational culture; it seems, by the research of de Brentani (2001) that all companies that produced radical innovations have a dominant adhoc culture. This topic also describes a method for diagnosing and changing organizational culture. This gave answers to the research questions what the relation is between organizational culture and implementing the Lead User Method, but also gave a theoretical foundation on the research question how Company X can change their organizational culture.

Because the Lead User Method is a method for breakthrough/radical innovations, the theory is that for successful implementing of the Lead User Method the dominant organizational culture should be adhocracy. Figure 6 below shows schematic the four areas of literature.

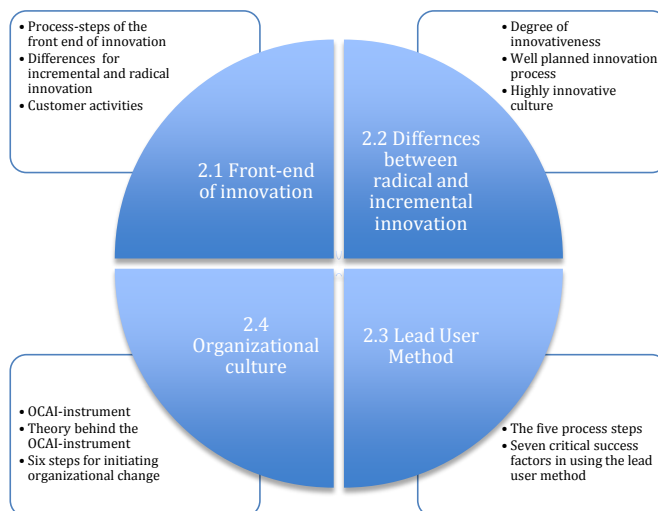


Figure 6 - Overview four topics literature study

2.1 'Fuzzy' Front-end of innovation

Given the problem described in paragraph 1.2 and the research questions described in paragraph 1.4 to solve the problem, it is important to know that the front-end of innovation is the focus of this research, because the front-end of innovation is a critical and the first stage of new product or new services developments and this stage determines the rest of the output of the total development system. That is why this front-end of innovation is so important. The front-end of innovation is the stage before the new product or service development stage. It's often considered fuzzy.

The innovation process in large companies could be divided into three parts: the front-end, the new product or service development stage, and the commercialization stage, (see figure 7). The front-end of innovation forms the foundation for future product or service development activities, since the decisions made in this early stage determine the innovation options available for later development and commercialization (Koen, Bertels & Kleinschmidt, 2014). The reason why the research by Koen, Bertels & Kleinschmidt (2014) are chosen in this paragraph is because Koen et al. (2014) described the front-end of innovation and also found out that the front-end of innovation is different for incremental and radical innovation. Paragraph 2.1.2 describes the difference in the front-end of innovation between incremental and radical innovation.

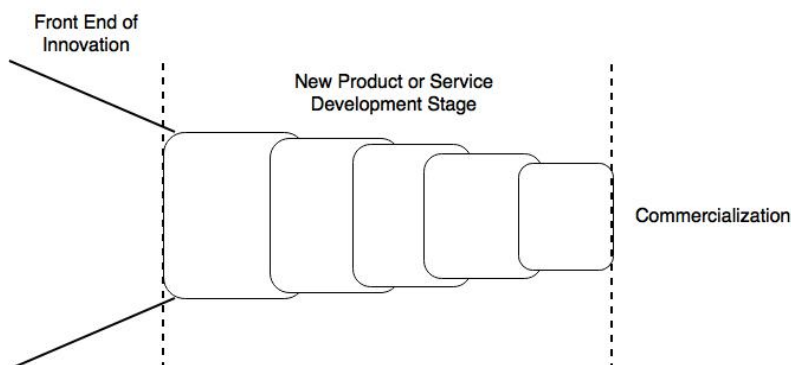


Figure 7 - Innovation process

Koen et al. (2001) said that the front-end of innovation projects includes fostering issues and ideas before the start of the formal project development phase. Herstatt et al. (2004) and Reid and de Brentani (2004) consider the front-end to be the most chaotic and troublesome phase of the innovation process, but at the same time the front-end provides the greatest opportunities to improve the overall innovative capability of a company. The front-end of innovation is also known as the "fuzzy front-end".

In the front-end of innovation crucial strategic decisions are made. Topics like: target market, customer needs, value propositions, expected prices and costs, the main functionalities and the most useful technologies of new products and services, are represented in the front-end of innovation (Bonner et al., 2002; Smith and Reinertsen, 1998; Wheelwright and Clark, 1992).

2.1.1 Process-steps of the front-end of innovation

An institute, named the Industrial Research Institute (IRI), has since 1998 supported a series of studies to determine best practices in the front-end for large companies (Koen, Bertels & Kleinschmidt, 2014). That work resulted in a framework for front-end practices. This framework is called the New Concept Development (NCD) model (Koen, Ajamian, Burkart, et al. 2001).

The NCD framework comprises of five elements from which the front-end of innovation exists. These elements are:

- 1) Opportunity identification
- 2) Opportunity analysis
- 3) Idea generation
- 4) Idea selection
- 5) Concept definition

Besides these elements, the NCD framework pays attention to factors that are also influencing the front-end of innovation like: organizational attributes (senior management involvement in the front-end, vision, strategy, resources, culture, and teams and collaboration) and external environmental factors.

The five element activities are explained in more detail in appendix 2, because research by Koen, Bertels & Kleinschmidt (2014) revealed that this framework for structuring the front-end of innovation is more applicable for incremental innovation and less for radical innovation. The next paragraph explains the difference in the front-end of innovation between incremental and radical innovation. Appendix 2 will also describe the customer activities in the front-end of service innovation.

2.1.2 Differences in front-end of innovation for incremental and radical innovation

Many authors make a difference in the degree of newness of the innovation. The two extremes are incremental and radical innovation. Koen, Bertels & Kleinschmidt (2014) described incremental innovation as follow; *incremental innovation included cost reductions, improvements to existing product lines, and re-positioning efforts*. They define radical innovation as follow; *radical innovations were additions to existing product lines, new product lines, and new-to-the-world products*.

The term radical innovation is used, as it is suitable to explain that the firm has to acquire new marketing and technological skills and cannot build on former experiences (Herstatt & Verworn, 2001).

Koen, Bertels & Kleinschmidt (2014) found that the NCD model is appropriate when the future is known, as in incremental innovations, but will not work for radical innovation. It may actually hinder the iterative nature of the activity associated with radical innovation. A number of studies have established that radical innovation requires a substantially different process from incremental innovation and several well-regarded books on radical innovation advocate iterative or experimental approaches (O'Connor et al. 2008).

Koen, Bertels & Kleinschmidt (2014) found that radical projects followed a much more iterative, experimental process, which the authors called "probe and learn." Early versions of the product were tested in the market, redesigned, and then tested again. These market probes allowed the company to better understand the features and benefits valued by the emerging market. A similar approach is advocated by Christensen and Raynor (2003) and O'Connor et al. (2008).

Herstatt & Verworn (2001) also found that radical innovations sometimes cause high costs for years with no guarantee of success due to high uncertainties, a short term, cost-oriented evaluation at sequential gates would not allow for any "breakthroughs". More contexts about the difference between radical and incremental innovation will be found in chapter 2.2.

2.2 Radical versus incremental innovation

As already mentioned in chapter 2.1 the level of innovativeness influences the preferred approach to create successful innovation. A project can differ substantially in its degree of innovativeness and this may have an impact on what it takes to achieve success (de Brentani, 2001).

In the case of highly innovative new products or services, it is the organizational strategic fit which is essential as these ventures not only determine the organizational business over the long run, but considerably stretch its vital and scarce resources (Sony & Montoya-Weiss, 1998). The starting point of a radical innovation project is the strategic focus and not the customer needs. The starting point of incremental innovation could be customer needs and can be managed in an operational process. This chapter looks more closely at the type of innovation and explains the difference between radical and incremental innovation.

Product innovativeness or newness refers to the degree of the familiarity organizations or users have with a product, and there is both theoretical and empirical evidence to suggest that it is important to distinguish among different degrees of innovativeness when undertaking new product development according to de Brentani (2001).

Before we talk more about the degree of innovativeness, it is good to know what innovation means. According to Griffin (1997);

"Innovation involves the creation of a new product, service or process. "New" products can be viewed in terms of their degree of newness, ranging from a totally new, or discontinuous, innovation to a product involving simple line extensions or minor adaptations/adjustments that are of an evolutionary, or incremental, nature."

One recommended practice for new services is the application of a formal and planned NPD process. It is well established that firms with a high proportion of winning new products usually have in place, and actually use, a set of pre-planned stages (Terrill & Middlebrooks, 1996).

Empirical studies (e.g. Cooper 1996) show that firms using a well executed "stage- gate" process are more successful than firms without a systematic approach and a gate-driven

system. But closer observation shows that the “stage-gate” approach has (only) proven helpful in the case of incremental innovation (Herstatt & Verworn, 2001).

This raises the question if the same formal process must be used when developing discontinuous innovations where entirely new technologies, markets and production/delivery processes need to be addressed, as for incremental projects where only minor adjustments are made to technology, design, or customer benefits.

Some authors believe that implementing a planned and highly detailed NPD of new product development projects is not appropriate (O’Conner, 1998). And for innovations with a high market and/or technical uncertainty a sequential and formalized approach might be even counterproductive (Herstatt & Verworn, 2001). When the new product involves a radical innovation, a learning-based approach like the “probe and learn” approach, involving varying amounts of time, resources and commitment, may be more appropriate for dealing with the many uncertainties and complexities surrounding the market and technology (Lynn, Morone & Paulson, 1996). Erik von Hippel developed a method for breakthrough innovations, the Lead User Method formalizes, but with iterative steps, the front-end of innovation that has proven to be a great source of breakthrough product and service concepts in a wide variety of industries (Olson & Bakke, 2004). More literature foundation on the Lead User Method is described in chapter 2.3. It appears that the method increases the likelihood of breakthrough product and service concepts.

Three factors have a substantially different performance effect depending on incremental or radical innovation. These include:

- 1) Strategy and Resource Fit - extent to which the new service “fits” with: managerial skills/preferences, company expertise and human resources, delivery and behind-the-scenes competencies, and marketing capabilities and financial resources (de Brentani, 1991).
- 2) Innovation Culture and Management - extent to which company has: an innovative corporate culture, visionary new product championing, and expert, front line and senior management involvement in new service development.
- 3) Service Quality Evidence - extent to which tangible features are used to identify the new service, and to help customer define and evaluate it.

The second one, organizational culture, is the most important, and therefore most relevant for this research. In her research de Brentani (2001) also formulated six implication keys managers for successful new service development. In the six keys the different characteristics between radical and incremental innovation are included.

Concluding this paragraph about the differences between radical and incremental innovation three points became clear after the literature study.

1. The first point is that the degree of innovativeness impacts the new product development focus and approach. Radically different types of new service ventures require a different approach to achieving NSD success. In particular, when charged with the development of new services at opposite ends of the innovativeness spectrum, managers must adjust their focus and approach to account for differences in uncertainty, risk, company competencies and market reactions. The message for managers is clear. Both the approach used for developing new services and where they should place the greatest emphasis

must be adjusted for different types of new service projects (de Brentani, 2001). In this thesis the focus is on radical, new to the world innovations.

2. The second point is a well-planned NSD process can provide important benefits, particularly when developing incremental new service offerings, but not necessary for radical innovations. When dealing with imitations or with modification-type of new services, using a systematic NSD process that is, a formal "stage-gate" system, from idea generation through to post launch recovery can be an important route to success. de Brentani (1989) is clear: particularly for incremental new service projects, firms have much to gain from becoming more highly structured and methodical in their approach to new service development, but not necessary for radical innovations.
3. The third and most important point is having an open and highly innovative new product culture within the firm is a primary route to success, particularly when developing discontinuous or "really new" services. Probably the single most important factor in achieving success for highly innovative, or new-to-the-world products is the type of corporate culture and management attitude that permeates the firm. Success at developing highly innovative services that involve new technologies and completely different ways of dealing with problems requires a corporate environment that encourages and supports creativeness and "steXXng out" beyond the norm. Above all, it requires that senior managers become involved as visionaries and mentors in the NSD process (de Brentani, 2001).

De Brentani (2001) says that the single most important factor for an organization to realize radical innovations is, the organisational culture. Cameron and Quinn describe in their organizational culture mix four different types of organizational culture, more about the organizational culture mix can be found in paragraph 2.4 of this chapter. Cameron and Quinn also describe a specific culture for innovation and that culture is adhocracy. This is in alignment with the culture type that de Brentani (2001) describes to be needed for radical innovations.

Since organizational culture is the most import factor for successful radical innovations, it is valuable for this research to diagnose the organizational culture of Company X. This is needed to make a statement about the usability of the Lead User Method within Company X. Chapter three describes how the organizational culture of Company X is measured.

To realize radical innovation within Company X, there are different methods, like for example the 'probe and learn approach', described in the section above. But in this research the Lead User Method is chosen, because it has turned out to be a successful method for breakthrough innovations and for the sake of time not all methods could be investigated. More about the Lead User Method can be found in the next paragraph. With this method multidisciplinary teams, with people of different expertise are working together for new concept developments. This method has proven to be very effective for breakthrough and new-to-the-world innovations. The next paragraph describes the Lead User Method more extensively.

2.3 Lead User Method

As described, the Lead User Method can make the front-end of innovation more structured. This chapter describes the Lead User Method. First, the five steps of the method will be explained; second, some critical success factors will be mentioned.

Eric von Hippel defines lead users as: *"Users whose present strong needs will become general in a marketplace months or years in the future"* (von Hippel, 1986, . 791).

Lead Users have two main characteristics. First lead users experience a problem years before the public acknowledge them. Second, lead users have a high incentive to solve these problems.

2.3.1 The process steps of the Lead User Method

The Lead User Method formalizes this previously ad-hoc process into a mechanism that has proven to be a great source of breakthrough product concepts in a wide variety of industries (Olsen & Bakke, 2004). The LU method evolved from empirical studies of the sources of breakthrough product ideas by MIT professor Erik von Hippel. Refinements over the years have led to the five-step methodology or process for concept development and testing listed below:

Step 1 – Planning the project: The major goal of this step is the identification of product and market areas to focus product development efforts on. In addition, the identification and recruiting of the key stakeholders from various functional areas within the firm for the LU working team is done. The step is completed with a detailed project plan that includes goals for the innovation and a project kick-off (Olsen & Bakke, 2004).

Step 2 – Determine key trend(s): The goal of step 2 is to identify and thoroughly research the market and technological trends effecting development in the chosen product and market area. This process involves the identification and interviewing of experts inside and outside the firm that have expertise in the area of interest. Once the trends have been identified and researched, the LU team must prioritise them based on their likely new product development impact and choose the one or more trends that will be the focus of Lead User recruiting (Olsen & Bakke, 2004). Voice of the customer can be a helpful tool in this step. The voice of the customer helps identify customer need, it doesn't provide solutions but it is a tool that helps identifying needs of the customers. More on the voice of the customer can be found in appendix 3.

Step 3 – Identify Lead Users: Step 3 uses a networking process to identify likely sources of Lead Users inside and outside the market under study. The contacting and qualifying of Lead Users and preliminary interviews follow this (Olsen & Bakke, 2004).

Step 4 – Development of innovative ideas and product concepts: Workshops involving the recruited Lead Users and the LU team further develop, refine, and test Lead User developed ideas and concepts. Finished concepts are then prioritised based on technical feasibility and management priorities (Olsen & Bakke, 2004).

Step 5 – Concept testing: Testing of approved Lead User generated new product or service concepts on typical customers to determine "current" market acceptance (Olsen & Bakke, 2004). Eric von Hippel does not describe the next fifth step. Von Hippel includes

the elements of the fifth step into the fourth step. Olsen & Bakke split the fourth step in two different steps.

2.3.2 Seven critical success factors in using the Lead User Method

Olsen and Bakke (2004) did research on different LU method cases and they offer some guidelines for optimizing its implementation. They formulated seven critical success factors in using the LU method. The first critical success factor is important for the organization, the attitude of the top management. The second until sixth points are concerned about using the method, during the implementation. The last point is contributed to the new service or product development phase; it is about the role of the customers or user.

1. Be sure to have top management support from the start of the project to the end – both financially and internal resource allocations! While outside consultants can provide valuable guidance in designing an optimal LU study program, it is important that the internal LU team members are given the time and resources to be heavily involved in the method so that the knowledge gained can be spread and used throughout the firm to increase the effectiveness of the new service development process (Olsen & Bakke, 2004).
2. Use the first weeks of the project for in-depth investigation of the chosen product and market for understanding the case in detail. Also do not forget to specify the goals for innovations!
3. Do not use shortcuts in finding and analysing trends. Limiting the trend analysis process to internal people and/or one geo- graphic area may hamper efforts to recruit the most relevant leading edge customers of the most important trends (Olsen & Bakke, 2004).
4. The quality of the Lead Users is dependent on the quality of your networking process (Olsen & Bakke, 2004).
5. Start out with small groups in the LU workshop and let them roll. Later on in the workshop you can put all the groups together and make conclusions based on their former discussions. It is important to start the discussions very broadly with few restrictions and narrow it down during the workshop discussions to get product innovations that are more useable for the company!
6. Measure the final outcome of the Lead User generated ideas and solutions in such areas as tangible product improvements to existing products, financial outcome changes, and/or creation of new product categories and lines!
7. Never forget to test the new and innovative product concepts that have evolved from Lead Users on “average users” in your market. Remember that Lead Users can be months and even years ahead the rest of the market!

The LU method will be of major value to all firms that need an increase in product or service ideas and concepts that go beyond small incremental improvements to existing products (Olsen & Bakke, 2004). Leading edge customers may already be using your industry's next breakthrough product because they developed it themselves to solve a problem that no current product or service can. The ability to bring customers into the new service development process while increasing the possibility of breakthrough product concepts is a major advantage of the LU method over any other idea generation method (Olsen & Bakke, 2004). Whether a firm's NSD process currently does no customer research or relies on the viewpoints of “average” customers, its ability to

generate breakthroughs that can create new market opportunities will be improved by the adoption of the LU method (Olsen & Bakke, 2004).

Concluding, the Lead User Method has shown to be an effective method for breakthrough innovation. The different steps are described and some critical success factors are mentioned. The organizational culture reflexes some of the critical success factors. For that reason the next paragraph describes the topic organizational culture that will help to determine whether Company X is able to implement the Lead User Method for radical innovation.

2.4 Organizational Culture

This paragraph offers three contributions. The first is a validated instrument for diagnosing organizational culture. The second is a theoretical framework for understanding organizational culture. The third contribution is a systematic strategy for changing organizational culture.

This paragraph discusses the importance of understanding organizational culture. It also provides the instrument, Organizational Culture Assessment instrument (OCAI), for diagnosing organizational culture and provides instructions how to complete and score it. Six dimensions of organizational culture are assessed. The six dimensions are based on a theoretical framework of how organizations work and the kinds of values on which their cultures are founded. The OCAI identifies what the current organizational culture is like, as well as what the organization's preferred, or future culture, should be like.

2.4.1 The need for culture change

Change in organizations is pervasive because of the degree and rapidity of change in the external environment. Nearly every organization of moderate size or larger has engaged in downsizing in the past decade. Downsizing has been another attempt to improve productivity, efficiency, competitiveness and effectiveness (Cameron & Quinn, 2009, p.9).

The dependence of organizational improvements on culture change is due to the fact that when values, orientations, definitions, and goals stay consistent, even when procedures and strategies are altered, organizations return quickly to the same status quo. Without cultural change, there is little hope for enduring improvements in organizational performance (Cameron & Quinn, 2009, p.11).

There are alternative approaches but there are different reasons why this approach is chosen. This approach is practical, it captures key dimensions of culture that have been found to make a difference in organizations' success. It is timely, the process of diagnosing and creating a strategy for change can be accomplished in a reasonable amount of time. It is both quantitative and qualitative, the process relies on quantitative measurement of key cultural dimensions as well as qualitative methods including stories, incidents, and symbols that represent the immeasurable ambience of the organization. It is valid, the framework on which the process is built not only makes sense to people as they consider their own organization but is also supported by an extensive empirical literature and underlying dimensions that have a verified scholarly foundation (Cameron & Quinn, 2009, p.20).

2.4.2 The Organizational Culture Assessment Instrument

This paragraph provides the OCAI Instrument, to be used to diagnose the organization's culture. The purpose of OCAI Instrument is to assess six key dimensions of

organizational culture; dominant characteristics, organizational leadership, management of employees, organizational glue, strategic emphases and criteria of success. Each item has four alternatives, each representing a culture type. 100 points need to be divided among these four alternatives, depending on the extent to which each alternative is similar to your own organization. Give a higher number of points to the alternative that is most similar to your organization. People are rating the organization as it is currently, the NOW, and how it is preferred. In figure 8 there is an example question from the OCAI-Instrument. The complete survey could be found in appendix 4.

1. Dominant Characteristics	Now	Preferred
A The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.		
B The organization is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.		
C The organization is very results-oriented. A major concern is with getting the job done. People are very competitive and achievement-oriented.		
D The organization is a very controlled and structured place. Formal procedures generally govern what people do.		
Total	100	100

Figure 8 – OCAI; Dominant Characteristics question

2.4.3 the competing values framework

The OCAI is based on a theoretical model known as the Competing Values Framework. This framework is extremely useful in organizing and interpreting a wide variety of organizational phenomena. In the last couple of decades, writers have proposed a variety of dimensions and attributes of organizational culture.

To illustrate the variety of dimensions represented, a few are mentioned here. For example, Sathe (1983) and Schein (1984) are among those who argued for cultural strength and congruence as the main cultural dimensions of interest. Alpert and Whetten (1985) identified a holographic versus idiographic dimension as critical when analyzing culture. Arnold and Capella (1985) proposed a strong-weak dimension and an internal-external focus dimension. Deal and Kennedy (1983) proposed a dimension based on speed of feedback (high speed to low speed) and a degree-of-risk dimension (high risk to low risk). Ernst (1985) argued for people orientation (participative versus nonparticipative) and response to the environment (reactive versus proactive) as the key culture dimensions. Gordon (1991) identified eleven dimensions of culture: clarity and direction, organizational reach, integration, top management contact, encouragement of individual initiative, conflict resolution, performance clarity,

performance emphasis, action orientation, compensation, and human resource development. Hofstede (1980) focused on power distance, uncertainty avoidance, individualism, and masculinity, and Kets de Vries and Miller (1986) focused on dysfunctional dimensions of culture, including paranoid, avoidant, charismatic, bureaucratic, and politicized dimensions. Martin (1992) proposed cultural integration and consensus, differentiation and conflict, and fragmentation and ambiguity. One reason so many dimensions have been proposed is that organizational culture is extremely broad and inclusive in scope. It comprises a complex, interrelated, comprehensive, and ambiguous set of factors. To determine the most important dimensions on which to focus, therefore, it is important to use an underlying framework, a theoretical foundation that can narrow and focus the search for key cultural dimensions.

The Competing Values Framework was developed initially from research conducted on the major indicators of effective organizations. John Campbell and his colleagues (1974) created a list of thirty-nine indicators that they claimed represented a comprehensive set of all possible measures for organizational effectiveness. That list of indicators was analyzed by Quinn and Rohrbaugh (1983) to determine if patterns or clusters could be identified. Those thirty-nine indicators of effectiveness were submitted to a statistical analysis, and two major dimensions emerged that organized the indicators into four main clusters.

One dimension differentiates effectiveness criteria that emphasize flexibility, discretion, and dynamism from criteria that emphasize stability, order, and control. Other organizations are viewed as effective if they are stable, predictable, and mechanistic.

The second dimension differentiates effectiveness criteria that emphasize an internal orientation, integration, and unity from criteria that emphasize an external orientation, differentiation, and rivalry. Together these two dimensions form four quadrants, each representing a distinct set of organizational effectiveness indicators. Figure 9 illustrates the relationships of these two dimensions to one another. What is notable about these four core values is that they represent opposite or competing assumptions.

Each quadrant in Figure 9 has been given a label to distinguish its most notable characteristic, clan, adhocracy, market, and hierarchy. It is important to note that these quadrant names were not randomly selected. Rather, they were derived from the scholarly literature that explains how, over time, different organizational values have become associated with different forms of organizations (Cameron & Quinn, 2009, p.36).

Cameron and Quinn discovered that the four quadrants that emerged from these analyses match precisely the main organizational forms that have developed in organizational science. They also match key management theories about organizational success, approaches to organizational quality, leadership roles, and management skills (Cameron & Quinn, 2009, p.20).

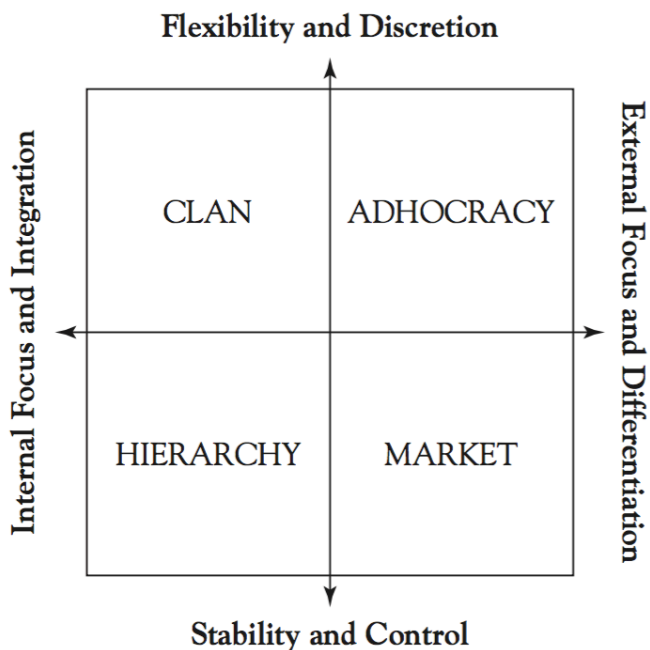


Figure 9 - *Competing value framework*

2.4.4 the four major culture types

This paragraph explains each of the four culture types. After the need for change, the OCAI-instrument and a theoretical background of the competing value framework, each quadrant will be explained in this paragraph.

The hierarchy culture

The earliest approach to organizing in the modern era was based on the work of a German sociologist, Max Weber, who studied government organizations in Europe during the early 1900s. The major challenge faced by organizations at the turn of the twentieth century was to efficiently produce goods and services for an increasingly complex society. To accomplish this, Weber (1947) proposed seven characteristics that have become known as the classical attributes of bureaucracy: rules, specialization, meritocracy, hierarchy, separate ownership, impersonality, accountability. These characteristics were highly effective in accomplishing their purpose (Cameron & Quinn, 2009, p.37).

Until the 1960s, almost every book on management and organizational studies made the assumption that Weber's hierarchy or bureaucracy was the ideal form of organization because it led to stable, efficient, highly consistent products and services. Because the environment was relatively stable, tasks and functions could be integrated and coordinated, uniformity in products and services was maintained, and workers and jobs were under control. Clear lines of decision-making authority, standardized rules and procedures, and control and accountability mechanisms were valued as the keys to success (Cameron & Quinn, 2009, p.37).

The organizational culture compatible with this form (and as assessed in theOCAI) is characterized by a formalized and structured place to work. Procedures govern what people do. Effective leaders are good coordinators and organizers. Maintaining a smooth-running organization is important. The long-term concerns of the organization are stability, predictability, and efficiency. Formal rules and policies hold the organization together. Key values center on maintaining efficient, reliable, fast, smooth-flowing production (Cameron & Quinn, 2009, p.38).

The Market Culture

Another form of organizing became popular during the late 1960s as organizations faced new competitive challenges. This form relied on a fundamentally different set of assumptions than the hierarchy and was based largely on the work of Oliver Williamson (1975), Bill Ouchi (1981), and their colleagues. These organizational scholars identified an alternative set of activities that they argued served as the foundation of organizational effectiveness. The most important of these was transaction costs (Cameron & Quinn, 2009, p.39).

The new design was referred to as a market form of organization. The term market is not synonymous with the marketing function or with consumers in the marketplace. Rather, it refers to a type of organization that functions as a market itself. It is oriented toward the external environment instead of internal affairs. It is focused on transactions with (mainly) external constituencies such as suppliers, customers, contractors, licensees, unions, and regulators (Cameron & Quinn, 2009, p.39).

The market operates primarily through economic market mechanisms, mainly monetary exchange.

The core values that dominate market-type organizations are competitiveness and productivity.

Competitiveness and productivity in market organizations are achieved through a strong emphasis on external positioning and control.

A market culture, as assessed in theOCAI, is a results-oriented workplace. Leaders are hard-driving producers and competitors. They are tough and demanding. The glue that holds the organization together is an emphasis on winning. The long-term concern is on competitive actions and achieving stretch goals and targets. Success is defined in terms of market share and penetration. Outpacing the competition and market leadership are important (Cameron & Quinn, 2009, p.39).

The Clan Culture

After studying Japanese firms in the late 1960s and early 1970s, a number of researchers observed fundamental differences between the market and hierarchy forms of design in America and clan forms of design in Japan (Ouchi, 1981; Pascale and Athos, 1981; Lincoln, 2003).

Shared values and goals, cohesion, participativeness, individuality, and a sense of “we-ness” permeated clan-type firms. They seemed more like extended families than

economic entities. Instead of the rules and procedures of hierarchies or the competitive profit centers of markets, typical characteristics of clan-type firms were teamwork, employee involvement programs, and corporate commitment to employees (Cameron & Quinn, 2009, p.41).

The clan culture, as assessed in the OCAI, is typified by a friendly place to work where people share a lot of themselves. It is like an extended family. Leaders are thought of as mentors and perhaps even as parent figures. The organization is held together by loyalty and tradition. Commitment is high. The organization emphasizes the long-term benefit of individual development, with high cohesion and morale being important. Success is defined in terms of internal climate and concern for people. The organization places a premium on teamwork, participation, and consensus (Cameron & Quinn, 2009, p.43).

The Adhocracy Culture

As the developed world shifted from the industrial age to the information age, a fourth ideal type of organizing emerged. It is an organizational form that is most responsive to the hyper turbulent, ever-accelerating conditions that increasingly typify the organizational world of the twenty-first century. With rapidly decreasing half-life of product and service advantages, a set of assumptions were developed that differed from those of the other three forms of organization. These assumptions were that innovative and pioneering initiatives are what lead to success, that organizations are mainly in the business of developing new products and services and preparing for the future, and that the major task of management is to foster entrepreneurship, creativity, and activity "on the cutting edge" (Cameron & Quinn, 2009, p.43).

A major goal of an adhocracy is to foster adaptability, flexibility, and creativity where uncertainty, ambiguity, and information overload are typical.

Unlike markets or hierarchies, adhocracies do not have centralized power or authority relationships. Instead, power flows from individual to individual or from task team to task team, depending on what problem is being addressed at the time. Emphasis on individuality, risk taking, and anticipating the future is high as almost everyone in an adhocracy becomes involved with production, clients, research and development, and other matters (Cameron & Quinn, 2009, p.44).

Sometimes adhocracy subunits exist in larger organizations that have a dominant culture of a different type.

In sum, the adhocracy culture, as assessed in the OCAI, is characterized by a dynamic, entrepreneurial, and creative workplace. People stick their necks out and take risks. Effective leadership is visionary, innovative, and risk-oriented. The glue that holds the organization together is commitment to experimentation and innovation. The emphasis is on being at the leading edge of new knowledge, products, and services. Readiness for change and meeting new challenges are important. The organization's long-term emphasis is on rapid growth and acquiring new resources. Success means producing unique and original products and services (Cameron & Quinn, 2009, p.45).

2.4.5 Steps for designing an organizational Culture Change process

This paragraph describes a six-step process that should be followed when designing and implementing an organizational culture change effort. The purpose of these six steps is to foster involvement and to minimize resistance to the culture change by those affected, to clarify for all concerned what the new cultural emphases will be, to identify what is to remain unaltered in the organization in the midst of change, and to generate specific action steps that can be initiated to create momentum toward culture change (Cameron & Quinn, 2009, p.89).

The six steps for initiating organizational culture change are as follows:

1. Reach consensus on the current culture.
2. Reach consensus on the desired future culture.
3. Determine what the changes will and will not mean.
4. Identify illustrative stories.
5. Develop a strategic action plan.
6. Develop an implementation plan.

Step 1: Reach consensus on the current culture.

Identify a set of key individuals in the organization who have a perspective of the overall organizational culture.

It is important to make certain that the target of analysis is the same for all respondents. Have these individuals meet together to generate a consensual view of the current organizational culture.

This discussion, and the reaching of consensus, is usually the most fruitful part of the exercise because it builds understanding, opens lines of communication, and expands appreciation of others' points of view (Cameron & Quinn, 2009, p.90).

Step 2: Reach consensus on the desired future culture.

As a separate step, repeat the process in Step 1, this time focusing on the preferred or desired culture. Keep the discussion of current culture separate from the discussion of the preferred culture so that the two are not just reflections of one another.

Everyone should be involved in these discussions. No one's point of view should be ignored. Make certain that individuals provide as much rationale and evidence as possible for their perspectives (Cameron & Quinn, 2009, p.92).

Step 3: Determine what the changes will and will not mean.

Plot the current and preferred culture profiles. On the plotting form, the area of incongruence between the current and preferred culture plots identifies the changes that should be concentrated on. The form in Figure 10 must be completed.

Trying to move toward one particular type of culture does not mean that other culture types should be abandoned or ignored. It only means that special emphasis must be placed on certain elements if the culture change is going to be successful (Cameron & Quinn, 2009, p.93).

Clan Culture <input type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain Same Means . . . Does Not Mean . . .	Adhocracy Culture <input type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain Same Means . . . Does Not Mean . . .
Hierarchy Culture <input type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain Same Means . . . Does Not Mean . . .	Market Culture <input type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain Same Means . . . Does Not Mean . . .

Figure 10 – *What Culture Change Means and Does Not Mean*

The intent of this step, in other words, is to create a broad, consensual vision of what the desired future will be, what the critical elements of the organization will be, what will change and what won't change, and what will be preserved that is so valuable in the current organizational culture.

Step 4: Identify illustrative stories.

Organizational culture is best communicated and illustrated by stories (Martin, Feldman, Hatch, and Sitkin, 1983; Martin and Powers, 1983). That is, the key values, desired orientations, and behavioural principles that are to characterize the new organizational culture are usually more clearly communicated through stories than in any other way (Cameron & Quinn, 2009, p.94).

In this step, therefore, the team should identify two or three incidents or events that illustrate the key values they want to permeate the future organizational culture. These incidents or events should be associated with the organization itself so that members can identify with the values being illustrated.

Step 5: Develop a strategic action plan.

Now that a shared understanding of what it means and doesn't mean to change the organization's culture has been developed, as well as what values are to be reinforced,

the fifth step involves determining the specific actions to be taken to foster the desired change. The form in Figure 11 should be completed so that a few key actions are identified in each quadrant. As a team, reach consensus on what should be started, what should be stopped, and what should be continued in order for the culture change process to begin (Cameron & Quinn, 2009, p.98).

Clan Culture What should we do MORE of? What should we START? What should we STOP?	Adhocracy Culture What should we do MORE of? What should we START? What should we STOP?
Hierarchy Culture What should we do MORE of? What should we START? What should we STOP?	Market Culture What should we do MORE of? What should we START? What should we STOP?

Figure 11 – *Actions to Be Taken*

Step 6: Develop an implementation plan.

The final step is to create an implementation plan, complete with timetables and short-term benchmarks that will initiate the process of culture change. Specifically, identify the few key ways that the culture change process can unfold. Target the main themes that emerge from the activities in Steps 4 and 5. Decide on the four or five (at most) things that will receive the major portion of your attention and energy. Form teams or task forces and have each tackle one key theme or change target (Cameron & Quinn, 2009, p.102).

Changing culture is a difficult and long-term effort. It will be necessary, over time, to address almost every aspect of the organization to ensure that it is aligned and reinforces the preferred culture. One way to remember the various aspects of the organization that need to be considered is to use a variation on the “Seven S” model first introduced by Waterman, Peters, and Phillips (1980): recognize that successful culture

change may require a change in structure (the organization's architecture), symbols (the images that reinforce culture), systems (such as the production system, appraisal system, selection system, and quality system), staff (the selection and development of human resources), strategy (behavioural manifestations of the organization's vision), style of leaders (the attitudes and examples set by top leaders), and skills of managers (the competencies of individuals who must carry out the change processes). Alignment of these factors will be an important part of successful culture change.

In conclusion, the intent in outlining these six steps for implementing culture change is to help ensure that the organization is clear from the out- set about its current culture and why it needs to change. A common mistake in organizations desiring to improve is that they do not take the time to arrive at a common viewpoint among employees about where the organization is starting from and where it needs to go. Now the organizational culture is briefly discussed above, the next paragraph will link the topic organizational culture with the Lead User Method and radical innovation.

2.5 Relations between organizational culture, Lead User Method and radical innovation

In this research it is **concluded** that before a company can implement, the Lead User Method the adhocracy organization culture should be dominant in the organization. This is because in chapter 2.2 de Brentani (2001) stated that radical innovations only occurred within organizations where the dominant organizational culture is adhocracy. The Lead User Method is a method for radical innovations and therefore it is concluded that the dominant organizational culture should be adhocracy. When a company has another dominant culture, the Lead User Method will be less valuable. After introducing the Lead User Method it is supposed that the adhocracy organization culture will increase on the department XX, because the implementation of the Lead User Method pushes people to go to the outside world. And also where the participants of the Lead User Method are given free space to develop new concepts, in line with the strategy.

Concluding, it is **concluded** that a dominant adhocracy organization culture increases the value of implementing the Lead User Method and has a positive effect on the number of radical innovations, within Company X.

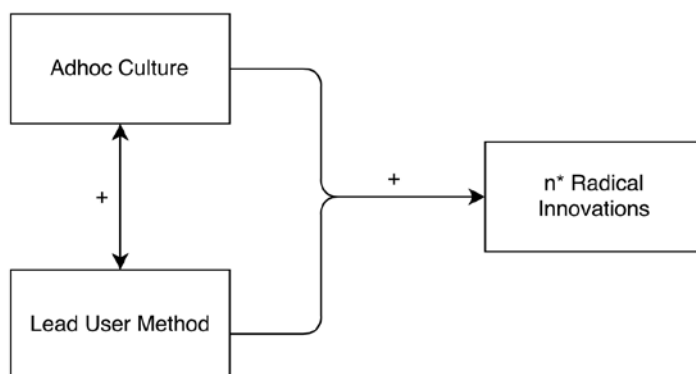


Figure 12 – Prediction model / Research model / Research theory

For this research model it is important to measure the current organizational culture and the desired organizational culture of Company X. In the next chapter the research steps will be explained. The methodology will be described.

3 Methodology

In the first chapter several research questions were formulated. The second chapter provided the relevant literature for partly answering the questions. Subsequently, this chapter describes the methodology used to gather the data to investigate the research questions. An introduction to the methodology was provided in section 1.4; this chapter aims to elaborate on that introduction and to provide assurance that appropriate procedures were followed. The chapter is organized around three major topics: the OCAI-Instrument, the steps for designing the culture change process and the recommendation report.

There are two parts in the data collection.

- First part; Questionnaire about the culture of Company X, since successful radical innovation needs an innovative culture. This will also help answering the research question, if the Lead User Method is suitable for Company X.
- Second part; Group-session with the department of XX to find out what the increase of adhoc-culture means and what a decrease of the hierarchy-culture means. Also actions will be formulated to initiate the organizational culture change. After these parts a recommendation report is written on how to initiate an organizational culture change and how the Lead User Method can be used at Company X and how it gives more structure to the front-end of innovation.

3.1 The questionnaire OCAI-Instrument

The questionnaire parts of the data collection will be a cross sectional study, an online questionnaire is distributed to get a better understanding of the organisational culture. A questionnaire is easy to analyze and provides more uniformity (Babbie, 2010).

Cameron and Quinn developed the questionnaire used to measure the culture of Company X, it's called OCAI. The OCAI instrument already explained in section 2.4.2. There are other instruments available for measuring the organizational culture, like the situational outlook questionnaire (SOQ), but that questionnaire was only available after payment. The OCAI instrument is widely used in ten thousands of organizations and this questionnaire is also available in Dutch. The OCAI instrument has as purpose to assess six key dimensions of organizational culture; dominant characteristics, organizational leadership, management of employees, organizational glue, strategic emphases and criteria of success. Each item has four alternatives, each representing a culture type. Hundred points need to be divided among these four alternatives, depending on the extent to which each alternative is similar to your own organization. Give a higher number of points to the alternative that is most similar to your organization. People are rating the organization in the current state, the NOW, and what is preferable. The whole questionnaire as it was presented to Company X employees can be found in appendix 4.

This questionnaire was also available in Dutch. Another option would be situational outlook questionnaire (SOQ) but I could not find this questionnaire.

The survey was spread under 1056 employees of Company X, all the six main departments were represented. Company X uses Microsoft Outlook for mailing, and within Outlook each department is represented in mailing-groups. In cooperation with the supervisor different relevant groups were selected for receiving an invitation for the questionnaire. The mailing-groups can be found in appendix 5. All people answered the questionnaire anonymous.

The response was 301 people. This leads to a response rate of 28,5%. The advantage of an online survey is that people cannot forget to answer some questions or give two answers. The expectation is when people can fill in the questionnaire online they are more likely to execute the questionnaire, because it takes less effort by sitting down behind their desk and send the answers directly to the researcher. The tool Qualtrics provides a quick overview of the results which gives the researcher insight in the outcomes. Also Microsoft Excel is used, because a trial version of Qualtrics was used, and sometimes only 100 units were displayed, while in total 301 units answered the questionnaire. Qualtrics allowed exporting the data to Microsoft Excel, and then the full 301 units were displayed and analyzed. The average score per organizational culture type is plotted in the figure 13 below.

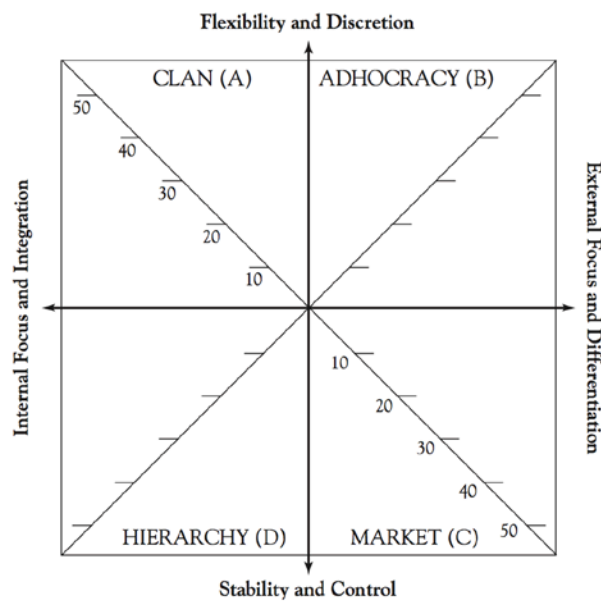
Data obtained from each of the 301 submitted surveys were analyzed according to the OCAI scoring method. Average scores were computed for each letters (A, B, C, D) in the Now and Preferred columns. For example, all scores for A responses in the Now column were added together and then divided by six. The same process was repeated for all B, C, and D responses in both Now and Preferred columns. Each of the average A, B, C and D scores related to a type of organizational culture alternative. A=Clan, B=Adhocracy, C=Market and D=Hierarchy. The scores were plotted to draw a picture of the Company X organizational culture. The plot serves as an organizational culture profile and is an important step in initiating a culture change strategy (Cameron & Quinn, 1999).

The Clan Culture

An organization that focuses on internal maintenance with flexibility, concern for people, and sensitivity to customers.

The Adhocracy Culture

An organization that focuses on external positioning with a high degree of flexibility and individuality.



The Hierarchy Culture

An organization that focuses on internal maintenance with a need for stability and control.

The Market Culture

An organization that focuses on external positioning with a need for stability and control.

Figure 13 – Form for Plotting the Organizational Culture Profile

3.2 The steps for designing the culture change process (group-session with XX)

For the second part of the data collection a group-session is organized. The session was only organized for employees at the department XX, because this is the department where this research took place and Company X-wide would be impossible to organize in this timeframe. Nine out of fifteen people were present at the session. The unit of analysis was the organizational culture of the XX department. The entire script and protocol of the group-session is in appendix 6. The employees of department XX were invited for the group session by an Outlook-agenda appointment. They were also personally invited during the stand-up meeting, a moment in the beginning of the week to share core activities that will take place that week.

A weakness of this method is that the quality of the research depends on the skills of the host. Group-dynamics also play a big role in the quality of the research. Some people

Speak easily and some people are shy. The task of the host is to be aware of this phenomenon and lead the session in a way that everybody could have their say. Another weakness is the fact that there was little time for the session, 1,5 hours, normally these sessions take days. But this 1,5 hour session was the only option within the circumstances of this research. A second short session with eleven employees of the department of XX was needed to do the latest two steps extensively. This session took 40 minutes. This session had six steps, and each step had its own goal;

- First goal; Reaching consensus on the current culture and identifying key individuals in the organization who have a perspective of the overall organizational culture.
- Second goal; Reach consensus on the desired organizational culture. After the consensus about the culture profile is reached it is important to write down what this increase or decrease of a culture type means.
- Third goal; Determine what the changes mean. This needs to be clear before actions can be formulated. The goal is to create a broad, consensual vision of what the desired future will be, what the critical elements of the organization will be, what will change and what does not change, and what will be preserved and is valuable in the current organizational culture.
- Fourth goal; Identify illustrative stories, because this is a powerful tool to communicate organizational culture.
- Fifth goal; Develop a strategic action plan. The goal is that the group identifies actions that are necessary to start the organisational culture change. The group must reach consensus on what should be started, what should be stopped, and what should be continued in order for the culture change process to begin.
- Sixth goal; Develop an implementation plan. Target the main themes and give priorities to the actions identified in step 5. The goal is to form teams or task forces and have each team tackle one key theme or change target.

The session was recorded for back-up material in case the session was going rapidly. Saunders et al. (2009) argues that data recording will enrich and deepen the collected data and motivates respondents. I chose to record the session because I felt a lot of trust in the group and people would speak freely.

After analysing the data from the group-session a recommendation report is written where the conclusion and de recommendations of this research are mentioned to start the organizational culture shift. It also includes an advice on how the Lead User Method adds value to the front-end of innovation of Company X.

3.3 Advice Report

The recommendation report written for Company X will be a guidance for the department XX to show how the Lead User Method can be used and add value to the front-end of innovation. The manual is divided into three parts.

- First, the output of the current and desired organizational culture will be mentioned.
- Secondly, the actions from step 5 of the group-session will be mentioned. In addition some personal findings and literature advices will be given.
- Thirdly, the conclusions and recommendations about the usability of the Lead User Method will be described.

The next chapter provides an overview of the results of the OCAI-instrument and the group-session. The results of the OCAI-instrument are focused on the current and desired/future organizational culture of Company X-wide and the department XX. The results of the group-session focus on the steps for designing the organizational culture change process. The result gives a better understanding about the meaning of an increase and/or decrease of culture types and it will give actions to initiate the organizational culture change.

4 Analysis of data

This chapter represents the analysis of the data from the questionnaire and describes the diagnosis of the dominant quadrant of the organizational culture mix of Company X. The current and the preferred organizational culture mix of Company X will be analysed. This is relevant for the problem and research questions defined in the first chapter. The third chapter described the methodology used to provide the data for investigation. In this chapter the data gathered during the research is analysed. The chapter is organized around the steps described in the methodology, the two data sets consist of the OCAI-Instrument and the steps for designing the culture change process. The third part of this chapter consists of an analysis of the relation between the organizational culture and the added value of implementing the Lead User Method. First, the OCAI questionnaire of Company X-wide was analysed in the first paragraph to get a feeling of the overall Company X culture. The second paragraph the discrepancy between the current and the desired organizational culture was analysed. Finally, the current and desired organizational culture of the department XX(GVA) was analysed, because this department was the focus of the group session.

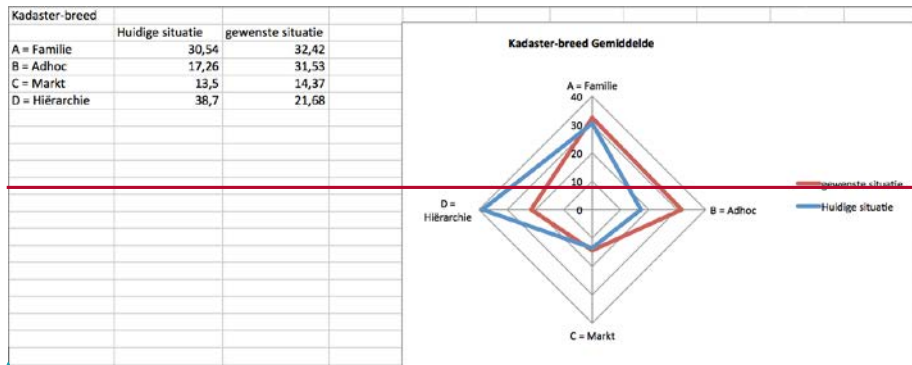
4.1 Questionnaire (OCAI)

This paragraph represents the output of the OCAI questionnaire, which measures the current and preferred organizational culture, which was already described in the previous chapter. This is relevant for answering the main research question, because the current dominant organizational culture need to be identified. Furthermore, the adhocracy organizational culture is the necessity organizational culture for radical innovation and thus using the Lead User Method.

When constructing the Company X organizational culture profile, the mean scores of the lettered cultural alternatives in table 1 (A=Clan, B=Adhocracy, C=Market and D=Hierarchy) were illustrated on a four-quadrant plot. Average scores were computed and graphed for each letter (A, B, C, D) in the Now and Preferred Columns of the OCAI survey. This survey was distributed to 1056 employees with 301 responses. This makes the response rate 28,5%. As stated earlier, the plot serves as an organizational culture profile and is an important step in initiating a culture change strategy (Cameron & Quinn, 1999). By assessing this profile, the researcher determined that the hierocracy culture is the current organizational culture of Company X-wide. The clan culture is the preferred dominant organizational culture.

Descriptive Statistics					
Lettered category	N	Minimum	Maximum	Mean	Std. Deviation
A Now	301	0.00	100.00	30.54	14.83
B Now	301	0.00	100.00	17.26	13.42
C Now	301	0.00	100.00	13.50	12.33
D Now	301	0.00	100.00	38.70	15.78
A Preferred	301	0.00	100.00	32.42	14.98
B Preferred	301	0.00	100.00	31.53	13.00
C Preferred	301	0.00	100.00	14.37	13.17
D Preferred	301	0.00	100.00	21.68	12.94
Valid N (listwise) 301					

Table 1 – Descriptive statistics OCAI survey Company X-wide



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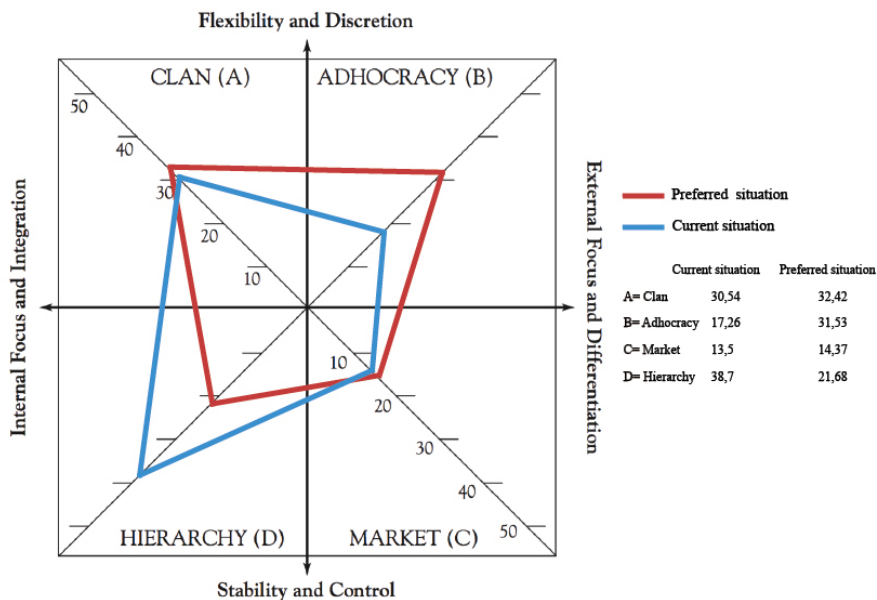


Figure 15 – Company X-wide culture profile.

Figure 15 shows a representation of the Company X culture profile (301 responses). The cultural profile is a mix of the four archetypes of culture. The blue lines represent the current culture, and the red lines the required culture.

4.1.1 The dominant culture

The number of points awarded to a culture type determines the strength of the culture. The higher the score, the stronger the culture type. Research by Cameron and Quinn (2006) has shown that strong cultures associated with homogeneity of efforts, a clear direction, clear environment and services.

The extent to which an organization needs a strong, homogeneous culture (instead of a varied and balanced cultural mix) often depends on the environment: how complex [this is and](#) how flexible the organization must be able to respond. A strong culture requires more efforts to change this.

In our case of Company X, the dominant culture is the type with the most points in this case the hierarchy culture (38,70 points): structure, procedures, efficiency and predictability. Followed by a family culture (30,54 points): a friendly environment where people have a lot in common and there is great involvement. [Thirdly](#), the adhocracies-culture [scored](#) 17.26 points: focusing on a dynamic environment with space for experimentation and innovation. Also market culture is present (13.50 points): results, production targets and (lack of) competition.

[Concluding](#), there is a mix of cultures with an emphasis on structure and a friendly environment with great involvement.

4.2 Discrepancy between current and desired culture

Look at the difference between the current and desired culture. Red is the preferred and blue is the current culture. [Differences](#) of more than 10 points are relevant and make it necessary to take action. This discrepancy provides important information for any required change. It displays the direction in which it is desired.

[According to Kim Cameron](#), differences of less than 10 points, [does](#) not mean that [nothing should be done](#).

In this case: the biggest difference between current and desired situation is in hierarchy culture, with a decrease of 17,02 points and therefore fewer rules, protocols, and formalities. [Followed by the](#) adhocracy culture, with an increase of 14,27 points: it may be more innovative. Family culture increases by 1,88 points and market culture decreases by 0,87 points.

The dominant culture in the desired situation is family culture, followed by adhocracy culture, hierarchy culture and market culture.

Cameron & Quinn applied [as](#) a general rule [to take](#) urgent action [for a difference of 10 points](#): this applies to hierarchy culture (-17,02) and adhocracy culture (+14,27 points).

4.2.1 The congruence of culture

Congruence of the six measured aspects means that strategy, leadership style, remuneration, personnel and organizational characteristics based on the same values, so falling into the same culture quadrant.

Research shows that successful organizations often have a congruent culture. They suffer less from inner contradictions. Cultural incongruence often promotes the realization that desperately needed something to change. It takes a lot of time and

discussion; leads to different values, attitudes, goals and strategies. The incongruence [could](#) also [occur](#) between different departments [specifically](#).

In [short](#), analyzing the six individual aspects of the current culture reveals that the current organizational culture is incongruent. There are differences greater than, or equal to five points, with respect to the average culture. The aspects dominant characteristics, organizational leadership, management of employees, organizational glue and criteria of success, [are the cornerstones of](#) incongruity. [However, the](#) aspect "strategic emphasis" shows congruence.

In the [remainder](#) of this research the congruence of the culture is disregarded, because the emphasis is on making an organizational culture [move](#) from hierarchy into a more dominant adhocracy culture. [However,](#) cultural incongruence often promotes the realization that something [has](#) to change. It takes a lot of time and discussion, [because it](#) leads to different values, attitudes, goals, and strategies. In appendix 7 all tables and results per aspect are [presented](#). In the next paragraph the OCAI results of the department XX (GVA) is analysed.

4.3 Department XX (GVA)

After the current and preferred organizational culture [was](#) measured and analysed in the previous paragraph, it is relevant to analyse the output of the department XX (GVA). Since this is an innovation department [you would logically assume](#) that adhocracy culture scores higher compared to [the score of](#) Company X-wide. However, the department is not [entirely](#) separate from the organization. [Therefore,](#) it would [not](#) be surprising if the dominant culture is the same as the organizational culture of Company X-wide. It is relevant for this research to analyse the department XX (GVA) separately, because this is the department where the [remainder](#) of the research took place. [Moreover, this](#) is the group that participated in the group session, to find how the organizational culture change can be started. The [recommendation](#) report is also written for this department.

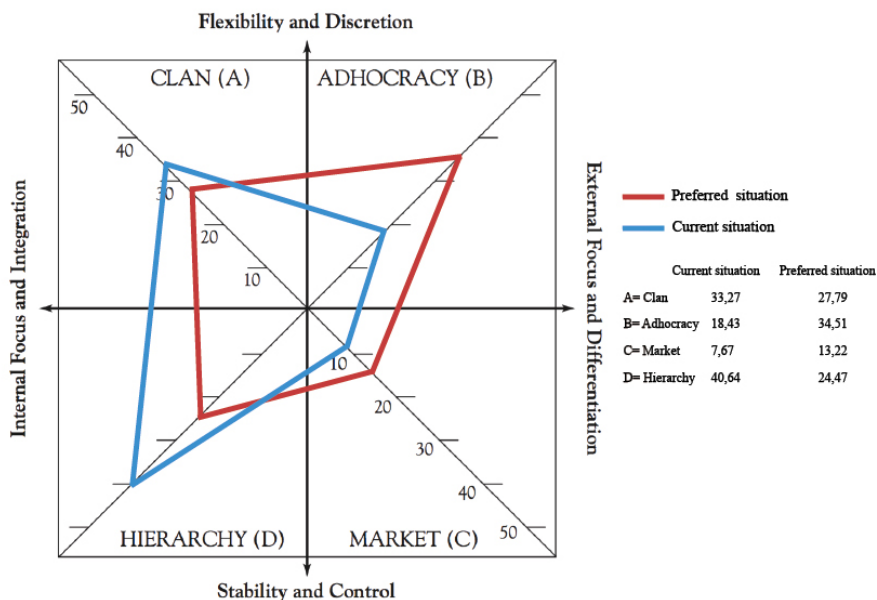


Figure 16 – Company X-XX(GVA) department culture profile.

Above is a representation of the department XX(GVA) culture profile (13 responses with a respond-rate of 81,25%). The blue lines represent the current culture, and the red lines the required culture. [From this figure it can be derived](#) that the dominant culture of XX(GVA) is the hierarchy culture (40,64 points). Followed by a family culture (33,27 points). [Thirdly](#), the adhocracy culture (18,43 points). [Finally](#), market culture is present (7,67 points). [It can be concluded](#) that the [four](#) cultures in the current situation [have](#) the same [rank](#) compared to the overall culture mix of Company X. There is a mix of cultures with an emphasis on structure and a friendly environment with great involvement. If we look at discrepancy, the biggest difference between current and desired situation is [the](#) hierarchy culture, with a decrease of 16,17 points. [Therefore](#) [comprehending](#) fewer rules, protocols, and formalities. [Followed by the](#) adhocracy culture, with an increase of 16,08 points: it [may](#) be more innovative. Market culture increases by 5,55 points and family culture decreases by 5,48 points.

The dominant culture in the desired situation is adhocracy culture, followed by family culture, hierarchy culture and market culture. [Due to the](#) fact that the department is an innovation department it seems to be logic that adhocracy culture is favourable.

[Concluding](#) their need to be a decrease of hierarchy organizational culture and an increase of the adhoc organizational culture. Clan and market culture [do not](#) change [as much](#), so from now on the focus [is](#) on making a shift from hierarchy culture to adhoc culture. The department XX(GVA) [reached](#) the same conclusion in the group session, which will be described in the next chapter. The next chapter also describes what this organizational culture change means and what it [does not](#) mean. Further [more](#), it

describes actions formulated by the department XX(GVA) which need to be taken for starting the organizational culture change.

5 Organizational Culture Design

This chapter focuses on actions to be taken for initiating the organizational culture change, or what to tackle first. That is why this chapter is named organizational culture design. The previous chapter analysed the current dominant organizational culture that is the hierarchy culture. The preferred dominant culture is adhocracy culture. It became clear that the emphasis on hierarchy culture should decrease and the emphasis on adhocracy culture should increase in the organizational culture of Company X. That is why this chapter is called design, and it describes the next step after diagnosing the organizational culture of Company X, which is describing actions to be taken for initiating the organizational culture change.

Often organizations indicate they know what their future goal is. For example, “to increase emphasis in the adhocracy quadrant” or “to decrease emphasis in the hierarchical quadrant”, but they don’t know where to start, what actions to take or what to tackle first. (Cameron and Quinn, 2006).

In the group-session with department XX (GVA), described in chapter three, actions to initiate culture change came forth. Furthermore, the literature provided some helpful suggestions for initiating culture change in various areas of an organization. These lists of actions have been derived from the suggestions of numerous managers who have initiated culture change. However, each organization could be different, and many of

[these organizations might](#) not be [relevant](#) for the [criteria/environment related to](#) Company X. In appendix 8 the complete list of suggestions is added. In appendix 9 the actions and output of the group-session is can be found.

In this chapter the actions [to be taken which were the result of](#) the group-session will be compared [to](#) the actions provided by the literature. This chapter reveals where there is overlap between the actions and where actions are conflicting with each other. Based on this comparison the [recommendation](#) report will be written, which will be more explained in the next chapter.

5.1 the steps for designing the culture change process

The group-session existed of six steps. More about the steps is described in chapter 2.4.5. [which comprehends](#) steps for designing the culture change process. In reality some steps received more emphasis than others, step four was completely eliminated for the sake of time. This paragraph analyses the steps that [were](#) taken. The six steps for initiating organizational culture change are as follows:

1. Reach consensus on the current culture.
2. Reach consensus on the desired future culture.
3. Determine what the changes will and will not mean.
4. Identify illustrative stories.
5. Develop a strategic action plan.
6. Develop an implementation plan.

The members of XX(GVA) where invited to join the group session, and 8 out of the 14 attended the group session and where willing to participate.

Step 1: Reach consensus on the current culture.

Step 1 and step 2 run paralleled. First the current organizational culture profile for the department XX(GVA) was plotted and discussed in the group. It generated a consensual view of the current organizational culture. The participant could explain the outcome of the current situation very well. As a result it brought understanding and open lines of communication.

Step 2: Reach consensus on the desired future culture.

As already mentioned, this step runs paralleled with step 1. The desired organizational culture profile of the department XX(GVA) was plotted and discussed in the group. The comparison between the current and the preferred organizational culture profile was made. On the plotting form, the area of incongruence between the current and preferred culture plots identifies the changes that should be focussed on. It turned out that the emphasis in the clan culture in the current and desired situation is almost equal. Moreover, the same applies to the market culture. Major disparities occur in the culture quadrant hierarchy and adhocracy culture. The same results are analysed in the previous chapter under paragraph 4.3. As a result the group decided to focus on the decrease of emphasis on the hierarchy culture quadrant and on increasing emphasis on adhocracy culture quadrant. The next steps are focussed on decreasing hierarchy culture and increasing the adhocracy culture.

Step 3: Determine what the changes will and will not mean.

In step 1 and step 2 the area of incongruence between the current and preferred culture plots identified the changes that should be focussed on. However, trying to move towards one particular type of culture does not mean that other culture types should be abandoned or ignored. It only means that special emphasis must be placed on certain elements if the culture change is going to be successful. The group formulated what the organizational culture changes will and will not mean for Company X to place less emphasis on hierarchy culture and more emphasis on adhocracy culture. For the sake of time the group was divided into two groups. The first group formulated what the decrease of the hierarchy culture will and will not mean. The second group formulated what the increase of the adhocracy culture will and will not mean. Figure 17 below shows the formulation what the changes will and will not mean.

Kadaster “Mean-Does Not Mean” Analysis	
Hierarchy culture	Adhocracy culture
<input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease <input type="checkbox"/> Remain the same	<input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain the same
Means...	Means...
<ul style="list-style-type: none"> • Fewer procedures • Shorter consultation • Greater flexibility in your work • Holding decisions • More responsibility • In your own work force • Remove Walls • Not everyone involved 	<ul style="list-style-type: none"> • Short cycle work • Making mistakes is allowed • Space for different than usual • Seek cooperation + act • Sincere appreciation for being different • Surprising! • Dedicating to one topic • Focus! • Dare to stop somewhere along. Can accept Divestments • Do what you do best • 'Doenken' (see lean, combination between thinking and acting) • Following trends and the ability to translate them • Added value is leading → Customer → Kadaster • Tell what you do • Show results
Does not mean...	Does not mean...
<ul style="list-style-type: none"> • No appointments • Not communicate • Take responsibility • Drift about • Working alone • Stop with Teamwork 	<ul style="list-style-type: none"> • Do not do too many things at once • Do not run after everything • Too far forward (loss contact with the organization) • Daily changing priorities • No "hot air"

Figure 17 – Company X “Mean-Does Not Mean” Analysis

In conclusion it can be stated that the hierarchy culture quadrant need to decrease in dominance in the organizational culture mix, which does not mean that the hierarchy culture quadrant should be abolished completely. It means that the procedures need to decrease, fewer long discussions, the flexibility in the work activities must increase and more personnel responsibility.

It does not mean that there is no more agreement allowed or that nobody communicates with each other anymore. It also does not mean that everyone has to work alone and that teamwork is no longer possible. No, it means that the individual must be given more responsibility and that the individual has to take that responsibility.

According to the department XX(GVA), the increase of adhocracy culture means that the work method must to be short cycle. It needs to be allowed to make mistake and errors. There need to space for out of the box initiatives.

It also means that people must work together and must look for cooperation. This cooperation needs to result in doing. It also means that there must be a focus, there must be dedication to one topic. The focus should be on the added value for the customer, which must be leading.

The increase of adhocracy culture doesn't mean you have to run after all trends, or that you are doing too many things at once. It also is not intended that there are daily changing priorities. It shouldn't mean that the department runs too far ahead of the organization and lose contact with the organization. In conclusion Company X needs to stay an organization that is reliable.

Step 4: Identify illustrative stories.

In this step the team should identify two or three incidents or events that illustrate the key values they want to permeate the future organizational culture. These incidents or events should be associated with the organization itself so that members can identify with the values being illustrated. But none of the participants prepared an illustrative story. Only the host had prepared a video but for the sake of time this video was not shown. This is a step still needs to be done.

Step 5: Develop a strategic action plan.

Now that a shared understanding of what it means and doesn't mean to change the organization's culture has been developed, as well as what values are to be reinforced, the fifth step involves determining the specific actions to be taken to foster the desired organizational culture change.

In this step the team, reach consensus on what should be started, what should be stopped, and what should be continued in order for the culture change process to begin. The form in Figure 18 is being completed so that a few key actions are identified in each culture quadrant. The actions described in Figure 18 are particular selected because they are in line with suggested actions out of the literature. The complete list of actions derived out of the brainstorm session can be found in appendix 9.

On the other hand there is a list from literature of actions have been derived from the suggestions of numerous managers who have initiated culture change. The complete list can be found in appendix 8. Because each organization may be different, many of them items on the list may not be relevant for the circumstances of Company X department XX

(GVA). Therefore, the most relevant ideas for Company X are selected, relevant for the circumstances of XX (GVA).

Some of the actions derived from the brainstorm session with the group are in line with the actions suggested out of the literature. Those actions will be analysed and described in this chapter.

Kadaster "Actions to Be Taken" Analysis	
Hierarchy culture <input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease <input type="checkbox"/> Remain the same What should we do MORE of? <ul style="list-style-type: none"> • More responsibility for your own innovation What should we START? <ul style="list-style-type: none"> • Know each other's talents (Know your colleagues quiz + 1-on-1 lunch speed date + peer-to-peer coaching) • Prioritize and take control • Take personal responsibility → set your own deadlines for projects • Use hierarchy in the right time (Sometimes there is green light needed to put somewhere accelerate or regulate cases) What should we STOP? <ul style="list-style-type: none"> • Long meetings without setting goals • Bila's 	Adhocracy culture <input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain the same What should we do MORE of? <ul style="list-style-type: none"> • Organizing this kind of group session (intern, on our own) • Visualizations (the process, the results but also visualize stakeholders and the environment. Putting ideas on A3 forms instead of a big paper file) • Say "NO" to some new inbox initiatives (leading must be, the added value, the vision. There need to be priorities and a focus) What should we START? <ul style="list-style-type: none"> • Ask for each meeting request what your added value is • Celebrate your errors and failures (reward the boldness and the learning moments) • To the customer! (internal and external) "Gemba-walk" What should we STOP? <ul style="list-style-type: none"> • Uncritically discuss meetings (go through your agenda items! ½ hour is enough)

Figure 18 – Actions to Be Taken (output of group session)

The data in figure 18 depiction actions to be taken to start the organizational culture change. The first item is that people want more own responsibility for their own innovation projects. This is also something the manager of XX (GVA) wants. But this must also be able in the organizational culture, this research focus on organizational culture, but organization structure needs to be in alignment with the culture, this is a recommendation for future research since this topic is of focus of this research. Also the employees need to know and be aware of the freedom and powers they have. One item that is noticeable is that the department will less documented on paper and write less.

The people prefer to see visualizations. This item is partly already implemented at the department. Before people needed to write a big report when they had a new initiative or idea. Now they need to put all that information on one A3 form including visualizations and illustrations.

An other item that stands out by decreasing hierarchy culture and also by increasing adhocracy culture is the item 'focus'. Priorities must be set and to some new initiatives need to say 'No Go'. Of course need this decision be explained and founded on plausible reasons. Leading for the decision 'go' or 'no go' need to be customers demand and desires.

Use hierarchy in the right time is also mentioned what need to start in the hierarchy culture quadrant. For some project when green light is needed from top management to speed up some projects. But this must also be able in the organizational culture, this research focus on organizational culture, but organization structure needs to be in alignment with the culture, this is a recommendation for future research since this topic is of focus of this research. So again there is an action that need to be able in the organizational structure, otherwise it won't work. The employees need to know their freedom, powers and responsibilities when top management give or give not green light.

There is also a strong need to get to know the colleagues better. As the family culture is fairly dominant in the organizational culture mix of Company X, one would expect that colleagues already know each other very well, but this seems to be insufficient. To make this action more concrete in the brainstorm session the following ideas popped up. A one-on-one speed date lunch once a month with a colleague and also a quiz 'know your colleague' popped up, to know each other in a playful way.

There is also a need for more session like this brainstorm session with the department. These sessions could also stimulate to get each other to know better. The last item that pulls out is 'celebrate mistakes'. The department knows that when innovations need to take place there will always be mistakes or errors during the process. The focus in these situations needs to be on the learning process. Mistakes may happen and need to be celebrated because the mistakes are learning objects. Mistakes don't need to be seen as failures. By celebrating mistakes and learning from mistakes and also learning from the mistakes of others, a higher level and numbers of successful innovation needs to be realized.

“Actions list from literature” relevant for Kadaster

Hierarchy culture	Adhocracy culture
<input type="checkbox"/> Increase <input checked="" type="checkbox"/> Decrease <input type="checkbox"/> Remain the same	<input checked="" type="checkbox"/> Increase <input type="checkbox"/> Decrease <input type="checkbox"/> Remain the same
<ul style="list-style-type: none"> • Develop evaluation systems wherein customer feedback can have an immediate impact on organizational practices. • Consider using technology that will reduce paperwork and move the unit toward the concept of paperless organization. • Remove all senior managers, no matter how successful, whose behaviour does not reflect the values espoused by the company. • Decentralize authority from central corporate bodies so that each unit or plant director has control of all budgets within the unit. 	<ul style="list-style-type: none"> • Analyse the organization’s key values in terms of emphasis on adhocracy values. Encourage more focus on managing the future. • Make a critical analysis of the current vision statement. Does it provide both cognitive and emotional direction? Does it in- spire creative initiative? • Ask a task force of first-line people to conceptualize new strategies for expanding markets and developing new businesses. • Develop systems to encourage, measure, and reward innovative behaviour at all levels of the system. • Develop a reading program on the topic of creating and implementing change. • Put all employees through a training program that includes the practical applications of creative thinking, the strategic reasons for increased responsiveness, and the basic principles of organizational innovation. • Hold celebrations and internal organization “trade shows” that allow employees to show off their new, underdeveloped, experimental ideas. Celebrate trial-and-error learning. • Develop visible rewards that recognize the creativity and in- novation of employees, teams, and units. Recognize not only good ideas but also orchestrating and sponsoring activities that help new ideas get developed and adopted.

Figure 19 – Actions from literature relevant for Company X circumstances

If we look at the list with actions from the literature, about the hierarchy culture, the item feedback of the customers can have an immediate impact on organizational practices. Company X already started a project called ‘Customer System Management’. This initiative is taking it’s first steps. The literature also suggest for consideration using technology that will reduce paperwork and move the department towards the concept of paperless organization. This is in line with the item that popped up out of the

brainstorm session that the department want less to write, bringing the big report back to small A3 forms.

The next item is very rigorous but literature suggests is, it is about senior managers. Remove all senior managers whose behaviour does not reflect the values espoused by the company. Values are essential by living out the preferred culture. When senior managers don't get that right, they are obstacles in realizing organizational culture change, which need to be removed.

Another item literature describes is decentralize authority from central corporate bodies so that each unit or plant director has control of all budgets within the unit. This item also resonated in the brainstorm session. The people wanted green light and authority from top management for some projects that need speed in development. This is in line with each other.

For increasing adhocracy culture in the organizational culture mix one of the most important items is focus. Focus also can back in the brainstorm session. On this item literature and the output of the group session are in line with each other. Make a critical analysis of the current vision statement. It needs to provide both cognitive and emotional direction.

Develop systems to encourage, measure and reward innovative behaviours at all level of the system is also an item that synchomesh with the brainstorm session. Company X already have some initiatives for rewarding innovative behaviour. But as mentioned during the group session mistakes may also be celebrated. On this moment, Company X XX (GVA) doesn't celebrate mistakes, discuss or even mention mistakes. The most powerful and robust type of recognition, the kind that shapes organizational values, often occurs more informally. An option could be a 'recognition economy' by distributing symbolic wooden nickels to colleagues who had made noteworthy contributions to their projects. Such informal acknowledgments encourage a collective spirit and help promote the free flow of ideas.

The action popped up during the group session to organize more of event like this is, is also described in the literature. Put all employees through a training program that includes the practical application of creative thinking, the strategic reasons for increased responsiveness, and the basic principles of organizational innovation. Theses actions are again in alignment with each other. They reinforce each other.

In conclusion it can be stated that much of the actions derived from the group session are aligned with actions proposed by literature. Very important items are; decentralization of authority, focus, equipment and an informal reward system.

Step 6: Develop an implementation plan.

There was no time for this final step of the organisational culture change plan. The final step was mend to be the step to create an implementation plan, complete with timetables and short-term benchmarks that would initiate the process of culture change. Specifically, it would have identified the few key ways that the culture change process could unfold. But unfortunately there was not enough time for this step and therefore there is no available data. Later on a second short group session was organised but it turned out that this sixth step cost much more time. Probably day parts are needed to proper perform step six.

At the end the conclusion could be that the action identified in step 5 are most of the time not concrete enough for direct implementation and for performance indication. During the second group session it turned out that for proper performance of step 6 there is more time needed, a few day parts. The specification of the actions needs to be born out of the group, which take a lot of time. This time was not available within this research. In conclusion the actions identified in step 5 are a beautiful starting point build upon in a future session.

5.2 the relation between organizational culture, Lead User Method and #n radical innovations

This paragraph describes the relation between the organizational culture of Company X in relation to the Lead User Method and the number of radical innovation that are being realized.

The added value of Lead User Method is that it can save time and money, but there is no guarantee that the Lead User Method will save and money within Company X. Each Lead User Method project is different. In this research it is supposed that an adhocracy dominant culture is the best organizational culture for implementing the Lead User Method, because de Brentani (2001) suggest that this is the only organizational culture where radical innovation take place.

For implementing Lead User Method a critical success factor is commitment from top management. This critical success factor is already mentioned in paragraph 2.3.2, 'Seven critical success factors in using the Lead User Method'. This means that the department XX (GVA) can't just implement the Lead User Method. There need to be support from top management, especially because Lead User Method is a very intensive method. A lot of resources and time must be invested.

Out of the group session people said that for some project green light is needed to faster the development of the project, this is in alignment with the theory about the Lead User Method. But again this must be able in the organizational structure. The organizational structure needs to be aligned with the desired organizational culture mix. As already mentioned earlier the organization structure is of scope of this research. This research focuses on the organizational culture, but organization structure needs to be in alignment with the culture, this is a recommendation for future research since this topic is of focus of this research. So again there is an importance for doing more research on the organizational structure.

In the current situation the dominant organizational culture within Company X is hierarchy culture. In our theory this is not positive because the hierarchy culture quadrant is the opposite of the adhocracy culture quadrant. But the positive thing is that in the preferred situation adhocracy culture quadrant is more dominant than the hierarchy culture quadrant. Company X is willing to make an organizational culture change. In our theory it is also supposed that by implementing the Lead User Method the organization, or department will learn to be more adhoc. The theory implies that implementing the Lead User Method has a positive effect on being adhoc. Because when the Lead User Method is implemented the team gets the involvement of the top management and learns to be responsible for there own innovations. When the Lead User Method is implemented, the participants need to through the different stages of the

Lead User Method. Through these stages the participants get forced to listen to the outside world. They learn to take responsibility. Top management needs to determine the focus and the scope of the project; ideally a member of top management participates in the Lead User Method team. Within this scope and focus the participant are free to make their own decisions.

An other positive effect of implementing the Lead User Method in relation with stimulating adhocracy it the 'focus' aspect. As earlier mentioned, top management needs to determine the focus and scope of the project. Top management describe the area in which the participants can cooperate. Out of the group session and the literature suggestions focus and prioritization where important topics mentioned to make the organizational culture change. Implementing the Lead User Method top management and the participants are forced to bring focus, scope and desired outcomes and results to the project. This happens in the first two stages of the Lead User Method.

As already mentioned using the Lead User Method doesn't give guarantees of successful outcome. Different project in the past by for example 3M showed huge successes, but this doesn't give guarantees to Company X. But results from different lead user projects at different companies in different sectors, our theory beliefs that implementing the Lead User Method had a positive effect on the number of successful radical innovations. Figure 20 shows the schematic representation of the relations between the topics, adhocracy culture, Lead User Method and the number of radical innovations. In this research it is found that before a company can implement the Lead User Method successfully, the adhocracy culture should be dominant in the organization. When a company has another culture dominant, the Lead User Method will be less valuable. After introducing the Lead User Method it is supposed that the adhocracy culture will increase on the department XX, because the implementation of the Lead User Method pushes people to go to the outside world the members of XX are given free space to develop new concepts, within the strategy of Company X.

Concluding it is concluded that a dominant adhocracy culture increases the value of implementing the Lead User Method and has a positive effect on the number of radical innovations, within Company X.

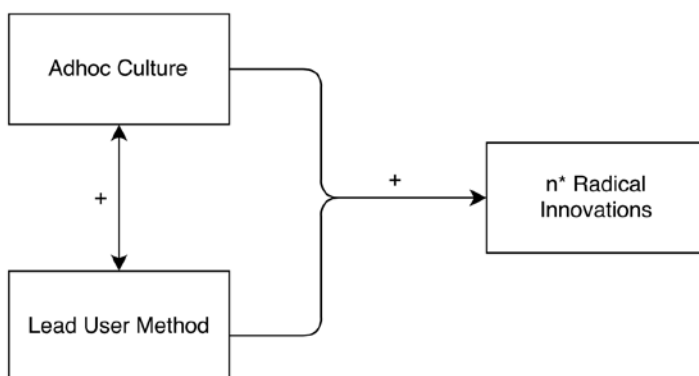


Figure 20 – Prediction model / Research model / Research theory

Concluding, this chapter five analysed the current and the preferred organisational culture. The meaning of the needed organizational culture change is formulated and actions for initiating cultural change are identified. In the end of this chapter the relation between the organizational culture, Lead User Method and the number of radical innovations are described.

The following and final chapter of this thesis the conclusions and recommendations are described. The conclusions and recommendations are based upon the data analysed in chapter four and five. By each conclusion there will be an associated recommendation. Chapter six also gives an answer to the main research question.

6 Conclusions and Recommendations

Finally, this chapter describes the conclusion of this research, also the research question formulated in the first chapter will be answered. After the conclusion and recommendations about further research the limitations of this research will be discussed. In the end of this chapter a reflection on this research can be found.

6.1 Conclusions

The conclusions are presented in three parts. The first part is the conclusion about the current and preferred organizational culture mix. In this part conclusions will be drawn about the current and preferred culture of Company X and the difference between those two situations. The conclusions will be based upon the analysis of the OCAI-instrument.

The second part includes conclusions and recommendations about the actions for starting the organizational culture change. The conclusion will be based on the analysis of the data from the group sessions and the actions the literature described. There will be conclusions about the actions to decrease the dominance of hierarchy quadrant and the actions for increasing the dominance of the adhocracy quadrant.

The third and final part formulate conclusions and recommendations in the light of implementing the Lead User Method within Company X in the current status and in the future state. The added value of the Lead User Method for Company X will be discussed. Also the answer of the main research question can be found in this paragraph.

6.1.1 Current and Preferred Organizational Culture

There is a difference between the current and preferred organizational culture mix in the organization of Company X. The survey showed that in the current situation the hierarchy culture quadrant is the most dominant culture (38,7 points). Followed by the quadrant clan culture (30,54 points). Then adhocracy culture quadrant (17,26 points) and the smallest quadrant is the market culture quadrant (13,5 points).

In the preferred organizational culture mix the clan culture quadrant is dominant (32,42 points) followed by the adhocracy culture quadrant (31,53 points). Thirty end up the quadrant hierarchy culture (21,68 points) and again at least quadrant market culture (14,37 points).

When looking at the difference per quadrant; clan culture (+1,88points) and market culture (+0,87 points) almost remains the same. The two quadrants that really need to change are quadrant hierarchy culture (-17,02 points) and quadrant adhocracy culture (+14,27 points).

The conclusion is that the most gain can be made by focussing on decreasing the dominance of hierarchy culture quadrant and increasing the dominance of adhocracy culture quadrant. Conclusion is that in the current situation the dominant organizational culture is hierarchy culture and in the preferred culture adhocracy culture quadrant needs to increase enormously.

The recommendation for this for department XX(GVA) is, investigate what it this desired cultural change means and does not means. Secondly find out what actions need to be

done for starting this organizational culture change. The next paragraph gives conclusions and recommendations on these issues.

6.1.2 Starting the Organizational Culture Change

This section is only about the department XX(GVA) because the department XX(GVA) was the only group who participated in the group session. The output of the group session resulted in the following conclusions:

Decreasing the dominance of the hierarchy quadrant in de organizational culture mix;

1. The department XX(GVA) want more responsibility for their own innovations.
2. The department XX(GVA) want to know the colleagues of XX(GVA) better.
3. The department XX(GVA) want more focus and prioritization on projects.
4. The department XX(GVA) want to stop with the Bila's.

Increasing the dominance of the adhocracy quadrant in de organizational culture mix;

1. The department XX(GVA) want prioritizing on projects and something project need a 'no go'.
2. The department XX(GVA) want to organize more group session like the one in this research.
3. The department XX(GVA) want to celebrate mistakes.
4. The department XX(GVA) want more visualization.
5. The department XX(GVA) want to stop with aimless meetings.

It is good to notice that much of the actions are not that precise that they can be implemented immediately. An action that can be implemented immediately is the one on one lunch speed date. Start with a one on one lunch speed date once a month with a different colleague. The recommendation is to take all the actions formulated above and start making them more precise and measurable. In fact step six of the organizational culture change can be performed to get the result that is needed for making it concrete. The actions are prioritized on importance, where number one is the most important action.

In conclusion, the action identified in step 5, develop a strategic action plan, are most of the time not concrete enough for direct implementation and for performance indication. During the second group session it turned out that for proper performance of step 6 there is more time needed, a few day parts. The specification of the actions needs to be born out of the group, which take a lot of time. This time was not available within this research. In conclusion the actions identified in step 5 are a beautiful starting point build upon in a future session. The recommendation is, take the action that are in alignment with the group session output and the literature data as starting point for topics that need to be developed and made concrete. Do this with the colleagues of department XX (GVA)

6.1.3 Implementing the Lead User Method Within Company X

Top management of Company X must determine the implementation of the Lead User Method, since Company X is a hierarchy organization top management decides what needs to happen. Before implementing the Lead User Method I recommend to first finish

step six in a proper way for starting the organizational culture change. Changing culture is a difficult and long-term effort. It will be necessary, over time, to address almost every aspect of the organization to ensure that it is aligned and reinforces the preferred culture.

Further if top management want to release radical innovations, they need to set the borders of the project. In phase one of the Lead User Project a management group first spells out the focus and overriding goals of the innovation initiative. Management's first planning task is to define the new product or service area(s) and the overall objectives that will drive the lead user project (Churchill, Hippel & Sonnack, 2009). Specifically, these are the key questions to be answered:

- Which types of markets and which types of new products or services are of most interest for this project?
- What is the desired level of innovation? (Are you seeking "breakthrough" innovation? – or are you primarily interested in extending current product or service lines?)
- What are the key business goals and constraints?

A well-defined project focus and objectives will go a long way towards ensuring that lead user team concentrates its work in areas that really matter to the organization (Churchill, Hippel & Sonnack, 2009).

Innovation needs to be a part of the strategic plan of Company X. Paragraph 6.3.1 describes how Company X could make innovation part of the strategic plan of Company X. Further, I recommend to do research on the organizational structure, because this makes or breaks the success of implementing the Lead User Method, paragraph 6.3.2 describes what types of organizational cultures exists and which one is recommended for Company X.

I recommend postponing the implementation of the Lead User Method. Start with the actions for initiating organizational culture change. Start researching the organizational structure and see if it is possible to implement the Lead User Method, which means that top management need to implement radical innovation into their strategic plan. In the mean time continue with the incremental innovation. Invite user or customers in the front-end of incremental innovation for understanding the real need and demand of the users and customers. Appendix 1 provides a front-end of innovation process that includes tools and stages where customer involvement is required. This is especially preferred in the case of Company X because Company X is a service organization where the services are intangible, inseparable, variable and perishable. Because with the organizational culture change that is needed for Company X there is also a shift needed from internal focus to external focus. Company X need to be market oriented. Paragraph 6.3.3 describes which models and concepts, presented by literature, are helpful in making the shift from internal focus to external focus.

When looking at the main research question: *"How can the Lead User Method contribute to an effective front-end of the new service innovation process within Company X?"*

This question can be answered with;

"The Lead User Method can contribute to an effective front-end of the radical new service innovation process within Company X by structuring the front-end of innovation, by five

structured but iterative steps, but the effectiveness of the Lead User Method used within the dominant hierarchy organizational culture can not be guaranteed. It requires that the Lead User Method is more effective in an dominant adhocracy organizational culture, but the Lead User Method has also an positive relation on the dominancy of the adhocracy organizational culture in the organizational culture mix of Company X. "

6.2 Theoretical implications

The problem section described the reason why Company X wants to be able to radically innovate. The most important theoretical implication for this research is the relation between the front-end of innovation, the Lead User Method and the dominant organizational culture. From literature it became clear the adhocracy organizational culture and the Lead User Method have a positive relation with the number of radical innovations. Both have a positive effect on radical/breakthrough innovations.

The literature study showed that radical innovations only happened in organizations where adhocracy culture was dominant (de Brentani, 2001), therefore, it is required that adhocracy organizational culture should be dominant for successfully implementing the Lead User Method. There must be a certain level of adhocracy within the organizational culture before a company is suitable for implementing the Lead User Method. In the OCAI-instrument the level of adhocracy culture was measured but it is hard to determine if this score is high enough to successfully implement the Lead User Method. Literature also revealed that a critical success factor for implementing the Lead User Method is support from the top management, therefore radical innovation need to be part of the strategic plan of the organization. The conclusion is that the method should not be implemented directly, first top management need to make radical innovation part of the strategic plan. When there is a need for radical innovation in a specific field or area and top management put radical innovations in the strategic plan and the organizational structure is aligned with this strategic ambition, the Lead User Method can be valuable for Company X.

6.3 Practical implications

The problem of Company X, which is development of products and services, that do not always meet the demand of the customers caused by innovating inside the company without listen carefully to the outside world. Finding a more structured way to innovate and make products that are meeting the needs of the customers was the goal. The practical implications give an overview on how to come to a more structured way of innovating and listening carefully to the outside world. This paragraph presents different models and concept for making a swift from internal focus to external focus.

The practical implications of this research are in the first place the application report, which is written for Company X department XX (GVA). It can be used as a tool to start the organizational culture change. With this report Company X will be able to know how successful the Lead User Method will be if it will be directly applied and what can be done to increase the chance of success. Time and money can be saved, and the new way of idea generation, idea screening and concept development and testing can lead to services that meet the needs of the users, with better chances of becoming adopted.

The second implication is the results of the OCAI-instrument and the group session. The measurement of the current and the preferred organizational culture showed that the dominant organizational culture is hierarchy in the current situation. The preferred dominant organizational culture is adhocracy. The OCAI-instrument shows the relation between internal focus (for hierarchy culture) and external focus (for adhocracy culture) as organization. This means that Company X need to make a shift from internal focus to external focus. Company X need to be more market-oriented. Especially for new Service Development, in comparison with new product development, market-orientation and customer orientation is very important; these are key success-factors for incremental and radical innovations. Because new service development has the following characteristics (Blythe, 2005);

- Intangibility; Not tangible, one-time use.
- Inseparability; Production and consumption happen simultaneously.
- Variability; Service is difficult to standardize, produced on an individual basis.
- Perishability; Can not be stored for later use.

Within service delivery there is much more customer contact than within product delivery. This makes it even more important for Company X to increase the adhocracy culture, because the adhocracy culture is more external focus than, the current dominant hierarchy culture, that is internal focused. In appendix 10 is more literature available that described the difference between new service development (NSD) and new product development (NPD).

As earlier mentioned in section 2.4.5 changing culture is a difficult and long-term effort. It will be necessary, over time, to address almost every aspect of the organization to ensure that it is aligned and reinforces the preferred culture. One way to remember the various aspects of the organization that need to be considered is to use a variation on the "Seven S" model first introduced by Waterman, Peters, and Phillips (1980): recognize that successful culture change may require a change in structure (the organization's architecture), symbols (the images that reinforce culture), systems (such as the production system, appraisal system, selection system, and quality system), staff (the selection and development of human resources), strategy (behavioural manifestations of the organization's vision), style of leaders (the attitudes and examples set by top leaders), and skills of managers (the competencies of individuals who must carry out the change processes). Alignment of these factors will be an important part of successful culture change.

Therefore this paragraph describes different theoretical topic that might help Company X aligning the important factors for successful organizational change. This paragraph seeks to describe and understand how strategy influences leadership and how in turn interacts in the process of innovation.

First the organization strategy will be discussed, since this is the starting point of an organization. Secondly the organizational structure will be discussed, shortly the different typologies of organizational structure will be mentioned and the structure aligned with the desired organizational culture will be explained in more detail. Thirdly different marketing concepts will be described which might help Company X make the shift for internal focus to external focus. Fourthly the type of leadership will be mentioned.

6.3.1 Organizational strategy

The Miles and Snow (1978) strategic choice typology is now well known. In the last 25 years this model has been widely cited in both the management and marketing strategy literatures (7-11). According to Miles and Snow (1978), strategy is nothing but a set of decisions by which a crucial business unit aligns its managerial processes with its pertinent environment. Based on empirical research conducted in four industries, Miles and Snow proposed a strategic typology classifying companies into four distinct groups: Prospectors, Analyzers, Defenders, and Reactors.

As mentioned earlier top management needs to make radical innovation a part of the strategic plan of Company X. Miles and Snow (2003) developed four types of strategy that an organization can purchase. This model, presented by Miles and Snow gives an idea of how an organization can form their strategic innovation plan, which might help the top management of Company X in making radical innovation a part of the strategic plan of Company X. The four typologies of strategy are;

1. *Defenders*; Organizations with this orientation tend to have a narrow product/market domain. They will try to create and maintain a niche with a limited range of products or services. It also has a narrow technological base (because of its narrow domain). It does not attempt to search outside its domain for new opportunities (Miles & Snow, 2003).
2. *Analyzers*; A prospector organization continually searches for new opportunities. It has a broad and flexible product/market domain and hence a broad technological base. They usually create change and uncertainty in the environment. Its structure is characterized by a low degree of formalization and routinization, decentralization, and lateral as well as vertical communication (Miles & Snow, 2003).
3. *Prospectors*; An organization with this orientation has characteristics of both the defender and prospector orientations. It tends to maintain a stable and limited domain, while at the same time cautiously moving into a new domain only after its viability has been proven by prospectors. Analyzers are imitators in such a way that they take the promising ideas of prospectors and successfully market them (Miles & Snow, 2003).
4. *Reactors*; This organization does not have long term goals or articulated strategies, and hence no consistent pattern of behaviour. The organization is passive in dealing with various issues. It does not attempt to maintain a defined product/market domain, nor does it try to capitalize on viable environmental opportunities (Miles & Snow, 2003).

Within these four typologies of strategy three problems arise in each organization. The typology determines how the problems are being solved. The three problems Miles and Snow describe are also relevant for Company X, and specifically for this research, where Company X needs to shift from an internal focus to an external focus. The questions are;

1. The "Entrepreneurial Problem";
2. The "Engineering/Operational Problem";
3. The "Administrative Problem";

The figure below shows a schematic depiction of the three problems organizations face.

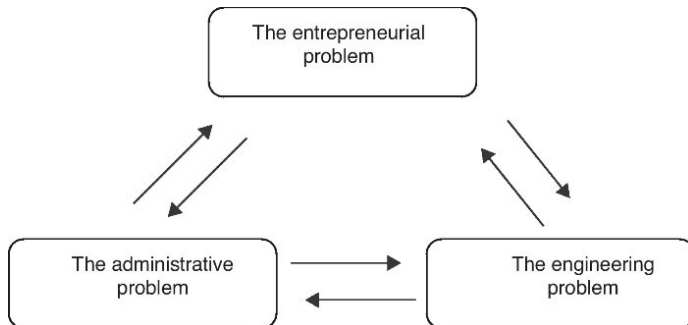


Figure 21 – Miles and Snow's adaptive cycle

The figure below is a depiction of the three organizational problems with the four typologies of an organization strategy. The typology of reactor not presented in figure 22 because these organizations do not have distinctiveness.



Figure 22 – Integration of typologies and problems.

This model helps to better understand the dynamics of strategy for Company X. Miles and Snow (2003) shown that a strategy is a mix of different elements and organizations can put emphasis on different elements.

Above the model of Miles and Snow is described, but now more operational models and concept will be discussed that will help Company X in making the shift from internal focus to external focus.

6.3.2 Organizational structure

The Mintzberg organizational structures, or rather the Mintzberg configurations, are perhaps the best-known way to characterize organizations. According to Mintzberg (1989) the organization roughly consists of six parts. The distinction is not hard, see it more as a coarse representation. The six components are:

- The strategic apex (top management)
- The middle-management
- The operating core (the people who make the products or services which the organization is all about)
- The technical structure (IT, but also logistics planning)
- The support staff (eg. cafeteria)
- Ideology (the corporate culture and values, non-material goals, etc.)

Mintzberg (1989) formulated six configurations of organizations. The six basic configurations are:

- Entrepreneurial organization
- Machine organization
- Professional organization
- Division Organization
- Innovative organization
- Missionary organization

In my opinion, based on the observations during my internship, the configuration of Company X is the Machine Organization (Bureaucracy). The machine organization is defined by its standardization. Work is very formalized, there are many routines and procedures, decision-making is centralized, and tasks are grouped by functional departments. Jobs will be clearly defined; there will be a formal planning process with budgets and audits; and procedures will regularly be analysed for efficiency. The machine organization has a tight vertical structure. Functional lines go all the way to the top, allowing top managers to maintain centralized control. These organizations can be very efficient, and they rely heavily on economies of scale for their success. However, the formalization leads to specialization and, pretty soon, functional units can have conflicting goals that can be inconsistent with overall corporate objectives. Large manufacturers are often machine organizations, as are government agencies and service firms that perform routine tasks. If following procedures and meeting precise specifications are important, then the machine structure works well.

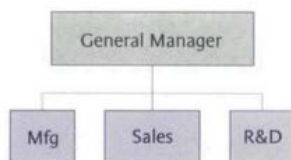
The configuration that is most appropriate for radical innovation according to Mintzberg (1989) is the configuration 'Innovative Organization' ("Adhocracy") The structures discussed so far are best suited to traditional organizations. In new industries, companies need to innovate and function on an "ad hoc" basis to survive. With these organizations, bureaucracy, complexity, and centralization are far too limiting. Filmmaking, consulting, and pharmaceuticals are project-based industries that often use this structure. Here, companies typically bring in experts from a variety of areas to form a creative, functional team. Decisions are decentralized, and power is delegated to wherever it's needed. This can make these organizations very difficult to control! The clear advantage of adhocracies is that they maintain a central pool of talent from which people can be drawn at any time to solve problems and work in a highly flexible way. Workers typically move from team to team as projects are completed, and as new projects develop. Because of this, adhocracies can respond quickly to change, by bringing together skilled experts able to meet new challenges. But innovative organizations have challenges. There can be lots of conflict when authority and power are ambiguous. And dealing with rapid change is stressful for workers, making it

difficult to find and keep talent. However, given the complex and dynamic state of most operating environments, adhocracy is a common structural choice, and it's popular with young organizations that need the flexibility it allows.

Later in time O'Reilly and Tushman (2004) did research on breakthrough innovation and discovered that businesses tend to apply one of four organizational design to develop and deliver their innovations. More than 90% of those using ambidextrous structure succeeded in their attempts, while none of the cross-functional or unsupported teams, and only 25% of those using functional designs, reached their goals. Figure 23 displays the four organizational designs for radical innovation.

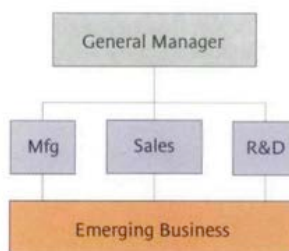
Functional designs

integrate project teams into the existing organizational and management structure.



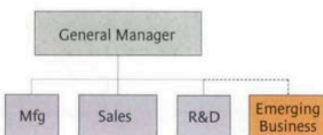
Cross-functional teams

operate within the established organization but outside the existing management hierarchy.



Unsupported teams

are set up outside the established organization and management hierarchy.



Ambidextrous organizations

establish project teams that are structurally independent units, each having its own processes, structures, and cultures, but are integrated into the existing management hierarchy.

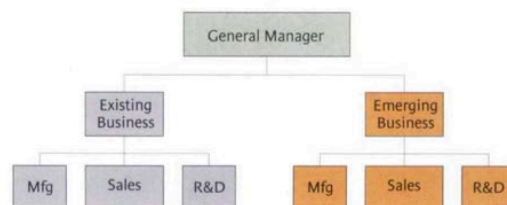


Figure 23 – Organizational Designs for breakthrough innovation

Ambidextrous organizations encompass two profoundly different types of businesses. Those focused on exploiting existing capabilities for profit and those focussed on exploring new opportunities for growth (O'Reilly and Tushman, 2004). As the table 2 below indicates, the two require very different strategies, structures, processes and cultures.

Alignment of:	Exploitative Business	Exploratory Business
Strategic intent	cost, profit	innovation, growth
Critical tasks	operations, efficiency, incremental innovation	adaptability, new products, breakthrough innovation
Competencies	operational	entrepreneurial
Structure	formal, mechanistic	adaptive, loose
Controls, rewards	margins, productivity	milestones, growth
Culture	efficiency, low risk, quality, customers	risk taking, speed, flexibility, experimentation
Leadership role	authoritative, top down	visionary, involved


Ambidextrous Leadership
 Different alignments held together through senior-team integration, common vision and values, and common senior-team rewards.

Table 2 - *The scope of the ambidextrous organization*

A recommendation for future research is investigating possibilities for Company X to design an ambidextrous organization for delivering breakthrough innovations.

6.3.3 Customer orientation

Modern marketers take the view that the customers are intelligent enough to know what they need, can recognize value for money when they see it, and will not buy again from the firm if they do not get value for money. This is the basis of the *marketing concept* (Blythe, 2005).

Putting the customer at the center of all the organization's activities is easier said than done. The marketing concept affects all areas of the business, from production (where the engineers and designers have to produce items that meet customers' needs) through to after-sales services (where customer complaints need to be taken seriously). The marketing concept is hard to implement because, unlike the sales orientation approach, which seeks to change the mass of customers to fit the organization's aims, the marketing concept seeks to change the organization's aims to fit one or more specific groups of customers who have similar needs. This means that marketers often meet resistance from within their own organizations (Blythe, 2005).

In practice, the marketing concept means finding out the needs and wants of a particular group of customers, finding out what price they would be willing to pay, and fitting the organization's activities towards meeting those needs and wants at the right price. These are the main responsibilities of the marketing director or marketing managers of a firm (Blythe, 2005).

At this point, it is useful to draw a distinction between customers and consumers. Customers are the people who buy the product; consumers are those who consume it. Customers could therefore be professional buyers who are purchasing supplies for a company, or possibly a parent buying toys for a child. The consumer might also be the customer, of course, but could equally be the recipient of a gift or the user of a service,

which is paid for by others. The consumer decision-making process follows the stages shown in Figure 24.

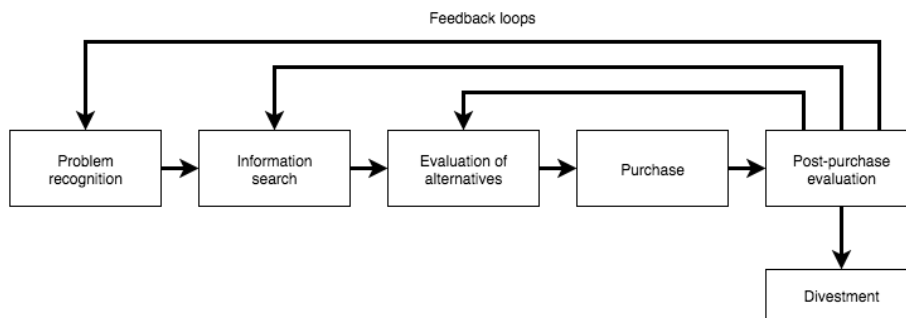


Figure 24 – Consumer decision-making

More information about this consumer decision-making model can be found in the book; 'Essentials of Marketing' by Jim Blythe (2005).

Decision-making units

Industrial buyers differ from consumers in that they are (at least theoretically) more formalized in their buying behaviour (Blythe, 2005).

Organizational buyers are buying in order to meet the organization's needs, but it should also be remembered that they have their personal needs. These might be a need for *prestige*, a need for *career security*, for *friendship and social needs*, and other personal factors such as the satisfaction of driving a hard bargain, or the buyer's personality, attitudes and beliefs (Powers, 1991).

Regarding the organization's needs, however, the chief considerations of most buyers appear to revolve around quality, delivery, service and price (Green, Robinson & Wind, 1968).

Industrial buying decisions are rarely made in isolation. Usually several people are involved in the process at different stages.

- Gatekeepers: such as secretaries and receptionists control the flow of information to the decision-makers. Often they will act as a barrier to salespeople, and see their role as being primarily to prevent interruptions to the decision-maker's work pattern.
- Influencers: are those individuals who 'have the ear' of the decision-makers. They could be people within the firm whom the decision-maker trusts, or they could be golf partners, spouses, or even children.
- Users: are those who will actually use the product. For example, if the organization is contemplating the purchase of a new computer system, the finance department and the IT department will clearly want to have some say in the decision.
- Deciders: are the ones who make the real decision. These are usually the hardest

to influence, since they are usually the more senior people in the decision-making unit and are surrounded by gatekeepers. They are also sometimes hard to identify. They are not necessarily buyers, but they do hold the real power in the buying decision.

- Buyers: are the ones given the task of actually going through the process of buying. The buyers may be given a very specific brief by the decider, and may have very little room to negotiate except on areas such as price and delivery schedules. Sometimes they are merely there to handle the mechanical aspects of getting tenders from possible suppliers.

Each of these people has an independent existence outside the organization; each will bring their own personal needs and aspirations to their role. In some cases this will be a job-related need (for example, career progression or the need to appear professional); in other cases the individual may have personal needs, such as a need to exercise power or the hedonic need to drive a hard bargain. The need to impress others within the firm can be extremely powerful (Blythe, 2005).

The concepts described in this paragraph provide understanding for the principles that play part when they make a shift from internal focus to external focus. It may help Company X to determine which type of typology they want to be and how they face the three described problems. When the department XX(GVA) and also Company X in total, ignore an innovation strategy there is a risk that disrupting technologies will replace Company X as organization. An other risk if innovation will not become a part of the strategy of Company X, may be that the department XX(GVA) is not relevant for Company X and the department will be shut down. The organization may become cumbersome and slow, which might be result in a repulsion of the entire Company X by the government.

6.3.4 Type of leadership

The 'Competing Values Framework' of Quinn (1988) is one of the most popular and heuristic conceptual frameworks developed in the early 1980s, to integrate the main dimensions of organizational "effectiveness". Leadership is a key concept in the framework. Eight categories of leader behaviour emerge from Quinn's review of the literature. Company X needs to make a shift from the leadership categories 'mentor' and 'coordinator' to the leadership categories 'innovator' and 'broker'. This means that the leadership of Company X needs to go from a leader that is a 'person committed by worry in the development of people and its orientation and maintain the structure and flow of the system' to a leader that is characterized as being a 'person who expected a facilitator of change and a person who is particularly concerned in maintaining external legitimacy as well as in obtaining external resources'.

6.4 Limitations and Further research

This paragraph gives an overview of the limitations in this research, and also provides some improvements for future research for Company X but also when this research is done at other organizations.

The first limitation is that the usability of the Lead User Method could not be tested easily, because it is a very intensive and time-consuming method. This makes it hard to say if this method will be easily implementable.

The limitation in the data collection part of this research is that the respondents of the OCAI-instrument were anonymous. Sometimes people had interesting scores and some further investigation would be impossible because the respondent is anonymous.

The limitation of the group session is that there was not enough time for step four and six. The group session was planned late in the research scope, because in the beginning of the research it was not completely clear which direction the research would go. In a later moment step six was held, but with half of the other participant, so a new introduction and summary of the first group session was needed. Even in this session it turned out that it is hard to make the action concrete and measurable. To do this properly a session with a duration of half a day is needed.

After defining the limitations of the research some improvement and new ideas for future research can be given.

The most valuable for Company X in future research is the research to make the actions derived from the group session more concrete and measurable. When the actions are concrete and measurable they can be implemented.

Another interesting topic for future research is the topic of organizational structure, since organizational culture follows organizational structure. In this research the organizational structure was of scope but this is a very relevant factor for Company X, because the structure of an organization should be aligned with the organization culture, otherwise employees will be schizophrenic. There is a difference between formal and informal structure, but structure follows strategy. The organizational culture change may fail if the structure of Company X is not aligned with the desired culture.

A fourth interesting topic for future research is in the field of incremental innovation. This research was focussed on radical innovation but in the current situation Company X is doing a lot of incremental innovations. Appendix 1 provides a good start for this research, but much more concepts and models can be identified for involving the customer into the front-end of innovation. Research on how to structure the front-end of incremental innovation, and how to involve customers and users in the front-end of innovation could gain enormous progress in delivering products and services in line with the demand of the users.

6.5 Reflection

The research started very broad. The question how Company X could take the customer as starting point of the innovation process, needed to get more focus. It was a struggle to find the real problem. When the decision was made to focus on radical innovation and the Lead User Method, it was hard for me to keep that focus. In the beginning I did a lot of literature research on incremental innovation and the process needed to structure the front-end of innovation by involving the customer or user in the front-end. I wanted to put this literature study in my thesis because it cost me a lot of effort, but it was not the

focus of my thesis. This resulted in an unstructured thesis. After the feedback of my supervisor on my unstructured thesis all the incremental literature removed to the appendix. After the feedback session with my supervisor, structure came into my thesis.

I also found out that I need deadlines to get stuff done. Otherwise I have a tendency to slide out things for me.

The cooperation of Company X employees for the OCAI-instrument and the group session was very well. The questionnaire was online but lot employees responded. Some respondents gave feedback that the tool for answering the questions was very good and handy. Others found it cumbersome. Selecting the people for the questionnaire is done by my supervisor and me. I think it is hard for a student who does not know the organization well to find the right people but that selecting by the company can lead to biased outcomes.

The cooperation with the employees of XX (GVA) was extremely well. Even though I had not much time in planning the group session a lot of employees felt the importance to attend the session. There was really a click with the employees. I even got rewarded for my presence in the team, with flowers, this shows how well the cooperation was with the department.

The research at Company X was quite independent, when I needed help this was always available but otherwise I was working quite alone. Next time I would prefer a more practical research were you also work on some current project, in this research I kept myself aside of substantive projects.

Every month there were feedback moments with my supervisor of University of Twente. Those meeting were good and often quite time consuming and with a lot of fun and feedback.

Some final remarks, people from Company X where very open and wanted to help me when I needed something. I had really nice colleagues and a better understanding in working in a semi government organization and being a part of the innovation department. It was a pleasure.

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Appendix

Appendix 1 – Own depiction of Incremental innovation structure front-end of innovation

To show what the relations are between the different topics in this research the next model is developed. Company X wants to develop products that meet the needs of their customers better, so a more effective way of innovating is needed which saves time, money and makes sure that there are fewer uncertainties in the front end of the whole process. Company X is a service organisation hence, new service development literature gives insights in how new services need to be developed effectively. The Lead User method has a positive effect on the effectiveness of the front end of innovation and can reduce the uncertainties, and lead to more market conform innovations. The voice of the customer describes the process of capturing customers' requirements, which could be used in the element opportunity identification of the front end of innovation.

The conceptual model is shown below. There are influencing factor, which influence the overall innovation process. Then there are different stages that structure the front end. The first stages are; strategic planning, opportunity identification, idea generation and enrichment, concept definition. Below the stages, input from customers is described per stage. After the model is displayed, more literature about new service development will be described. This literature is the foundation for the model below.

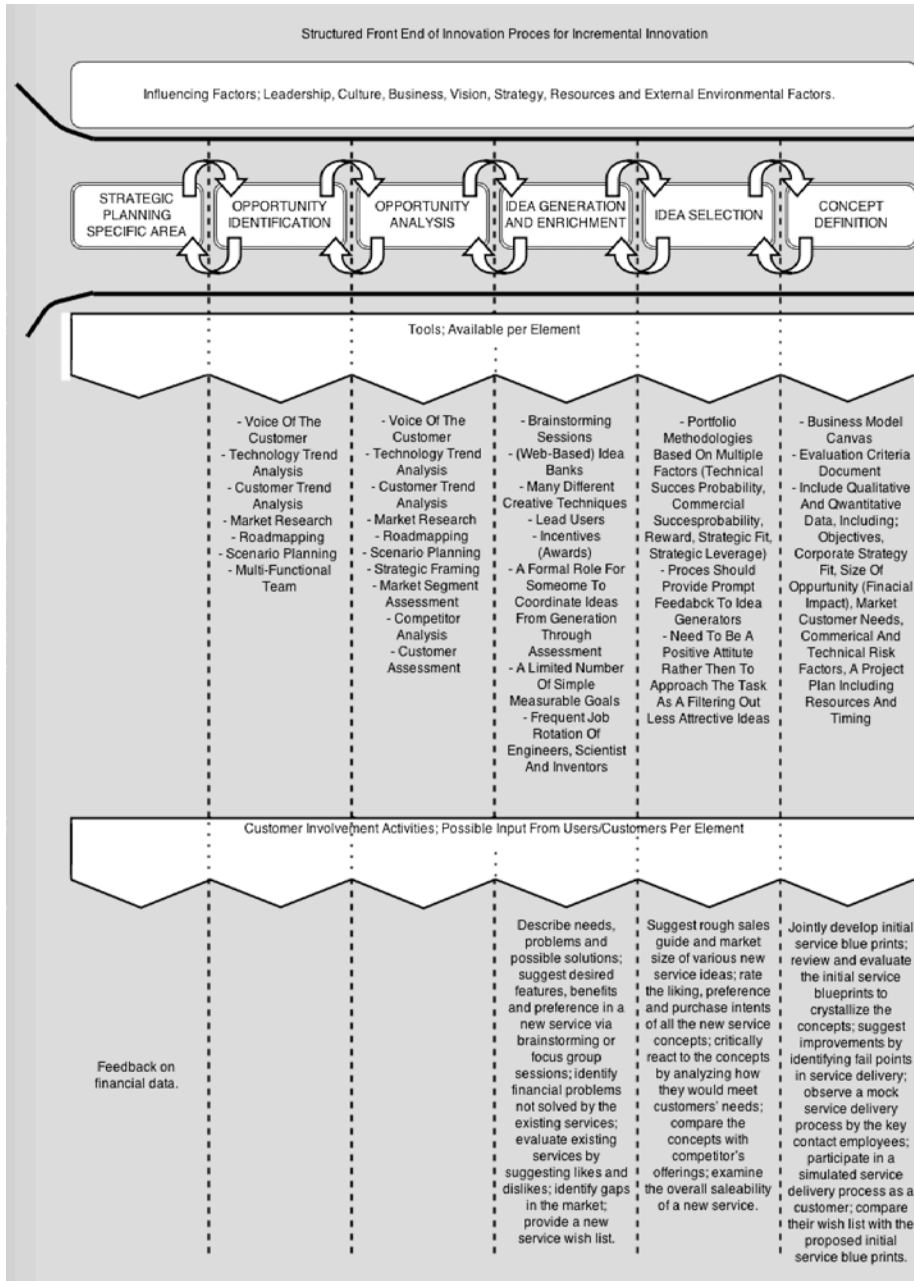


Figure – Structure front end of innovation Process for incremental innovation

New Service Development (NSD)

When we consider the economic activity that results from product innovation, it is services that have experienced the greatest level of growth and dynamism over the past several years (Wilson & Smith, 1996). In particular, convergence in the fields of electronics, communications, computer and information technology have created enormous opportunities for creating totally new-to-the-world services, as well as for reinventing past service offerings, impacting both consumer and business-to-business markets (Morone, 1993). In this chapter describes the literature of new service development (NSD). It describes why NSD differs from new product development (NPD), which stages consist and role customers play part in the each stage. At the end the purpose, intensity and modes of customer involvement will be describes.

In the introduction of their paper, Alam & Perry (2002) say that innovation has traditionally been associated with tangible products. As a result, the literature about new tangible product development is rich, but this literature does not capture the characteristics of NSD (de Brentani, 1989) Service has different characteristics compared with tangible products. According different authors (Lovelock, 1983; Shostack, 1977; Zeithaml et al., 1985), the unique service characteristics are;

1. Intangibility
2. Heterogeneity
3. Perishability
4. Inseparability.

That is, the NSD process may be different from the development of a tangible product (Martin and Horne, 1993; de Brentani, 1995; Easingwood and Storey, 1995). A major point of difference between product development and service development is the involvement of customers in services (Ennew and Binks, 1996). Services tend to involve customers in their delivery, and the purchase of services tends to involve a longer commitment and therefore a more intimate relationship with customers (Alam, 2000; Harris et al., 1999; Martin et al., 1999; Sundbo 1997). Thus, customer orientation plays a more important role in service firms than in tangible product firms because of the four service characteristics noted above (Kelly, 1992; Hartline et al., 2000).

Many service firms are developing new services but there is a lack of strategic focus on NSD and development competencies (□Martin and Horne, 1993; Kelly and Storey, 2000). Therefore, the new service failure rate is high (Cooper and Edgett, 1996), caused by the lack of an efficient development process and up-front homework and the lack of customer orientation and input (Martin and Horne, 1995). Deshpande et al. (1993) have defined customer orientation as "the set of beliefs that puts the customer's interest first".

It has been accepted that firms should be customer oriented because customer-oriented firms are more likely to deliver better service quality and enhance customer satisfaction (Hartline et al., 2000).

Stages of New service development

Alam (2002) found that there new service development process known 10 stages. Table X shows the 10 stages. Users were involved in most of the 10 stages of NSD, but different NSD stages have different levels of importance. The stage idea generation is the most important development stage of new services. Besides idea generation, idea screening and the formation of a cross-functional team in NSD are other key stages of the

development process (Alam, 2002). Notice that the front end of innovation only includes the first four stages of NSD.

Alam and Perry (2002) found that there was a general unanimity that customer involvement was necessary for developing a superior and differentiated service with better value for customers. Another benefit of customer input such as reduced development cycle time was also emphasized. They found that the most service firms were proactive in customer involvement and managers took efforts to maintain a long-term relationship with the main customers and consulted with them regularly for several NSD projects.

New Service development stage	Importance (Scale 0-5)	Activities performed by the customers
1. Strategic planning	2.1	Feedback on financial data.
2. Idea Generation	4.7	State Need, problems and their solution, criticize existing service; identify gaps in the market; provide a wish list (service requirements); state new service adoption criteria.
3. Idea Screening	4.1	Suggest rough sales guide and market size; suggest desired features, benefits and attributes; show reactions to the concept; liking, preference and purchase intent of all the concepts; help the provider in go/kill decision.
4. Business Analysis	3.2	Limited feedback on financial data, including profitability of concepts, competitors' data.
5. Formation of cross-functional team	3.6	Join top management in selecting team members.
6. Service Design and Process System Design	3.5	Review and jointly develop the blue prints; suggest improvements by identifying fail points; observe the service delivery trial by the firm personnel.
7. Personnel Training	1.9	Observe and participate in mock service delivery process; suggest improvements.
8. Service Testing and Pilot Run	2.4	Participate in a simulated service delivery processes; suggest final improvements and design change.
9. Test Marketing	1.7	Comments on the marketing plan; detailed comments on their satisfaction of marketing mixes; suggest desired improvements.
10. Commercialization	3.4	Adopt the service as a trial feedback about overall performance of the service along with the desired improvements, if any; word of mouth communications to other potential customers.

Table – NSD Stages including importance and activities performed by the customers (Own depiction)

Another important factor to shown the difference between NDS and NPD is the fact that studies have highlighted that service developers are often pressed for time to develop new service quickly because innovations are copied quickly in service industries (Johne and Storey, 1998).

Purpose of user involvement

Alam (2002) described several objectives of user involvement that can be grouped into six key objectives of involvement. A brief description of each objective is given next.

1. Superior and differentiated service.

With user involvement, it is possible to develop a differentiated new service with unique benefits and better value for the users.

2. Reduced cycle time.

With user involvement, the overall new service development process can be stimulated. This may result in cycle time reduction.

3. User education.

With user involvement, the users can be easily educated about the use, attributes, and specifications of a new service.

4. Rapid diffusion.

User involvement in the new service development process helps in rapid diffusion of innovation. This accelerates the market acceptance of a new service.

5. Improved public relations.

The purpose of user involvement is to improve public relations before the introduction of a new service. This generally helps in building quick support for a new service.

6. Long-term relationships.

User involvement in the new service development process may improve the producer-user relationships.

In general, most of the firms involved users to achieve multiple objectives.

Intensity of user involvement

In the research of Alam (2002) stated that there are four levels of involvement from which the data about intensity of involvement can be analysed.

1. Passive acquisition of input.

At this level, the users take the initiative to provide input into the development process. For example, a customer approaches the service producer with a new service idea. Thus, the managers acquire input passively, and the intensity of user involvement is considerably low.

2. Information and feedback on specific issues.

At this level, the service developers may approach major service users to obtain information and feedback on specific issues at various stages of the development process. Thus, the intensity of involvement is somewhat high.

3. Extensive consultation with users.

At this level, the service producers take the initiative and invite user input by means of a planned process governed by predetermined objectives. Common examples include detailed interviews with the users, focus group research, and group discussions. Thus, the intensity of involvement is relatively high.

4. Representation.

At this level, the users are invited to join a new service development team, where they contribute to the specific stages of the development process in their capacity as a team member. Hence, the intensity of involvement is considered to be extremely high.

The two most preferred levels of involvement were extensive consultation and information and feedback, and the two least preferred levels were representation and passive acquisition of input (Alam, 2002).

Modes of user involvement

Six modes of involvement were mentioned by Alam (2002):

1. Face-to-face interviews.

The service producers conducted in-depth interviews to gather user input on various aspects of the new services to be developed: users' needs, wants, preferences, likes and dislikes, gaps in the market, competitors' offerings, desired improvement in the service delivery process, timeliness of the service delivery, comments on the marketing mixes, and service acceptance criteria.

2. User visit and meetings. The users were invited to attend several service development team meetings, where they provided input on various aspects of the development process.

3. Brainstorming.

This included group creativity techniques that were designed to enable people working in groups to arrive at creative ideas or solutions.

4. Users' observation and feedback.

Users were asked to observe and comment on several new service development activities: service delivery process, testing of service delivery process, and personnel training.

5. Phone, faxes, and e-mails.

Producers informed the users about specific issues of new service development through phone, faxes and e-mails, brochures, and other publications.

6. Focus group discussions.

The service producers conducted discussions with groups of invited users on several issues related to the development process.

A detailed analysis of the above modes of involvement suggests that in-depth interviews and user visits to the service development sites, including team meetings, were the two dominant modes of user involvement because interviews and group meetings were stated to be easier and inexpensive modes of obtaining user input. In contrast, focus group discussions were the least preferred mode because focus groups were considered to be both expensive and time-consuming (Alam, 2002).

Customer activities in the front-end of service innovation

Customers can play different roles in the different front end of innovation stages. Alam (2006) gathered the different activities performed by customers in the front end of innovation. In the table below the different customer activities, found by Alam (2006) in the front end of innovation are summarized.

Front end of innovation stages	Customer activities
Idea generation and enrichment	Describe needs, problems and possible solutions; suggest desired features, benefits and preference in a new service via brainstorming or focus group sessions; identify financial problems not solved by the existing services; evaluate existing services by suggesting likes and dislikes; identify gaps in the market; provide a new service wish list.
Idea selection	Suggest rough sales guide and market size of various new service ideas; rate the liking, preference and purchase intents of all the new service concepts; critically react to the concepts by analyzing how they would meet customers' needs; compare the concepts with competitor's offerings; examine the overall saleability of a new service.
Concept definition	Jointly develop initial service blue prints; review and evaluate the initial service blueprints to crystallize the concepts; suggest improvements by identifying fail points in service delivery; observe a mock service delivery process by the key contact employees; participate in a simulated service delivery process as a customer; compare their wish list with the proposed initial service blue prints.

Table – *Customer activities in the front end of innovation (Own depiction).*

Appendix 2 – Extensive description of NCD Model the five element activities

Opportunity Identification

Koen et al. (2002) stated that in this element the organization identifies opportunities that it might want to pursue. Business and technological opportunities are explicitly considered so that resources will be allocated to new areas of market growth, operating effectiveness, and efficiency. This element is typically driven by the business goals. The essence of this element is the sources and methods used to identify opportunities to pursue.

Opportunity analysis

In this element, an opportunity is assessed to confirm that it is worth pursuing. Additional information is needed for translating opportunity identification into specific business and technology opportunities. This involves making early and often-uncertain technology and market assessments. Extensive effort may be committed for focus groups, market studies, and/or scientific experiments. Opportunity analysis may be part of a formal process or may occur iteratively (Koen et al., 2002).

Idea Generation and Enrichment

Koen et al. (2002) describe the element of idea generation and enrichment concerns as the birth, development, and maturation of a concrete idea. Idea generation is evolutionary. Ideas are built up, torn down, combined, reshaped, modified, and upgraded. An idea may go through many iterations and changes as it is examined, studied, discussed, and developed in conjunction with other elements of the NCD model. Direct contact with customers and users and linkages with other cross-functional teams as well as collaboration with other companies and institutions often enhance this activity.

Idea generation and enrichment may be a formal process, including brainstorming sessions and idea banks so as to provoke the organization into generating new or modified ideas for the identified opportunity. A new idea may also emerge outside the bounds of any formal process—such as an experiment that goes awry, a supplier offering a new material, or a user making an unusual request (Koen et al., 2002).

Idea Selection

In most instances, the problem is not coming up with new ideas. Even when businesses are being downsized, there is no shortage of new ideas. The problem for most businesses is in selecting which ideas to pursue in order to achieve the most business value. Making a good selection is critical to the future health and success of the business. However, there is no single process that will guarantee a good selection. Most idea selection involves an iterative series of activities that are likely to include multiple passes through opportunity identification, opportunity analysis, and idea generation and enrichment, often with new insights from the influencing factors and new directives from the engine (Koen et al., 2002).

Koen et al. (2002) notice that in idea selection, decision makers need to adopt a positive attitude rather than to approach the task as a filtering out of less attractive ideas.

Concept Definition

Concept definition is the final element of the new concept development model. In this element the innovator must make a compelling case for investment in the business or

technology proposition (Koen et al., 2002). The investment case consists of both qualitative and quantitative information, which the gatekeepers use to make a determination. Most companies specify guidelines for gatekeepers, who make decisions at the outset of the development process (Koen et al., 2002).

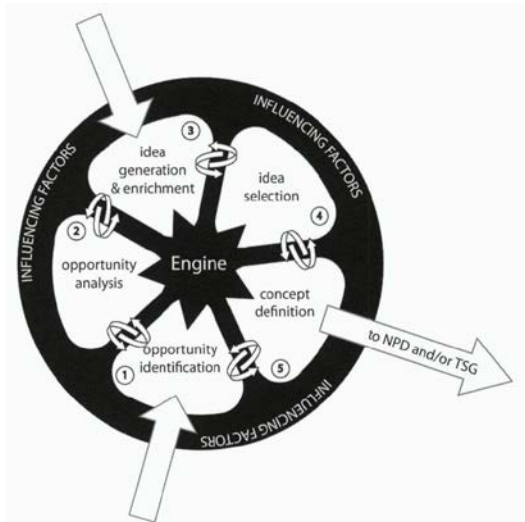


FIGURE 1. The NCD model. Adapted from Koen, Ajamian, Boyce et al. 2002; used with permission

Figure – *NCD model*

Appendix 3 - Voice of the Customer

In this chapter the topic voice of the customer (VOC) will be explained. First the definition will be given and after that the four aspects of the VOC will be described.

The VOC is a term used in business to describe the process of capturing customers' requirements (Gaskin, et al., 2010). The VOC is a product-development technique that produces a detailed set of customer wants and needs, which are organized into a hierarchical structure, and then prioritized in terms of relative importance and satisfaction with current alternatives. The VOC process has important outputs and benefits for product developers (Gaskin, et al., 2010). VOC provides

- A detailed understanding of the customer's requirements
- A common language for the team going forward
- Key inputs for the setting of appropriate design specifications for the new product or service
- A highly useful springboard for product innovation.

There are four aspects of the VOC - customer needs, a hierarchical structure, priorities, and customer perceptions of performance. VOC studies typically consist of both qualitative and quantitative market-research steps. They are generally conducted at the front end of innovation of any new product, process, or service design initiative to better understand the customer's wants and needs (Gaskin, et al., 2010). Next the four aspects will be described.

Customer needs. A customer need is a description, in the customer's own words, of the benefit to be fulfilled by the product or service. Note that *the customer need is not a solution*, such as a particular type of monitor (XGA, Megapixel, flat screen, flat panel, etc.), nor a physical measurement (number of noticeable breaks in the line), but rather a detailed description of how the customer wants images to appear on the monitor (Griffin and Hauser, 1993).

Hierarchical structure. The average marketing manager cannot work directly with the 75–150 detailed customer needs found in the first step of the VOC process. A simpler structure is needed that focuses both strategy and tactics. The "Voice of the Customer" structures customer needs into a hierarchy of primary, secondary, and tertiary needs. Primary needs, also known as strategic needs, are the 2–10 top-level needs that are used by the team to set the strategic direction for marketing. Each primary need is elaborated into 3–10 secondary needs. Secondary needs indicate more specifically what the marketing manager must do to satisfy the corresponding primary (strategic) need. (Secondary needs are also known as tactical needs.) Tertiary needs, also known as operational or detailed needs, provide greater detail so that engineering, R&D, and, perhaps, the advertising agency, can develop a detailed set of product characteristics or advertising copy that satisfies the primary and secondary needs (Gaskin, et al., 2010).

Priorities. Some needs have higher priorities for customers than others. The marketing manager uses these priorities to make decisions that balance the cost of fulfilling a customer need with the desirability (to the customer) of fulfilling that need. In the VOC, these priorities apply to perceived customer needs rather than product features or engineering solutions (Gaskin, et al., 2010).

Customer perceptions of performance. Customer perceptions are also derived from quantitative market research about how customers perceive the performance of products that compete in the market being studied. If no product exists as yet, the perceptions indicate how customers now fulfil those needs. Customer perceptions are often displayed via a “snake plot,” called so because each product’s performance “snakes” across the page. These data are often obtained via a questionnaire in which each respondent rates each product (that they consider) on each of the secondary customer needs (Gaskin, et al., 2010).

Appendix 4 – OCAI survey

(1/6) - Dominante kenmerken

A. De organisatie heeft een zeer persoonlijk karakter. Ze heeft veel weg van een grote familie. De mensen lijken veel met elkaar gemeen te hebben.

B. De organisatie is zeer dynamisch en er heerst een echte ondernemingsgeest. De mensen zijn bereid hun nek uit te steken en risico's te nemen.

C. De organisatie is sterk resultaatgericht. Het werk af zien te krijgen is de grootste zorg. De mensen zijn erg competitief en gericht op het boeken van resultaten.

D. De organisatie is strak geleid en gestructureerd. Formele processen bepalen in het algemeen wat de mensen doen.

Dominante kenmerken - **Huidige situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100	
A.	<input type="text"/>											0
B.	<input type="text"/>											0
C.	<input type="text"/>											0
D.	<input type="text"/>											0
Total:												0

Dominante kenmerken - **Gewenste situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100	
A.	<input type="text"/>											0
B.	<input type="text"/>											0
C.	<input type="text"/>											0
D.	<input type="text"/>											0
Total:												0

(2/6) - De leiding van de organisatie

- A. De leiding van de organisatie gedraagt zich in het algemeen als mentor, faciliteert en stimuleert.
- B. De leiding van de organisatie spreidt in het algemeen ondernemingslust ten toon, evenals vernieuwingsgezindheid en risicobereidheid.
- C. De leiding van de organisatie geeft in het algemeen blijk van no-nonsense instelling, agressiviteit en resultaatgerichtheid.
- D. De leiding van de organisatie geeft in het algemeen blijk van coördinerend en organiserend gedrag en maakt de indruk van een soepel draaiende efficiënte machinerie.
-

De leiding van de organisatie- **Huidige situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

De leiding van de organisatie - **Gewenste situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

(3/6) - Personeelsmanagement

- A. De managementstijl van de organisatie wordt gekenmerkt door teamwerk, consensus en participatie.
- B. De managementstijl van de organisatie wordt gekenmerkt door persoonlijke risicobereidheid, vernieuwing, vrijheid en uniciteit.
- C. De managementstijl van de organisatie wordt gekenmerkt door niets ontziende competitie, hoge eisen en prestatiegerichtheid.
- D. De managementstijl van de organisatie wordt gekenmerkt door zekerheid omtrent de baan, de voorschriften, voorspelbaarheid en stabiele verhoudingen.
-

Personeelsmanagement- **Huidige situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

Personeelsmanagement - **Gewenste situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

(4/6) - Het bindmiddel van de organisatie

- A. Het bindmiddel dat de organisatie bijeenhoudt, bestaat uit loyaliteit en onderling vertrouwen. Betrokkenheid bij de organisatie staat hoog in het vaandel geschreven.
- B. Het bindmiddel dat de organisatie bijeenhoudt, bestaat uit betrokkenheid bij innovatie en ontwikkeling. De nadruk ligt op het streven in de bedrijfstak voorop te lopen.
- C. Het bindmiddel dat de organisatie bijeenhoudt, bestaat uit de nadruk op prestaties en het bereiken van doelstellingen. Agressiviteit en winnen zijn gangbare thema's.
- D. Het bindmiddel dat de organisatie bijeenhoudt, bestaat uit formele regels en beleidsstukken. Instandhouding van een soepel draaiende organisatie is belangrijk.
-

Het bindmiddel van de organisatie - **Huidige situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100	
A.	<input type="text"/>											0
B.	<input type="text"/>											0
C.	<input type="text"/>											0
D.	<input type="text"/>											0
Total:												0

Het bindmiddel van de organisatie - **Gewenste situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100	
A.	<input type="text"/>											0
B.	<input type="text"/>											0
C.	<input type="text"/>											0
D.	<input type="text"/>											0
Total:												0

(5/6) - Strategische accenten

- A. De organisatie legt de nadruk op menselijke ontwikkelingen. Een grote mate van vertrouwen, openheid en participatie zijn niet weg te denken.
- B. De organisatie legt de nadruk op het aanboren van nieuwe bronnen en het creëren van nieuwe uitdagingen. Uitproberen van nieuwe dingen en zoeken naar kansen wordt gewaardeerd.
- C. De organisatie legt de nadruk op wedijverend gedrag en prestaties. Het bereiken van ambitieuze doelstellingen en overwinningen in de markt spelen de hoofdrol.
- D. De organisatie legt de nadruk op behoud van het bestaande en stabiliteit. Efficiëntie, beheersbaarheid en een soepele uitvoering spelen de hoofdrol.
-

Strategische accenten - **Huidige situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

Strategische accenten - **Gewenste situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

(6/6) - Succescriteria

- A. De organisatie definieert succes op grond van de ontwikkeling van human resources, teamwerk, de betrokkenheid van het personeel en zorg voor de mensen.
- B. De organisatie definieert succes als het kunnen beschikken over zo uniek mogelijke of de nieuwste producten. Ze kan worden beschouwd als innovatief en als toonaangevend wat haar producten betreft.
- C. De organisatie definieert succes als winnen in de markt en de concurrentie de loef afsteken. Concurrerend marktleiderschap staat centraal.
- D. De organisatie definieert succes binnen het kader van de efficiëntie. Betrouwbare levering, soepel verlopende schema's en goedkope productie zijn van cruciaal belang.
-

Succescriteria - **Huidige situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

Succescriteria - **Gewenste situatie** (zorg ervoor dat alle 100 punten verdeeld worden)

	0	10	20	30	40	50	60	70	80	90	100
A.	<input type="text"/>										0
B.	<input type="text"/>										0
C.	<input type="text"/>										0
D.	<input type="text"/>										0
Total:											0

Appendix 5 – Mailing-groups who received invitation for survey

The invitation for OCAI survey was send to the following email-groups from Company X's outlook.

Appendix 6 – Group session protocol

Doel:

- Initiëren van organisatorische cultuurverandering.
- Door (6 stappen):
 1. Consensus te bereiken over de huidige situatie
 2. Consensus te bereiken over de gewenste situatie
 3. Te bepalen wat de verandering betekend en wat het niet betekend
 4. Identificeren van in illustrative voorbeelden
 5. Ontwikkelen van een strategisch actie plan
 6. Ontwikkelen van een implementatie plan

Aanwezig:

9 personen, bestaande uit:

Tijd:

De workshop is apart georganiseerd en duurt 1,5 uur. In deze tijd zullen alle 6 fasen worden behandeld.

Tekst uitnodiging

!!!Locatie Zwolle!!!

Beste XX-collega's,

Onlangs heb ik een cultuurmeting gedaan bij het Company X. De resultaten lieten zien dat er een verschil is tussen de 'Huidige situatie' en de 'Gewenste situatie'. Er moet vooral een grote verschuiving van het cultuurtype 'Hierarchie' naar 'Adhoc'.

Om de resultaten van de enquête om te zetten in een concreet actie - en implementatieplan vindt er een focusgroep-sessie plaats. Hierin focussen we ons alleen op onze afdeling 'XX (GVA)'. Dit kan het begin zijn van een werkgroep die acties op de veranderingen uitdragen.

De doelen van de sessie zijn;

- 1) Overeenstemming bereiken over de huidige en gewenste organisatiecultuur.
- 2) Definieren wat de veranderingen gaan betekenen en wat ze niet betekenen!
- 3) Een actieplan en implementatieplan ontwikkelen.

De sessie duurt 1,5 uur, indien nodig komt er een tweede sessie.

Groetjes,
Jurjen

Fase	Tijd	Inhoud	Tools	Actor	Opmerkingen
0. Opbouw		Stiften en geeltjes klaarleggen A0 platen op de muur hangen Cultuur eigenschappen op de tafels leggen			
1. Inloop 08 min (09.00-09.08)	09.00-09.08	Iedereen welkom/ op gemak Warming Up 08 min	Koffie/thee	Jurjen & Maartje	Maartje leuke Warming Up vragen
2. Welkom uitspreken 2 min (09.08-09.10)	09.08-09.10	Welkom uitspreken. We gaan sessie doen. Kort praktische regels 2 min		Jurjen	
3. STAP 1: Consensus bereiken over huidige situatie 10 min (09.10-9.25)	09.10-09.15	<ul style="list-style-type: none"> - uitkomst: consensus bereiken over de huidige situatie. - kort toelichten van het proces (De enquête vertellen, en figuur 5.3 invullen) - Het is belangrijk dat de mensen motiveren waarom ze de keuzes hebben gemaakt. 5 min	Figuur 5.3 op A0	Jurjen	<ul style="list-style-type: none"> - Foto's maken (voor in verslag en presentatie) - Misschien mensen toch even iets laten vertellen over de verklaringen van deze uitslag.
		De verschillende cultuur typen uitleggen 5 min	Figuur 5.3 op tafels leggen	Jurjen	
Fase	Tijd	Inhoud	Tools	Actor	Opmerkingen
4. STAP 2: Consensus bereiken over gewenste situatie 5 min (09.25-9.30)	09.25-09.30	<ul style="list-style-type: none"> - uitkomst: consensus bereiken over de huidige situatie. - kort toelichten van het proces (De enquête vertellen, en figuur 5.3 invullen Zelfde paper andere kleur stift gebruiken) - Het is belangrijk dat de mensen motiveren waarom ze de keuzes hebben gemaakt. 5 min	Figuur 5.3 op A0	Jurjen	<ul style="list-style-type: none"> - Foto's maken - Misschien mensen toch even iets laten vertellen over de verklaringen van deze uitslag.
5. STAP 3: Bepaal wat het wel en niet betekent 15 min (9.30-9.45)	9.30-9.45	Doel: Creëren van brede, gedragen visie over de toekomstige situatie en wat de kritieke elementen van de organisatie zijn. - Wat moet er veranderen? - Wat is er waardevol in de huidige cultuur? Vertellen dat we de focus leggen op de culturen; Adhocracy & Hierarchy. 5 min	Figuur 5.4 op A0	Jurjen	Ik verwacht dat deze overgang moeilijk gaat zijn en mensen in een soort schrikmodus gaan komen.
	9.35-9.45	<ul style="list-style-type: none"> - Groep verdelen in 2 groepen. Elk geeltjes laten plakken. De ene groep bij 'Adhocracy' de andere bij 'Hierarchy'. 10 min	Figuur 5.4 Geeltjes Stiften	Jurjen	Foto's maken

Fase	Tijd	Inhoud	Tools	Actor	Opmerkingen
6. STAP 4: Identificeren van voorbeeld verhalen 10 min (9.45-9.55)	9.45- 9.55	- 2 verhalen horen van mensen die iets hebben gevonden. - 1 filmpje 10 min	Beamer en geluid	Jurjen	- Eventueel laten vervallen!! - Of als huiswerkopdracht meegeven en op terug komen!!!
7. STAP 5: Actieplan ontwikkelen 15 min (9.55-10.10)	9.55- 10.10	Doel: Specifieke acties bedenken die nodig zijn om de gewenste situatie te krijgen - figuur 5.5 invullen - Wat zijn kleine dingen die kunnen worden begonnen of kunnen worden gestopt? - Welke processen of systemen moeten worden her-ontworpen? 15 min	Figuur 5.5 op A0 Geeltjes Stiften	Jurjen	Foto's maken
8. STAP 6: Implementatiepla n ontwikkelen 15 min (10.10-10.25)	10.10- 10.25	Doel: Implementatieplan met tijdsplanning en korte termijnwinsten, die het cultuurveranderings-proces starten. - Wat zijn 'Key indicators of succesfull change' - Welk meetsysteem is nodig? 15 min	Flip Geeltjes Stiften	Jurjen	Foto's maken

Fase	Tijd	Inhoud	Tools	Actor	Opmerkingen
9. Afsluiting 5 min (10.25-10.30)	10.25- 10.30	Slotwoord - Vragen feedback op de sessie (rondje tegen de klok in) - Iedereen bedanken - Groepsfoto maken		Jurjen	Foto's maken
Opruimen		Pas als iedereen weg is!			Foto's maken

TO DO		
Nog bepalen wie/ Meesterlijk geschikt	Jurjen	Maartje
	Filmpje vinden over cultuur verandering	
	Figuur 5.3 uitprinten op A0	
	Figuur 5.4 uitprinten op A0	
	Figuur 5.5 uitprinten op A0	
	Cultuur typen uitprinten op A4 voor op tafel	
	Mail sturen naar de deelnemers voor huiswerk	
	Huiswerk bepalen	
	Geeltjes en stiften bij elkaar verzamelen	

MEENEMEN	
Jurjen	Maartje
Laptop voor filmpje	
Mac kabeltje	
Workshop spullen (geeltje, stiften, plakband etc)	

Appendix 7 - The congruence of culture

Appendix 8 – Literature list of actions for organizational culture change

Hierarchy Culture

- Examine the time it takes between customer requests for services and products and actual delivery. Redesign systems that will cut the time in half.
- Hold an annual audit to determine if all measurement and accounting systems are focused on the desired future organization rather than on present practice.
- Develop evaluation systems wherein customer feedback can have an immediate impact on organizational practices.
- Reduce costs by 5 percent every year for the next five years.
- Evaluate every practice and process in each unit. Establish measurement criteria and methods for maintaining accountability.
- Consider using technology that will reduce paperwork and move the unit toward the concept of paperless organization.
- Consider the concept of “rightsizing” the organization. Don’t just look to reduce the number of people in the organization; be prepared to increase the number of people where needed.
- Establish a “work-out” program. Although the size of the workforce may be reduced, the amount of work often stays the same or even increases. Take work out of the system.
- Increase the capacity for information to flow through the system, particularly in times of high tension or crisis.
- Select the operational tasks that are most basic and wide-spread, and consider technological possibilities for reducing costs through a decentralizing process.
- Examine possibilities for establishing more efficient inventory control by instituting “just in time” practices.
- Institute a health and safety audit. Develop a system to assess and improve health and safety, and hold an annual audit that closely examines all practices.

- Put a project manager in charge of building a common system that will allow all departments to access all information from anywhere in the system.
- Reduce cycle time by moving centralized functions that can be performed by individual units to the individual units. Consider, for example, desktop publishing.
- Improve the preventive maintenance program.
- If high-level managers spend significant amounts of time approving expenditures they know little about or for low dollar amounts, modify the process so that lower-level people have final sign-off.
- Use process improvement audits. Compare the results to industry standards. Analyze the best practices used elsewhere.
- Do an assessment of the disruptions that affect your organization. Develop plans for crisis prevention and crisis response.
- Do an analysis of the physical location of all units, and compare it with an analysis of internal customer relationships. Review what changes might be possible to facilitate better coordination among internal customers.
- Develop a real-time audit team to work on each of the biggest projects in the organization. These teams will audit decisions while they are being made rather than long afterward.
- Determine the yearly operating cost for all information systems, and determine if each dollar is being spent appropriately.
- Place a one-year freeze on the purchase of new computers. Spend this time discovering how to allocate the dollars for computers more effectively.
- Assess the degree to which the budgeting process is linked with the resource planning process, and make appropriate changes.
- Contract with a single maintenance provider, at a reduced cost, to serve all computer maintenance needs in the organization.

- Review the impacts of every corporate policy and procedure now in place. Recommend appropriate reductions.
- Institute an internal communications program that more effectively informs people of events, activities, and programs. Use the latest technology for such a system.
- Remove all senior managers, no matter how successful, whose behavior does not reflect the values espoused by the company.
- Do a complete inventory of the company's equipment assets every five years. Each time this is done, improve the process by implementing the latest technological breakthroughs.
- Decentralize authority from central corporate bodies so that each unit or plant director has control of all budgets within the unit.

Adhoc Culture

- Analyze the organization's key values in terms of emphasis on adhocracy values. Encourage more focus on managing the future.
- Make a critical analysis of the current vision statement. Does it provide both cognitive and emotional direction? Does it inspire creative initiative?
- Employ a planning process that operates on a five-year time horizon and involves both short- and long-term planning. See that the planning process stretches current assumptions.
- Move from a hierarchical to a flexible structure that emphasizes speed and agility.
- Identify the major emerging issues of concern in the company, and apply the "one voice" concept by making one champion responsible for each emerging issue.
- Forecast customer demand at all points of contact, and find ways to exceed those demands.
- Ask a task force of first-line people to conceptualize new strategies for expanding markets and developing new businesses.
- Read extensively on the concept of continuous improvement. Find out what is being done successfully in other places.
- Hold a meeting to review the differences between transformational and transitional leadership, and explore the implications of the two concepts for making change in your unit.
- Keep track of the amount of time leaders in your organization spend on positioning the organization for the future, as opposed to coping with the present.
- Hold celebrations and internal organization "trade shows" that allow employees to show off their new, underdeveloped, experimental ideas. Celebrate trial-and-error learning.
- Develop visible rewards that recognize the creativity and innovation of employees, teams, and units. Recognize not only good ideas but also orchestrating and sponsoring activities that help new ideas get developed and adopted.

- Bring all disciplines and departments into the first stages of the design process for new services and products. Be sure that the customer is represented.
- Develop systems to encourage, measure, and reward innovative behavior at all levels of the system.
- Make a hard assessment of the overall behavior of the corporation as a citizen of the community. What problems does it cause? What contributions does it make? Review the possibilities for change. Get outside perspectives on these issues.
- Develop a reading program on the topic of creating and implementing change.
- Explore the possibility of organizing around externally driven tasks rather than current internal functions. Read up on process improvement and organizational reengineering.
- Assign someone to read the literature on the concept of organizational learning. Determine if your unit is an effective learning organization. Make changes to improve the capacity of your organization to learn more effectively.
- Put all employees through a training program that includes the practical applications of creative thinking, the strategic reasons for increased responsiveness, and the basic principles of organizational innovation.
- Have the CEO hold focus group interviews with middle managers to determine how well they understand the direction of the company. Gather their recommendations on how to make the direction more clear.
- Explore the use of new technology, especially information technology, to create new alternatives faster based on a wider variety of information sources.
- Make a conscious effort to move from an orientation of giving customers what they need to giving customers what they would like, to surprising and delighting customers with products and services that solve problems that they don't expect to be solved.

Appendix 9 – Output of group-session

Acties om adhoc-cultuur te laten toenemen:

Wat moeten we meer doen(geeltje)	SMART toelichting
Korte experimenten (met evaluatie) Time boxed → quickscans	
Dit soort workshops organiseren :) → Zelf doen	
Visualisaties (- proces - resultaten -Ook stakeholders/omgeving visualiseren)	
'NEE' zeggen tegen nieuwe inbox initiatieven → kritisch op de toegevoegde waarde → Visie → prioriteren	Transperant maken → Rik en Martijn en eigenaar moeten laten weten welke keuze ze hebben gemaakt. → Als ze NEE zeggen moeten ze het toelichten
'teams' vormen als high 5	
Naar nieuwe ontwikkeling toe (bv. Scania)	
Buiten de deur presenteren publiceren	<ul style="list-style-type: none"> - Bij de standup elkaar motiveren om de communicatie te zoeken - Na elk afgerond onderzoek met afdeling communicatie bespreken welke communicatievorm en plek (website, vakblad, congres) gewenst is. - Inzichtelijk maken wie binnen het team wat en waar heeft gepubliceerd

Waar moeten we mee starten (geeltje)	SMART toelichting
Vraag bij elk verzoek wat je toegevoegde waarde is	Nee, tenzij... Bij vergaderverzoeken → In de uitnodiging moet de toegevoegde waarde staan → er moet ook in staan waarom desbetreffende persoon erbij moet zijn → als stelregel.
Vaker terugkijken/reflecteren wat we hebben gedaan en hoe en ervan leren	<ul style="list-style-type: none"> - XX Boost → onderwerpen aan de orde laten komen (mislukkingen) - In de standup wordt niet gereflecteerd → er moet ruimte zijn voor reflectie → of thema overleggen → Of afdeling overleg. - Melden tijdens standup → op een ander moment bespreken.
'Fouten/mislukkingen vieren' → voor jezelf → durf en leereffect belonen → wat zie je in het proces niet goed gaan	
Talenten/competenties van directe collega's kennen	<ul style="list-style-type: none"> - Thema maken in XX dagen → speelvorm? - Speeddate lunchen 1 op 1
Naar de klant! (in en extern) "Gemba-walk"	
Dingen gratis weggeven	Producten (Data) weggeven zodat klanten met input geven of ermee gaan innoveren (bijvoorbeeld zoals bij de BAG is gedaan)
Trend analyses & presentaties (het herrie in de keuken gevoel)	

Waar moeten we mee stoppen (geeltje)	SMART toelichting
Alle uitzonderingen binnen regels van je	
Klakkeloos overleggen → Ga kritisch door je agenda! ½ uur is ook genoeg	

Acties om hiërarchie-cultuur te laten afnemen:

Wat moeten we meer doen (geeltje)	SMART toelichting
(1) Meer verantwoordelijkheid voor eigen innovatie	Wordt bereikt door acties 3-5-7

Waar moeten we mee starten (geeltje)	SMART toelichting
(2) Elkaars talenten leren kennen	Intervisies inplannen per 6 weken met kleine groepjes
(3) Keuzes maken	De stand up + groep gebruiken om dilemma's voor te leggen
(4) 36=36	Timemanagementcursus GTD
(5) Prioriteren en regie nemen	
(6) De 'waarom' vraag stellen	
(7) Eigen verantwoordelijkheid → eigen deadlines stellen	
(8) Dynamisch vergaderen, kort, staand; max 30 min, met regels, doelen	
(9) Vrije blokken in agenda (Martijn)	
(10) Hiërarchie op juiste momenten inzetten	

Waar moeten we mee stoppen (geeltje)	SMART toelichting
(11) Lang vergaderen zonder doelen afgespreken	
(12) Bila's	
(13) Vaste stuurgroepen	Vaste reservering tijd in agenda's → gestart Flexibele agenda's maken van stuurgroepen aan de hand van knelpunten in de projecten → gestart

Wat betekend Hiërarchie-cultuur afname?

- Minder procedures
- Minder lange overleggen
- Meer flexibiliteit in je werkzaamheden
- Besluiten vasthouden
- Meer eigen verantwoordelijkheid
- In je eigen kracht werken
- Muren weghalen
- Niet iedereen betrekken

Wat niet?

- Geen afspraken
- Niet communiceren
- Je verantwoordelijkheid nemen
- Zwalken
- Alleen werken
- Teamwerk loslaten

Wat betekend Adhoc-cultuur toename?

- Kort cyclisch werken
- Fouten maken mag
- Ruimte voor anders dan anders
- Samenwerking zoeken + doen
- Oprechte waardering voor het anders zijn
- Verassend!
- Dedicated aan 1 onderwerp
- Focus!
- Durf ergens mee te stoppen. Desinvesteringen kunnen accepteren
- Doen waar je goed in bent
- 'Doenken' (zie lean)
- Trends volgen & kunnen vertalen
- Toegevoegde waarde is leidend → klant → ons
- Vertellen wat je doet
- Laat zien wat je kan hebt gedaan

Wat niet?

- Niet teveel dingen tegelijk doen
- Niet overaan achteraan rennen.
- Te ver vooruit (verlies contact met organisatie)
- Dagelijks veranderende prioriteiten
- Geen 'gebakken lucht'

Appendix 10 – Difference between incremental and radical innovation

Six key different characteristics between radical and incremental innovation

In her research de Brentani (2001) also formulated six implication keys managers for successful new service development. In the six keys the different characteristics between radical and incremental innovation are included.

Key no. 1 - degree of innovativeness impacts the new product development focus and approach.

Radically different types of new service ventures require a different approach to achieving NSD success. In particular, when charged with the development of new services at opposite ends of the innovativeness spectrum, managers must adjust their focus and approach to account for differences in uncertainty, risk, company competencies and market reactions. The message for managers is clear. Both the approach used for developing new services and where they should place the greatest emphasis must be adjusted for different types of new service projects (de Brentani, 2001).

Key no. 2 - understanding the customer comes first.

For business services, a most important success factor, and one that has a similar and strong performance impact for both modification-type and “really new” service projects, is understanding and responding to the specialized and long-term needs of customers. Especially for incremental new service offerings, this factor appears to play a pivotal role in discriminating between successes and failures. Hence, to succeed new service venture requires that managers first focus on getting an in-depth understanding and appreciation of the customer's operations, systems and needs (de Brentani, 2001).

Key no. 3 - an expert front line is a primary company resource.

All too often, companies view their front line personnel simply in terms of an approach to providing their service—that is, a delivery system (Terrill & Middlebooks, 1996). For both new continuous and new-to-the-world services, having highly trained experts who have an intimate knowledge of the product and the customer plays an important role in the success of these ventures (de Brentani, 2001).

Key no. 4 - a well-planned NSD process can provide important benefits, particularly when developing incremental new service offerings.

When dealing with imitations or with modification-type of new services, using a systematic NSD process that is, a formal “stage-gate” system, from idea generation through to post launch recovery can be an important route to success. Advance planning not only increases the likelihood of superior design and reduced error, but also permits the simultaneous implementation of several NSD phases, which can help to speed up new service introductions. De Brentani (2001) is clear: particularly for incremental new service projects, firms have much to gain from becoming more highly structured and methodical in their approach to new service development.

Key No. 5 - Having an open and highly innovative new product culture within the firm is a primary route to success, particularly when developing discontinuous or “really new” services.

Probably the single most important factor in achieving success for highly innovative, or new-to-the-world products is the type of corporate culture and management attitude that permeates the firm. Success at developing highly innovative services that involve new technologies and completely different ways of dealing with problems requires a corporate environment that encourages and supports creativeness and “steXXng out” beyond the norm. Above all, it requires that senior managers become involved as visionaries and mentors in the NSD process (de Brentani, 2001).

Key no. 6 – an excellent strategic and resource fit is critical for developing and marketing new services.

For incremental new business services, ensuring that there is an excellent fit with the known capabilities and resources of the developing firm can be highly advantageous. This may seem obvious, but the findings of de Brentani (2001) show that for too many failed projects, companies are attempting to offer “new” products that are new, not to the market or technologically, but primarily to the developing firm. As a result, these firms do not reap the benefits that flow from a high degree of new product synergy including: lower development costs, reduced error, increased speed, and the ability of customers to use the firm’s reputation as a proxy when evaluating the new service (de Brentani, 2001).