Generate, Evaluate & Select

A model for increasing and structuring the flow of early stage innovation at a global consumer goods company in Europe

Anna Bökberg & Karl Hedlund
MASTER’S THESIS IN INDUSTRIAL ENGINEERING AND MANAGEMENT, DEPARTMENT OF PRODUCTION MANAGEMENT, FACULTY OF ENGINEERING, LUND UNIVERSITY

**Supervisors:**
Bertil I Nilsson, Department of Production Management, Faculty of Engineering, Lund University
S.N., employed at the Company

**Examiner:**
Johan Marklund, Department of Production Management, Faculty of Engineering, Lund University
Acknowledgements

This master thesis was written during the spring of 2016 at the Faculty of Engineering, Lund University. The thesis marks the end of our journey towards becoming Masters of Engineering in Industrial Engineering and Management. For the past 20 weeks working on the thesis, we have had the chance to apply knowledge that has been collected during the past five years of studies in a present business context.

First of all, we would like to thank the Company for letting us conduct the study there. A special thanks our supervisor S.N, for providing insightful information about the Company and suggesting how our results could be improved. In addition, we are grateful to the other employees at the Company, for taking the time to provide us with input on the results and giving us their view of the situation, in both interviews and workshops.

We would like to direct a warm thank you to our supervisor Bertil I Nilsson at Lund University, for always believing in our work and giving us valuable feedback from previous experience, both from academia and work experience. Finally, we would like to thank our opponents Kajsa Alenmyr and Antonia Nilsson for giving us valuable input for improvements to the thesis.

Lund, June 2016.

Anna Bökberg                                      Karl Hedlund
Abstract

Title Generate, Evaluate & Select: A model for increasing and structuring the flow of early stage innovation at a global consumer goods company in Europe

Background This study was conducted at a business unit at the Company, a leading global consumer goods company based in Europe, working in an increasingly hostile environment due to market deregulation and international competition. The business unit was recently separated from previously being integrated in other units and now have high targets to meet. To reach these targets, the rate of innovation needs to increase.

Purpose The purpose of this study was to identify why innovation capabilities were lacking and devise a model for how they could be improved.

Methodology A case-study based approach was initially used. First, scoping interviews with key stakeholders were held to identify the issues in the organisation and frame the problem. The case-study was followed by an action research phase, in which a model was developed iteratively, with frequent feedback loops through interviews and case testing.

Conclusion Four issues were identified as causes for lacking innovation capabilities. First, ideas were not missing, but there was no structured process to take them into development. Second, the ideas that were produced were all similar in characteristics, indicating a narrow view of innovation. Third, there was no efficient and objective method of evaluating ideas for potential. Fourth, employees who suggested ideas rarely received feedback on what happened to them.

The results of this study indicates the need for a three-step model:

- **Generate**: Creating a structured flow of innovation from a wide range of sources and broadening the scope for innovation.
- **Evaluate**: A quick and easy way to assess the viability of an idea by looking at four areas: targets and definition of success,
market attractiveness, competitive potential, and effort needed to realise gains.

- **Select**: A stage where key stakeholders select the best ideas based on potential gains and fit in portfolio.

**Discussion**  
Initial implementation shows favourable results, but quantitative and qualitative studies need to be made to assess the long-term impact and usability of the model. Further, it needs to be tested in other organisations to determine general applicability.

**Key Words**  
*Innovation, innovation model, idea generation, idea evaluation, idea selection, new product development, consumer goods, implementation.*
Sammanfattning

Titel
Generate, Evaluate & Select: En modell för att öka innovationskraften hos ett globalt konsumentproduktsbolag i Europa.

Bakgrund
Studien utfördes på en affärsenhet i den svenska delen av en global konsumentproduktskoncern, hädanefter kallat Företaget. På grund av avregleringar och globalisering blir dess marknader allt mer konkurrensutsatta. Affärsenheten tillhörde tidigare andra affärsenheter, men blev nyligen omgjord till egen enhet och har därför högre resultatkrav, samtidigt som man saknar processer för bland annat innovation.

Syfte
Studien ämnade identifiera de faktorer som hämmade affärsenhetens innovationskraft och utveckla en modell för att förbättra dessa.

Metod
En fallstudie i form av observationer och intervjuer användes för att identifiera problemet. Därefter följde en aktionsforskning med en iterativ metod innehållande korta feedback-cykler genom intervjuer och testning för att utveckla en modell, som slutligen implementerades.

Slutsatser

Som lösning på dessa problem föreslogs en trestegsmodell:

- Generate: Ett steg som ämnar strukturera upp idéflödet och bredda synen på vad innovation är.
- **Evaluate:** En snabb metod för att objektivt utvärdera idépotential, genom att titta på fyra områden: strategi och mål, marknadsattraktivitet, konkurrenskraft, samt krävd ansträngning.

- **Select:** Ett steg där nyckelpersoner, med hjälp av två verktyg, jämför idéer och prioriterar dessa baserat på potential och portfölj-passform.

**Diskussion**
Initialt visar studien lovande resultat, men långtidsstudier samt applikation i andra företag krävs för att validera modellens giltighet.

**Nyckelord**
Innovation, innovationsmodell, idégenerering, utvärdering, prioritering, produktframtagning, konsumentvaror, implementering.
# Glossary

<table>
<thead>
<tr>
<th>The Company Global</th>
<th>The Company Global is a global consumer goods company, situated in Europe.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Company Global</td>
<td>The Swedish division of the Company Global.</td>
</tr>
<tr>
<td>Evaluate</td>
<td>The second step of the proposed solution, including a large analysis of the potential idea in the Evaluate sheet.</td>
</tr>
<tr>
<td>Evaluate sheet</td>
<td>The Evaluate sheet refers to the A3 one pager that includes 16 areas for analysis of the second step in the model, Evaluate, and should be filled in by the evaluator.</td>
</tr>
<tr>
<td>The Evaluator</td>
<td>The person doing the required analysis in the second step of the model, Evaluate, and is filling in the Evaluate sheet.</td>
</tr>
<tr>
<td>Generate</td>
<td>The first step in the proposed solution, that provides the Company an innovative mind-set to find sources for innovation.</td>
</tr>
<tr>
<td>Process manager</td>
<td>An employee that is an expert on the model and responsible for helping others with adapting to the new work process after implementing the solution and to make sure it is used.</td>
</tr>
<tr>
<td>Process owner</td>
<td>An employee responsible for keeping the model updated and aligned to other business processes.</td>
</tr>
<tr>
<td>The model</td>
<td>The model refers to the resulting model of this study, which includes three steps: Generate, Evaluate and Select.</td>
</tr>
<tr>
<td>Select</td>
<td>Select is the final step in the proposed model, which is mainly composed by two matrices used for assigning ideas by the Select team.</td>
</tr>
</tbody>
</table>
Select team
A small team tasked with performing the last step of the model, Select.

S.N.
S.N. is the supervisor at the Company, who has guided the authors throughout the study. He possesses a strategic position within the Company and was the one to initially identify the opportunity for the thesis.

The source
This is the person or other source from where an idea initially originated in the first step of the model, Generate.

The Case Business Unit (CBU)
The business unit at the Company where the study has been conducted.
# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3PL</td>
<td>Third Party Logistics</td>
</tr>
<tr>
<td>BoP</td>
<td>Bottom of the Pyramid</td>
</tr>
<tr>
<td>COGS</td>
<td>Cost of Goods Sold</td>
</tr>
<tr>
<td>NPD</td>
<td>New Product Development</td>
</tr>
<tr>
<td>PDSA</td>
<td>Plan-Do-Study-Act cycle</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>RBV</td>
<td>Resource Based View of the firm</td>
</tr>
<tr>
<td>SCA</td>
<td>Sustainable Competitive Advantage</td>
</tr>
</tbody>
</table>
List of Figures

**Figure 2.1:** A five step method approach for the project, involving a case study as well as an action research. ................................................................. 5

**Figure 2.2:** The Plan Do Study Act cycle was used in the fourth step of the method, called solution validation (adapted from The W. Edwards Deming Institute, 2016) ............... 9

**Figure 4.1:** Porter’s Five Forces Framework that can describe the attractiveness of a market (adapted from Johnson, Scholes & Whittington, 2008, p. 60)........................................ 32

**Figure 4.2:** The Marketing Mix including four factors for shaping customer offerings (adapted from Armstrong, Kotler & Parment, 2013, p. 60) ........................................... 36

**Figure 4.3:** Pyramid Brand Strategy (adapted from Rajagopal, 2009, p. 62) .................... 37

**Figure 4.4:** The Value Chain creates an overview of all activities, and competencies within a company (adapted from Johnson, Scholes & Whittington, 2008).................. 38

**Figure 4.5:** The VRIN Framework outlining the criteria needed for a resource or capability to create a sustained competitive advantage (adapted from Barney, 1991)............. 39

**Figure 4.6:** Three Horizons Framework, describing how companies should think about future business bets (adapted from Coley, 2009). ............................................... 41

**Figure 4.7:** GE/McKinsey 9-box Matrix for comparing business units (adapted from Gluck et al., 1978). ........................................................................................................ 42

**Figure 4.8:** Portfolio of Initiatives Framework to seizing market opportunities without being exposed to unnecessary risk (adapted from Bryan, 2002). ............................................. 44

**Figure 4.9:** The Twelve Dimensions for Business Innovation (adapted from Sawhney, Wolcott & Arronzi, 2006) .......................................................................................... 46

**Figure 4.10:** The framework of Four Dimensions for Innovation (adapted from Henderson & Clark, 1990, p. 12). ...................................................................................... 48

**Figure 5.1:** Overview of the resulting model that includes three steps: Generate, Evaluate, and Select. ............................................................................................................. 52

**Figure 5.2:** Three Innovation Streams with three levels of networks (Internal, Close Circle and Extended) for finding ideas .................................................................................. 54

**Figure 5.3:** Configured innovation dimensions in combination with the radical, and incremental dimension of innovation. ................................................................................ 56
FIGURE 5.4: Diagram over how to assign ideas depending on the type of innovation (based on the MODIFIED INNOVATION COMPASS MODEL). .................................................................58

FIGURE 5.5: Overview of the Evaluate sheet, with brief explanations and key questions to be answered. .................................................................................................................. 59

FIGURE 5.6: The evaluate sheet shown as it will be used, with each cell prompting for input. ......60

FIGURE 5.7: Cell 1. Owner, Cell 2. Channel, and Cell 3. Description/Background in Evaluate.....61

FIGURE 5.8: Cell 4. Solution in Evaluate. ..................................................................................62

FIGURE 5.9: Cell 5. Strategy & Targets in Evaluate. ................................................................63

FIGURE 5.10: Explanation of the five different targets that can be associated with an idea. ....63

FIGURE 5.11: Explanation of time horizons for targets..................................................................64

FIGURE 5.12: Explanation of the Value Segment Pyramid. ..........................................................64

FIGURE 5.13: Cell 6. Market Potential in Evaluate .......................................................................65

FIGURE 5.14: Cell 7. Industry Situation in Evaluate .................................................................66

FIGURE 5.15: Cell 8. Offering Advantage in Evaluate ...............................................................67

FIGURE 5.16: The 6P framework used to assess offering advantage compared to competitors. .....67

FIGURE 5.17: Cell 9. Sustainable Competitive Advantage in Evaluate ........................................68

FIGURE 5.18: Tool for aiding in assessing if a resource or capability contributes to sustainable

COMPETITIVE ADVANTAGE, BY POSING QUESTIONS BASED ON THE VRIN FRAMEWORK. ........68

FIGURE 5.19: Cell 10. Resources Needed in Evaluate. ................................................................. 71

FIGURE 5.20: Tool for analysing initial costs for an idea..............................................................72

FIGURE 5.21: Cell 11. Time to Realise in Evaluate ........................................................................72

FIGURE 5.22: Tool to help analyse time needed for the idea to reach its targets, consisting of both

PRE AND POST LAUNCH FACTORS..................................................................................73


FIGURE 5.24: Cell 14. Input to Select Matrices in Evaluate. ......................................................... 74

FIGURE 5.25: Cell 15. Final Recommendation and Cell 16. Signature & Date in Evaluate ..........75

FIGURE 5.26: Overview of Select, the final step in the tree-step model ........................................76

FIGURE 5.27: Idea selection matrix based on the GE/McKinsey Matrix. ......................................77

FIGURE 5.28: Portfolio Matrix, based on the Portfolio of Initiatives Framework .......................78
List of Tables

Table 2.1: The PDSA cycle is composed by four steps, which should be followed in iterations to ensure a high quality output (adapted from The W. Edwards Deming Institute, 2016) ........ 10

Table 2.2: Limitations with all of the four interview methods (adapted from Lekvall & Wahlbin, 2001, p. 263). .................................................................................................................................................................................... 12

Table 3.1: Ten dimensions for creating a successful innovative organisation (Tidd, Bessant & Pavitt, 2005, p. 469). .................................................................................................................................................................................. 23

Table 3.2: A selection of seven out of twenty sources for resistance when facing changes in organisations (Harvey & Broyles, 2010, pp. 36-86). ........................................................................................................................................................................ 27

Table 4.1: Summary of the Twelve Dimensions of Business Innovation (adapted from Sawhney, Wolcott & Arronzi, 2006). ........................................................................................................................................................................................................ 47

Table 5.1: An overview of alterations made to Sawhney, Wolcott and Arronzi’s (2006) Twelve Dimensions of Business Model. ........................................................................................................................................................................ 56

Table 5.2: Examples of sources for sustainable competitive advantage for the seven identified capabilities. ........................................................................................................................................................................................................ 70
# Table of Contents

1 INTRODUCTION

1.1 BACKGROUND TO THE STUDY

1.1.1 PRESENTATION OF THE COMPANY

1.2 PURPOSE

1.3 PROBLEM FORMULATION

1.4 OBJECTIVES

1.5 DELIMITATIONS

1.5.1 ANONYMITY

1.6 REPORT STRUCTURE OVERVIEW

2 METHOD

2.1 PROCESS OVERVIEW

2.2 RESEARCH PURPOSE

2.3 METHOD APPROACH

2.3.1 CASE STUDY

2.3.2 ACTION RESEARCH

2.4 DATA COLLECTION

2.4.1 INTERVIEWS

2.4.2 LITERATURE REVIEW

2.5 DATA GATHERING APPROACH

2.6 CREDIBILITY

2.6.1 RELIABILITY

2.6.2 VALIDITY

2.6.3 REPRESENTATIVENESS

2.7 LIMITATIONS OF THE CHOSEN METHOD

3 OVERVIEW OF ORGANISATIONAL ENVIRONMENT

3.1 INNOVATION IN ORGANISATIONS

3.2 INNOVATIVE ORGANISATIONS

3.2.1 BUILDING AN INNOVATIVE ORGANISATION
# 3.2.2 Case Examples of Building Innovative Organisations

## 3.3 Change Management

## 4 Theoretical Frameworks

### 4.1 Models for Market Analysis

1. **PESTEL Framework**
2. **Porter’s Five Forces Framework**
3. **Marketing Mix**
4. **Pyramid Brand Strategy**
5. **Data Gathering for Market Analyses**

### 4.2 Models for Internal Analysis

1. **Value Chain**
2. **VRIN Framework**

### 4.3 Portfolio Management

1. **Three Horizons Framework**
2. **GE/McKinsey Matrix**
3. **Portfolio of Initiatives Framework**

### 4.4 Models for Innovation

1. **Twelve Dimensions for Business Innovation**
2. **Four Dimensions of Innovation**

## 5 Results

### 5.1 Problem Identification

### 5.2 Proposed Solution

1. **Model Overview**
2. **Generate**
3. **Evaluate**
4. **Select**
5. **Feedback**
1 Introduction

Chapter one includes a background to the study as well as an initial presentation of the Company. Thereafter, the purpose, problem formulation, objectives, and delimitations of the study are presented. The chapter ends with a report structure overview.

1.1 Background to the Study

As borders open in terms of free import and export, a more globalised context evolves. This results in an intensifying competition for domestic customers. Simultaneously, the consumer goods industry moves towards commoditization of several product segments, leading to decreasing margins and price wars. To fight back, companies need to be innovative to differentiate their offerings.

Further, in order for companies to be competitive in the long term, income streams from both current and potential customers and market segments must be combined. Companies need to include both market demands, internal resources and competencies, and corporate strategy in product development decisions. The balance between considering both market and internal demands may lead to conflicts within the organisation, regarding the configuration of resources and competencies. It can also complicate the evaluation of new market opportunities. Therefore, a structured way is needed for consumer goods companies to become innovative while considering available resources.

1.1.1 Presentation of the Company

The Company Global is a leading global consumer goods firm based in Europe and this project is focused on their Swedish division. The Swedish organisation is currently experiencing increasing pressure from international actors as a result of changed legislation for import and export. Simultaneously, domestic competitors are further intensifying industry rivalry as they try to grow to new market segments through diversification and geographical expansion. Despite increased competition, the Company aims to grow their business in both current and new segments. However, due to their position as an industry leader in some segments in Sweden, competition legislation
restricts the possibilities of competing with price. This means the Company must focus on innovation, superior value, and an updated assortment that caters to customer demand.

The group has recently undergone a large reorganisation on a global scale to be better fitted to the new competitive climate, which has affected the Swedish division of the group. The project is conducted at the Case Business Unit (CBU), which is a business unit in the Company, for which the organisational structure has changed radically. Previously, they were split as parts in other business units, but after the reorganisation they have been reorganised as a standalone business unit, with pressure on creating and developing value on their own through innovation. However, they are having trouble developing these competencies by themselves.

1.2 Purpose

The purpose of this study was to identify why innovation capabilities were lacking and devise a model for how they could be improved.

1.3 Problem Formulation

The problem tackled in the following project is twofold:

- What factors are limiting the innovation capabilities of the CBU?
- How can the issues be addressed to improve performance and increase output from the early innovation process?

1.4 Objectives

The project aims to achieve two objectives. First, it aims to understand the situation at the CBU and understand the factors hampering innovation. Second, a solution to reducing these factors and increasing innovation should be developed and tested. The solution aims to be academically rigorous as well as suited for implementation.
1.5 Delimitations

The solution only considers ideas that affect the final customer. This excludes for example initiatives for organisational restructuring within the Company (as long as they do not directly affect the interface with customers). In addition, it only applies for ideas to be implemented in the Swedish division of the Company Global. Finally, technical implementation of the model is out of the scope of the study, although implementation is considered in model development.

1.5.1 Anonymity

Proprietary information regarding the Company is included in work documents. However, they are not necessary to read to follow the project and understand the conclusions. Therefore, they are not included in this report.

1.6 Report Structure Overview

The following report is divided into eight chapters. The contents of the following seven are presented below.

Chapter 2: Methodology

This chapter describes the method used throughout the project. First, an overview of the used five-step process is given, followed by research purpose and more detailed motivations for the applied approaches and methodologies. Finally, an analysis of the credibility of the method is presented, from the three perspectives reliability, validity and representativeness. The chapter ends with a note concerning limitations of the method.

Chapter 3: Overview of Organisational Environment

Chapter three presents an overview of the situation facing companies today, with the regards to a changing competitive landscape, as well as current theories of innovation. This is followed by a review of change management literature and ends with theories of how innovative organisations are built, including case examples of implementing cultural change in organisations.
Chapter 4: Theoretical Frameworks
In this chapter, the different theoretical frameworks that were used in finding and solving the problem posed in this project are presented. The project required models for analysing both markets, companies’ capabilities, portfolio management, and innovation management. First, models for analysing markets, trends, company environment, and competition are presented. Second, frameworks for internal analysis, such as value creation, resources, and capabilities, and comparative advantage, are described. Third, models that compare the potential of different opportunities are presented, followed by frameworks for increasing innovation.

Chapter 5: Results
Chapter five presents the results of the study, and is divided into two sections, each one answering one of the questions in section 1.3. The first presents the identified issues of the Company and the CBU, while the second proposes a three-step model to solve the problems. The results are analysed, discussed and summarized in chapter 6-8.

Chapter 6: Analysis
In chapter 6, the issues that were revealed in the interviews are analysed and generalised. Section 6.2 begins with a discussion regarding how the model was developed to facilitate implementation in organisations, and continues with a more detailed description of each part of the model, analysing how the result was achieved and what that entails for implementation in other organisations.

Chapter 7: Discussion of Results
Chapter seven includes a discussion of the validity and applicability of the model, as well as recommendations for further studies.

Chapter 8: Conclusion and Further Studies
The final chapter presents conclusions drawn from the study. In addition, it includes suggestions for further studies to validate the validity and usability of the proposed model.
2 Method

This chapter describes the method used throughout the project. First, an overview of the used five-step process is given, followed by research purpose and more detailed motivations for the applied approaches and methodologies. Finally, an analysis of the credibility of the method is presented, from the three perspectives reliability, validity, and representativeness. The chapter ends with a note concerning limitations of the method.

2.1 Process Overview

The study was conducted in five phases: Pre-phase, Problem Definition, Solution Development, Solution Validation, and finally Implementation of the solution (see fig. 2.1).

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Case study</th>
<th>Action research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-phase</td>
<td>Establish directions and goals with academia and the Company</td>
<td>Find a process and model to solve the defined problem</td>
</tr>
<tr>
<td>Problem definition</td>
<td>Define scope, aims and outcomes of study</td>
<td>Validate that the proposed solution works in reality</td>
</tr>
<tr>
<td>Solution development</td>
<td>Find a process and model to solve the defined problem</td>
<td></td>
</tr>
<tr>
<td>Solution validation</td>
<td>Validate that the proposed solution works in reality</td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td>Ensure and test the implementation potential of the model</td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>Pre-phase</td>
<td>Solution development</td>
</tr>
<tr>
<td>Problem definition</td>
<td>19 scoping interviews</td>
<td>5 second round interviews</td>
</tr>
<tr>
<td>Pre-phase</td>
<td>1 external interview</td>
<td>Case-based testing</td>
</tr>
<tr>
<td>Consolidate expectations</td>
<td>Literature review</td>
<td>Literature review</td>
</tr>
<tr>
<td>Activities</td>
<td>Plan project</td>
<td>19 scoping interviews</td>
</tr>
<tr>
<td>Plan project</td>
<td>Find Supervisors</td>
<td>1 external interview</td>
</tr>
<tr>
<td>Activities</td>
<td>Consolidate expectations</td>
<td>Literature review</td>
</tr>
<tr>
<td>Output</td>
<td>Project plan</td>
<td>Finalised project proposal and delimitations</td>
</tr>
<tr>
<td>Project plan</td>
<td>Written contracts</td>
<td>Finalised project proposal and delimitations</td>
</tr>
</tbody>
</table>

Figure 2.1: A five step method approach for the project, involving a case study as well as an action research.

Pre-Phase

During the initiation phase, the project was negotiated and formalised, supervisors were found, and the project was planned. Since confidentiality was a requirement from the Company, non-disclosure agreements were also signed in this phase.

Problem Definition

The Pre-phase was followed by a case study of the Company, focusing on the CBU, to define the problem and to understand their issues and current situation. This mainly consisted of 19 initial interviews with employees but also one interview with a person outside the Company to get an outside perspective on the industry. In parallel, relevant literature was
reviewed to get an initial picture of important factors to consider when handling the problem.

**Solution Development**

This phase initiated the action research and problem solving part of the project. Based on the information gathered in the previous step through interviews and literature, a first draft to a solution was constructed. Thereafter, follow-up interviews were held with a few employees, that were considered to be important stakeholders for the final result of the study, to see if they would agree to the setup of the solution. The result was a draft to the solution that could be used for testing.

**Solution Validation**

In the fourth step, the proposed solution was iterated through several rounds of feedback with employees at the CBU and in total 17 interviews were held. This resulted in a long list of parameters to include or remove from the solution that were considered important to test potential of an idea and to simplify implementation. When those parameters were adjusted, three workshops were held, with the most important stakeholders for each part of the solution. In the first two workshops, a case was used to test the solution while the third consisted of open discussions, because of the characteristics of each step of the solution. The entire *Solution Validation* step followed the Plan-Do-Study-Act (PDSA) cycle.

**Implementation**

In the fifth and final phase, the solution was finalised and hand-over documentation provided to the CBU. Seminars presenting the solution and training sessions were held for concerned employees at the Company.

**2.2 Research Purpose**

The objective of the project was twofold, and for the first part, which aims at understanding the situation and finding the factors that are hampering innovation, an exploratory purpose was applied. According to Höst, Regnell and Runeson (2006, p. 29), this method should be used when the target is to understand in depth how something works or is executed, which was the case in this step of the project. Another alternative would have been to apply a descriptive approach (Höst, Regnell & Runeson, 2006, p. 29), which should be used in studies with the main purpose to investigate and describe how
something works or is executed. However, to only apply a descriptive approach would not have been enough, since a deeper understanding was needed for the current situation, and why the current solutions of the CBU were not effective.

Once the problem was clearly structured and understood, the second part of the objective, which was to find a solution to the problems of the CBU, or develop a framework to avoid the problems, became the focus. To fulfil this target, a problem solving purpose was applied and stood for the largest part of the study. The decision to use a problem solving approach was made, since problem solving studies aim at finding a solution to an identified problem (Höst, Regnell & Runeson, 2006, p. 29), which was what was done in this study.

2.3 Method Approach

A study method can be either fixed or flexible (Höst, Regnell & Runeson, 2006, p. 31). For this project, a flexible approach was chosen, due to the fact that there were constant streams of new information throughout the project as the problem became clearer and as stakeholders at the Company provided more information and feedback about how they would like the solution to look and work. As Höst, Regnell and Runeson (2006, p. 31) mention, a flexible approach is suitable when a continuously adapting method is preferable. When using a fixed method, the study should principally be determined before the start of the project (Höst, Regnell & Runeson, 2006, p. 31). That was not possible to do in this case, since the initial exploratory phase of the project was used to understand what the outcome should be.

In flexible studies, either case study or action research approaches can be used (Höst, Regnell & Runeson, 2006, p. 31). A case study is an in depth study of one or more cases, where the influence on the studied object will be minimised, while an action research is a closely monitored and documented study of an activity aiming at solving a problem (Höst, Regnell & Runeson, 2006, p. 31).

During the project, a holistic approach to the CBU’s problems was taken. According to McCarthy and Golicic (2005), a common problem when doing research involving supply chains is separating front-end and back-end of the company, i.e. doing separate analysis of the supply chain and the market. Considerable benefits are gained if the two are seen
as a whole, and viewing companies as working supply chain to supply chain (McCarthy, Golicic, 2005, pp. 252-253). Consequently, analysis of the Company’s and the CBU’s supply chain was made in tandem with the analysis of market capabilities.

2.3.1 Case Study

For the initial objective of the project, to understand the situation of the Company, the case study approach was chosen. The case study is used when a phenomenon within an organisation should be described in depth and it is preferable if the observed objects are as different as possible, in order to investigate different perspectives of the problem (Höst, Regnell & Runeson, 2006, pp. 33-34). The main target in this step was to understand how the CBU operated and what the problem looked like from the perspective of different employees at the Company and therefore, the case study approach was suitable. Furthermore, a case study describes a special case and is not intended to generate general conclusions (Höst, Regnell & Runeson, 2006, pp. 33-34). This part of the project only intended to identify company specific issues, which made the method useful.

Gimenez (2005) further proposes that case studies and surveys work well as complementing methodologies, especially in supply chain research. Consequently, the case study methodology was complemented with ad hoc surveys conducted through interviews (see section 2.4.1).

2.3.2 Action Research

For the second objective, which was to find a solution to the problems of the Company and the CBU, an action research approach was applied. Action research is used when the purpose of the project is to improve something while simultaneously observing it (Bjørn Gustavsen, 2008, p. 422). The action research method is proven to be especially useful for endeavours with the problem solving approach applied in this project (Höst, Regnell & Runeson 2006, p. 39). The study followed the action research steps described by Höst, Regnell and Runeson (2006, p. 39), which are Observation, Solution and Evaluation.

Observation

The process of action research starts with Observation of a situation or a phenomenon to identify and clarify the problem that should be solved. In that phase a case study, as described before (see section 2.3.1), can be used (Höst, Regnell & Runeson 2006, p. 39).
Thus the previously mentioned step, including the case study, was a part of the action research. This step is called \textit{Problem Definition} in fig. 2.1.

\textbf{Solution}

The next step is to propose a \textit{Solution} to the problem and the implementation of it (Höst, Regnell & Runeson 2006, p. 39). This was the main part of the action research and was therefore divided into two steps: \textit{Solution development} and \textit{Solution validation} (see fig. 2.1). In \textit{Solution development}, the focus was on creating a first draft for a solution to the problem. In the next step, \textit{Solution validation}, the PDSA cycle (see fig. 2.2) was incorporated, in order to cyclically improve the proposed model.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{PDSA_cycle.png}
\caption{The Plan Do Study Act cycle was used in the fourth step of the method, called Solution validation (adapted from The W. Edwards Deming Institute, 2016).}
\end{figure}

The PDSA cycle was first presented by The W. Edwards Deming Institute (2016) and is also known as the Deming Wheel or the Deming Cycle (see fig. 2.2). It consists of four steps that are cycled through to improve a product or process (see table 2.1). Each letter in PDSA represents a step in the cycle and stands for \textit{Plan, Do, Study,} and \textit{Act}. The four steps should be repeated as a never-ending cycle to secure continual improvements (The W. Edwards Deming Institute, 2016).
**Table 2.1: The PDSA cycle is composed by four steps, which should be followed in iterations to ensure a high quality output (Adapted from The W. Edwards Deming Institute, 2016).**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan</td>
<td>Identification of a goal or purpose, followed by the formulation of a theory, definition of success metrics, and taking a plan into action.</td>
</tr>
<tr>
<td>Do</td>
<td>The components of the plan are implemented, which can result in a product.</td>
</tr>
<tr>
<td>Study</td>
<td>Outcomes are closely monitored and signs of progress and success, as well as problems and possible improvements are identified in this phase to test the validity of the plan.</td>
</tr>
<tr>
<td>Act</td>
<td>An integration of all learning outcomes from the entire process are made, and those insights should be used to modify the goal, adjust methods, or even change the entire theory.</td>
</tr>
</tbody>
</table>

In the first step, *Plan*, input from interviews, and current knowledge was collected, and reviewed followed by the step, *Do*, in which the parameters were put together into a solution draft. The step, *Study*, was gone through by interviews and workshops, where the solution was used to try to solve the problems of the CBU. Finally, the new insights led to changes in the solution, in the step *Act*, which was followed by a new *Plan* step. The process kept going until the solution was considered finished.

To keep an appropriate distance to the object of interest, clear evaluation criteria should be used and input from an external part should be regarded (Höst, Regnell & Runeson 2006, pp. 40-41). To avoid this type of object myopia, continuous contact was had with the external supervisor, as well as the supervisor at the Company, who could both provide a fresh perspective of the problem and the solution.

**Evaluation**

When the model had made it through the PDSA process, the final phase of *Evaluation* followed, called *Implementation* (see fig. 2.1). According to Höst, Regnell and Runeson (2006, p. 39), this is an important step to put the solution in its context, where a reflection and an analysis of the plan’s effectiveness are made. The main focus in this step was to deliver the solution to the CBU.
Furthermore, in projects where a prototype or is developed to test the functionality of the work, the prototype has to be modified in order to be sufficiently implemented in the organisation after the project is finished. This demands a model that is highly user friendly, robust, efficient, as well as integrated with other systems and documentation (Höst, Regnell & Runeson 2006, pp. 40-41). Therefore, this part is usually not a part of the master thesis work, since it requires significant effort for implementation, and testing, and is usually done after the project’s completion (Höst, Regnell & Runeson 2006, pp. 40-41).

This project aimed to create a solution that was easy to implement for the Company, considering current processes and systems, however, final implementation was out of scope.

2.4 Data Collection

2.4.1 Interviews

Several interviews with 24 different stakeholders within the company, as well as one industry expert were held during the course of the project (see Appendix A for a full list). All interviews were face-to-face interviews, or so called “conversations with a purpose” (Gubrium & Holsten, 2001). Care was taken to ensure the interviewees neutrality and objectivity, by avoiding leading questions when possible, an otherwise common problem in research interviews (Gubrium & Holsten, 2001).

Face-to-face interviews have several advantages in relation to the other techniques, in all eight dimensions described in table 2.2. For example, it was possible to use visual tools and material, both for the interviewers and the responders (Lekvall & Wahlbin, 2001, p. 263). Also important, the interviews could be arranged quickly, since they were all held at the office of the Company. If the interviewees would have been hard to reach, another method would have been more appropriate because of the large amount of interviews.
Table 2.2: Limitations with all of the four interview methods (adapted from Lekvall & Wahlbin, 2001, p. 263).

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Written questionnaire</th>
<th>Telephone interview</th>
<th>Face-to-face interview</th>
<th>Internet interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per interview</td>
<td>Low (can increase with reminders)</td>
<td>Mostly low</td>
<td>Mostly high (except for interviews in own property)</td>
<td>Mostly low</td>
</tr>
<tr>
<td>Quickness</td>
<td>Mostly low (especially with postal questionnaires)</td>
<td>High</td>
<td>Mostly high (especially in own property)</td>
<td>High</td>
</tr>
<tr>
<td>Risk for falling-offs</td>
<td>Mostly high</td>
<td>Medium</td>
<td>Medium</td>
<td>Sometimes high</td>
</tr>
<tr>
<td>Control of who is responding</td>
<td>Mostly bad</td>
<td>Good</td>
<td>Good</td>
<td>Limited</td>
</tr>
<tr>
<td>Opportunity for dynamics in the questioning</td>
<td>None</td>
<td>Mostly good</td>
<td>Good</td>
<td>Limited</td>
</tr>
<tr>
<td>Limitations in questioning technique</td>
<td>Large</td>
<td>Some</td>
<td>None</td>
<td>A few</td>
</tr>
<tr>
<td>Maximum appropriate time consumption</td>
<td>Up to 40-50 questions</td>
<td>5-30 minutes</td>
<td>Up to 2-3 hours</td>
<td>About the same as for a written questionnaire</td>
</tr>
<tr>
<td>Possibility to guarantee anonymity for the respondent</td>
<td>Good</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
</tbody>
</table>

Furthermore, the interviews in the case study, as well as most of the interviews in the action research phase, had an exploratory purpose and thus face-to-face interviews were appealing, in part due to the longer possible duration, even though most of the interviews did not exceed one or one and a half hour, but also because of the opportunities for dynamics in the questioning (see table 2.2).

Interviews with employees were semi-structured or unstructured, depending on the intended purpose. Since the purpose was mostly exploratory and the method was kept flexible, applying an unstructured approach was the best practise according to Höst, Regnell, and Runeson (2006, pp. 90-91). In structured interviews, it is important to strictly follow the questionnaire, and only allow the standard alternatives to questions
with fixed-alternative responses, while open-ended response questions need to be captured word for word (Robson, 2011, pp. 285-289). In the initial phase of the study, no standard questions with fixed alternatives were available, which made structured interviews impossible. Instead, the flexible approach resulted in constant improvements of the interview guides as the project progressed. Therefore, another structure of the interviews was better suited.

In the beginning of the project, when the focus was exploratory, unstructured interviews were used. This type of interview entails a non-standardised, open-ended, in-depth, and intimate conversation (Robson, 2011, pp. 285-289). There should be a list of subjects for discussion, but the main aim is to let the interviewee speak freely about the predetermined subjects and other items they would like to share (Robson, 2011, pp. 285-289), which was the goal in this phase of the study. Höst, Regnell and Runeson (2006, pp. 90-91) claim that the freedom of formulation and order of questions is high in this interview method, and this type of interview is qualitative in its nature making them appropriate for an exploratory purpose.

There was also one interview with a person outside the Company, to get an overall industry perspective in the exploratory phase. The external interview was entirely explorative and was therefore unstructured to ensure that the responder was given time to talk about everything he knew about the industry and what he currently considered important (Robson, 2011, pp. 285-289).

In the second phase, which had a problem solving approach, the knowledge about the area had increased and the solution became clearer. Therefore, it was possible to go from unstructured to more semi-structured interviews with a few fixed questions and areas to verify the solution as the method turned more to problem solving. In semi-structured interviews, the interviewer has a list of topics that should be covered during the interview, but has a high degree of freedom concerning the sequencing of questions, the formulation of questions, and the amount of time and attention assigned to each area of interest, and consequently, they fit better with a flexible method than structured interviews do (Robson, 2011, pp. 285-290).

Höst, Regnell and Runeson (2006, pp. 90-91) claim that the level of structure can vary significantly between different semi-structures interviews, but usually, the agenda
includes an introduction, a list of topics and related key questions, a complementary list with associated prompts, and finally closing comments. In this phase of the study, the validation of the solution was in focus and thus every person should be presented with the same areas of questions and alternatives, but at the same time being able to elaborate further with wishes concerning the model. Therefore, the semi-structured type was best suited. A sample of the interview guide containing topics to discuss is included in Appendix B.

Finally, Höst, Regnell and Runeson (2006, pp. 90-91), mention that unstructured and semi-structured interviews should preferably be recorded. Unstructured interviews may involve subjects that were not intended to be investigated initially and in semi-structured interviews notes should be taken to be compared to the recording (Höst, Regnell & Runeson, 2006, pp. 90-91). Normally, both the authors attended the interviews and made notes without making a recording. This enabled comparison of the different notes afterwards and was considered sufficient, even though they could not be compared with a recording. However, when only one of the authors could be present, the conversation was recorded.

2.4.2 Literature Review

According to Webster and Watson (2002, p. 48), a review of current literature is an important part of any academic endeavour. Levy and Ellis (2005) further claim there are several reasons for conducting a literature review. The most fundamental one is to uncover already accessible knowledge to build on. This not only increases the researcher’s knowledge on the subject, enabling a more initiated study, but also places the work in a larger body of knowledge. The literature review in this project was conducted to increase the author’s understanding of the subject, to provide proposed the solution with academic rigour, and to create a foundation for analysis of the model.

Timminis and McCabe (2005) present a five-step process for building a literature review, that was used in this project:

1. Identify a topic of interest and develop relevant keywords.
2. Scan relevant literature by using the keywords.
3. Review the sourced references and find copies of relevant references.
4. Read the identified relevant material.
5. Organise and integrate the material into a literature review.

In step 1, relevant topics were identified within the areas of innovation, change management, and business development. In step 2 and 3, a long-list of possibly interesting factors and keywords was developed (see Appendix C for a full list). The list was then used to scan literature, both books, journals, and articles (step 4). This was done by surveying available literature in libraries, searching the university online database, and investigating business reports. A bank of raw information was gathered and organised simultaneous to other activities in the project, since both scope and relevance of different topics changed in the first stages of the process. Those that proved relevant to the end result were compiled into a literature review (step 5).

2.5 Data Gathering Approach

Collected data can either be quantitative or qualitative. According to Höst, Regnell and Runeson (2006, p. 30), quantitative data can be measured and classified according to amount, share, colour, weight etc. and can be processed with statistical analyses. Qualitative data, on the other hand, is composed by descriptions and words and is rich in details and nuances and requires more analytical methods based on sorting and categorising. In complex problems involving people and their actions, a combination of both types is preferable (Höst, Regnell & Runeson, 2006, p. 30).

In this project, the gathered data was qualitative in nature, as a result of that the main information source was unstructured or semi-structured interviews without questions with a quantitative nature. This goes hand in hand with Höst, Regnell and Runeson (2006, pp. 33-34), who say that gathered data is usually qualitative when performing a case study, which was done in the initial phase of the study. Furthermore, Höst, Regnell and Runeson (2006, pp. 33-34) present three common techniques for data gathering:

- **Interviews:** In the case study and action research, information was gathered through interviews with different stakeholders within the Company with diversity in roles, business areas and impact on business strategy.
- **Observations:** In addition, observations were made during the three workshops when validating the solution to see how the solution worked in context.
- **Archive analyses**: In the initial phase of the study, an archive analysis reviewing company documents and data was conducted, in order to better understand the current processes and structures of the Company and CBU. The investigated documents were related to new product development (NPD) processes and organisational structures in the CBU, Company and Company Global.

Finally, all interviews in the action research involved input on parameters to include in the solution and feedback on applicability. The information was collected as notes, which were later sorted into different sections that composed an extensive collection of parameters to include in the solution, which made up a qualitative database. By doing so, a quantitative conclusion of how many mentioned the same parameters could be drawn, and subjects being mentioned more frequently were considered to be of high importance to the Company and CBU. Nevertheless, the nature of the collected data was to a large extent qualitative.

### 2.6 Credibility

#### 2.6.1 Reliability

The reliability is describing the trustworthiness in the data collection and impact of random variations (Höst, Regnell & Runeson, 2006, p. 41). To ensure high reliability, the data collection and analysis must be accurately made, and by clearly explaining how the research has been made, the reader can easily understand how the results are developed (Höst, Regnell & Runeson, 2006, p. 41). This is why the method has been described in detail in this report and can be examined by its reader. To further increase the reliability of the study, the project has been presented for a group of peers who gave their input to improvements. Alterations have been made according to their feedback. As Höst, Regnell and Runeson (2006, p. 42) explain, letting a colleague take a look at the work and come with input to improvements can improve reliability. In addition, both the academic, and external supervisor at the Company have continuously been giving input for improvements throughout the process.

Another way to ensure good reliability is to present the collected data for the interviewees and let them confirm that they were correctly understood (Höst, Regnell & Runeson, 2006, p. 42). The collected data was mainly composed by information provided by
interviewees in interviews and workshops. Therefore, to improve data reliability, at least two interviews were held with 13 out of the 19 interviewees that were a part of the initial scoping interviews. During the second round, conclusions from the first were presented and the interviewees got a chance to give feedback on what they agreed or disagreed with. Simultaneously, they could provide complementing information on subjects that were vaguely explained during the first interview, to reduce the risk of misunderstandings.

Furthermore, reliability can be improved by ensuring that a random selection of the interview objects is made (Höst, Regnell & Runeson, 2006, p. 42). In this project, instead of selecting a sample of the population, all stakeholders that would be affected by the implementation of the model have been interviewed, since the population was small enough to manage.

### 2.6.2 Validity

Validity means that what is intended to be measured is what is actually measured (Höst, Regnell & Runeson, 2006, p. 41). Höst, Regnell and Runeson (2006, pp. 116-117) state five important areas to consider when assessing validity of the results of studies with a flexible approach. These are:

- **Logging**: To validate the results through logging, all information that was provided during the interviews was written down and collected in a database. The notes were reviewed after each interview by the authors to ensure consensus between the interviewers of what the interviewee meant.

- **Feedback**: The second part of the validation is feedback, which was provided through the aforementioned second round interviews (see section 2.6.1).

- **Third-party reviewing**: Third-party reviewing has been conducted continuously by the two supervisors of the project, as well as by two opposing peers in the end of the project.

- **Triangulation**: Triangulation means that the same object is studied with different methods (Höst, Regnell & Runeson, 2006, p. 41). The object that was observed was the early stage of the innovation process in a large organisation and to validate the findings, the object was investigated from the view of employees within the CBU, as well as other functions in the Company. Additionally, interviews have been
conducted with one person at a time, but were complemented with workshops that were made in group to ensure consensus concerning the object within the CBU.

- **Long term studies:** This dimension depends on what is meant with long term. The project has been conducted during a period of 20 weeks and additionally, the interviewees have made long term observations themselves. By sharing their experiences of how the studied area has been handled before, the case study is anchored further back than 20 weeks.

Finally, for validating models, there must be an evaluation of that the original phenomenon is actually explained by the model (Höst, Regnell & Runeson, 2006, p. 109). When a model has humans as primary users, it can be validated by explaining the model to a sample of the population and get their input. Conclusions that evolve from use of the model must be validated by evaluating if they are correct or not and if the model is sensitive to different inputs (Höst, Regnell & Runeson, 2006, p. 109).

The output of this project is partly a solution for improving innovation at the CBU. Three workshops were the main tool in assessing the validity of it, in which a selection of the population participated. During all three sessions, the participants could share their experiences and give input to improvements.

### 2.6.3 Representativeness

To ensure good representativeness, the results must be general, which is mostly related to the sample of interview objects (Höst, Regnell & Runeson, 2006, pp. 41-42). A mapping and experiment can only be strictly generalised for the sample of the population and the level of representativeness is therefore correlated to the loss of objects in the population (Höst, Regnell & Runeson, 2006, pp. 41-42). In this study, representativeness, with regard to the CBU, can be considered high, since all employees at the CBU who would be affected by the result were interviewed at least once.

In general, case studies and action researches cannot be generalised (Höst, Regnell & Runeson, 2006, pp. 41-42). However, some generalisation and insight can be transferred to environments similar to the one studied and therefore, a detailed description of the observed context can result in better representativeness (Höst, Regnell & Runeson, 2006, pp. 41-42). In this project, both a case study and action research have been conducted,
which would create low representativeness. However, as Höst, Regnell and Runeson (2006, pp. 41-42) explain, it can be offset by a detailed description of the investigated context and if the context, in which the result should be implemented, is similar to the studied context. In this case, the current situation is thoroughly investigated in the case study, the results of which are presented in sections 1.1.1 and 5.1. Consequently, the representativeness should be higher at least for organisations in similar situations.

2.7 Limitations of the Chosen Method

The limitation of the chosen method is that the project has been focused on only one company, the aspects they consider important, and what would make it usable within their organisation and industry, when creating the solution for improved innovation. To complement for this, the frameworks and theories that have been included in the resulting solution are general and have earlier been proved to be applicable in a great variation of organisations and contexts. In addition, the proposed solution aims to be of use for a wide range of companies, however, it was only tested at the CBU. This puts limits on the scope of application.

Finally, follow up interviews have been made with 13 out of 19 people from the first interview round, thus missing validation from six people. In addition, five interviewees only participated in the second round of interviews and therefore validation of their input is also missing. However, in total 13 out of 24 interviewees have been interviewed at least twice. Those 13 represent the most important stakeholders of the result of the study at the Company.
3 Overview of Organisational Environment

Chapter three presents an overview of the situation facing companies today, with regards to a changing competitive landscape, as well as current theories of innovation. This is followed by a review of change management literature and ends with theories of how innovative organisations are built, including case examples of implementing cultural change in organisations.

3.1 Innovation in Organisations

In order to explore what should be done to create innovation in organisations, a definition of an innovative organisation must be made. Becker (1964, p. 2) describes it as an organisation “which is first among a set of organizations to do something that none of the set had done before”. Having said that, an innovation must not include an invention. The innovator can use an existing idea and does not necessarily have to be the inventor of it (Becker, 1964, p. 2). Furthermore, Tidd, Bessant and Pavitt (2005, p. 65) emphasise the difference between innovation and invention and clarifies that in order to innovate, there must be a full development and exploitation of new knowledge, in contrast to just come up with new inventions. In other words, innovation consists of a combination of invention and the exploitation of that invention (Tidd, Bessant & Pavitt, 2005, p. 65).

Pisano (2015), highlights the problem with many companies putting capital and resources into innovation, but tend to lose their competitive approach in the long-run as a result of not having an innovative strategy. Even if the company uses techniques to find new innovations, for example through collaborations with customers and crowd-sourcing, this must be included in processes that span over the entire company to be efficient (Pisano, 2015).

In addition, there is no universal approach to how the innovative strategy should be for each company. Instead, it must be adapted and updated to every specific firm (Pisano, 2015). This must also unite all departments of the firm, since there is otherwise a risk that the sales team will be targeting the largest customer segment, the market department will search for new possibilities to take their brands to new markets, research and development (R&D) will seek new ways to use new technologies etc. Diverse perspectives
are crucial for innovation, but if they are not aligned around common goals, it will instead disjoint the firm (Pisano, 2015).

### 3.2 Innovative Organisations

As globalisation tears down both geographical boundaries and market barriers, the capability to innovate as a firm becomes essential (Barsh, Capozzi & Davidson, 2008). Companies must be able to find innovative ideas among their employees, partners, customers, suppliers, and others within their reach, as innovation has become a major driver of performance and growth. Tidd, Bessant and Pavitt (2005, p. 44) also raise globalisation as a major factor affecting the competitive landscape today. Technological development previously took place in a few large countries, but is now developed all around the world. This puts pressure not only on multinational corporations, but also on small local firms to act as global players on the market (Tidd, Bessant & Pavitt, 2005, p. 44).

Innovation of new products can help to capture or retain market shares, while innovation of existing products can create non-price factors, such as quality and specialisation, letting companies compete with other factors than price in mature markets (Tidd, Bessant & Pavitt, 2005, p. 5). In a world with decreasing product life cycles, it also becomes more important to constantly replace products with better versions. Consequently, there is a growing pressure on firms to introduce new products faster than competition (Tidd, Bessant & Pavitt, 2005, p. 5).

Ringel, Taylor and Zablit (2015) also emphasise speed of innovation and speed to market. This would lead to both financial and nonfinancial benefits, such as: a first-mover advantage due to faster innovation and quicker reactions to competitors’ moves; lower development costs from smoother processes; a larger market share after a quick introduction; and improved accuracy in forecasting since a faster product development will make managers more likely to approve trendy products that otherwise would have been denied.

O’Reilly and Tushman (2013, p. 324) discuss the importance of organisational ambidexterity, which means an organisation’s capability to both explore and exploit simultaneously. To exploit means to compete in mature markets with focus on control,
efficiency, and incremental improvements, while the ability to explore means to compete in new technologies and markets requiring flexibility, autonomy, and experimentation. In other words, this means to ensure current viability while simultaneously securing future cash flows (O’Reilly & Tushman, 2013, p. 325). The problem lies in the uncertainty and risk of failure that comes with exploration, and thus firms tend to lean towards exploitation with more secure short-term pay-offs. However, firms that do not explore for the future risk to fail when facing significant market changes.

### 3.2.1 Building an Innovative Organisation

Tidd, Bessant and Pavitt (2005, p. 469) present ten dimensions for creating a successful innovative organisation (see table 3.1).

**Table 3.1: Ten dimensions for creating a successful innovative organisation (Tidd, Bessant & Pavitt, 2005, p. 469).**

<table>
<thead>
<tr>
<th>Shared vision, leadership and the will to innovate</th>
<th>Having a common goal that is clearly articulated, as well as commitment from top management.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate structure</td>
<td>Having an organisational design that encourages creativity, interaction and learning as well as adopting a good balance between a rigid and loose organisation in terms of flexibility and hierarchy.</td>
</tr>
<tr>
<td>Key individuals</td>
<td>People that energise and facilitate innovation, like champions and promoters.</td>
</tr>
<tr>
<td>Effective team working</td>
<td>Assigning teams at local, cross-functional and inter-organisational level to solve problems through selection and team building.</td>
</tr>
<tr>
<td>Continuing and stretching individual development</td>
<td>Ensure competence in a long-term perspective through continuous education and training.</td>
</tr>
<tr>
<td>Extensive communication</td>
<td>Clear communication both upwards, downwards, and laterally within the organisation and between the organisation and its environment.</td>
</tr>
</tbody>
</table>
High involvement in innovation

<table>
<thead>
<tr>
<th><strong>High involvement in innovation</strong></th>
<th>Inclusion of employees organisation-wide in continuous improvement activity and innovation.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External focus</strong></td>
<td>Having both an internal and external customer orientation as well as emphasising networking.</td>
</tr>
<tr>
<td><strong>Creative climate</strong></td>
<td>Implementing a positive attitude towards creative ideas and support those with reward systems.</td>
</tr>
<tr>
<td><strong>Learning organisation</strong></td>
<td>Extensive involvement in proactive experimentation, finding and solving problems, sharing of experience, and knowledge capture both within and outside the firm.</td>
</tr>
</tbody>
</table>

Pisano (2015) claims that in order to become an innovative organisation, the initiatives must come from senior top managers, since innovation cuts through every function of the company and they are the only ones who can handle such systems. In their roles, they are responsible for processes, structures, talent, and behaviours affecting the search for innovation opportunities in the organisation, how ideas are synthesised into concepts, and selection of actions to take. Pisano (2015) suggests four guidelines:

- The management team must decide how innovation should create value for their customers and communicate this to all employees.
- A plan should be created for how resources will be allocated depending on type of innovation.
- Senior management must choose between trade-offs, since every department is likely to want to do what suits them the best.
- Strategy should be innovative and adaptable, as dynamics of market, technology, regulations, and competition, change.

Furthermore, Becker (1964, pp. 3-12) presents two areas to ensure an innovative organisation:

- Inside the organisation: People: Within this dimension Becker (1964, pp. 2-5) found several factors to ensure success:
  - People within the organisation must feel psychological and job security to deviate from the group by suggesting a novel solution.
Diversity of background and education can increase the probability of the group accepting an innovative solution.

A transition from concrete, quantitative, and countable decision variables to more unverifiable abstract information to improve product and marketing innovations, while concrete should be used for process innovations.

- **The organisation: Structure:** Within this dimension, Becker (1964, pp. 7-10) presents two areas:
  - Having less specialised tasks will make the person and groups more innovative as they become familiar with solving more than one kind of problem and meet more people within and outside the organisation.
  - Rewarding innovative ideas can increase the probability that innovative ideas would occur.

### 3.2.2 Case Examples of Building Innovative Organisations

Lorsch and McTague (2016) bring up the discussion about the innovative culture not being a cause or a fix, but rather an outcome. They describe it as something that comes after new processes and structures have been put into place to solve business challenges through changing business strategy or implementing a new business model. Thus, culture is more of a temporary state instead of a final destination (Lorsch & McTague, 2016).

In the work of Lorsch and McTague (2016), they have interviewed several company leaders about success factors that made large cultural transitions possible. Doug Baker, one of the CEOs (Lorsch & McTague, 2016) faced increasing bureaucracy hurting the company’s customer-centric culture. To tackle the problem, he found two success factors:

- He encouraged more decision making among employees closer to the customers.
- He rewarded high performing employees and found that public acknowledgements were better that silent financial initiatives to motivate a certain behaviour.

Another CEO from the study, Can Vasella (Lorsch & McTague, 2016 pp. 100-102), led a transformation from a narrow customer segment to a more diverse portfolio of products.
to target more customers. In order to go from being bureaucratic and narrow-minded to an organisation with focus on customers and performance, he found three success factors:

- He had meetings with a small group of senior managers to set vision and objectives from the top of the organisation, but also to articulate what he expected from them.
- He set up clear metrics of success, so that everyone would focus on the right things in the growing organisation.
- He did not force collaboration across divisions in a growing company, but made decision making decentralised to make every division decide what was best for their growth.

3.3 Change Management

Harvey and Broyles (2010, p. 9) describe the world of today to be filled with change, and although people have always experienced changes in organisations, the intervals between changes are getting shorter. In addition, the frequency and duration of periods of change are increasing. However, there can be a resistance to change, which is mostly based on the fear of it. Therefore, managers must learn how to make their employees see the possibilities of changes and how to manage them (Harvey & Broyles, 2010, p. 10). Furthermore, Harvey and Broyles (2010, pp. 36-37) mention twenty sources for resistance, seven of which are presented in table 3.2 below, selected by their relevance to this project.
Table 3.2: A selection of seven out of twenty sources for resistance when facing changes in organisations (Harvey & Broyles, 2010, pp. 36-86).

<table>
<thead>
<tr>
<th>Source of Resistance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of ownership</td>
<td>If employees do not feel that they have a chance to influence or create guidelines for the upcoming change, they are not likely to follow directions, since they do not feel ownership. This requires clear leadership from management (Harvey &amp; Broyles, 2010, pp. 41-42).</td>
</tr>
<tr>
<td>Lack of benefits</td>
<td>If an employee does not see a clear benefit for themselves, they are likely to resist and be negative about the change if no one seems to care about their concerns. Even though the change will improve certain areas of the firm, it will not be clear unless it is communicated (Harvey &amp; Broyles, 2010, pp. 48-49).</td>
</tr>
<tr>
<td>Increased burdens</td>
<td>Anything that will take energy, money, time, or other sacrifices to learn for employees will be met with resistance and will be resisted until they do not have to do it, unless being forced. First, managers must express the upside of implementing the change. Second, and most important, they must be successful in explaining the payoffs for each specific employee (Harvey &amp; Broyles, 2010, pp. 54-55).</td>
</tr>
<tr>
<td>Lack of top brass support</td>
<td>There is a common problem that lower level employees come up with ideas, but they do not believe that it will get support from top management, which is crucial as they decide on allocation of assets. A solution could be for employees to get support from someone higher up the hierarchy, for example by explaining payoffs directly affecting them, making them think that the idea was theirs, convince someone closer to the boss with higher credibility, or creating a sense of urgency (Harvey &amp; Broyles, 2010, pp. 44-47).</td>
</tr>
<tr>
<td>Boredom</td>
<td>If employees are experiencing that the outcome of their work is always the same, they may experience boredom. This should be tackled with joy and incorporation of fun elements and celebration in the work to improve their attitude. Another reason for boredom could be complexity and the antidote for that is to explain everything more simply (Harvey &amp; Broyles, 2010, pp. 70-71).</td>
</tr>
</tbody>
</table>
Lack of recognition

If an employee never receives positive recognition in the change work, they are not likely to keep performing well and come up with creative ideas. In addition, they can become ignorant and refuse to feel responsibility for anything, since they are not considered the inventor of the idea. The solution is for managers to not forget to give recognition to their workers (Harvey & Broyles, 2010, pp. 51-53).

Extremes of organisational structure

Too high centralisation, formalisation, and stratification will make employees feel like the distance to impact is too far. On the other hand, too loose directions and organisational decentralisation will not create change either. Thus, an appropriate balance must be found between the two extremes (Harvey & Broyles, 2010, pp. 85-86).

Sirkin, Keenan and Jackson (2005) further emphasize the difficulty of managing change in organisations. According to the authors, two out of three transformation initiatives fail. A contributing factor is the disagreement of what the most important factors to consider are. Although much of recent literature has focused on so called “soft factors”, the authors propose a partial return to more “hard factors”. They propose four key factors to consider.

The first is the Duration of the project. Companies tend to believe that longer projects are more likely to fail, while research shows that the time between reviews and milestones may be more important. A long, but frequently reviewed, project is more likely to succeed than a short, non-reviewed one (Sirkin, Keenan & Jackson, 2005).

The second factor is Integrity. This refers to the degree of confidence the company can have in that the team assigned to the project, including managers and contracted help, will perform as expected. The problem often arises since managers are hesitant to put star employees on uncertain change programs, potentially letting their daily work suffer. Finding a balance and quality in the team is key to success (Sirkin, Keenan & Jackson, 2005).

The third factor is Commitment. This needs to be built within two groups of stakeholders: influential managers and operational employees. The most influential managers are not
always the ones with the highest-ranking titles, but those who can create enthusiasm among employees. The second group consists of the people who will have their day-to-day work affected by the project. This commitment can be created by frequent and enthusiastic backing of the project, as well as clear and ongoing communication (Sirkin, Keenan & Jackson, 2005).

The fourth and final factor to consider, to successfully perform a change initiative, is Effort. Managers often forget to consider that employees already work long hours and underestimate the effort required of them to implement the change. An alternative is to dedicate some employees completely or partial to the project, instead of adding it to the existing work load (Sirkin, Keenan & Jackson, 2005).
4 Theoretical Frameworks

In this chapter, the different theoretical frameworks that were used in finding and solving the problem posed in this project are presented. The project required models for analysing both markets, companies’ capabilities, portfolio management, and innovation management.

4.1 Models for Market Analysis

The four models presented in this section intend to explain how markets work and assess their attractiveness to aid in the decision whether they should be entered or not.

4.1.1 PESTEL Framework

The PESTEL Framework is used for investigating the high-level macro-environment, meaning identifying trends and key drivers for change that influences more or less all organisations (Johnson, Scholes & Whittington 2008, p. 64). The acronym stands for:

- Political: Emphasises the role of governments.
- Economic: Involves macro-economic factors in terms of business cycles, exchange rates, and different economic growth rates worldwide.
- Social: Addresses changes in culture and demographics.
- Technological: Takes into account innovations in technology and techniques.
- Environment: Addresses “green” issues, such as pollution and waste.
- Legal: Addresses legislative constraints and changes in regulations.

From a managerial point of view, those factors should be used to analyse how the environment is currently changing and predict how it will change in the future. Rather than focusing on details and making the analysis too complicated, the framework should be used to get an overview of the market and to identify key drivers of change. The drivers should have a great impact on the success or failure of the strategy for the company (Johnson, Scholes & Whittington 2008, pp. 55-56).

4.1.2 Porter’s Five Forces Framework

The essence of Porter’s Five Forces Framework is that if five major forces are high on the market, then it is not attractive to compete in, since competition and pressure are too high
to ensure reasonable profits. The five forces are the *Threat of entry*, the *Threat of substitutes*, the *Power of buyers*, the *Power of suppliers* and *Competitive rivalry* (see fig. 4.1) (Johnson, Scholes & Whittington 2008, p. 60). They are presented in more detail in the following sections.

![Porter's Five Forces Framework](image)

*Figure 4.1: Porter’s Five Forces Framework that can describe the attractiveness of a market (adapted from Johnson, Scholes & Whittington, 2008, p. 60).*

**The Threat of Entry**

Attractiveness of a market is correlated with how difficult it is to enter the industry, which depends on the extent of barriers of entry. Typical barriers are:

- *Scale and experience*: In some industries, economies of scale are important and are creating barriers for smaller players to enter the market. Another scale effect is potentially large initial investments when entering a particular industry. Finally, the experience curve will affect the profitability of a new entrant, since previous actors on the market have already developed a cost advantage through efficient processes (Johnson, Scholes & Whittington, 2008, p. 61).

- *Access to supply or distribution channels*: In several industries, the manufacturers control the supply and/or distribution channels through e.g. vertical integration or customer loyalty (Johnson, Scholes & Whittington, 2008, p. 61).
- **Expected retaliation**: Retaliation of existing firms on the market to prevent entry of potential entrants can be considered a barrier, which can take the form of a price war or marketing blitz (Johnson, Scholes & Whittington, 2008, p. 61).

- **Legislation or government action**: Patent protection, regulation of markets, and direct government actions are examples of legal barriers to entry. Incumbent organisations are vulnerable to new entrants without those restrictions (Johnson, Scholes & Whittington, 2008, p. 61).

- **Differentiation**: Providing differentiated products or services means that its perceived value is higher than the competition. Therefore, differentiation increases customer loyalty and thus reduces the Threat of entry (Johnson, Scholes & Whittington 2008, pp. 61-62).

**The Threat of Substitutes**

Products or services providing a similar benefit to an industry’s products or services, but by another process, are called substitutes. The Threat of substitution can put a cap on the price of products, and services on the market (Johnson, Scholes & Whittington, 2008, p. 61). There are two areas of substitution to consider:

- **The price/performance ratio**: Even though a substitute is offered at a higher price, it can be a sufficient threat if its perceived value is higher than the value of the competitor’s offering by the consumers. Thus, the ratio of price, and performance matters, as well as exclusively price (Johnson, Scholes & Whittington, 2008, p. 62).

- **Extra-industry effects**: Composing the core of the concept of substitution, extra-industry effect means that substitution can come from industries outside the firm’s main industry. Therefore, managers must look outside their own industry for threats (Johnson, Scholes & Whittington, 2008, p. 62).

**The Power of Buyers**

Occasionally, customers or buyers have high bargaining power and thus lowering industry profits by pushing down prices (Johnson, Scholes & Whittington 2008, p. 62). It is important to distinguish between buyers and the final consumer, since the buyer is not always the end consumer of the product. This is the case in the food industry, where supermarkets are the buyers but not the consumers (Johnson, Scholes & Whittington 2008, 63). The threat increases with the following factors:
- **Concentrated buyers:** If the market is concentrated to a small number of buyers, the power of buyers increases. Additionally, if the product or service stands for a large portion of the buyers’ total purchases, their possibilities to push suppliers on price increases (Johnson, Scholes & Whittington 2008, p. 62).

- **Low switching costs:** When the effort required to switch from one supplier to another is low, the buyers negotiating power increases. This is common in markets for barely differentiated commodities (Johnson, Scholes & Whittington 2008, p. 63).

- **Buyer competition threat:** This happens if the buyer has the ability to produce the product of the supplier itself or can acquire the facilities and threatens to do so. The scenario is called backward vertical integration (Johnson, Scholes & Whittington 2008, p. 63).

**The Power of Suppliers**

Those supplying the organisation, with input required to produce the product or service, are called suppliers and the input can span from fuel and raw material to labour and financial sources (Johnson, Scholes & Whittington 2008, p. 63). Supplier power is likely to expand in situations involving the following parameters:

- **Concentrated suppliers:** Suppliers get more power than buyers if there are only a limited number of suppliers on the market (Johnson, Scholes & Whittington 2008, p. 63).

- **High switching costs:** The buyer will end up in a weak position if it is expensive or disruptive to switch from one supplier to another (Johnson, Scholes & Whittington 2008, p. 63).

- **Supplier competition threat:** This threat appears if the supplier is able to or can acquire the facilities needed to do the job of the buyer itself. This scenario will take the supplier closer to the customer and is called forward vertical integration (Johnson, Scholes & Whittington 2008, p. 63).

**Competitive Rivalry**

Rivals are organisations offering almost the same products or services to the same customer group. The previously explained four forces affect the competition between rivals on the market and a higher competitive rivalry will make it harder for firms within
the industry to create profits. (Johnson, Scholes & Whittington 2008, p. 64). Those forces are in combination with the following defining rivalry on the market:

- **Competitor balance:** If all competitors on the market have almost the same size, there is an increased risk for competition as one player will try to get a dominant position. On the other hand, if there are only a few large players dominating the market, the smaller players will be reluctant to challenge the larger directly. Instead, they will tend to focus on smaller niches to avoid attention (Johnson, Scholes & Whittington 2008, p. 64).

- **Industry growth rate:** When there is strong market growth, organisations are likely to grow with it. But when there is low or declining growth, the growth of one firm will have to come at the expense of another. This is likely to lead to price wars and lower profitability (Johnson, Scholes & Whittington 2008, p. 64).

- **High fixed costs:** Industries with high fixed cost structures, perhaps due to high initial investment requirements, are likely to experience high rivalry. To keep cost per unit down, companies will try to increase volumes, commonly by cutting prices and starting price wars, which affects all firms in the industry. The same happens if capacity can be increased only in large increments, which creates an overcapacity in the industry in the short term, resulting in increased competition to use capacity (Johnson, Scholes & Whittington 2008, p. 64).

- **High exit barriers:** If there are high barriers to exit, the rivalry will tend to increase, particularly in declining industries. As overcapacity increases with decreasing demand, all rivals will fight to keep their market share to avoid the high costs following and exit. (Johnson, Scholes & Whittington 2008, p. 64).

- **Low differentiation:** In commodity markets, when buyers can easily switch between suppliers, industry rivalry is likely to increase, since the only competitive tool is a low price (Johnson, Scholes & Whittington 2008, p. 54).

### 4.1.3 Marketing Mix

The *Marketing Mix* is one of the classic tools of marketing. The Marketing Mix lists four factors, or tools, that marketers can use when shaping a customer offering (see fig. 4.2). By managing these efficiently, the company can create the highest possible demand and profitability for the product (Armstrong, Kotler & Parment, 2013, p. 60).
Figure 4.2: The Marketing Mix including four factors for shaping customer offerings (adapted from Armstrong, Kotler & Parment, 2013, p. 60).

The four factors are (Armstrong, Kotler & Parment, 2013, p. 58):

- **Product**: What is the product we are selling? What features does it have? What need does it fulfil?
- **Price**: At which price point should the product be positioned? Budget or premium?
- **Place**: Where should the product be available to the customer? A network of stores or direct delivery?
- **Promotion**: How should we get the message across to the intended customers?

Critics claim that the Marketing Mix misses some key aspects, such as services and packaging. Armstrong, Kotler and Parment (2013, pp. 58-59), however, claim that these in fact can be found in the four categories (for example, packaging would be a product offering choice). They further state that the importance is not the number of categories, but if the tools help marketers to create an integrated marketing strategy or not (2013, p. 59). The years since the four Ps were first introduced have spawned a number of derivatives, often tailored to the specific needs of a company, where different factors may be added to the original four (Khan, 2009, p. 139).

### 4.1.4 Pyramid Brand Strategy

Rajagopal (2009, p. 58) claims that there are three levels in implementing brand strategies. Those are represented in the pyramid in fig. 4.3 and are premium markets, regular markets and Bottom of the Pyramid (BoP) markets, i.e. markets that target less well-off customers.
In premium and regular markets, consumer behaviour is usually driven by brand personality, brand equity, and brand endorsements, while it is generally driven by price advantage, perceived use value, and social status in BoP market segments. Even though the income for each individual is low in the BoP segment, the aggregated buying power is significant and represent an extensive share of the market (Rajagopal, 2009, pp. 59-60).

To reach the lower consumer segments in the global marketplace, consumer brands try to generate social impact and financial viability to create optimal value for money for consumers (Rajagopal, 2009, p. 59). In the premium, and regular markets, the intensive competition between global well-known brands has both decreased brand share in those segments and initiated price wars. This has led to decreased profit margins and a limitation in market growth of firms, which led many companies to target the BoP segments instead (Rajagopal, 2009, p. 60).

In premium markets, it is important with a premium brand, a brand personality, and social attributes, and in this segment brand sensitivity is high. In regular markets, it is important for companies to increase brand share, to enhance brand appeal, to ensure loyalty, and to ensure high perceived brand value. In the low-level, BoP markets, the most important factor is to attract a mass market, with a large number of customers who have a low buying volume per capita and are price sensitive, and to make them loyal to the brand (Rajagopal, 2009, p. 62).
4.1.5 Data Gathering for Market Analyses

Zinchiak (2014) means that combining qualitative and quantitative research can provide a powerful research approach. For example, when a product category that is new, or unfamiliar for the company, should be explored, the company must learn more about the category than secondary information can tell. In addition, the consumer segment and usage of the product, as well as motivations or perceptions for the product or category must be understood (Zinchiak, 2014). Qualitative information can also aid in finding key factors advertising. A qualitative approach can help with that, but can also provide insights concerning issues and important factors, that could not be discovered by a research that is not familiar with the product or customer.

Furthermore, qualitative researches can complement the quantitative data with information regarding consumer segmentation and changes in the market. The main purpose is to understand why the quantitative data appears the way it is. The combination can create a robustness in the findings with a more nuanced and accurate understanding of the customer (Zinchiak, 2014).

4.2 Models for Internal Analysis

4.2.1 Value Chain

In order for companies to be competitive and deliver superior value to customers, managers have to understand which activities and competencies are especially important in doing so (Johnson, Scholes & Whittington, 2008, pp. 110-111). The Value Chain is used for understanding those factors (see fig. 4.4).

**Figure 4.4**: The Value Chain creates an overview of all activities, and competencies within a company (adapted from Johnson, Scholes & Whittington, 2008).
Categories of activities within and around the company, which together enable the creation of the product or service, are described in the model of the *Value Chain*. Primary activities directly connect with the creation or delivery of a product or service. The primary activities are linked to support activities that help to improve primary activities’ effectiveness or efficiency (Johnson, Scholes & Whittington, 2008, pp. 110-111).

### 4.2.2 VRIN Framework

The *VRIN Framework* is based on the resource based view (RBV) of the firm and focuses on firm-specific resources and capabilities (see fig. 4.5).

<table>
<thead>
<tr>
<th>Valuable</th>
<th>Rare</th>
<th>Inimitable</th>
<th>Non-substitutable</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>✓</td>
<td>NO</td>
<td></td>
<td>Competitive disadvantage</td>
</tr>
<tr>
<td>✓</td>
<td>NO</td>
<td>✓</td>
<td></td>
<td>Competitive parity</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>NO</td>
<td></td>
<td>Temporary competitive advantage</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NO</td>
<td>Temporary competitive advantage</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>Sustainable competitive advantage</td>
</tr>
</tbody>
</table>

*FIGURE 4.5: THE VRIN FRAMEWORK OUTLINING THE CRITERIA NEEDED FOR A RESOURCE OR CAPABILITY TO CREATE A SUSTAINED COMPETITIVE ADVANTAGE (ADAPTED FROM BARNEY, 1991).*

According to Barney (1991, pp. 106-112), abnormal rents over a sustained period of time can only be attained from using resources and capabilities if they fulfil four criteria. These are:

- **Valuable**: The resource must help the firm in outperforming its competitors by either creating superior value or reducing the company’s weaknesses.
- **Rare**: The market’s access to the resource or capability must be limited.
- **Inimitable**: The resource or capability must be difficult for the firm’s competitors to imitate. There are several ways of achieving inimitability. One of them is causal ambiguity, i.e. that how the competence was developed is not entirely known and therefore difficult to replicate. Competences can also be socially complex and intertwined in for example corporate culture, which also makes them more difficult to imitate. The resource or capability may also have been developed under unique historical conditions that are difficult to recreate.
- **Non-substitutable**: The resource or capability must be difficult to substitute with something else (Barney, 1991, pp. 106-112).

As seen in fig. 4.5, only if all criteria are fulfilled is sustainable competitive advantage possible. If a resource or capability is both valuable and rare, but easy to recreate or substitute, it constitutes a temporary competitive advantage, since it is a matter of time before competitors have copied or replaced it. If it is valuable, but not rare, it constitutes competitive parity. If a resource or competence is not valuable, it means a competitive disadvantage, since it binds capital without creating value (Barney 1991, pp. 106-112).

To perform well, companies should aim for exploiting resources and capabilities that lend a SCA or try to create it (Barney, 1991, pp. 106-112).

### 4.3 Portfolio Management

Portfolio management has long been a challenge for companies, be it managing a portfolio of business units, a range of brands, or an assortment of opportunities. Several frameworks have been developed to assist in this, some of the most well-known are the BCG matrix, the Directional policy model, and the 9-box *GE/McKinsey Matrix* (Proctor, 2000, pp. 26-36). Most of them are fairly similar, consisting of two dimensions to determine the best course of action to take for a business unit, brand or idea (Proctor, 2000, pp. 26-36). Below, the *Three Horizons framework*, the *GE/McKinsey Matrix*, and *Portfolio of Initiatives Framework* are presented.

#### 4.3.1 Three Horizons Framework

The *Three Horizons Framework* was developed in 2000 by Baghai, Coley and White (see fig. 4.6). It is based around the idea that even successful companies face declining growth and margins as they mature (Coley, 2009).
Baghai, Coley and White studied companies that had succeeded over longer time periods and found that they treated existing and future businesses differently (Coley, 2009). This gave rise to the idea of three horizons. The first horizon is focused on the short term and consists of the company’s current core activities. These activities need defending and some investment, but they will ultimately be obsolete, as the industry changes. Second horizon activities are the medium term initiatives that should fill the gaps between current and visionary initiatives and to provide new revenue streams. Finally, third horizon activities are visionary projects, usually involving risky R&D investments and aim to maintain vitality in the company over the long term. Although many of these bets will fail, those that succeed may render the firm with a first-mover advantage and substantial gains (Johnson, Scholes & Whittington, 2012, pp. 336-337). By ensuring ongoing projects in all three horizons, companies can balance the need for current and future cash flows (Coley, 2009).

### 4.3.2 GE/McKinsey Matrix

The GE/McKinsey Matrix framework consists of a nine-cell matrix with two axes ranging from low to high (see fig. 4.7). It was published by Gluck et al. in 1978, at the time working at McKinsey, and originally developed by McKinsey and General Electric (GE) to aid in deciding which of GE’s circa 150 business units to put more cash into, which to hold, and which to divest.
Difficulties arise when comparing business units to each other, due to their different environments and definitions of what constitutes success. Some business units may be successful on their market, however very small. Another business unit may be faring poorly, but on a large market. To overcome the difficulty in comparing several divergent entities to the same criteria of market share and growth, the *GE/McKinsey Matrix* introduces two factors: *industry attractiveness* and *competitive strength of the business unit* (Gluck et al., 1978). The names of the axes have been fairly stable since it was first introduced, however, the exact definitions, and the precision with which they can be measured, has improved significantly (Coyne, 2008).

**Attractiveness of Industry**
This axis is made up of an array of factors, the relative importance of which vary from industry to industry (Coyne, 2008). One factor is the long-run growth rate. A growing industry creates potential for everyone to grow without fighting for market share, making the industry more attractive. Another is the size: the greater the size, the greater the potential revenues, and consequently attractiveness. A third factor is the current profitability of the industry, something that may be more difficult to estimate. However, *Porter’s Five Forces Framework* (see section 4.1.2) can be used as a proxy: the higher the industry rivalry, bargaining power of suppliers and buyers, *Threat of substitutes* and new
entries, the lower the margins of the industry are likely to be, lowering the attractiveness (Coyne, 2008).

**Ability to Compete**

The second axis concerns the competitive strength of the business unit as compared to its competitors. In other words: does the business unit enjoy a sustainable competitive advantage (SCA) towards the rest of the industry? Gluck et al. (1978) suggests this can be assessed using either proxies, such as comparing the business unit's growth rate compared to the market (a higher growth rate than average would suggest stronger performance and thus competitive advantage), or a more formalised assessment, such as Barney's (1991) *VRIN Framework* (see section 4.2.2).

Once business units are plotted in the matrix, they will belong to one of three categories: *invest/grow, selectivity/earnings* or *harvest/divest*. These three categories entail different strategies moving forward. Business units in the first category enjoy a strong advantage on an attractive market and should therefore be invested in to grow and strengthen their position. Business units in the last category play on an unattractive market with low or no competitive advantage, and should therefore be sold or harvested for resources that can be put into more attractive projects. The remaining business units are somewhere in the middle. They should be managed selectively, and only given funding in case there is funding left over after investments in first category business units are made (Proctor, 2000, p. 32). There should also be some potential for the business unit to move into the *invest/grow category in the future to earn funding* (Coyne, 2008).

**4.3.3 Portfolio of Initiatives Framework**

According to Bryan (2002), risks and uncertainties are increasing in the modern industry and the future is impossible to determine. Companies should mitigate this reality by pursuing what he calls a portfolio of initiatives strategy, which increases the chances of seizing market opportunities without exposing the firm to unnecessary risks. This type of approach has already been successfully applied in, for example, the pharmacy industry to manage R&D projects, and in venture capital firms, to manage portfolios of companies (Bryan, 2002).
The proposed framework is summarized in fig. 4.8, and consists of a three by three matrix with two axes called *Level of familiarity/risk* and *Time*. It comes with a proposed process for using the framework and aims to convert strategy into actions. The model is broad in its scope as it encompasses several potential types of initiatives a company might have, ranging from organisational changes to NPD (Bryan, 2009).

**FIGURE 4.8: PORTFOLIO OF INITIATIVES FRAMEWORK TO SEIZING MARKET OPPORTUNITIES WITHOUT BEING EXPOSED TO UNNECESSARY RISK (ADAPTED FROM BRYAN, 2002).**

**Level of Familiarity**

The first axis gauges how confident the company is in realising the expected benefits from the initiative (Bryan, 2009). If the initiative is *familiar*, the firm has done similar projects in the past and is fairly certain about the outcomes. Likely, the company also has a superior knowledge within the field compared to its competitors, which can include intangibles such as talent, relationships, and brand assets. This is opposed to the next level – *unfamiliar* – where competitors are more likely to succeed as of the current state. The final level is *uncertain*, where no one in the industry has an advantage, as the initiative is so far in the future that it is impossible to know how the conditions will turn out. However, the potential of opportunities on this level may still be significant, and worth investing in to acquire familiarity (Bryan, 2009).

**Time**

The *Time* aspect is based on the *Three Horizons Framework*, developed by Baghai, Coley and White (2000) (see section 4.3.1). The *Portfolio of Initiatives Framework* matrix uses
the same definition. What is considered short, medium, and long term is decided by each firm, based on for example the length of industry or product life cycle. According Bryan (2009), short-term initiatives will generally pay off in the near future (6-18 months). Medium-term projects make up the future innovation pipeline and can range between 3-5 years. Long-term projects have an even longer horizon and will typically not impact the company until there has been significant change in the market or industry (Bryan, 2009).

Bryan (2009) suggests a four step cyclical process to maintain the company’s portfolio of initiatives. This process is meant to be iterative and continuous to keep the portfolio of initiatives relevant, and updated. The steps are:

- **Search:** Current initiatives are examined. New ones that can create high rewards compared to risks are identified. Those opportunities with familiarity advantages are selected (Bryan, 2002).
- **Execute:** Map initiatives in the portfolio matrix. Execute those initiatives with high priority, and evaluate those where familiarity is lacking (Bryan, 2002).
- **Monitor progress:** Review the progress of initiatives. Scale up those that fare well, and terminate those that progress poorly (Bryan, 2002).
- **Reassess portfolio:** Review strategic opportunities and evolution on the market as well as in the company. Adjust initiatives in the matrix accordingly. Add and reprioritize initiatives (Bryan, 2002).

The continuous reviewing process of the portfolio is crucial, as well as the will to make corrections to the proposed course of action for a project should it not go according to plan. According to Bryan (2002), these processes should involve a strategy oversight team consisting of around 20 of the company’s top managers, preferably including the CEO. He further proposes to view time as an ally (Bryan, 2009). By building pilot programs and making small to medium sized bets, the company can grow its familiarity of initiatives that unfamiliar or uncertain, to be ready to seize a competitive advantage when the time is right. Bryan (2002) further states that “the advantage lies not with the first mover but with the first mover that can scale up activities once the way forward has become clear and it is possible to see returns from larger bets.”
4.4 Models for Innovation

The following models represent different ways of looking at and classifying innovation, with the purpose of understanding the phenomenon and innovate more efficiently.

4.4.1 Twelve Dimensions for Business Innovation

Sawhney, Wolcott and Arronzi (2006) present *Twelve Dimensions for Business Innovation*. They represent them in a so called “innovation radar”, which consists of four key dimensions, described as business anchors (Sawhney, Wolcott & Arronzi, 2006):

- **Offerings** being created by a firm.
- **Customers** being served by the company.
- **Processes** being employed by the company.
- **Points of Presence** being used to take the company’s offerings to the market.

In addition to the four anchors, there are eight other dimensions (Sawhney, Wolcott & Arronzi, 2006) (see fig. 4.9).

![Diagram of Twelve Dimensions for Business Innovation](image)

*Figure 4.9: The Twelve Dimensions for Business Innovation (adapted from Sawhney, Wolcott & Arronzi, 2006).*

The twelve dimensions are further explained in table 4.1.
Table 4.1: Summary of the Twelve Dimensions of Business Innovation (adapted from Sawhney, Wolcott & Arronzi, 2006).

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offering (what)</td>
<td>To innovate in Offerings, the company must come up with new products or services providing value to the customer.</td>
</tr>
<tr>
<td>Platform</td>
<td>A Platform can best be described as a set of building blocks, in terms of common components, technologies or assembly methods. Together, they build a portfolio of products or services.</td>
</tr>
<tr>
<td>Solutions</td>
<td>A Solution solves a customer problem and is an integrate combination of several components, such as products, services and information. To offer higher value through solution innovation, the customer is offered an integrated combination of products, services, and information.</td>
</tr>
<tr>
<td>Customers (who)</td>
<td>If the company can find new Customer segments or unmet needs, they are able to innovate along this line.</td>
</tr>
<tr>
<td>Customer experience</td>
<td>All interactions between the customer and the company is a part of the Customer experience. This includes all the customer hears, feels, sees, and experiences in the interaction. To innovate along this dimension, the company has to configure its touch points with the customers.</td>
</tr>
<tr>
<td>Value capture</td>
<td>This Value capture dimension describes how the company recaptures the value they provide. To innovate in this dimension, the company must improve their value capturing from interactions with customers and partners, through for example untapped revenue streams.</td>
</tr>
<tr>
<td>Process (how)</td>
<td>Companies can configure, and redesign business activities in internal operations to improve cycle time, efficiency or obtain a higher quality. This may require redesigning or relocating a Process.</td>
</tr>
<tr>
<td>Organisation</td>
<td>In order to innovate the Organisation, the company usually has to rethink the scope of its activities as well as the responsibilities, roles, and incentives of business units and individuals.</td>
</tr>
</tbody>
</table>
The Supply chain consists of all activities and agents that is a part of the flow of goods, services, and information in a company. Innovation can be made through streamlining of information in the chain or extend the collaboration between its participants.

This dimension includes the distribution channels, by which a company provides their offerings to the market and the places in which a customer can buy or use the products or services. There are two ways to innovate in this dimension. Either the company detects new points of Presence, or use their existing ones in new ways.

Networking and having a strong network can become a competitive advantage to a company, since it represents how the company connect their products, and services to their customers.

The Brand can either be leveraged or extended in a creative way to result in innovation.

4.4.2 Four Dimensions of Innovation

Henderson and Clark (1990, pp. 9-12) describe the traditional categorisation of product innovation as either incremental or radical, and compliments those dimensions with two intermediate alternatives, called modular and architectural innovation. According to this classification, the four dimensions can be put in a matrix, in which core concepts and linkage between core concepts and components are represented on the axes (see fig. 4.10).
To know how each component and its underlying technology works, in the product or service, knowledge about core concepts is needed. To replace one component with another will lead to overturned core concepts. The architecture of the offering, on the other hand, is the knowledge about how the components are linked together and how they are affecting each other. The architecture of the product and linkage between core concepts will change if the components are assembled in another way (Henderson & Clark, 1990, p. 11).

The four types of innovation are described below:

- **Incremental innovation:** Incremental innovation involves relatively minor alterations to the existing product (Henderson & Clark, 1990, p. 9). Thus, it exploits the potential of a present product and commonly reinforce the dominance of existing firms (Henderson & Clark, 1990, p. 12).

- **Radical innovation:** Contrary to incremental innovation, radical innovation is usually based on significant engineering or scientific advances and can open up completely new markets and potential applications (Henderson & Clark, 1990, 9). Therefore, radical innovations sometimes redefine the market and will make it hard for incumbent firms to maintain a competitive advantage.

- **Modular innovation:** Modular innovation changes the core design concept of a technology, but does not affect the architecture of the product, meaning the way components are linked together (Henderson & Clark, 1990, p. 12). This happens when one of the components is completely switched to another with another underlying technology.

- **Architectural innovation:** Innovations leaving the core design competences unmodified, but changing the way in which the components are linked together in a product, are called architectural innovations (Henderson & Clark 1990, p. 10). This kind of innovation lets the company keep the usefulness of its knowledge about the components in the product, but destroys the usefulness of their architectural knowledge, meaning the knowledge about how the components work together.
5 Results

Chapter five presents the results of the study, and is divided into two sections. The first presents the identified issues of the Company and the CBU identified in phase two of the project (see fig. 2.1), while the second proposes a three-step model to mitigate the problems.

5.1 Problem Identification

As a result of a large restructuring of the Swedish division of the Company, the CBU has ended up in a situation with more autonomy and responsibility, in which they must innovate and lead creation of new concepts themselves. However, this has caused some problems. This project uncovered four issues.

First, previously being a part of a larger business unit, the CBU did not experience the same pressure to be innovative and come up with new concept ideas themselves, since they always had a supporting department doing that for them. Consequently, their current view of what new products to launch was to either take an existing product from another business unit, modify it and sell it to the CBU’s customers, or come up with a radically new innovation. The focus of this innovation was always on how a product could be changed or invented. In other words, there is a narrow view of what an innovation is.

The second problem was that, in combination with new roles and tasks within the unit, a confusion regarding who to go to with ideas evolved. Connected to this, there is a lack of tools to use when assessing the potential of an idea, not making it clear which ideas to take further in the organisation and which to scrap immediately. This has resulted in fewer ideas from the CBU getting shares from the joint innovation resources, in comparison to other business units. Consequently, there is a need for a framework for initial analysis of idea potential, linked to corporate strategy, market potential, and necessary company resources, in order to assess their potential.

Third, the CBU’s market differs significantly from that of the other business units at the Company, with customers being more fragmented, and the Company competing on other terms. This means that the rigorous processes used in other parts of the Company are not applicable or effective for the CBU. Combined with the fact that the CBU just recently became a standalone unit, the consequence is a lack of processes and tailored frameworks
for the CBU, not least for assessing the viability of new initiatives. Therefore, a solution is needed that aims to offer guidelines for selecting the most promising portfolio of generated ideas for the CBU.

Forth, employees at the CBU had many ideas and were skilled in picking up ideas from certain sources, such as customers. However, some potential sources were overlooked. Further, the lack of a process caused many ideas to go unexplored, which caused a fatigue in the employees suggesting them. The argument was that there was no idea suggesting anything, since nothing would come from it. This again showed the need of a structured process, but also the need for a feedback system.

5.2 Proposed Solution

To remedy the problems described in the previous section, a model in three parts was developed and proposed to the Company. This section provides an overview of the model, and rationales for its design.

5.2.1 Model Overview

The identified issues at the CBU showed the need for a three-step process to improve early stage innovation. The process is summarized in fig. 5.1.

![Figure 5.1: Overview of the resulting model that includes three steps: Generate, Evaluate, and Select.](image)

The first step, Generate, focuses on how to get ideas that arise in the organisation discovered and taken closer to becoming a real product through the innovation process. The person who is in focus in this step is called the source of the idea.
The next step is called *Evaluate* and contains several steps and parameters that are important to consider when assessing the potential of an idea, both regarding fit in corporate strategy, potential on the market, how they can be produced, and what it will take to implement the idea. Those parameters are all gathered in a framework, called the *Evaluate sheet*. The person performing the analyses and filling in the *Evaluate sheet* is called the *evaluator*.

The third and final step is called *Select*, in which a selection of the most promising ideas are chosen to be taken further into the development process. The people involved in this step are called the *Select team*.

The model evaluates the potential of ideas in an early innovation phase by including the most important factors to regard when going further with or scrapping ideas that are invented in an organisation. Each step of the model is described in further detail in the following paragraphs.

### 5.2.2 Generate

Initial interviews (phase two in fig. 2.1) indicated that ideas were prolific within the organisation, but there was no clear structure on where or whom to take it to. Interviews also showed a narrow view of what an innovation could be. These two findings prompted the development of three tools, described below.

**Innovation Streams**

Interviewees often mentioned that ideas were present in the organisation, but few knew how to take ideas further or who to talk to. Further, once an idea was given to someone else, there was rarely feedback provided on what happened to the initiative. To solve this problem, and also to increase the number of ideas processed, the *Innovation Streams* were developed (see fig. 5.2).
There were three main departments within the CBU, which can be seen in fig. 5.2: Market, Sales, and Supply. Market was responsible for doing market analyses and creating new product concepts and innovations; Sales was connected to customers, both direct customers and wholesalers; Supply handled all processes and logistics in the flow of raw material to production and final products to customers. Those three departments were assigned one Innovation Stream each.

In the Innovation Streams, each part of the Company itself is included as a potential source for ideas, as well as external partners and influencers. What is important is that a source belongs to only one of the three Innovation Streams; Market, Sales or Supply. When an idea arises somewhere inside or outside the organisation, the Innovation Streams describe the route that the idea should take going forward. When an idea transfers from the source to the evaluator, so does the responsibility for evaluating. Consequently, the transferability in the Innovation Stream structure ensures ownership.

In addition, a clear structure of sources and Innovation Streams also improves the possibilities of giving feedback. When an idea is transferred from the source to the evaluator, the evaluator gets responsible for providing feedback to the source when there are updates regarding the idea. The same applies in the transfer from the evaluator to the Select team.
To structure the units within each channel, potential sources of innovation were divided into three levels: internal network, close circle network, and extended network. Internal units at the Company were placed in the internal network. Partners, such as suppliers and customers with daily or weekly contact with the Market, Sales, or Supply department were placed in the close circle network. Finally, the extended network consists of other players within the industry, such as influencers, researchers, industry associations, and foreign markets.

The Innovation Streams entail dual responsibility, meaning that stakeholders up-stream are responsible for sending ideas downstream, but employees at Market, Sales and Supply are also responsible for asking about ideas and being proactive in the process to generate ideas.

Innovation Compass
The Twelve Dimensions for Business Innovation by Sawhney, Wolcott and Arronzi (2006) (see section 4.4.1) were presented in all first-round interviews. Discussions concerned if the twelve dimensions were applicable at the CBU and if the Company had products in each dimension. When there was confusion on what type of product that could actually fit in the dimension, the dimension was either removed, merged with another, rephrased, or redefined to increase precision and to better fit in current definitions of concepts and terminology to ensure better implementation. To emphasize the fact that innovation can be both incremental and radical, the concept of Henderson and Clark (1990) (see section 4.4.2) were included in the model, however modular and architectural were discarded due to a lack of relevance and to reduce complexity. The result was an Innovation Compass with ten dimensions instead of twelve (see fig. 5.3).
Figure 5.3: Configured innovation dimensions in combination with the radical, and incremental dimension of innovation.

All alterations that have been done to the dimensions are presented in table 5.1 below.

Table 5.1: An overview of alterations made to Sawhney, Wolcott and Arronzi’s (2006) Twelve Dimensions of Business Model.

<table>
<thead>
<tr>
<th>Original dimensions</th>
<th>Modified dimensions</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offerings</td>
<td>Product</td>
<td>The original dimension was changed to Product, due to the fact that the Company was only producing products, not services.</td>
</tr>
<tr>
<td>Platform</td>
<td></td>
<td>Platform was merged with Product, since it was not relevant for the CBU, as no product was developed according to the definition of platform innovations.</td>
</tr>
<tr>
<td>Solution</td>
<td>Tailored solution</td>
<td>Solutions were rebranded to Tailored solutions, to clarify its meaning.</td>
</tr>
<tr>
<td>Customers</td>
<td>Customers</td>
<td>No change.</td>
</tr>
<tr>
<td>Customer experience</td>
<td>Customer experience</td>
<td>No change.</td>
</tr>
<tr>
<td>Value capture</td>
<td>Revenue streams</td>
<td>Value capture was rebranded to Revenue streams, again due to clarity.</td>
</tr>
</tbody>
</table>
Process, Organisation, and Supply chain were completely removed, and replaced by Distribution, since the model is limited to only include innovations that impact final customer value, and not improvements further back in the value chain. Consequently, the Distribution dimension only includes value adding changes in the interaction with customers.

Presence was replaced with Point of sale solution, to not get confused with the term customers, and is only including how a current channel to the market can be developed.

Bundle offering was added to Networking, since the combination of the Company’s products with products from another company would be of high interest in this dimension.

One dimension that emerged from the Product and Tailored solution dimensions was Packaging, since product packaging is of high importance for consumer goods.

Assigning Guidelines
Interviewees emphasised that the model should not have so called “gates” to pass, as that would limit ideas too much at this early stage of innovation. Instead, the model should be open and give all ideas the chance to show their full potential. However, being too inclusive with regards to what ideas to include in the model resulted in vague definitions of the points to analyse, when the only distinction was that the ideas should impact customer value. Consequently, it was decided that only ideas that entailed innovation in the product, packaging or customer segment should be handled in the next step of the model – Evaluate (see section 5.2.3). As a result, four of the dimensions in the Innovation Compass did no longer fit in the description, and had to be handled differently. Therefore,
a transition between Generate, and Evaluate was provided, and that step is shown in fig. 5.4.

The dimensions that were not considered suited for the rest of the analysis were Contact points, Customer experience, Distribution, and Revenue streams, which were set aside to be dealt with in other processes. However, to not lose ideas that did not fit in the rest of the model, assignment guidelines where provided (see left side of fig. 5.4).

5.2.3 Evaluate

Overview and Guidelines

The second step of the three-part model, Evaluate, is a framework that is based on the most important factors to consider when analysing the potential of a concept. There are no gates to pass in this step, meaning no specific criteria that must be met to get to the next phase. Thus, the evaluation is mainly done to provide the Select team in the following step, Select, with a thorough background and all the information needed to make an informed selection. Evaluate focuses on a sheet to be filled in by an evaluator, called the Evaluate sheet. It consists of 16 cells (see fig. 5.5), which are all aimed at answering a set of key questions. The sheet could be in physical or digital form, but should be filled in by one person consulting key stakeholders if necessary. The estimated time to fill the sheet, depending on the complexity of idea and the amount of data available, is between 15 minutes and a few hours.
Interviews repeatedly showed that there was a need for both a simple method of evaluating if the *evaluator* was experienced or if the idea was simple, as well as underlying tools to aid when questions were more difficult to answer. Therefore, *Evaluate* consists of the simple sheet (see fig. 5.6), as well as tools for helping to fill in each cell of the sheet.

**Figure 5.5: Overview of the Evaluate sheet, with brief explanations and key questions to be answered.**

<table>
<thead>
<tr>
<th>Input</th>
<th>Analysis</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Owner</td>
<td>5. Strategy &amp; Targets&lt;br&gt;How does the idea create value for the Company's business, and customers?&lt;br&gt;Comments:</td>
<td>12. Uncertainty&lt;br&gt;What data provided in the analysis is uncertain and how can it be validated?</td>
</tr>
<tr>
<td>2. Channel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Description/Background: &lt;br&gt;Who came up with the idea, and what need is it intended to fulfill?</td>
<td>6. Market Potential&lt;br&gt;Is there a potential market to serve, and how will it develop?</td>
<td>13. Risks&lt;br&gt;What are the potential risks if the idea is implemented, and if it is not?</td>
</tr>
<tr>
<td></td>
<td>7. Industry Situation&lt;br&gt;What are the main threats to success on the market?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Market Attractiveness</td>
<td></td>
</tr>
<tr>
<td>4. Solution&lt;br&gt;What is the solution to the problem, and where lies the main innovation focus?</td>
<td>8. Offering Advantage&lt;br&gt;Is the offering better than, in line with or worse than competition?</td>
<td>14. Input to Select Matrices&lt;br&gt;What is market potential, competitive standing, familiarity, and time frame?</td>
</tr>
<tr>
<td></td>
<td>9. Sustainable Competitive Advantage&lt;br&gt;What resources are needed to realise targets, and will they provide SCA?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competitive Potential</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Resources Needed&lt;br&gt;What will implementation of the idea cost?</td>
<td>15. Final Recommendation&lt;br&gt;What is the main take away and final recommendation for selection?</td>
</tr>
<tr>
<td></td>
<td>11. Time to Realise&lt;br&gt;How long will it take to realise targets and on what does it depend?</td>
<td>16. Signature &amp; Date</td>
</tr>
</tbody>
</table>
Anna Bökberg, Karl Hedlund
Generate, Evaluate & Select

<table>
<thead>
<tr>
<th>Input</th>
<th>Analysis</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source:</td>
<td>Quality</td>
<td>What data provided in the analysis is uncertain and how can it be evaluated?</td>
</tr>
<tr>
<td>3. Description/Background:</td>
<td>3. Description/Background:</td>
<td>What parts of the data behind analysis is uncertain?</td>
</tr>
<tr>
<td>Who came up with the idea, and what need is it intended to fill?</td>
<td>4. Solution</td>
<td>What are the data sources and are they be trusted?</td>
</tr>
<tr>
<td>Background:</td>
<td>5. Strategy &amp; Targets</td>
<td></td>
</tr>
<tr>
<td>Current existence:</td>
<td>How does the idea create value for the Company’s business, and customers?</td>
<td></td>
</tr>
<tr>
<td>2A-similar product exists in:</td>
<td>By targeting ...</td>
<td></td>
</tr>
<tr>
<td>The world</td>
<td>The idea will develop, and improve...</td>
<td></td>
</tr>
<tr>
<td>The Company</td>
<td>6. Market Potential</td>
<td></td>
</tr>
<tr>
<td>2A-similar product</td>
<td>Is there a potential market to serve, and how will it develop?</td>
<td></td>
</tr>
<tr>
<td>does not exist/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertain</td>
<td>Market segment size and value</td>
<td></td>
</tr>
<tr>
<td>Solution:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td>Agreement with market trends</td>
<td></td>
</tr>
<tr>
<td>7. Industry Situation</td>
<td>Further Company potential</td>
<td></td>
</tr>
<tr>
<td>What are the main threats to success on the market?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Offering Advantage</td>
<td>Competitive Potential</td>
<td></td>
</tr>
<tr>
<td>Is the offering better than, in line with or worse than competition?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td>9. Sustainable Competitive Advantage</td>
<td></td>
</tr>
<tr>
<td>9. Resources Needed</td>
<td>Resources are needed to realize targets, and will they provide SCA?</td>
<td></td>
</tr>
<tr>
<td>What will implementation of the idea cost?</td>
<td>Comments:</td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td>10. Time to Realize</td>
<td></td>
</tr>
<tr>
<td>How long will it take to realize targets and on what does it depend?</td>
<td>Comments:</td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td>11. Output</td>
<td></td>
</tr>
<tr>
<td>11. Final Recommendation</td>
<td>What is the main take-away and final recommendation for selection?</td>
<td></td>
</tr>
<tr>
<td>12. Signature &amp; Date</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.6: The evaluate sheet shown as it will be used, with each cell prompting for input.**

It was repeated in interviews that the Evaluate sheet must not be too time consuming or involve too many cells to fill in, to remain useful. Therefore, the model was kept simple and does not require the handing in of complicated analysis frameworks. Nevertheless, several cells are accompanied by tools to aid in the analysis. These can be used if the idea is complex, if a more detailed analysis is needed, or if the evaluator is inexperienced.

The following sections present the contents of the 16 cells. For some cells, more information can be found in Appendix D and E.

**Owner, Channel and Description/Background**

Fig. 5.7 shows the first three cells of the Evaluate sheet: Owner, Channel, and Description/Background. Their aim is to map where the idea came from to ensure traceability and feedback, to clarify which of the three Innovation Streams that is responsible for the evaluation, and to provide a brief description of the idea, enabling stakeholders later in the process to understand the nature of the idea. The evaluator is the
person filling in the *Evaluate sheet*, while the *source* is where the *evaluator* got the idea from, which could be a person, an organisation, a research paper, or something else.

<table>
<thead>
<tr>
<th>1. Owner</th>
<th>2. Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Evaluator:</em></td>
<td></td>
</tr>
<tr>
<td><em>Source:</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Description/Background:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who came up with the idea, and what need is it intended to fulfill?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Background:</th>
<th>Current existence:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need:</td>
<td>A similar product exists in:</td>
</tr>
<tr>
<td></td>
<td>The world</td>
</tr>
<tr>
<td>Solution:</td>
<td>The Company</td>
</tr>
<tr>
<td>Comments:</td>
<td>A similar product does not exist/ Uncertain</td>
</tr>
</tbody>
</table>

**Figure 5.7:** Cell 1. *Owner*, Cell 2. *Channel*, and Cell 3. *Description/Background in Evaluate*.

**Solution**

In the *Solution* cell of the *Evaluate sheet* (see fig. 5.8), the idea is described with the three components *Product*, *Packaging* and *Customer segment*. The *Innovation Compass* can help the *evaluator* realise in which dimension the *Primary innovation focus* is (see section 5.2.2). *Primary innovation focus* means in what dimension the main change from current business occurs. Requiring this information pressures the *evaluator* to have a clear picture of what the idea is. This information is also needed when the *Evaluate sheet* is handed over to the *Select team* before the third step – *Select.*
**Figure 5.8: Cell 4. Solution in Evaluate.**

Initially, this part of Evaluate included the Innovation Compass, which can now be found in Generate. The purpose was to provide the evaluator with a list of stakeholders to talk to throughout the rest of the evaluation, based on type and level of innovation, in order to involve the correct stakeholders at the correct time. However, when the model was tested in the workshops, this proved too complicated and not particularly useful.

**Strategy & Targets**

In this cell (see fig. 5.9), the main focus is on how the implementation of the idea will improve the Company's and its customers' business, as well the main goals and targets of the idea. The three components are explained further below.
5. Strategy & Targets
How does the idea create value for the Company’s business, and customers?

<table>
<thead>
<tr>
<th>The idea will develop, and improve...</th>
<th>... by targeting ...</th>
<th>... in the following value segment for the Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer business</td>
<td>Added value</td>
<td>Volume</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Margin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Defend</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relationship</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Premium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Comments:

![Figure 5.9: Cell 5. Strategy & Targets in Evaluate.](image)

**Added Value**
The first component demands a description of how the idea will create value for the customer, but should also involve a description of how it will develop important strategic functions in the Company.

**Targets**
It became evident in the interviews that the CBU had a narrow scope of potential targets, thereby dismissing potentially valuable ideas. The list of targets seen in fig. 5.10 aims to broaden that scope.

<table>
<thead>
<tr>
<th>Target</th>
<th>Description</th>
<th>Areas to consider if target applies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>Main goal to drive volume in sales.</td>
<td>• How will the idea contribute to growing volumes?</td>
</tr>
<tr>
<td>Margin</td>
<td>Idea focusing on creating good margins per unit and not volume.</td>
<td>• How can a higher price in comparison to the price on similar products be motivated to customers?</td>
</tr>
<tr>
<td>Defend</td>
<td>Aims at defending a market position.</td>
<td>• What position should be defended and what would the alternative loss be?</td>
</tr>
<tr>
<td>Enable</td>
<td>Ideas that do not have the target to create volume or margin directly, but rather enable future sales of complementary offerings.</td>
<td>• What future products is the idea making the way for and to whom will they be offered?</td>
</tr>
<tr>
<td>Relationship</td>
<td>Target to build a long-term relationship with customers or consumers to ensure sustainable returns and future business.</td>
<td>• With who will the idea strengthen or create a relationship and how will it contribute to the Company’s business?</td>
</tr>
</tbody>
</table>

![Figure 5.10: Explanation of the five different targets that can be associated with an idea.](image)

The Target section has also been combined with the Three Horizons Framework (see fig. 5.11), by Baghai, Coley and White (2000) (see section 4.3.1), since projects can have different targets in different time horizons. For example, it can initially be a project to defend a particular market position, but in the long run, the innovation can provide large...
volumes. Important to mention is that one target can spread over more than one time horizon and that there could be more than one target per time horizon.

**Figure 5.11: Explanation of time horizons for targets, based on the Three Horizons Framework.**

The definition of how many years is included in each horizon is a result of the interviews.

**Value Segment Pyramid**

The third, and final area of the target cell, is made up of a Value Segment Pyramid (see fig. 5.12), which is based on the rationale of a Pyramid Brand Strategy by Rajagopal (2009) (see section 4.1.4). Just like in his description, there are three major areas of customers to target. When evaluating an idea, the evaluator should check the according box to indicate which market segment is targeted by the idea.

**Figure 5.12: Explanation of the Value Segment Pyramid, based on the Pyramid Brand Strategy.**

In addition, the CBU was already familiar with this customer segmentation, which was an incentive to include a similar framework in the model to simplify implementation.

**Market Attractiveness**

Market Attractiveness is composed by two cells that aim to explain how the idea can perform on the market, depending on dimensions that are both favourable and damaging for the idea. The cells include rankings on a four grade scale, to eliminate the possibility of an "easy" middle pick, which is a risk with a three or five grade scale.
For the two cells in *Market Attractiveness*, there are additional pages describing what to fill in in each section and can be found in Appendix D. In those, there is both a quantitative scale for each factor in each area to consider, but also a qualitative part with questions to provide a deeper understanding for the situation. The complementing pages should be used mostly in the beginning of the implementation, when the evaluators do not know what every dimension contains. In addition, the qualitative questions can be used to fill in the comment section and provide extra insight to the graded scale.

### Market Potential

First of all, the *Market Attractiveness* section includes *Market Potential* (see fig. 5.13), which aims at creating an overview of how the innovation would fit on the market and if there is an attractive market to serve.

<table>
<thead>
<tr>
<th>6. Market Potential</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Is there a potential market to serve, and how will it develop?</em></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Market segment size and value</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alignment with market trends</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Further Company potential</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.13: Cell 6. Market Potential in Evaluate.**

Included parameters are:

- **Sizing of market potential:** The intended customer segment's size matters and should be large enough to facilitate fulfilment of the goals stated in *Strategy & Targets* (see fig. 5.9). Potential is also influenced by market growth rate.

- **Alignment with customer trends:** When producing consumer goods, it is of high importance to be responsive to changes in trends on the market. Trends can be described by both market segment and product segment.

- **Further Company potential:** For the CBU, this section includes potential gains from the idea for another business unit, local or global.
Industry Situation
In this cell, the main focus is to understand what threats to success there are on the market and what the competitive landscape looks like (see fig. 5.14).

<table>
<thead>
<tr>
<th>7. Industry Situation</th>
<th>What are the main threats to success on the market?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Competitive intensity</td>
<td></td>
</tr>
<tr>
<td>Company specific threats</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Figure 5.14: Cell 7. Industry Situation in Evaluate.

The two dimensions that should be taken into account are:

- **Competitive intensity:** This is an application of Porter’s Five Forces Framework (Johnson, Scholes & Whittington, 2008) (see section 4.1.2). Each dimension has been given a statement that the evaluator should rank (see table 3 in Appendix D). This framework was known by most of the potential evaluators, at the Company, and fit with the current knowledge of employees at the CBU.

- **Company specific threats:** This includes Cannibalisation on other products, as well as Legal and regulatory requirements. Cannibalisation is factored in when making business cases are developed later in the NPD process. Legal and regulatory requirements evolved as a part of the PESTEL Framework (Johnson, Scholes & Whittington, 2008) (see section 4.1.1), which has been used throughout the Market Potential section: Company specific threats includes the political and legal dimensions, Sizing of market segment includes the economic dimension, and Alignment with market trends include the social, technological, and environmental dimensions.

Competitive Potential
Even Competitive Potential is divided into two parts. Here, the focus is to examine how the Company compares to its competitors and if it has the ability to create sustainable returns over time from the idea, or if competitors will be able to copy it.
Offering Advantage

This cell (see fig. 5.15) aims at assessing the potential of the particular concept, in comparison to offerings of competitors, and consists of six dimensions: Proposition, Product, Place, Price, Package, and Promotion.

### Figure 5.15: Cell 8. Offering Advantage in Evaluate.

The framework builds on the *Marketing Mix* (Armstrong, Kotler & Parment, 2013) (see section 4.1.3). The four original Ps have been amended with *Proposition* and *Package* (see fig. 5.16). The main reason for the two added dimensions is that most employees were more familiar with the six-dimension version.

### Figure 5.16: The 6P Framework Used to Assess Offering Advantage Compared to Competitors.

*Proposition* focuses on how the Company is creating value for customers by using a strong brand. As discussed before (see section 4.1.3), *Package* could be included in the *Product* dimension, but is a separate dimension at the Company due to its impact on perceived customer value.
Sustainable Competitive Advantage

The second cell in Competitive Potential (see fig. 5.17), aims at understanding how the product will be created and if that process provides the company with a SCA towards its competitors.

<table>
<thead>
<tr>
<th>9. Sustainable Competitive Advantage</th>
<th>Source</th>
<th>Sustainable Competitive Advantage</th>
<th>Y/N</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop product</td>
<td></td>
<td>Is the company the only player that within a reasonable timeframe can develop the product?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produce raw materials</td>
<td></td>
<td>Does the company have unique access to raw materials and other components for which there are no available substitutes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop packaging</td>
<td></td>
<td>Is the company the only player that within a reasonable timeframe can develop the package (for example through exclusive partnerships)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produce packaging</td>
<td></td>
<td>Is the company the only player that within a reasonable timeframe can produce the package, for example through exclusive partnerships?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacture</td>
<td></td>
<td>Is the company the only player that competitively can produce the product?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sell</td>
<td></td>
<td>Is the company unique in its ability to sell the product, by for example having a strong brand, extraordinary customer relationships etc.?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribute</td>
<td></td>
<td>Is the company uniquely capable of distributing the product to its customers?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.17: Cell 9. Sustainable Competitive Advantage in Evaluate.**

Seven Key Resources and Capabilities

From interviews, studying earlier cases of innovation and applying the Value Chain framework (Johnson, Scholes & Whittington, 2008) (see section 4.2.1), seven resources and capabilities emerged as being the most important (see fig. 5.18). The two on top of the list relate to the product: *develop the product* (i.e. the R&D process), and *source/produce raw materials* and components needed for creating the product.

| 5.18: Tool for aiding in assessing if a resource or capability contributes to sustainable competitive advantage, by posing questions based on the VRIN Framework. |

The next two relate to the packaging: *developing and producing* it. The fifth key capability is manufacturing the final product, i.e. assembling the components, and putting the product in its packaging. The two last capabilities relate to customers: *sell* is the ability of...
the Company to reach its customers, by for example pre-established relationships, a strong sales force, or a well-known brand; distribute is the ability to physically reach customers with the product in a competitive manner.

Potential Sources of Resources and Capabilities
The results of this project reveal five categories of sources for these resources and capabilities:

- **Internal**: The resource/capability is available within the company.
- **Develop/invest**: The company has the potential to develop the resource/capability, either by improving existing competencies or by starting from scratch.
- **Use current supplier**: The company already has connections with a supplier that could supply the resource/capability.
- **Find new supplier**: No current supplier can provide the resource/capability, and the company must scan the market for a new partner.
- **Not available/do not know**: Either the resource needed is not at all currently available, or further analysis is needed to determine if this is the case.

To provide a foundation for a strategic competitive advantage (SCA) analysis, the resources and capabilities are mapped for their source. To aid in this, the Sourcing Tree tool was developed (see Appendix E).

**Sustainable Competitive Advantage and VRIN**
During the workshop feedback sessions, stakeholders were introduced to the VRIN Framework (Barney, 1991) (see section 4.2.2). The response was unanimous: the SCA perspective is needed in business decisions, however, the framework itself is too complicated to use on a regular basis. Therefore, a simplified version was created, where the VRIN Framework factors were condensed into one question per potential source of competitive advantage (see fig. 5.18). An example of an SCA in develop product is that the company has superior R&D capabilities and the complexity of the product makes it difficult for competitors to replicate it. It could also be the possibility of protecting the product through a patent. An example in sell is a market leading brand that provides unique customer value. More examples can be found in table 5.2.
### Table 5.2: Examples of Sources for Sustainable Competitive Advantage for the Seven Identified Capabilities

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Develop product | - Unique R&D capabilities  
- Patents |
| Produce raw materials | - Ownership of rare materials  
- Exclusive collaboration with supplier |
| Develop packaging | - Unique R&D capability  
- Patents |
| Produce packaging | - Exclusive collaboration or co-creation with supplier |
| Manufacture | - Economies of scale in production  
- Lean/efficient production  
- Outstanding quality  
- Patents |
| Sell | - Strong relationship with customers  
- Brand  
- Awareness  
- Extraordinary marketing capabilities |
| Distribute | - Efficient, high-speed supply chain  
- Exclusive deal with third party logistics (3PL) |

If the analysis of the seven resources and capabilities show that the idea would be difficult for other companies in the market to compete with, in one or more aspect, the company has the potential of enjoying a sustained advantage in the market.

**Effort Needed**

After analysing the *Market Potential* for the idea and the company's comparative position to realise it, an assessment on the *Effort Needed* to realise the potential should be done. The effort consists of two dimensions: the cost to develop and sell the product, and the
time required before the development and launch phases are over and every-day operations begin.

**Resources Needed**

The costs referred to in this cell (see fig. 5.19) are one-time costs at the development stage and do not include running costs, such as cost of goods sold (COGS). The four categories were developed from input from interviews and workshops.

<table>
<thead>
<tr>
<th>Concept development</th>
<th>Ability to produce</th>
<th>Customer relationships</th>
<th>Distribution</th>
<th>Other</th>
<th>SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 5.19: CELL 10. RESOURCES NEEDED IN EVALUATE.**

For all categories, the company has the option to outsource or make themselves. The costs incurred to realise the targets of the idea fall into four categories (see fig. 5.20):

- **Concept development:** The company can choose to develop the concept themselves. This would likely involve the R&D department and therefore create costs through used up lab-time, prototyping, consumer tests etc. The alternative is outsourcing the development to a third party, which would entail a development fee to that firm.

- **Setting up the ability to produce:** The company can choose to develop the ability to produce the product in-house. This capacity may be available, there may be a need for increasing production capacity, or it may require investments in completely new technology and production equipment. The company can also choose to outsource this to a manufacturing company, which may charge a sum for setting up the production.

- **Creating relationships with customers:** Building relationships may drive costs, through e.g. advertisements, promotions and more work for the sales department. Conversely, the company can choose to sell the product under another brand or in
another way using another firm’s relationship with the targeted customers, which may incur one-time costs.

- **Setting up distribution:** Finally, distribution to the customer segment can be done in-house or outsourced to a 3PL firm.

<table>
<thead>
<tr>
<th>Cost</th>
<th>Source</th>
<th>Approximate cost</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept development</td>
<td>Develop competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to produce</td>
<td>CAPEX</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lego development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship customers</td>
<td>Create relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Go through third party</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td>Set-up distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3PL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5.20:** Tool for analysing initial costs for an idea.

**Time to Realise**

This cell is targeting the resources, in terms of time, it will take to implement the idea (see fig. 5.21). The time required to realise the targets for the idea fall into two categories: before and after launch, or the development phase and the marketing phase.

<table>
<thead>
<tr>
<th>11. Time to Realise</th>
</tr>
</thead>
<tbody>
<tr>
<td>How long will it take to realise targets and on what does it depend?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approximate time span</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development time</td>
</tr>
<tr>
<td>Time to target</td>
</tr>
<tr>
<td>SUM</td>
</tr>
</tbody>
</table>

**Figure 5.21:** Cell 11. Time to realise in Evaluate.

The framework presented in fig. 5.22 is intended to support the assessment of the time period needed. Each category is supported with questions to consider when the evaluator does a discretionary assessment. The questions are the results of interviews with key stakeholders in both the Innovation, Market, Sales, and Supply departments.
The two time periods are added to give a final assessment on what timeframe the project will require.

**Uncertainty and Risks**

One thing that was emphasised in the interviews was that there must be comments from the *evaluator* in the *Evaluate sheet* about uncertainty of data and risks when implementing the concept (see fig. 5.23).

**Figure 5.22**: Tool to help analyse time needed for the idea to reach its targets, consisting of both pre and post launch factors.

**Figure 5.23**: Cell 12. Uncertainty and Cell 13. Risks in Evaluate.
Uncertainty
The Uncertainty dimension consists of two questions that let the evaluator express uncertainty about data points and information that can impact the outcome of the analysis (see fig. 5.23). It is of high importance that the Select team is basing their analysis on accurate data and that they can track potential sources of error when assessing the potential of an idea. Therefore, both uncertain data points, as well as uncertain sources are of interest in this cell.

Risk
The Risk cell contains two questions (see fig. 5.23). The first is the risks when implementing the concept, which should be a summary of insights from filling out the previous cells of the Evaluate sheet. Risks could be e.g. that the idea is highly depending on trends or that the development phase will be especially time consuming.

The second question targets the risks that arise if the concept is not implemented. That could be losing a large client, customers losing trust in the company as an innovative business partner, or that a competitor can otherwise take over a market segment.

Input to Select Matrices
Workshop results showed that the team in the Select phase had trouble linking the analyses made in Evaluate to the matrices used in Select. To make the connection clearer, a cell summarising the idea based on the four dimensions used in Select (see section 5.2.4) was added (see fig. 5.24). The alternatives provided for each question correspond to the options on the axes in the Select matrices.

<table>
<thead>
<tr>
<th>14. Input to Select Matrices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is market potential, competitive standing, familiarity, and time frame?</strong></td>
</tr>
<tr>
<td><strong>How strong is the market potential?</strong></td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td><strong>How strong is the competitive standing?</strong></td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td><strong>How familiar is the Company with the idea?</strong></td>
</tr>
<tr>
<td>Familiar</td>
</tr>
<tr>
<td><strong>What is the time frame for implementation?</strong></td>
</tr>
<tr>
<td>Short term</td>
</tr>
</tbody>
</table>

**Figure 5.24:** Cell 14. Input to Select Matrices in Evaluate.
The *evaluator* uses input from different cells of the evaluate sheet to assess the four dimensions:

- **Market potential**: Market Attractiveness and Industry Situation.
- **Competitive standing**: Offering Advantage and Sustainable Competitive Advantage.
- **Familiarity**: Offering Advantage and Sustainable Competitive Advantage.
- **Time frame for implementation**: Resources Needed and Time to Realise.

**Final Recommendation, Signature & Date**

During evaluation, the *evaluator* becomes intimately familiar with the idea and has formed a personal opinion regarding its attractiveness. To convey this knowledge to the team comparing different ideas and selecting those that should move forward, the *evaluator* is asked to provide a final recommendation (see fig. 5.25).

<table>
<thead>
<tr>
<th>15. Final Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the main take-away and final recommendation for selection?</td>
</tr>
</tbody>
</table>

| 16. Signature & Date |

*Figure 5.25: Cell 15. Final Recommendation and Cell 16. Signature & Date in Evaluate.*

The sheet is signed and dated to ensure traceability and improve the chance of appropriate follow-up and feedback.

**5.2.4 Select**

The third and part of the model is *Select*. In this stage, a small group of key stakeholders from the three relevant departments – Market, Sales and Supply – meet to compare ideas and prioritise, to select the optimal portfolio of initiatives to take into further development. Ideas are then assigned to a person or department to ensure action. An overview can be seen in fig. 5.26.
Three possible outcomes for ideas were identified. If the idea is deemed sufficiently promising according to a set of criteria, it goes into Further development processes already established. If the potential is deemed insufficient, it is Scrapped. If the idea shows promise, but for one or more reasons is not deemed appropriate to develop further at the time, it is put on Hold for a future review. These reasons include:

- Bad fit in current portfolio, for example due to several other initiatives of that type under development.
- Currently no free resources in the innovation department.
- Idea targets emerging market that needs to mature before the idea becomes viable.
- Other initiatives underway in the organisation that will strengthen the company’s position to realise the idea in the future.

Two tools were developed to aid in analysing and selecting ideas (see fig. 5.27 and 5.28). They are based on the GE/McKinsey Matrix (Gluck et al., 1978), and the Portfolio of Initiatives Framework (Bryan, 2002) (see sections 4.3.2 and 4.3.3).

**Idea Selection Matrix**

The Idea Selection Matrix (see fig. 5.27) is based on the GE/McKinsey Matrix, but the axes are changed to Market Potential and Competitive Standing. Where an idea is plotted into the matrix depends on the ranking from the evaluation (see section 5.2.3), and discretionary input from the Select team.
Figure 5.27: *Idea Selection Matrix based on the GE/McKinsey Matrix.*

If an idea falls in the top left corner, it shows enough promise to be taken into further development. If the idea shows high promise, but the company’s position is currently weak to realise the benefits, a more thorough analysis should be made into how the competitive standing can be improved. This may depend on time, in which case the idea should be put on hold. If the idea falls in the middle section of the matrix, the company should demand the possibility of quick returns from the idea, otherwise it should be scrapped. If ideas fall in the bottom right corner, they should be scrapped and documented to ensure that no more resources are spent evaluating the idea in the future.

**Portfolio Matrix**

If ideas show enough promise in the *Idea Selection Matrix* to warrant more development resources, they are plotted into the *Portfolio Matrix* (see fig. 5.28), based on input from the evaluation (see section 5.2.3) and discretionary input from the *Select team*. 
Other initiatives currently underway in the company are also plotted. The Select team aims for an even clustering of ideas in the first, second, and third horizon boxes. If a box is overcrowded, new ideas that fall in that category are put on hold or scrapped. The matrix is continuously updated as initiatives progress, according to the process described by Bryan (2009) (see section 4.3.3).

Assigning Ideas
According to feedback from interviews, a common problem was a lack of accountability for further action when it came to new ideas. Therefore, the last step of Select is assigning responsibility for further development to the appropriate person. These are typically innovation managers, project managers or R&D-staff.

5.2.5 Feedback

Interviewees emphasised that employees lacked feedback, which was a main cause for them to stop suggesting new ideas. Therefore, feedback became a part of the solution. From the moment when the idea is transferred from Generate to Evaluate, the evaluator is responsible for updating the source on how it is going with the idea. When the idea finally succeeds or fails in Select, the Select team must inform the evaluator on the results, as well as explain why the particular outcome was reached. The evaluator must pass the
information back to the source of the idea, to improve the source’s understanding of what is required for the success of an idea, and guide future suggestions in the right direction.
6 Analysis

In this chapter, the issues that were revealed in the interviews are analysed and generalised. Section 6.2 begins with a discussion regarding how the model was developed to facilitate implementation in organisations, and continues with a more detailed description of each part of the model, analysing how the result was achieved and what that entails for implementation in other organisations.

6.1 Analysis of Problem Identification

That people find it hard to generate new ideas for innovation is caused by the view of an innovation as an invention, which has been described by Becker (1964), as well as Tidd, Bessant and Pavitt (2005). To always invent new concepts is time consuming and requires large resources. Instead, they could focus on using an existing idea invented elsewhere, and benefit from its value.

That employees at the CBU having a narrow view of what an innovation may be a result of what Becker (1964) describes as Lack of psychological and job security. As a result of the reorganisation within the Company, employees may feel insecure about their new roles and if they will keep their employment. As Becker (1964) says, if people are not feeling secure, they get reluctant to deviate from the group and come up with innovative ideas. Further, he mentions that a variety in background among employees foster innovativeness. But as the people at the business unit have worked together for many years, some being at the firm for more than 30 years, they create a common perspective on most matters, which hinders innovation.

Becker's (1964) third, and final, note on parameters to create an innovative organisation is that concrete matters mostly should be used for process innovations, while abstract parameters should be used for product and marketing innovations. Today, the Company measures all innovations with concrete parameters, which strangles the product and marketing innovations. The customers of the CBU deviate from the norm of customers to the firm and thus, they need other parameters to measure success. The fact that most ideas get rejected due to those parameters may explain why people are reluctant to suggest ideas within the CBU.
6.2 Model Implementation and Applicability

The most important input into this area is mentioned by Pisano (2015), who claims that there is no universal approach to how innovation should be managed. Instead, it must be adapted to every specific firm. This applies to this model, which has been developed closely with the Company. What worked in this case, may not always work for other firms. However, the following discussion aims to shed light on what factors are important to consider when adapting the model and how it should be done.

The proposed model offers a quick way to assess the potential of ideas, which would shorten the time to market. To get products to the market faster is important today when competition increases and product life cycles decreases in many industries, which has been described by both Tidd, Bessant and Pavitt (2005) and Ringel, Taylor and Zablit (2015).

There are some issues regarding implementation of the model and resistance to change that have been considered in the development. One factor mentioned by Harvey and Broyles (2010), is Lack of top brass support. This project was initiated by top management at the Company and had management support from the start. To ensure maintained support, meetings have been held continuously with top management to create a sense of ownership. The same approach was used in the case of Can Vasella (Lorsch & MacTague, 2016), who had meetings with top management to set clear goals. These weekly meetings were also held to mitigate the Duration issues mentioned by Sirkin, Keenan and Jackson (2005). By having weekly meetings during the 20-week project, important realignments of the project could be done to ensure the quality and acceptance of the project.

In addition, these meetings created one of the two parts of Commitment (top management support) mentioned by Sirkin, Keenan and Jackson (2005), the other one being support among employees who will be operationally involved. This commitment was created by involving all relevant stakeholders in the development process. In implementing the model, this frequent communication should be continued.

Harvey and Broyles (2010) also mention Boredom as a source of resistance. In this case, the employees at the CBU were tired of change after a long period of reorganisations. One way of implementing the solution could be to have an “innovation room”, in which all
ideas can be presented on posters and be attached to the walls, so that everyone at the CBU can see them. Involving employees in creative processes could hopefully create the *Creative climate*, described by Tidd, Bessant and Pavitt (2005). In addition, the people at the CBU and the Company may be tired of never being listened to, but after a total of 41 interviews and three workshops, the hope is that they feel the opposite, which improves chances of acceptance of the model.

Furthermore, Harvey and Broyles (2010) also bring up that *Extremes of organisational structure* can lead to resistance. In this case, employees had too much freedom, or lack of structure, leading to low levels of innovation. Tidd, Bessant and Pavitt (2005) highlight this parameter as *Appropriate structure*. The model retains a degree of freedom in terms of a lack of “gates”, but creates more structure by providing a set of parameters that should be investigated and questions to be answered. In addition, the *Select* stage ensures energy is put into the most viable projects.

A problem mentioned by Sirkin, Keenan and Jackson (2005) when implementing change in an organisation is the difficulty to find a unified perspective of what parameters to consider. This is also described in the dimension *Shared vision, leadership and will to innovate*, by Tidd, Bessant and Pavitt (2005). Harvey and Broyles (2010) also mention a similar dimension, called *Lack of ownership*, meaning that employees get reluctant to change if they do not feel that they are a part of the solution. The large amount of interviews with various employees, as well as the use of follow-up interviews and workshops are ways used to tackle those potential problems.

One risk when implementing the solution is that employees can experience *Lack of benefits* (Harvey & Broyles, 2010), as they simultaneously would experience *increased burdens* (Harvey & Broyles, 2010). The proposed solution would likely be more time consuming initially, but has three major benefits for individuals, besides the benefits for the company. First, when employees are comfortable with the model, it is likely to save them time by providing a standard set of variables to analyse, which enables an analysis to be “finished”, as opposed to an ad hoc approach that can always be improved. Second, it will increase the chances that employees’ ideas are realised, by reducing the lack of accountability causing good ideas to go unexplored. Third, the formalised system will provide possibilities for both feedback and personal recognition for the person coming up
with the idea, something than may be even more effective for stimulating change and innovation than monetary compensation (Lorsch & McTague, 2016). This also mitigates the Lack of recognition described by Tidd, Bessant and Pavitt (2005).

Another aspect raised by Tidd, Bessant and Pavitt (2005) is Key individuals, who will act as champions and drive the change for the solution. Therefore, a Process manager has been selected, which will be an expert on all areas of the solution. If someone needs expert help, the process manager is the one responsible to provide assistance, as well as making sure concerned employees are using the model. There will also be a Process owner, who actively uses the model and works closely with the other employees who are using it. This person will continuously update the model to keep it aligned with strategy and current processes. When employees can come with feedback on the application of the model, the dimension of a Learning organisation (Tidd, Bessant & Pavitt, 2005) will be improved, since this involves everyone concerned in the management of change.

Continuing and stretching individual development is another parameter mentioned by Tidd, Bessant and Pavitt (2005), needed to ensure a successful innovative organisation. Therefore, the Project manager and Model owner will together make sure that new employees are trained and that all employees will be updated when the model changes.

6.2.1 Generate

Innovation Streams

Barsh, Capozzi and Davidson (2008) emphasise the importance for companies to find innovative ideas among their employees, partners, customers, suppliers etc., as a result of increased globalisation. Tidd, Bessant and Pavitt (2005) further stress the importance of having an External focus. Therefore, the Innovation Streams serve as a collection of sources of where to find innovations.

The structure with flows of innovation is recommended for all companies when implementing this model for three reasons. First, it ensures that no unit in the company is left out. Second, the structure of who to report to and how to search for innovation becomes clearer. Third, it can create a new perspective of where innovative ideas can come from.
What is important to emphasise when designing the *Innovation Streams* is that they should be broad and involve all employees in the organisation. When all areas of a company are included in one model, the chances of getting a common commitment to creating innovation is likely to increase, as everyone is working towards a common goal, an important factor in change management (Pisano, 2015). Additionally, involving more people continuously in the innovation process will increase what Tidd, Bessant and Pavitt (2005) call *High involvement in innovation*. Further, it is important to look for overlap, so that each potential *source* of innovation only belongs to one *Innovation Stream*, as dispute of ownership can otherwise arise.

The three streams of Market, Sales, and Supply reflect the structure of the Company. In other companies, the flows may vary and also involve other departments. However, once the *Innovation Streams* are defined, the division of internal network, close circle network, and extended network can be used as a guide to find all units that are potential *sources* of innovation for each stream. How far away from the core business each level is can differ between companies, depending on what type of interaction it has with other units and companies. The streams should be updated as the organisation and its environment changes.

**Innovation Compass**

Every company has different businesses and the *Innovation Compass* should be adapted accordingly, both in terms of dimensions and phrasing. The *Organisation, Process, and Supply chain* dimensions were replaced by *Distribution* in this case, but if those are creating value for customers of another company, they should be restored.

Some modifications only involved name changes, but were still important to increase the success of implementation rate for the model. The easier it is to understand what to do, the smaller the risk gets that the idea *source* will avoid using the model or misunderstand it.

The initial intention with the *Innovation Compass* was to broaden the way employees view innovation, both in terms of in what dimensions there could be innovative ideas, but also that there can be more than just small changes or extreme transformations. However, as it was an appreciated and eye-opening tool in the interviews, it could also be used as a brainstorming tool when there are innovation activities and meetings at the CBU. To
implement an innovative approach in the entire Company, it could be used in more processes, to successively become a natural part of the mind-set of the employees. Additionally, the Innovation Compass can be used as a tool for top management to set goals for the coming year by identifying untapped potential areas within the compass through looking at what areas are not yet developed.

In addition, the concept of Ambidexterity (O'Reilly & Tushman, 2013) is included in the Innovation Compass, since exploitation is targeted in the area of incremental innovations, while exploration is the goal for radical ideas.

**Assignment Guidelines**

Every company needs its own guidelines for assignment. In this version of the model, *product, packaging, and customer segment* are of the highest importance, but that may change in other companies. However, assignment guidelines are essential to ensure action on all ideas.

### 6.2.2 Evaluate

As Pisano (2015) mentioned, multiple perspectives are crucial in order to create high quality innovation, but it will result in the opposite if people are not aligned around common goals. At the CBU, there was no structure on how to evaluate ideas and how to compare those to one another. In addition, what factors were considered important differed between different stakeholders at the CBU. *Evaluate* aims at solving those issues.

Both Doug Baker and Can Vasella (Lorsch & McTague, 2016) encourage decision making to be more decentralised in order to handle the issues present within their organisations, which are similar to the problems faced by the CBU. In *Evaluate* it is not managers who are doing the analyses. Instead, the process is decentralised and handled separately in the three channels Market, Sales, and Supply.

Feedback from testing the *Evaluate sheet* was clear and unanimous on three points. The first was the importance of simplicity. To be used regularly in the organisation, processes and tools needed to save time for employees and not be a burden. This corresponds to Sirkin, Keenan and Jackson (2005) call *Effort*, i.e., to succeed with a change project, it must not require too much effort or be too intrusive in employees’ day-to-day activities. Therefore, the sheet was condensed from a high level of specificity and detail to just a few
factors linked to questions. This has both benefits and disadvantages. Some disadvantages are:

- Potential loss of detail and important nuances in the analysis.
- Putting more responsibility of quality and rigour on the evaluator, compared to a more formalised and standardised evaluation.
- Potentially making the model too generic to be of any real assistance in evaluation.

Conversely, benefits include:

- Reducing the time needed to make an analysis and increasing the chance of adoption.
- It relieves some of the pressure that employees have felt on that ideas must be able to prove significant benefits early on, which had a choking effect on innovation at the CBU.
- A more generic approach may also increase the applicability of the model to other companies, since more formalised and detailed questions may be very specific to the current environment and may even need to be changed over time.

The second point of feedback was the importance of using familiar tools and adapt the model to existing processes. If it does not fit into current processes and culture, the resistance to adoption would increase, as well as the potential benefits diminish. The Evaluate sheet is consequently adapted to fit in with further NPD processes, by for example avoiding analysis duplication. To implement the model in other companies, the Evaluate sheet needs to be adapted to only include analysis that will not be done in the same manner later in the process, or alternatively adapt the NPD process. Further, Evaluate makes use of frameworks that the organisation was familiar with when possible, for example the 6P Marketing Mix instead of the standard 4P.

The third point of feedback was the importance of terminology. During testing of the model, most of the confusion arose when a word was used that the participants were not familiar with, or that meant something else in the organisation. For example, the section “Effort Needed” was previously named “Cost & time for implementation”. However, the word “implementation” had different meanings for different stakeholders. For Supply, it meant implementing necessary changes in the production facility. For Market, it meant to
get the product to the customer. Therefore, the more generic term “realise” was used. This issue is likely to be prevalent in other companies as well, and therefore, the Evaluate sheet category names and terms should be carefully scrutinized and adapted to relevant company terminology.

Following is a closer discussion regarding some of the key cells of the Evaluate sheet.

**Strategy & Targets**

**Added Value**

To become an innovative organisation, Pisano (2015) says that the management team must decide how innovation should create value for their customers. That dimension is in focus in the first part, called *Added value*, of the cell Strategy & Targets, since the evaluator is forced to fill in how the idea will create value for the customers. In addition, the other areas in *Added value* must be adapted for each company and should reflect what business areas they want to develop right now and what strategic goals every launch must aim to target. Those should be selected carefully and must be updated as strategic goals change. Strategic goals are usually wide, not always specific in detail, and can focus on both development of department, and position on the market. Therefore, they must be divided into smaller areas, which can be targeted with every new idea.

**Targets**

The five possible targets are connected to corporate strategy and are a result of the offering. They are general for all companies, but may need rephrasing. At the Company, there was a large focus on one of the dimensions. Therefore, the four other targets were used to widen the scope on what can be the goal of an initiative, and also to move away from old patterns and mind-sets. Ideas that were previously immediately discarded now get a chance to get further in the process before they are criticised from that particular point of view. However, it does not mean that the targets in this step should be largely outside the strategic targets of the firm, since that will lead to scrapping later in the NPD process.

**Market Attractiveness**

As Zinchiak (2014) describes, a combination of qualitative and quantitative research can provide a more robust and nuanced picture when performing market research. This is further emphasised in the additional guidelines to Market Attractiveness, which can be
found in Appendix D, since they include both qualitative assigning statements, on a four grade scale, as well as follow up questions with a more quantitative nature for both Market Potential and Industry Situation. The ranking should be a qualitative assessment of gathered quantitative data. Then the comment section can include both qualitative and quantitative information, that the evaluator considers important for the Select team.

Market Potential
In the cell of Market Potential, the idea of Zinchiak (2014) is further taken into account, since it includes both growth and size of the market segment, as well as customer trends and analysis of customer behaviours. The trends will improve qualitative understanding and aid in explaining quantitative data of growth and potential market size in the future.

One of the findings from the interviews was that the customers of the CBU deviate much from the customers of other business units at the Company. As a response, the factor Further Company potential was added. Even if the idea may not fulfil all targets when applied at the CBU, there is a possibility that it will, when combined with potential of other units.

Industry Situation
Both Porter’s Five Forces framework as well as the PESTEL Framework (Johnson, Scholes & Whittington, 2008) are used in Industry Situation, as well as in Market Potential. They are general frameworks and should consequently be applicable in other organisations. However, the factor Cannibalisation may not be applicable at other firms. At the Company, that factor is always factored when making business cases later in the NPD process and by evaluating at an early stage, the hope is that the following analysis will be easier, although more extensive. But in other organisations, it may be too early to include this parameter and the cell should be adapted accordingly.

Competitive Potential
Offering Advantage
The Marketing Mix is a framework that has been developed to function in most organisations when deciding how to put an offering on the market. But, as Khan (2009) indicates, it is not uncommon for companies to add dimensions as they see fit. In this case, the traditional 4Ps had been amended with two more, since Proposition and Packaging
were of high importance to the Company. Each company should find the *Marketing Mix* that fits their organisation best.

*Sustainable Competitive Advantage*

The *Sustainable Competitive Advantage* analysis is made on the seven identified key categories of capabilities. These were developed from the *Value Chain* perspective (Johnson, Scholes & Whittington, 2008) to ensure coverage of important steps. It was then adapted to the Company, since feedback in interviews showed that the *Value Chain* framework’s terms were too generic to be of any practical use.

The difficulty of determining if resources and capabilities should come from within or be outsourced, was also heavily discussed. While representatives from Supply and managerial roles thought this decision was important to consider early on, many from Sales and Market considered it too early in the process to make such assumptions. This discussion is likely to arise in other organisations as well and difficulty will likely depend on the size and complexity of the company’s organisation.

The seven categories themselves may also differ between industries and further analysis is needed to assess applicability. However, being based on the *Value Chain* framework, the categories should hold some validity. The comparative importance may also differ. There is likely more SCA for the pharmaceutical industry to be found in R&D than in selling; more SCA found in efficient manufacturing than in R&D in commodity industries; and more sources for SCA found in selling and R&D than in distribution for the software industry.

**Effort Needed**

The *Resources Needed* cell of the *Evaluate sheet* is a simplified version of a business case. It was originally meant to include a full business case, summarising the potential revenues of the previously analysed market, approximate COGS, development costs etc. However, a more thorough business case is done later in the Company’s NPD process, and would therefore mean duplication of work, since the analysis would have to be remade more thoroughly. It would also be difficult for many stakeholders, for example the Market and Sales departments, to make accurate predictions of COGS. Consequently, *Effort Needed* focuses only on the time and resources needed in the development of the idea and not the
complete financial picture. Organisations with strong tools for making business cases may benefit from adding to this section.

The Evaluate sheet allows for new ideas within product, packaging or customer segments. The Effort Needed analysis mirrors this. For example, if the idea is to sell an existing product to a new customer segment, product/packaging development time and resources would be zero, but the cost and time to reach the target customers, through for example promotions or direct sales, would be higher.

Uncertainty and Risks

Uncertainty
When finding market data or information that is available within the organisation, there is a large risk that it contains approximations and originates from sources whose trustworthiness should be considered. Therefore, the uncertainty parameter is important, especially in organisations and cases where access to information is limited.

Moreover, an evaluator, who has come up with an idea, may not want to reveal that their case is based on uncertain sources and information points and thus there is a risk that people will not always admit the uncertainty in what has been presented.

Risks
In the Risk cell, there is a good opportunity for the evaluator to include everything that did not fit in the comment section in the other cells about risks with the project. It is of high importance to both include the risks with implementation and the risks if the concept is not implemented, so that the Select team will understand the entire scope of the concept. The Risk cell also serves as a sanity check, since the Evaluate sheet as for the rest is fairly allowing.

Input to Select Matrices
This seemingly minor step is an important part of the evaluation process. Feedback on the analyses made in Evaluate often concerned the reason why each step was present (questions such as “why are we doing this?”, “what are we learning from this?” and “what do we use this for?”). The Input to Select matrices binds the analyses together, since every analysis made in Evaluate serves as input to one or more of the four dimensions. This is also what most clearly connects Evaluate to Select – a connection that was important to
stress, according to feedback. It also simplifies the process of selecting, as every idea is immediately ready to be drawn into the Select matrices. If the model is digitized, this can be done automatically.

6.2.3 Select

Pisano (2015) mentions four areas that must be addressed to create an innovative organisation. One of them is that managers must create a plan for how resources will be allocated depending on type of innovation. This is what is done in Select, when the Select team is deciding which ideas to continue with and which to scrap. In addition, senior management must choose between trade-offs, since all departments have different preferences (Pisano, 2015). That is why one person from each Innovation Stream (Market, Sales and Supply) meet to choose which ideas to proceed with and why it is not done decentralised. The composition of the Select team, with people with diverse backgrounds, is also a result of the theory of Becker (1964), claiming that a diverse team will encourage innovation.

Even if the Select team is only a small group of people, the senior managers in the group must communicate to all employees how innovation should create value for the customers of the company and how they decide on what ideas to proceed with (Pisano, 2015). This will improve the understanding among evaluators and sources of what is important in a successful idea.

The Select phase is less formalised than Evaluate and allows for more freedom. The two matrices serve as a foundation for decision making and Evaluate the foundation for plotting the matrices. However, there is room for discretionary input from the Select team into both where ideas are plotted and how the matrices are used. This is done because ideas can vary greatly in type and analysis needed.

Applying the model to several ideas showed that there is a need for a qualitative assessment of the idea as a whole. There are often idiosyncratic factors that cannot be captured in a standardised framework. This is likely a reason why Pisano (2015) claims that innovation processes are never off-the-shelf, but must be adapted. These factors could be captured in Evaluate, but doing it in the Select stage is preferable, since representatives from several key perspectives (Sales, Market, and Supply) are
represented and are better qualified to assess the idea in a discussion of perspectives than a single evaluator from one of the departments is. The three perspectives combined with the formalised analysis of the Evaluate sheet maximise the quality of the decision.

During workshops with several departments present, there were often different, conflicting, and sometimes complementing views. Select is performed by a team from different departments to capture these different perspectives. In this study, this was a team of four from three departments, based on the organisational characteristics. However, this should be adapted to each company’s reality. The team should be kept small, as larger teams tend to find it harder to meet all at once, in addition to taking up more time. It should however not be so small that key perspectives are excluded. Companies need to find a balance between efficiency and thoroughness.

As a rule of thumb, the team should consist of 3 - 5 people from the 3 - 5 departments most heavily involved in the following process (development, launch, etc.). Depending on the strategic importance of innovation to the company, managers should also be involved. Bryan (2002) recommends when using the Portfolio of Initiatives Framework to involve a group of 20 people, including the CEO. This might be too high level for this early in the innovation process, but will depend on the company strategy.

The shape and form of the Select meetings are also left to the organisation to decide. In this study, physical meetings every few months were recommended. This depended on the business cycle in the industry, the meeting culture at the Company, the importance of innovation to corporate strategy, and the expected number of ideas. However, this can be altered to suit other organisations. Digitising the process could open up for a more agile work process and for involving more stakeholders in the Select stage, since no physical presence is needed. This could be especially beneficial to companies whose key stakeholders are spread globally.

**Outputs**
The outputs defined in the model (Further development, Hold, and Scrap) were based on the current innovation process of the Company. This may differ between companies, and thus need significant adaptation. For example, different ideas may need to go into different NPD processes depending on type (for example packaging or product innovation), degree of novelty (incremental or radical), or geography (global launch or
local product). It is key that the defined outputs cover all possibilities completely to eliminate the risk of ideas landing in grey areas without clear accountability.

Matrices

The GE/McKinsey Matrix was used with a certain degree of adaptation. The original framework analyses the current performance of existing business units. To focus more on possible gains, input to the matrix focuses more on potential than current performance.

What high, medium or low means on the two dimensions in each matrix is not specifically defined, as this depends on the organisational context. What may be high potential for one company may not be good enough for another. However, there should be a common view of what is considered for example “high market potential” within each organisation.

The Portfolio of Initiatives Framework matrix was slightly modified in terminology. As with Evaluate, feedback on Select put emphasis on relatable terminology. Therefore, the three categories Familiar, Unfamiliar, and Uncertain were changed to Familiar, New to the Company, and New to market, as this was a segmentation that was already used when categorising innovation.

Assigning

As with output, it is important to minimise grey areas and chances of lack of accountability. There should be clear directives who is personally accountable for each possible output. These people should also be involved in the implementation process of the model as they will be responsible for taking the output from the model further and therefore need a sense of commitment.

6.2.4 Feedback

One dimension that Tidd, Bessant and Pavitt (2005) emphasise is Extensive communication. This means increased information upwards, downward, and laterally within the organisation. The model promotes that this is done through feedback, especially when the idea transfers from one of the three steps to another.

6.3 Recommendations for Use

The solution is created in collaboration with a Swedish company, producing consumer goods. However, it may be useful within other companies as well, especially if instructions
and considerations raised in this chapter, Appendix D, and Appendix E are considered. In addition, it is composed by general frameworks that have been shown to be effective in different organisations, in different contexts, which further improves transferability.

In general, Generate is a change in the process of gathering ideas for innovation, by emphasizing broad involvement in the innovation process. The main task involved is to to an inventory of stakeholders and map them into Innovation Streams. The Evaluate sheet in turn could be implemented either digitally or used as a print-out to show in meetings. Select is also a process change and consists mainly of meetings. An important thing to consider is who should attend the meetings and how and when they should be held.

One thing that was emphasised throughout the project was that people within the CBU should feel like the solution was a co-creation between them and the authors, to create a sense of ownership. When implementing the model within another firm, the development phase can be skipped, which means that employees may lack that sense of ownership of the model. However, there is a possibility to allow for them to have an impact on how to alter it, to make it fit better in the organisation.

As has been discussed in this chapter, people may feel like implementation of a new model only increases the work load. Therefore, benefits for each employee must be clearly articulated. In addition, it may be of interest to implement a reward system, in which people with ideas that lead to actual innovation are rewarded.

Moreover, the model must be incorporated in current processes when implementing it elsewhere. Language and phrasing may need to be altered, so that employees at the company will understand the terms. Finally, it must be decided who will do the evaluation and selection, as well as setting up the Innovation Streams.
7 Discussion of Results

Chapter seven includes a discussion of the validity and applicability of the model, as well as recommendations for further studies.

The results in this study are based mostly on qualitative data collection, through deep interviews and workshops. Although some quantitative validation was created through the sheer number of interviews, a more quantitative, data-driven approach to validate the model is needed. This should be done from two perspectives: quality and usability.

Quality of the model refers to the results of its use. Does the amount of ideas actually increase? Do the good ideas pass and are the bad ideas rejected? Great care for this factor was taken in the development, where each part of the model started as detailed analyses based on verified frameworks, such as the Value Chain, VRIN, and the Marketing Mix. However, they were then simplified to make them more usable and fit in the organisational context, which may have caused important factors to be discarded.

Usability refers to the implementation in the organisation. Is the model actually used as intended? Do any problems arise after long-term use? Is there need for modification? How is the model affected by changes in the company's environment, both internally and externally? This issue was considered in this study, by applying an iterative approach, continuously testing model components through cases, workshops and interviews, and the model was modified according to feedback. However, a pattern emerged through the iterative approach, where suggested framework components were received unanimously positive until the interviewees actually had to change their way of working. The interviews may have skewed results in favour of the model, while the reality of implementation may be more difficult. Actual results will only show after the model has been implemented and used for a longer period of time.

Both these issues, quality and usability, require further studies. A long-term follow-up study in the Company, focusing on measuring changes in the organisation caused by the model, is recommended to verify the resulting effects of implementation. A qualitative approach to observe how the model is used in day-to-day operations would also be valuable.
An issue with qualitative, single-case-study based studies, such as this one, is the question of applicability (Höst, Regnell & Runeson, 2006, pp. 33-34). During initial development of the three-step model presented, focus was on tailoring the solution to the Company, although the solution was based on tested and generally applicable frameworks. In the later development stage, more concern was taken to how the model can be modified to fit other organisations. This is discussed in the previous chapter, however, it would need further verification.

Wording stands out as an important factor of usability in this study, the same issue may be seen in other organisations, requiring even more generic or perhaps tailored phrases and names for model components. Further studies into how the model can be applied in other companies is needed to draw any further conclusions on broader applicability. These studies could factor in different conditions such as:

- **The size of the company:** Analysis may be more difficult in larger organisations with more complex value chains and processes.

- **Industry:** Different industries may have different emphasis on what is important when evaluating the potential of ideas, and may need to consider other factors.

- **Corporate culture and nationality:** The mind-set and focus on innovation may impact the rate of adoption of the model. Further, how used employees are to using similar frameworks may be a factor.

- **Local, regional, or global use:** Analysis may be easier to do ad hoc for regional companies, formalised structures more important in global companies to create a common view of innovation.

- **Level of innovation maturity:** The framework may be superfluous in organisations with innovation processes that already address the issues raised in this study.
8 Conclusion and Further Studies

The final chapter presents conclusions drawn from the project. In addition, it includes suggestions for further studies to validate the validity and usability of the proposed model.

The CBU, at which this study was conducted, is a part of a company in a high-pressure, competitive environment. After recently being separated as a stand-alone business unit, the innovation capability at the CBU has been lacking. This project was aimed at answering why the capability was lacking as well as propose a solution for improving the situation. Four main causes for the problem were found:

- There was a narrow view on what an innovation was and who was responsible for driving ideas.
- There was a lack of a structured approach for capturing new ideas.
- There was no way to quickly and objectively assess the viability of an idea, which resulted in many potentially good ideas being discarded without proper analysis.
- There was no feedback provided as to what happened to ideas, suggested by employees, resulting in lowered incentives to partake in the innovation process.

A three-step model was developed and tested to improve innovation performance:

- **Generate:** Aimed at creating a structured flow of innovation by clarifying which stakeholder is responsible for capturing idea from which sources. It also involves larger parts of the company in the idea creation process. Further, **Generate** introduces the **Innovation Compass** tool to widen the perspective of what innovation is.

- **Evaluate:** A quick and easy way to assess the viability of an idea by looking at four areas: Strategy and targets, market attractiveness, competitive potential, and effort needed to realise gains.

- **Select:** A stage where key stakeholders in the innovation process gather and, with the help of two matrices and the input from the **Evaluate** stage, select the best ideas based on potential gains and fit in portfolio.
Initial results of implementation of the model are promising and could be useful for companies that find themselves in similar situations as the Company. However, further studies are needed to assess the validity, power, and usability of the framework:

- A long-term follow-up study including quantitative elements should assess if the model actually improved the organisation's innovation capability.
- It should be complemented with a qualitative observation-based study to analyse how the model is used in practise, how it compares to its intended use, and if modification is needed.

Finally, to review the general applicability of the model, it should be tested in other companies in other situations and industries.
Bibliography


Appendices

Appendix A – List of Interviewees

The following stakeholders within and outside the company were interviewed during the process of this project. Most of the were interviewed more than once, while some were informed about project progress weekly.

The Company
1 Business Developer
2 Innovation Managers
4 Supply Chain Manager/Supplier Relations
1 Production Facility Manager
2 Product Managers
1 Process Manager
1 Controller
1 Trainee

The CBU
Head of CBU
Head of Marketing
5 Marketing Managers
2 Key Account Managers
3 Sales Managers
1 Project Manager

External
1 Industry Expert
Appendix B – Sample Questionnaire

The following is a short sample of the questionnaire used for the second round of semi-structured interviews, when the identified issues and a first draft to a solution were briefly presented before the interview commenced. The full questionnaire contained 79 questions, however, not everyone was asked each question, as each interview guide was tailored to the particular interviewee. This was done for two reasons: first, asking all questions to each person would take too long time, and second, not everyone was relevant for answering each question. The sample is included to give insight into the interview process and enable assessment of the validity of interview answers.

Some questions have been modified/generalised to protect the integrity of the Company.

Is our formulation of the problem the same as yours? If not, how does it differ?

Do you always know who to turn to with a new idea?

If you present an idea, do you receive feedback on what happens to it?

Are there any potential sources of innovation not included in the Innovation Streams?

Is the separation of internal network, close network, and extended network logical? How would you change it?

Are all potential sources equally important? Or is there a need for weighing their importance/influence?

Is there a need for this level of information detail at this point in the process? More or less?

Is the Evaluate sheet understandable? Is it logical to fill in?

How should the ranking of factors be designed? Colour coded? Scale from 1-5? Or other numbers? Perhaps only yes/no?

What possible targets are there with an innovation project?

Are there standard time horizons already used at the company? For example, what does short/long term mean?

Are employees generally familiar with the Porter’s Five Forces Framework?

How should the Select process be designed? Online or in person? Ad hoc or scheduled meetings? Who should be in it?
What are the most important factors when comparing two vastly different ideas with each other?
Appendix C – Long-List of Factors to Consider

The following list of factors was developed by the authors at an early stage of the literature review process. The factors were the authors current hypothesis for what was important to consider when evaluating an idea, and thus what should be included in the proposed solution. They served as the foundation for the continued work with compiling the literature review.

**Strategy/overall factors**
- Pricing method (value-based, cost-based etc.)
- SC complexity vs business attractiveness
- Sustainability of resources and competencies
- Goals with launch - what constitutes success?
- Cost-to-Serve
- Local presence vs global reach
- Strategic stance: shape/adapt/reserve right to play
- Cannibalisation
- Complementary effects

**Distribution channels**
- Customers’ preferred channels
- Access to distribution channels
- Price of transport
- Distance to customers

**Supply Chain**
- Investment costs
- How to source (make/buy)

**Market**
- Industry life cycle
- Market uncertainty/ambiguity
- Market segment size
- Market growth rate
Segment profitability
Geographic spread
Level of competition
  - Number of current actors and strength
Difficulty entering market
Experience of market
Laws and regulations
Political factors
Economic factors
Social changes
Environmental pressure
Economies of scale and market share
Customer bargaining power
Switching costs
Chances/risks of backwards/forwards integration
Supplier bargaining power

**Innovation/Product**

Type of innovation
Situation-based thinking (what need is satisfied?)
Incremental/radical innovation
Degree of novelty
What type of action is necessary (big bet/option/no-regret)
Substitutes that fulfil the same need
What customer characteristics (early adopters/late majority)
Appendix D – Additional Guidelines for Market Attractiveness

The *Market Attractiveness* is composed by two cells: *Market Potential* and *Industry Situation*. They both include tables with ranking options and to aid in the ranking analysis, as well as creating a foundation for the comment section, the following tables could be used. For each cell, there are two tables, one with ranking statements of a more qualitative nature and one with quantitative questions. The qualitative is used for the ranking and the more the evaluator agrees with the statement, the further to the right a box should be checked.

The tables do not have to be forwarded to the *Select team* but can be demanded if the *Select team* considers them needed for the selection and assignment. They can also be of great help for the evaluator, when learning how the model works. Fig. 8.1 and 8.2 are for *Market Potential*, while fig. 8.3 and 8.4 are for *Industry Situation*.

**Table D.1: Ranking statements for Cell 6. Market Potential in Evaluate.**

<table>
<thead>
<tr>
<th>Market Potential</th>
<th>Ranking questions</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong market segment</td>
<td>A large market segment with a lot of potential customers.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Size</td>
<td>The size of the segment is rapidly growing.</td>
<td></td>
</tr>
<tr>
<td>Alignment with customer trends</td>
<td></td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>Industry and segment trends</td>
<td>The idea is well in line with large industry trends.</td>
<td></td>
</tr>
<tr>
<td>Further company potential</td>
<td></td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Potential</th>
<th>Areas to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizing of market segment</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>How many customers are in the segment? (See market analysis for guidance)</td>
</tr>
<tr>
<td>Growth rate</td>
<td>How much is the size and value of the market segment growing? (See market analysis for guidance)</td>
</tr>
<tr>
<td>Alignment with customer trends</td>
<td></td>
</tr>
<tr>
<td>Industry trends</td>
<td>Which industry and segment trends correlate with the idea? (See trend analysis for guidance)</td>
</tr>
<tr>
<td>Further Company potential</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Industry Situation</th>
<th>Ranking questions</th>
<th>Ranking</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier power</td>
<td>There are many suppliers on the market, it is not expensive to switch supplier and the suppliers cannot do what the Company does themselves.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>Substitutes</td>
<td>There are not other players with more valuable offerings within and outside the industry.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threat of entry</td>
<td>Large investments are required to enter the market, it is hard to reach economies of scale and to find distribution channels, existing firms are ready to start price wars, the market is strictly controlled by legislation and government and it is hard to find a differentiated offer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buyer power</td>
<td>There are just a few buyers on the market, it is cheap to switch buyer and the buyers cannot do what the Company does themselves.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive rivalry</td>
<td>There are not a lot of small competitors on the market, the market growth rate is not either very high or very low, there are low fixed costs, it is cheap to exit the market and differentiation is high.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company specific threats</td>
<td>Cannibalisation Volume of existing offerings will not be affected by implementation of the idea.</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Legal and regulatory requirements The idea is not affected by legal and regulatory changes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Industry Situation</th>
<th>Areas to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive intensity</td>
<td></td>
</tr>
<tr>
<td>Supplier power</td>
<td>• How many and what suppliers are on the market?</td>
</tr>
<tr>
<td></td>
<td>• What does it take to switch supplier?</td>
</tr>
<tr>
<td></td>
<td>• To what extent can suppliers do the work of the Company?</td>
</tr>
<tr>
<td>Substitutes</td>
<td>• What competitors exist in the same industry?</td>
</tr>
<tr>
<td></td>
<td>• What competitors exist outside the industry?</td>
</tr>
<tr>
<td>Threat of entry</td>
<td>• What does it take to enter the market and how long does it take to reach economies of scale?</td>
</tr>
<tr>
<td></td>
<td>• How does supply and distribution possibilities look like?</td>
</tr>
<tr>
<td></td>
<td>• Is there a potential to become a price war on the market?</td>
</tr>
<tr>
<td></td>
<td>• Is legislation and government action extended on the market?</td>
</tr>
<tr>
<td></td>
<td>• How does the possibility to find a differentiated offer look like?</td>
</tr>
<tr>
<td>Buyer power</td>
<td>• How many and what buyers are on the market and what does share of wallet look like?</td>
</tr>
<tr>
<td></td>
<td>• What does it take to switch supplier for the buyers?</td>
</tr>
<tr>
<td></td>
<td>• To what extent can buyers do the work of the Company?</td>
</tr>
<tr>
<td>Competitive rivalry</td>
<td>• How many and what competitors are on the market and what are their sizes?</td>
</tr>
<tr>
<td></td>
<td>• What does industry growth rate look like?</td>
</tr>
<tr>
<td></td>
<td>• Are there high fixed costs required to be on the market?</td>
</tr>
<tr>
<td></td>
<td>• What does it take to exit the industry?</td>
</tr>
<tr>
<td></td>
<td>• What do differentiation possibilities look like?</td>
</tr>
<tr>
<td>Company specific threats</td>
<td>Cannibalisation Which existing offerings will be affected by the idea and by how much?</td>
</tr>
<tr>
<td>Legal and regulatory requirements</td>
<td>How and to what extent is the idea affected by legal changes?</td>
</tr>
</tbody>
</table>
Appendix E – Sourcing Tree

The following tool was developed to aid in the process of choosing whether to outsource or perform an activity in-house.