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Developing a new product development & launch process Case: Company X

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Abstract

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This study is a product-oriented thesis which is focused in developing a new product development and launch process for Company X , a company which offers innovative Roll handling equipment for the paper industry. The objective of the thesis is to find and develop a framework which would clarify the entire product development and launch process and increase the success rate on the new product launches.

The reviews of the literature, business cases, journals and data analysis are the foundation of the new product launch model. Even the thesis is product oriented, a qualitative research, in form of in-depth interviews is conducted. The qualitative research helps, in connecting the theoretical part with the actual process followed in the business. The product outcome of this thesis is a concrete structured process, including each step from the product conceptualisation to the stage of launching the product into the market.

This thesis proposes elaborated guidelines which Company X could follow in its product development and launch process. The launch plan was developed based on the Stage-Gate™ process, which is a reliable and successful method used in different successful launch cases. The Stage-Gate™ process was adopted according to the industry and company´s strategy. The author hopes that the final results could help the company to have a clear understanding of each stage in the product launching process and implement each of these stages in accordance with the type of the project or launching strategy.

Keywords	
Product launch, B2B launching process, Stage-Gate™ model, Product managment, Business development, Process design	

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List of abbreviations

NPD   New product development

R&D   Research and development

NPL   New product launch

ROI   Return on investment

VOC   Voice of customer

B2B   Business to business

B2C   Business to consumer

1   Introduction

In today's market careful planning and a good product strategy are essential to help you succeeding in the market. Companies everywhere are competing more than ever to develop new and unique products or services and gain a higher position in the market. Companies develop a high number of new products every year. Most of these products fail to secure competitive advantages and end up being just another high cost for the company. (G.Cooper 2001, 1-10)

The aim of this thesis is to develop a product development and launch process for Company X , Finnish supplier of roll handling equipment for the paper industry. The need for this thesis came during the author´s working experience with the company. Company X is a young company that creates innovative products for the industry. Developing new unique products that offer several benefits to the customers is the company mission and at the same time one of the main strengths.

As the new product development is a continuous process and Company X is growing its product portfolio continuously, the commissioner felt the need in structuring the product development and launch process in a well-defined step-by-step process that is easy to follow and communicate internally. (Rantanen, 2013). The author's knowledge and experience gained during the studies in international business and working within the paper industry can be utilized to help Company X in building this process.

New products are very essential for the corporate success. Innovation is a must if you want to continue competing in the market. However the new product development is one of the riskiest processes that require focus and high investments. (G.Cooper 2001, 4-5). Several studies have been done in the sucessful product launch cases, and success drivers have been discovered. Corporations are using a structured idea-to- launch process which help them manage implementing these success drivers and reduce the risk of product launch fail. (Cooper & Edgett 2012).

At Company X it would be very beneficial to take the sucessful factors and organize in a stuctured product development and launch process which would reduce significantly

the risk of a product launch fail. The new developed product launch process should include each step that should be taken when developing new products.

1.1 Thesis objectives and research questions

The objective of the thesis is to find a model and develop it to a process which would clarify the entire product development and launch process. The finalized product aims to increase the success rate on Company X´s new product launches. At the moment the company is not following officially any existing product development and launch process. All new product development and launch process goes through the management experience and the ideas are mainly focused in problem-solving cases. In other cases product development is based on existing products.

A reliable existing product development and launch process is presented, analysed and then modified according to the Company X´s case. The final suggested process includes the main steps which should be undertaken in the product development and launch process. The necessary studies and documentations are displayed in the final developed process. Moreover, a review of the existing process or the path which existing products have followed from the idea to the launch has been conducted. The review helped the author to find the missing gaps and to complete a documented product development and launch process.

From the review of the process the author discovered that the introduction of the product into the market was the most problematic stage in the product development and launch process. This discovery shifted slightly the planned final outcome of this thesis. The author decided to develop the product and development process but give the main focus and emphasis to the last stage of product development and launch process which is the launch of the product onto the market. Such focus aims to increase the benefits the company receives from the outcome of this product oriented thesis.

The research questions are built to support the objective of this thesis and lead to an end product which is practical to understand and use. The three research Questions are;

a- What is the product launch process and what are the main steps taken when developing a new product?

b- How to increase the probability of successful product launches for Company X?

c- How an existing product development and launch process can be modified and adopted to Company X business case?

By answering the above questions the author is able to better understand the product development and launch process and utilize the gained information to create a customized process for the commissioner. The first question gives a better understanding of product launch development and launch process. The literature review including business cases, journals and data analysis are the foundation of the new product launch process. Also web published interview videos; by professionals discussing topics related to product launch process are included in the theoretical framework.

After getting a better understanding of the product development and launch process, the second question helps the author to relate the theory to the company profile and the current process. The answer for the current situation comes from the authors working experience in the company and the interviews conducted internally with the CEO and R&D team. The company strategy and the target customers are taken into consideration when comparing the suggested process with the current method used in the company. After analysing the entire process the third question leads to a tangible product that is a product launch process designed for Company X .

1.2 Scope and Limitation and Relevance of the study

This research is focused in the product development and launch process. which adopts and develops a product launch method with clear steps. These steps can be used as checklist which company can edit or modify at any time according to the product type or the company´s strategic decision. There are several reasons why a structured product development and launch process is necessary within the company.
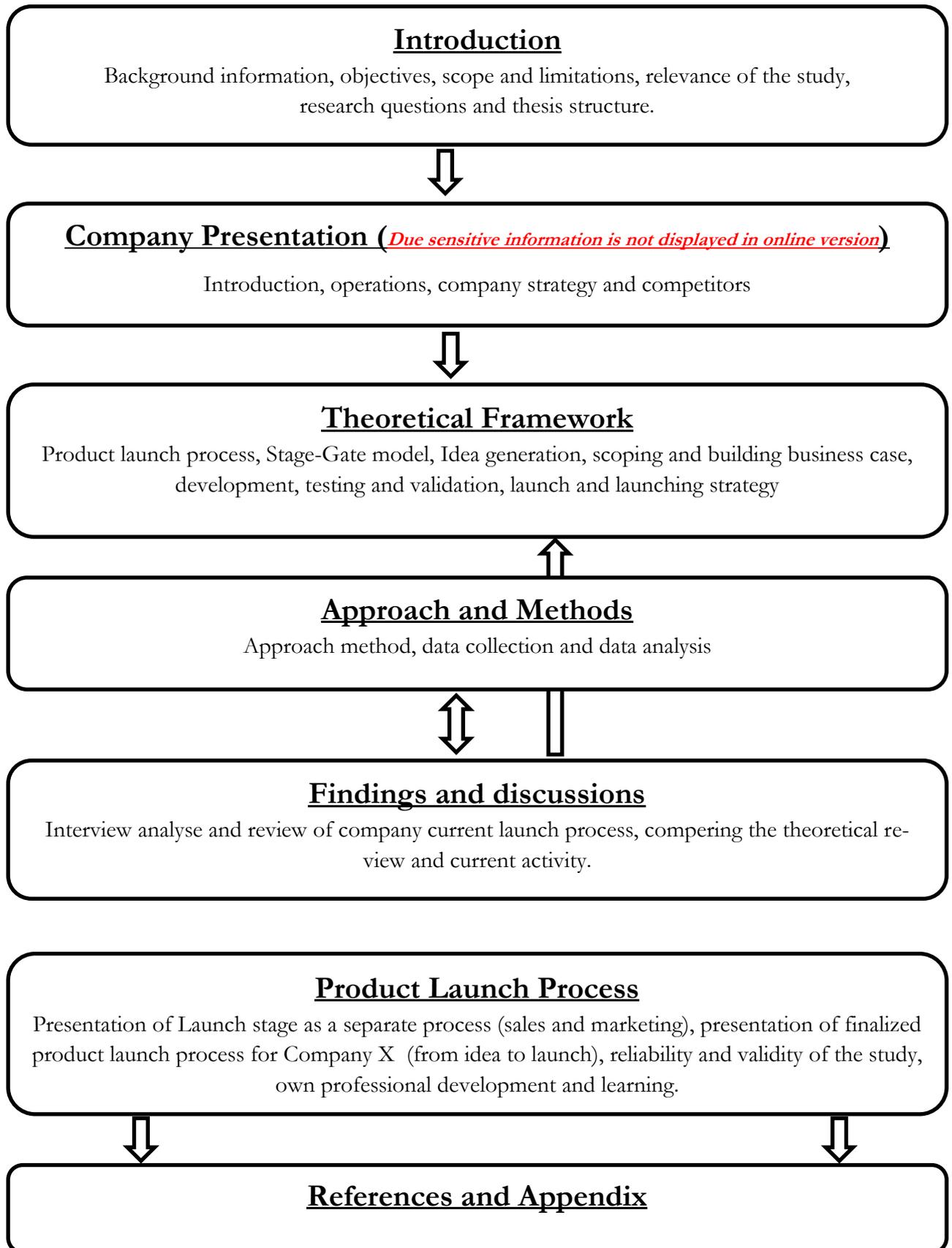
Karl T.Ulrich and Steven P.Eppinger (2012, 7) define three reasons why a structured product launch is necessary; firstly, a structured method makes the decision process fully defined, giving the possibility for everyone in the team to understand the basis of the decision and reducing the chance that unsupported decisions move forward. Secondly, all the important issues will be included in the product development as the steps will be displayed in the checklist which will also act as reminder. And thirdly, a structured method is normally self-documenting, as during the execution of the process the responsible team documents the decision for future reference. They would also be beneficial for the company when training new employees, as the practical documentation could be used for educational purpose.

Company X is a new company developing new innovative products, which are unknown for the customers or the end user.(Company X , 2013) The author believes that to create trust with the customers and gain market share more rapidly, product launch fails should be avoided. This can be contolled by analyzing more carefully each stage of the product development and launch process and to sucessfully acomplish this, a structured constant process is necessary. As long as there is lack of information about the product launch process and the important steps that must be considered, it will be difficult for the company to include all success factors in the new product launches. The structured process which is the outcome of this thesis aims to help the company to reduce the above mentioned risk and lead to sucessful product launches.

Taking into consideration the nature of Company X products, the study is concentrated only in the B2B context . A very important contribution on building a NPL process is the Stage-Gate™ process (see figure 2) developed by Robert G Cooper, which is a reliable and successful method used in different successful launch-es. Other reliable books which have been studying the product development, product launch and product planning such as; Product planning essentials (Kahn, 2011), Product Design and Development (Ulrich & Eppinger, 2012) and Winning at new products (Cooper, 2001) are very important supporting sources for developing a NPL process for Company X .

As the company is a small size and the internal resources are limited, the process is developed as a simple process, avoiding all unnecessary complexities that are applied in corporations. However it is very important to take into consideration the importance and relevance of the information presented. It is also important to mention that the outcome of this study is a ready to modify and use product, as modifications and changes need to be done depending on the project requirements and product types developed. This limitation comes due the need of the company for a general product development and launch process that can be used in a long term prospective. The author has to study the process from a wider prospective use and not study only a given typical product case.

1.3   Structure of the Study

> ## <u>Introduction</u>
> Background information, objectives, scope and limitations, relevance of the study, research questions and thesis structure.

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> ## <u>Company Presentation (</u>*Due sensitive information is not displayed in online version***)**
>
> Introduction, operations, company strategy and competitors

⇩

> ## <u>Theoretical Framework</u>
> Product launch process, Stage-Gate model, Idea generation, scoping and building business case, development, testing and validation, launch and launching strategy

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> ## <u>Approach and Methods</u>
> Approach method, data collection and data analysis

⇕ ▯

> ## <u>Findings and discussions</u>
> Interview analyse and review of company current launch process, compering the theoretical review and current activity.

> ## <u>Product Launch Process</u>
> Presentation of Launch stage as a separate process (sales and marketing), presentation of finalized product launch process for Company X (from idea to launch), reliability and validity of the study, own professional development and learning.

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> ## <u>References and Appendix</u>

2   Stage gate model and product launch process

This chapter is an introduction of the product launch process starting with a general description of the product launch process and the importance of product launch in a company success. Furthermore, in this chapter the author presents the product development and product launch process by following as guide the Stage-Gate model, a worldwide commonly used product launch model.

2.1   Product development and launch Process

To enable constant growth companies should master the process of a product launch through introducing new competitive products into the market. Product launches help increasing sales revenue and expanding the customer base. By introducing new products a company can also target new groups of customers. The launch of new products can also influence the company expansion and new internal investments. Continuous research and planning are necessary if a company wants to achieve a successful product launch. During this process all the employees of the company are involved, from the R&D to the Sales and Marketing team. (Gluck, 2012)

To be successful and attract the customer attention, the new product must fulfil their needs and maintain the brand promise. In today's market quality of the product is not the only aspect which customers are looking for. The price, function and status of the product are also very important. An adequate research and strategic planning are necessary before presenting the new products to the customer (Gluck, 2012). In a product launch strategy Gluck (2012) defines several important stages of product launch process. Such important stages are; development, internal testing, external testing, objective and goal setting, positioning, excitement building and event timing.

Based on the theoretical review but also in own working experience the author believes that the product development & launch process is different from one company to another. For instance in business to business (B2B) the decision process is different from business to consumer (B2C). The market size in B2B is generally smaller comparing to B2C. In B2B the sales are based in value and not quantity as commonly happens in B2C. The mass marketing in B2C can generate many prospects, which will not neces-

sarily turn into sales; however in B2B mass marketing is not effective. The Sales process and purchasing process is also different in these two markets. In B2B the decision-making can go through many gatekeepers, which is unlikely to happen in B2C. (D'Souza, 2012).

The author strongly believes that the size of the company can also influence the product launch process. A small size company with a small budget has more limited resources in people and finance when planning the product launch process comparing to a big size company.

2.2   The Stage Gate™ Model

The Stage Gate model is an organized, structured product development and launch process which is used to decrease the product failures and increase the success of the companies in launching new products. The Stage gate model is a proven successful method and many international companies have been using it when launching new products. International Paper, which is world´s largest player in pulp and paper industry, is using use Stage Gate process in managing the development and launch of new prooducts. This reference makes the Stage Gate model more relevant to this case study. (Cooper 2001)

The stage Gate model is a series of stages and gates. As shown in the figure 2 there are five stages and after each stage is followed a gate. The stages represent the activities that are taken during the NPD process. Gates are checkpoints that are determined by certain criteria from which companies decide either to continue with the project or not.
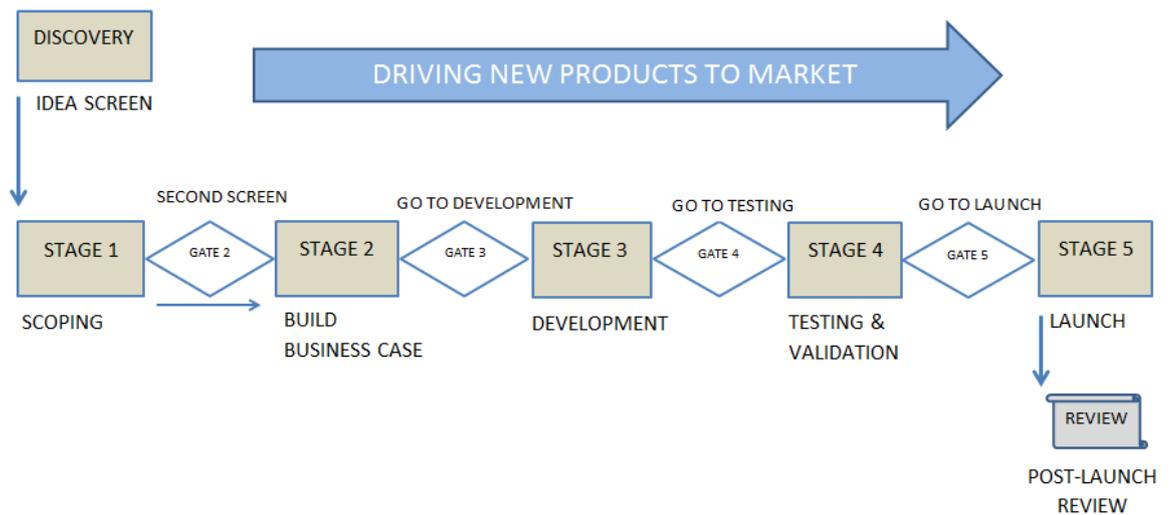
Figure 1. The typical Stage Gate model – from discovery to launch (Cooper 2001, 130)

As shown in the figure two the Stage Gate Model starts with the discovery of the new products and finishes with the launch of the product in the market. A post launch review is recommended after the product has been launched in the market.

However in the latest study Robert Cooper explains that the Stage-Gate model is a process that can be modified depending on the complexity and size of the project. For instance in a low risk project the stage one and two can be assessed together, continuing with stages three and four and concluding with the fifth stage. This system would have three gates instead of five. (Cooper, 2013). The author fully supports the idea of companies modifying the Stage-Gate model in accordance with their needs. In a shorter process the company would save time, money and would be accessible for all different types of projects. One product development or launch process would not be reliable if it is always requiring the same steps. Different products have different characteristics and naturally they differ in the requirements. Such claim has been also studied by different authors who have come up with the same conclusion; one strategy does not fit to all products. (MacCormack, et al., 2012)

To have a better understanding of the Stage Gate model for the major project, in the chapters below the author will present separately each of the stages which should be followed in a product development and launch process.

2.2.1   Idea Generation for new Products

The ideation activity that a company undertakes to generate a set of product concept represents the concept generation. As a stage in product development process the concept generation serves to bring to the company as many concepts as possible, review the concepts and determine the best options which should be considered for further product development. (Kahn 2011, 68). A good or bad product idea can determine the sucess of a project, as the ideas generation will lead to the new products which can be offered to the customers. There are many ideas that a company can work on, but the quality of the ideas is usually low quality or low-value. For this fact it is important that a company structures a process for generating new ideas which would help in creating new sucessful products (Cooper 2001, 154). According to Cooper, it is very important to have a product strategy which defines the areas of the strategic focus decideding which areas you want to search for new developments. These clear specifications, will help to generate more clear and effective ideas which are difficult to get from a scattered search.

There are two routes which are used to generate new ideas in a company; "bottom up and discovered ocasionally" or "top down and planned". An example of "bottom up" is a sales person visiting a customer facility and during the visit notices a problem. When the sales person defines a solution, he reports the new product idea to the company. On the other hand "top-down" is more direct and structured. A particular market segment and focus area are defined. A market research finds the customer problems which the company should resolve, and the project team work in these problems, developing new products over few years (Cooper 2001, 155-156). The idea generation management process is a very important part when it comes to the impact on the sales of new products. In a study conduced by Arthur D. Little (2005, 20) the idea management has the highes impact in sales of new products, giving a high important to this stage. Below the author presents several methods which are commonly used to help in generating ideas which lead to launch of new sucessful products.

Idea generation methods

A detailed ideation study was conducted by Cooper & Edgett in 2008, and eighteen ideation methods which are divided in three approach groups were listed; Voice of customer methods (VOC), Open Innovation methods and other approaches. Other authors have been studying the new product development process, and identified new methods which companies are using when generating new ideas for the NPD process.

Anthropological research has been used by many companies to identify new product opportunities. This is a VOC method and it is an expensive method but very effective. In this method it is important to visit the customers and gain insights in customer needs. In order to understand the customer needs and wants the company needs to be closer with the customer. In B2B markets it is important to focus in customers' work-flow, observing how the customer uses the products and what the problems they face are. The new products should not be just an upgrade of the old ones but new solutions which increase efficiency and effectiveness. (Cooper 2001, 163-164)

Lead user analysis is another VOC method which has been applied in many companies. The method was developed by Eric von Hippel in 80´s. The base of this theory is working with innovative customers, will lead in developing innovative products. Collaborating with innovative customers and discussing new solutions which would help them is very effective source in generating new innovative products. (Ulrich & Eppinger 2012, 124; Edgett & Cooper, 2008, 4-5)

Product Value Analyzis and **Identifying market trends** are two other methods that use VOC to develop new products. The first method is an experimental method that was pioneered by Ron Sears. In this method customers interact with aspects of company´s product, and then express his concerns, views and difficulties. This method helps the companies to be in interaction with the customer and solve problems which concern them. The second method is identifying the market trends and needs by conducting customer surveys or focus groups. After defining the trends and needs, the company forma a group of experts to discusses the problems or possible solutions (Edgett & Cooper 2008, 4-5; Cooper 2001, 162-164; Kahn 2011, 70-72).

Internal search is another method which ueses team knowladge and creativity to generate new ideas. This method is often called brainstorming. In this method the aim is to generate as many ideas as possible and normally two general guidelines are defined; the first one is that all judgements must be deffered and all ideas are welcome. Criticism is not good and should be inapropriate. This helps to generate high quantity of ideas. The second one is that quantity brids quality, the more ideas, the better it is (Kahn 2011, 73; Ulrich & Eppinger 2012, 127-128). Another valuable source to generate new ideas are **competitors**. The idea is not to copy the products of your competitor, but to analyze their products for gathering ideas for new improved products. When using this method it is very important to analyse each part of the competitors' product and define what is wrong with it. It is also important to analyse how well the product is doing and what are the materials which have been used for the positioning of the product.

Another Souce of generating new ideas are technical **universities**, where you can gather information regarding the latest development. Establishing contact with keye research centres in different universities of your field may be very beneficial to generate new ideas for the new products (Cooper 2001, 176).

Searching patents can also help the company to be informed for the latest development and technologies available. Patents offer a rich content material which can be used to generate new ideas . Many of this patents are protected for 20 years and if considering using them, a ralty fee can be applied. However , patents are also useful to see what products are protected and must be licenced or avoided (Ulrich & Eppinger 2012, 125).

Not all the products proposed from the idea generation will go to the development stage. For various reasons such as strategically fit, resource availability, insufficiency of idea development, etc. the ideas are dropped down. For this reason Robert Cooper proposes the idea of an idea bank where companies can put all unused ideas which could be utilised for further reference or development. One product screeming framework which is proposed by marketing experts is R-W-W (real, win, worth doing). The base concept of R-W-W are three questions; firstly *Is it real?* Is there a real need for a particular product from the customer? It is important to analyze if the product

concept is clear and that will satisfy the customer need. Secondly, *Can we win?* It is important to define if the product offer sustainable competitive advantage and that the company has resources for the product success. And thirdly, *is it worth doing?* In this question the managers should define if the idea for the new product fits to the company growth strategy. The other question that should be answered is: Does the new product offer sufficient profit potential? Before going to the development of the new product the company should answer to the above questions (Kotler, et al., 2013).

The picture below is an own concept developed by the author which summarizes the literature review on the idea generation process before starting the NPD. The sources in which the company should concentrate should be generated from four main sources; The choice-of-customer, internal resources of the company, a deep market research for the future trend and needs and analysis of the competitor´s product.
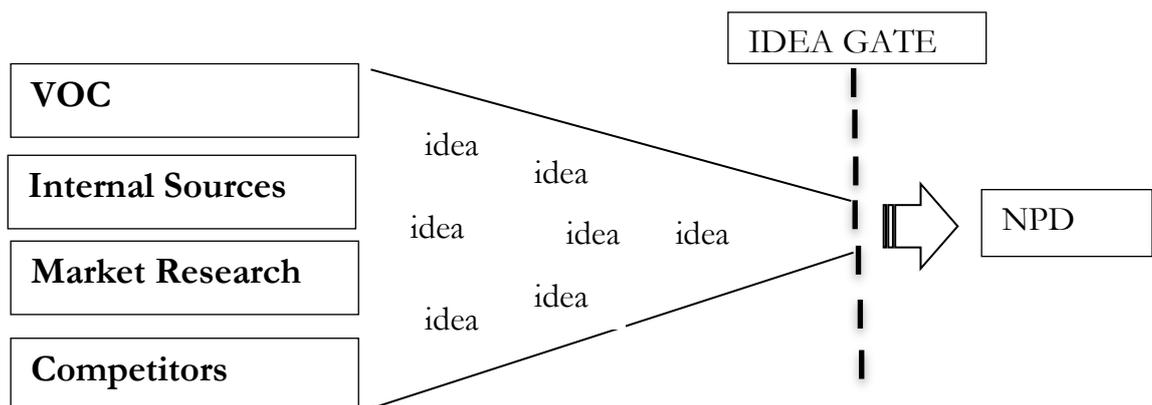

Figure 2. Idea genration process, own concept devloped based on theories from (Edgett & Cooper, 2008); (Ulrich & Eppinger, 2012); (Kahn, 2011) and (Cooper, 2001).

2.2.2 Scoping

Scoping is the first stage of the new product development and launch process.. In this stage firstly a *preliminary market assessment is* done. During the preliminary assessment a quick scoping of the market prospects for the product is essential. Such assessment includes; the potential of the product, market acceptance and the requirements for the product. This process is not a detailed market research but a desk research which is based only in the existing recourses. Secondly a *preliminary technical assessment* is conducted The technical assessment is focused on the conceptual assessment and the

technical feasibility, manufacturing process assessment, intellectual properties and technical solutions. *A preliminary financial and business assessment* is the final check before the recommendations are given. In this phase only a surficial check of business rationale and financial prospects is done (Cooper 2001, 178-184). The information gathered from the assesments above will provide the ground to justify the elemination of some projects and acceptance of some others. As After reviewing the results the gatekeepers, should give their decision on the the project. When a project has been aproved the project team together with the gate keepers should propose an action plan for the continuation of the product development. At the same time the critereas for the next gate are decided by the project team and the gatekeepers (U.S Department of energy 2007; Cooper 2001, 184).

2.2.3 Building Business case

After the preliminary assessments the second stage is the last predevelopment stage. In this stage the studies are more detailed. Firstly a study of *user needs and wants is conduced.* Defining the customer value and benefit can determine a successful product (Cooper 2001, 184-188). To support this idea even further in a video webinar John Hogan, a value management advisor states that in order for a company to success with a product the company need to bring in the customer value. The customer value will enable the company to understand the profit implications of the development decision. The research is important but a product cannot success without the customer value (Hogan 2013).

Competitive analysis is another important part of this stage. In order to be successful a company should provide greater customer value and satisfaction than its competitors do (Kotler et al. 2013, 76). A detailed look of the competition should be conducted to determine who are the competitors, what are their strengths and weakness, pricing and business model. Furthermore, *market analysis* determining the market size, trends, segmentation and buyers behaviour, is combined with the two studies mentioned above. This analysis in is a continuation of the preliminary analysis which was done in the first stage, however this is a more in depth analysis (Cooper 2001, 197).

Cooper also defines the detailed *technical assessment* as very important in this stage. During the assessment the company maps out the technical solutions and defines the possible risks which the product may face. Manufacturability, suppliers and intellectual properties are also analysed in this phase. After technical detailed assessment a *concept testing* is very important before going to development. The concept testing helps the company to prove the interest of the customer or end-user and to add the final components to the concept. As conclusion, *financial business analysis* and a *plan of actions* are the final reports which should be prepared before going to the stage 4, which is development (Cooper 2001, 184-191).

2.2.4   Development

A product can exist as a concept passing all the business tests mentioned above. However the product concept needs to go to the next stage that is the development. In this phase, the R&D team start developing the concept into a physical product (Kotler et al. 2013). An important part of the development is to build a prototype and start the testing with the customers as soon as possible. During this stage is vital to seek customer feedback and input continuously. The customer feedback will help to maintain the product development in the right direction, meeting all customer requirements (Cooper 2001, 253). Cooper underlines that rapid development is also very important during this stage. The product should reach the market as fast as possible in order to gain competitive advantage and receive faster revenue.

Moreover, Stefan Thomke and Donald Reinertsen (2012) from Harvard business review have analysed several interesting myths on product development. Such myths can influence the product development and launch process. Firstly, from the economics point of view the authors are arguing that when purchasing components for a project it should be done in small amounts and tested in each process without creating batches. This process will help in improving cycle time, efficiency and quality. Secondly, for organizing the resources the authors are recommending the managers to not concentrate all resources in one project as this would not fasten the product development process but create queue in other projects At the same time it is also recommended to avoid starting the development too early as such action will not increase the develop-

ment speed if the company is practically not ready for starting it (Thomke & Donald, 2012).

Once the product's first prototype has been developed and tested with the customers, continuous improvement is necessary. The development team should always give priority to customer feedback and features that bring value to the customer and not the product itself (Hogan, 2013). Moreover, Robert Cooper (2001) states that a post launch plan is very important to be developed in parallel with the product development. At this stage the company will need to define what will occur after the product launch; what should be measured and how it will be done?

2.2.5 Testing and Validation

The purpose of this stage is to completely validate the product and prepare it for the final launch. Testing is very important to validate the functionality and documentation of the product. Avoiding this stage can very often result in a failed product launch (Soni & Cohen 2000). There are several test methods that can be implemented starting with the *preference test,* which measures the market acceptance. During this test the finalized product is presented to the customer, facing its preferences. The concept and development tests, which are done in previous stages are applied only in description models, and cannot be fully reliable for the final product launch. According to Cooper (2001), this type of testing would help in minor improvement in the design of the product. The message received by the customer preference test is a valuable source of information that can determine how the product should be communicated to the customer. However it is recommendable to not oversell the product but let the customer evaluate it. Measuring how much customers like the product is more important than measuring how good the salespeople are performing.

A Beta Test is another testing methodology, which is carried out for a longer period of time and includes the customers and partners. Commonly, beta testing is the second phase of the testing after the internal testing. The product is given or loaned to the customer who will use it in its working environment. During this test, the product is displayed in the real working environment. The display will help in defining the

strengths and weakness of the product. Some deficiencies that the product may have, sometimes are not properly shown in the lab testing (Cooper, 2001). All features of the product, benefits and functionality are tested during the beta test. The feedback received is very important and should be analysed carefully. The customer responses will provide very valuable marketing material that can be used when launching the new products. The underlined benefits and features received from the customer feedback can be used in designing promotional and sales material (Vellandi, 2008). According to Soni & Cohen (2000) beta test is a very important part of the Testing and Validation phase. Other aspects such as creation of legal document, building up manufacturing plan, and training of sales services are undertaken during this stage. (Soni & Cohen, 2000)

Market Testing is the final testing methodology that can be done before the product is launched. The benefits and the cost will depend on the product strategy, distribution channel and the uniqueness of the product. According to Vellandi (2008), this testing is completely optional and can be utilized to test the launch strategy and the marketing plan, in a limited market or group of customers. The segment chosen to apply the testing is exposed to the complete launch plan and the finalized product. The main goal of this type of testing is to verify the expected sales and market acceptance before going to the gate five which gives the green/red light for the launch of the finalized products. The second outcome of this type of testing is that company can evaluate different launch plans by introducing them into small segments in two different groups. In the industrial products such type of testing is also called trial selling where each detail is in accuracy with the final launch plan (Cooper 2001, 273-274; Vellandi 2008).

2.3   Launching product onto the market

The final stage of the product development and launch process is the introduction of the product into the market. On this stage the role of marketing and sales is crucial. For instance developing a marketing plan is very essential activity in this stage (Cooper 2001, 278-279). For better understanding of the content of a marketing plan, the appendix three present the content of marketing plan defined by Kotler et al.(2013, 56)

A common definition of marketing is, putting the right product, in the right place, at the right price, at the right time (Manktelow & Carlson, 2012). According to Manktelow & Carlson, if one of the previous stages is underestimated or not considered the launch of the new product can be a failure.

2.3.1 Defining the Marketing Strategy

In a product launch process, the company's mission and objectives are defined by the company since the beginning of product planning. The goal of Marketing is to create value for the customers and ensure a profitable relationship with the customers. To accomplish this, a *marketing strategy* is necessary. The marketing strategy defines which is the group of the customers company will serve and how will it be served to this customer group. The group of customers is defined through segmentation and targeting and the answer on how the company will serve to its customers comes via differentiation and positioning. (Kotler, et al. 2013, 51-53).

A market segment consists of a group of customers which have similar needs and respond very similarly to the marketing activities. The marketing target involves the analysing of each market and selecting one or more segments as potential customers.

Furthermore, Kotler et al (2013) defines positioning as a place which companies occupy in the customers mind to distinguish their products from the competitors. In the positioning of a company, the customer value differentiations and the advantages of the products towards the customers are very important. If a company promises better value than the competitor, it is a must to deliver those values. This process is reached through the differentiation of the market offering to create greater customer value (Kotler, et al. 2013, 52).

2.3.2 Defining the marketing mix

After defining the marketing strategy, the company should prepare the marketing mix. The marketing mix is the most important set of marketing tools which companies can use to influence the demand of the customers for its products. This set of tools is collected into a group called the four P´s of marketing (Kotler, et al. 2013, 53). The four P´s stand for product, place, price and promotion (Kotler & Keller 2009, 92).

Figure 3. The marketing mix (Kotler & Keller 2009, 92).

Product is the article which has been developed by a company or manufacturer which desires to sell it to the customer. Product is the main competing item of the company and it is considered to be the heart of marketing mix. If a product does not fulfil the customer needs, or satisfaction, the price, promotion and place will not be able to achieve the marketing target (Akrani, 2010).

Price of the product defines the value of the product to the customer. It is the most important factor which influences the marketing. Price can be determined by several factors such as; product manufacturing cost, market share, target customers, type of the product etc. (van Vliet, 2013).

Promotion is all about defining the way how the company will communicate with the customers. The core message is delivered to the customers via defined promotion tools used in sales and marketing. Promotional activities help to differentiate the product from competitors, and create a good relationship with the customers (van Vliet 2013, Akrani, 2010).

Place is considered as distribution channel which is used to deliver the products to customers. However the type of product, which a company offers, influence the way how it should be distributed (Ehmke et al. 2013).

2.3.3 Marketing in B2B product launch

According to Dan Adams (2012) in 80% of B2B transactions today, the customer finds the supplier. Adams divides marketing into two stages: early stage marketing which starts with the discovery stage and late stage marketing which is implemented when the company is promoting the product to the market.
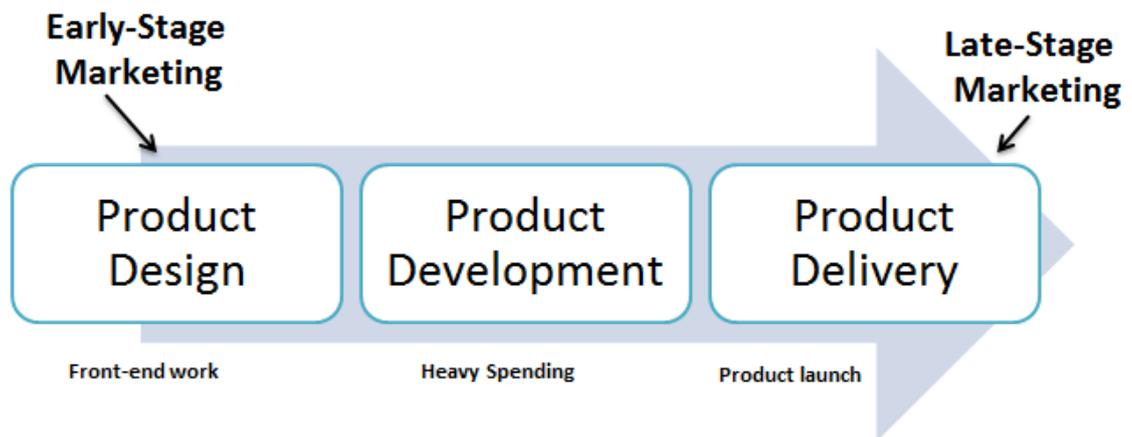

Figure 4. Marketing stages in product launch process (Adams 2012, 3)

The idea of the early marketing stage is also mentioned by Robert G. Cooper, which sees marketing planning as an activity that starts just after the idea generation and continues through all new product process (Cooper, 2001). Furthermore Adams proposes that the 4 Ps coming from customer should be developed into a B2B model.

*"Deliver the **Right Product** to the **Right Market** using the **Right Message** through the **Right Media"** (Adams, 2012).*

With the right product the company should satisfy the market needs. The right product is delivered by fulfilling the previous stages. Understanding customer needs and building the customer value into the product.

2.3.4 Media channels

Before launching a new product it is important to understand which media preferences the target customers have. By using the right media, a company can use more efficient-

ly the investment in promoting the new products into the market (Gray, 2012). On the picture below, nine traditional media and nine online media are listed.
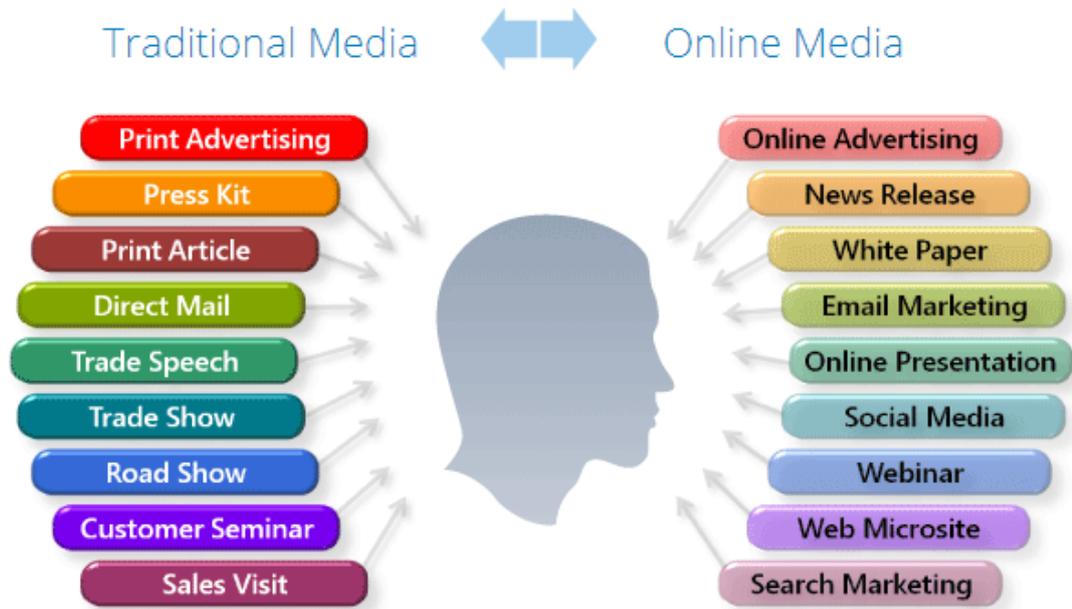

Figure 5 Eighteen different media used in B2B product launch (Adams, 2012)

The factors that influence the company's decision should firstly be decided in a research where customer's media preferences are listed. Then, company should consider the available resources to implement each listed media. The industry in which the company is operating and the position of the company in the industry, are two other important factors which influence the decision on which media channel should be used (Adams, 2012).

2.3.5 Sales promotion

Sales promotion is one of the most important success factors that affect the success of a product launch. Sales promotion is made through motivation activities, which encourage the customers to purchase a product or a service. For better, effective results, sales promotion activities are combined with personal selling which is another important promotion tool is used in in a successful product launch. (Kotler et al. 2013, 472)

According to Philip Kotler, Gary Armstrong, Lld. C Harris and Nigel Piercy (2013), personal selling is made through the sales force which interacts with the customers and prospects to build relationships and make sales. Sales professionals on today's market are not the one that tries to push or take advantage of the customer but the one that listen to their needs and help to finding the solutions (Kotler et al. 2013, 472).

Moreover, the sales team need to be very prepared before confronting the customers and presenting the new products. The confidence on the product can influence in the reliability and image of the product in the eyes of the customer (Adams, 2012). The table below lists some of the popular sales tools used by companies in supporting their sales team.

Table 1. The most popular sales tools used in B2B product launch (Adams, 2012)

Company Presentation	Company Profile
Product Background Sheet	Product Data-Sheet
Product Specification	Product Safety Data-Sheet
Product Brochure	Presentation for Distributors
Product Presentation	Technical Report/Study
Leave Behind Presentation	Competitive Comparison
White Paper	Customer Test
News Release Reprint	Customer Testimonials
Case Study	Frequently Asked Questions
Product Video	Customer Evaluation Guide
Web-Based Education	Selling Guide
Qualifier Form	Proposal template

2.3.6 Post launch review

To measure the success or the failure of the product launch it is necessary to conduct a post launch review. In a post launch review it is important to discuss what went well during the launch of the product and what can be improved in the next product launch. A typical post launch review should be held within two months as the team

members have all the information still fresh in mind. The launch process is recommended to take place in a friendly environment, with continuous constructive feedback without blaming team members for things that have gone wrong (Edgett, 2013). However, according to the company case study conducted by Scott Edgett (2013) a product post launch review is held between three to six months after the launch. In authors opinion the example shows that the time of post launch review can be applied differently by companies according to their business type or industry. The author supports the idea that the industry and the type of the product which company is offering influences the timing in which a company can receive reliable results from its product launch.

3   Research Approach and Methods

The approach method that is followed on this product-oriented thesis is Qualitative research. Qualitative research is used when the expectations are unknown and the researcher needs to define the problem or to develop an approach to the problem. Comparing to the quantitative research, the qualitative research goes deeper into the issue and the researcher can gather more detailed information (Mora 2010; Silverman 2005, 152).

The study is mainly focused on literature review and in-depth interviews. The author has used different reliable sources such as books, magazines, online articles and other internet sources to create a product launch model. Because the final outcome of this thesis is a tangible product and not a research, the theoretical review plays the most important role in this thesis. After reviewing the theory and understanding the main stages of the product launch process, the author analyses the product launch process that Company X has been applying during the last five years. From the theoretical review only the relevant information that applies to Company X's business case is analysed and then compared with the existing approach that Company X has been following so far.

3.1 Data collection process

As mentioned in the chapter above the main and most important data comes from the theoretical review and internal analysis of the company's existing material. Firstly an interview with the management and R&D team is conduced. The interview aim is to gather detailed information about the current product development process in the company and the future vision on the product development process. All the internal existing materials and researches which, are related to product development and product launch, are reviewed. Secondly, the literature review has been presented. The literature studies are focused in the entire product launch process with a stage-gate model, which matches the company's product strategy and the current developing model. This process starts from the idea generation and end up with the launch of the product in the market. By creating a visual concept on the product launch process, it is easier to understand the best practices which companies should use for maximizing their product launch success.

Another important source is the authors working experience in the company. During the last year from many customer and sales meetings, paper mill visits, and exhibitions the author has collected valuable feedback relating the launch of Company X's new products. The feedback also includes two open interviews prepared for Company X's Sales Partner and Assembly Partner. The opinion of both partners is very valuable as they both have a different relationship with Company X, and approach the paper mills in a different way.

3.2 Data analysis

After reviewing the literature from different sources, the author analyses the current situation at Company X . The existing materials such as; product development plan, marketing plan, sales materials and other related document are analysed and compared with the literature suggestions. The qualitative research conducted with the R&D and Management team are used to better understand how the company is managing the product launch process, and what is expected to being developed in the near future. The interviews with the Sales Partners and Assembly Partners (customers) are analysed in the final stage, which is the launch of the product into the market. The launch as a

separate stage is very important and in addition includes external opinions. The experience and constant interaction with the end-users makes the opinion of the partners very valuable for the outcome of this report.

Other important data, which are essential for the results of this thesis, comes from the authors working experience in the company. The feedback received during the meetings with the customers, end-users and sales partners regarding Company X product launches has been collected and used as "the voice of the customer" in building Company X's product launch model. All collected data is firstly analysed and then paired with the literature suggestions. As result, the final suggestions are not based only on the literature review, but are also supported by the Partners and end-users opinion, making the results valid and reliable.

The role of the commissioner is very important in this thesis. The writer shares and evaluates the process together with the commissioner in order to get the best result when building a strategy for new product launch.

4 Findings, discussions and recommendations

In this chapter the author presents and discusses the results which were found during the analysis of the company's current situation and the theory on the product launch process, studied from different sources. The chapter is divided in two main parts; Firstly analysing Company X´s product launch process according the Stage-Gate Process. Secondly analysing the launch process separately as an important topic of this thesis.

4.1 Idea generation process

After analysing the results of the interview with the R&D and management team it was discovered that 80% of ideas come from customers' requests and 20 % by analysing customer problems. From there, the company develops new products. For instance, for two recently launched products; Zero energy receiver and SCS Module" the product development was triggered by end-users' request. That is the starting point when many other products are being developed. However, recently, Company X has started

to create product groups that are based only on customer and market research. According to the interviews, the main method used at Company X is customer visit. The management team believes that during the customers visit, the sales team can define easier the customer needs. Company X's management team sees customer visit as the main inspiration source for the new products ideas.

On theoretical review of the new idea generation process, Robert Cooper (2001) presented two routes of generating new ideas; "bottom up" and "top down". At Company X the first route is used continuously and is well implemented. The second route is only partly applied. The literature strongly recommends that using both of the routes will help companies to have more high quality ideas coming from all possible sources. Company X has an idea generation system is mainly focused on anthropological research. This VOC method is considered as very effective and expensive. However, taking into consideration the industry in which the company is involved, and how successful this method has been for Company X it would be recommendable to continue using the same method even in the future. From the interviews, it was also found that other VOC methods recommended from the theoretical review such as lead user analysis and Product value analyses are implemented at Company X when gathering ideas for new products. For instance, Company X work closely with leading companies in the pulp and paper industry which at the same time are the end-users of Company X products. The cooperation brings new innovative products that fulfil the end-user need and make them easily accepted by the customers.

Internal search was one of the important methods suggested from the theory. At Company X this method has not been used very often. The brainstorming normally comes after the customer visits, however using the general knowledge and ideas which employees may have could be implemented regularly in the near future. During the last few years, the company has been involved in projects of universities which are mainly focused in sales and marketing area. Company X has not been cooperating yet with technical universities, which would be a valuable contribution for the idea generation and product development process.

From the interview was found that competitive products are analysed during the process but only from the physical description. Company X ´s philosophy is that all solutions offered should be initialized from customer's needs.

"We start always from the table how to find a solution which will make the customer experience easier." says the CEO of Company X.

The company strategy is to find solutions for customer problems and not to improve existing products. However, as mentioned above, existing products are reviewed naturally when analysing customer needs. The company needs to know the solutions that customers are using and in most of cases these solutions are competitive products. The company studies the existing solutions and add benefits and customer values. From the theoretical point of view, Company X is correctly fulfilling competitor study, and there is no need for further improvements. The study has been adopted to fit to the company strategy, but the concept is integrated and works fine. Patent search is another method, which Company X has not been implementing yet. However considering the company size and resources required in implementing this method would be advisable to keep in hold and implement this method in the future. This topic was mentioned and discussed in the meeting with the management of Company X.

From the interviews it was also found out that evaluation of generated ideas at Company X, is done by answering the following question:

1- Is there a market for it?
2- Does it fit to the current scope and business strategy?
3- How easy is to do and what the risks are?
4- Is it competing with our customers?

Philip Kotler et al. (2013) presented R-W-W (is it real?, can we win?, is it worth doing?) screening framework as a tool to evaluate the ideas. The approach that Company X is following has very similar approach comparing to the suggested method. However, the four questions are not officially documented into a standardized evaluation process from where everyone involved in the company could follow when evaluating the ideas.

4.2 Scoping and Building business case

From the theoretical review, it was found that there are three assessments which should be done before preparing for the development phase; *preliminary market assessment, preliminary technical assessment* and *preliminary financial assessment.* From the interview answers and study of the current product development plan it was discovered that the three initial assessments are partially made when evaluating the ideas. From the market prospective, Company X's R&D and management team have the necessary knowledge to make the first preliminary assessment. However, considering the size of the company and the limited group of customers, it would be more time and cost effective that the preliminary studies are made at the same time with the full analysis conducted before the development phase.

It is also important to mention that the technical preliminary assessment is not necessary for all products which Company X will launch. The technical assessment will depend on the product strategy. For instance, if Company X decides to purchase and resell other companies products as a tactical decision, the technical feasibility, manufacturing process and intellectual properties are not studied. For products which Company X is designing and developing, technical assessment shall be conducted.

Building the business case is the last pre-development stage and, according to Robert Cooper (2001), it is a very important stage on the product launch process. From the interviews, it was confirmed that at the idea generation stage, Company X conducts a user needs and wants study. However such study is not documented and analysed in depth on the further stages. The documentation of the studies should be taken into consideration as it may help to give more effective evaluation on the needs of the customer. The studies can also be re-used in development of similar products, saving time and removing unnecessary costs that do not increase the product value for which the customer is paying.

Company X 's management team emphasizes the importance of knowing the competitor's products in order to develop new products. First, the company analyses the existing products that do not fulfil the customers need. The company then assures that new

solutions add value for the customers and fulfil their need at 100%. Considering the industry, company size and the type of products the company is offering, it is clear that Company X is completing the competitor analysis in this stage according to the practice advised by the theory. In the theoretical review also it is strongly advised that an in-depth market analysis should be conducted before the product goes to development. Once again the author found out that such analysis are made during the first preliminary stages but are not documented or studied in the further stages.

As a conclusion the author suggests that the preliminary studies and deeper analysis should be conducted at the same time. The stage gate model allows companies to modify the stages according to their needs. Considering Company X 's limited resources and the relatively small number of products launched each year, it is recommended that stage two and three should be completed at the same time. There will be no need for Company X to firstly make a preliminary research and later on in depth analysis. The entire study may be done at once, bringing all the necessary information needed to proceed in the development stage.

4.3   Testing and Development

From the interview with the management the author found out that Company X has already built an efficient product-testing network. There are several products testing methods that the company is applying at the moment; Preference testing and Alpha testing are the commonly used and changes on this two testing types are not recommended. As presented in the theoretical chapter continuous testing with the customers is very important. The network which Company X has built and the technique of testing the products with paper mills (the end-users of the product), is the best approach the company could take.

The issue on the testing practice in the company, discovered during the interview was related to the market testing. Market testing is a new practice, which the company has not applied directly when launching a new product. The new product has been launched globally, using one strategy for all markets. From the theoretical review it was strongly recommended that the product launch should be firstly tested in a smaller scale before going global. A market test will help to test the marketing strategy and how attractive is the product to the customers or end-users. By evaluating the theory

suggestions and company's long term ambition the author strongly recommends a structured market testing for future product launches. This suggestion is more valid when Company X will expand its focus in other markets such as India, China, Russia and Japan. As different markets may have different requirements the launch strategy may vary from one country to another. For such reason, small scale testing may be essential for reducing the risk of a product launch fail.

The development phase already exists in the company and it is well structured and presented in the official report (see "kehitysohje" for reference). Company X's project managers have developed such documented strategy, and surprisingly it is built based on the Stage-Gate model. As the development process has been structured according to company's need by following the stage-gate model guidelines, the author does not recommend changes in this phase. The existing strategy is describing all the necessary actions required during the development of the new product, including feasibility study, prototype design, in-house testing, technical assessment etc.

However, the management team should consider the current finding, from the theoretical review of the development phase. For instance, it was found, that it is very important to pay attention to the economics of scale, importance of time and resource management (See Chapter 3.2.4).

4.4 Launch

The launch of the new products is the final stage, which introduces the finalized products to the market. According to Company X's management, this is the stage in which the company has more difficulties and needs to be further developed.

4.4.1 Marketing Strategy and Marketing Mix

As stated in the theoretical review the commercialization or Launch stage is impacted directly by the marketing and sales activities. Dan Adams (2012) described that in the B2B Marketing process the marketing activities do not start on the last stage of the product launch process. Marketing is a process that starts from the discovery stage and continues through the entire product launch process. To create the marketing plan, the

marketing team should gather the customer data continuously. The data should be collected from the idea generation to testing, development and different analysis done during the process. For instance, when visiting paper mills to find new solutions for the end-users, Company X employees can gather the customer insights for the new products, which marketing team can utilize in developing the marketing strategy and creating the customer value.

With the current applied strategy and niche market in which Company X is operating, the customer segmentation in general is defined from the beginning of the projects (when searching for new solutions). However the marketing strategy can be different for different markets even for the same product. For instance, paper mills in USA can be concerned mostly about the safety issues which products can resolve, while paper mills in China are more interested in the price of the product itself. Moreover, if company decides in the near future to add a new product group for other customers, the customer targeting may change and will depend on the product groups that the company is going to sell. As an example the system suppliers, which are one of Company X's target customers may not be target customers if a new product group is sold to the paper mills directly or via the Sales Partners. In this case the end-user is the same but the target customer is different.

In positioning of the new products Company X has both advantages and disadvantages. From the interview with the Sales and Assembly partners, two disadvantages were distinguished; the first disadvantage compared to the competitive products or solutions, is the company short history into the market. Lack of references may lead to the customer hesitation before making decision related to new investments. However, this is only a short-term disadvantage, as Company X is building its reliability on the market with a customer reference list which is increasing every day. The second disadvantage is that in some markets the paper mills are conservative when it comes to new investments. Once again the author believes that in the near future, increasing customer testimonials will decrease Mill Managers' uncertainty.

However, being a new and innovative company at the same time brings several advantages which will help the company in the positioning of the new products into the market. For instance, all the products Company X has been offering so far have had

several benefits which are superior to other products. These benefits have helped Company X's products to build their position as an innovative solution on the roll handling equipment market.

Furthermore, from the interview, for the development and launch of the new products, Company X's partners have defined some of the most important features which they and their customers (paper mills) consider as the most important. The main listed benefits are;

- Simplicity of the products
- The savings which product can bring
- Price
- The design and quality
- Ease of use
- Safety

Moreover, from the interview with Company X's partners, it is confirmed that combined with product attributes, the company's high quality service and continuous after sales services have the same importance on creating trust with the customers. Taking into consideration the theory and interview recommendations, with superiority in the attributes listed above and dedicated customer service, Company X can differentiate itself from its competitors and have advantages in positioning its products. However, based on the knowledge gained during the study of the theory on product development and product launch, the author recommends further market analysis separately for each new product.

The marketing mix, together with the marketing strategy should be further analysed separately for each product in the process of creating the marketing plan. The appendix three gives a general description of marketing plan main sections and their content. Taking into consideration Company X's business strategy and the industry in which the company is operating, each section of marketing mix will vary depending on the product and target customers. For instance the distribution channels for existing products are both System Suppliers and Sales Partners. For other completing products which are normally not supplied by System Suppliers (OEM) the only possible distribution channels would be direct sales and via sales Partners or Agents. In each case the decision

will depend on the company's strategy. The same rule applies to pricing and promotion. As supported on from several authors (MacCormack, A., Crandall, W., Henderson, P. & Toft (2012, 34-43), different products need different strategy.

4.4.2   Media channels for product launch

After reviewing the theory on common marketing activities that are recommended for a successful B2B product launch, below the author analyses how each media channel has been applied at Company X's marketing activities. To conduct this analysis, the existing marketing plan and marketing material were carefully evaluated. The table below presents all media activities recommended by the theoretical review and the open interviews with the Assembly and Sales Partner. Some of the results of a study conducted by Haaga-Helia students in 2012 were also taken into consideration when evaluating the current activities.

Table 2. Recommended media channels for Company X 's product launch

Media Channel	Status	Need to	Importance
Trade Show	Applied	To maintain	Very High
Sales Visit	Applied	To Intensify	Very High
Print Articles	Applied	To maintain	Very High
Press Kit	Partly Applied	To Improve	Very High
Print Advertising	Applied	To maintain	High
Road Show	Not Applied	To consider	High
Direct Mail	Applied	To improve	High
Customer Seminar	Not Applied	To consider	Low
Trade Speech	Partly Applied	More activities	Low
Press Release	Applied	To Intensify	Very High
White Paper	Not Applied	To consider	Very High
Online Presentation	Not Applied	To consider	Very High
Search Marketing	Partly Applied	To improve	Very High

Social Media	Applied	To maintain	High
E-mail Marketing	Applied	To Improve	High
Online Advertising	Applied	To maintain	High
Webinar	Not Applied	To consider	Low

From the analysis was found out that trade shows and sales visits are the most common used marking channels used by Company X. These two channels have also been very successful in attracting customers, partners and end-user attention. Firstly from the interviews with the existing partners and customers it is confirmed that displaying Company X 's products in an exhibitions is the most effective way to attract the end users attention. From both interviews was stated that exhibition is the best place to display such innovative products. However the exhibition type and location should be considered and analysed carefully before planning the marketing budget. Furthermore, from another research conducted by Haaga-Helia in 2012 regarding the launch of the new products, trade fairs have ben raked as the most preferred place where customers receive information about new products. From the same questionnaire it was also found that Sales visits were preferred as follow up, after the first visit in the exhibition.

With the different business strategy in which Company X does not sell the products directly to the paper mills, but only via its international partners, direct sales visits are limited. When launching new products face-to-face presentation is very important to the customers and relying mostly in partner's ability and resources can influence the results of marketing. The author believes that direct sales visits should be intensified and included more on the agenda of the company.

The research result from the existing marketing plan found out that print media has been continuously active source of marketing. Both, Print Articles and Print advertising have been present on Company X's marketing plan. From the feedback collected for this study during the last year, print advertisement has played a very important role on branding of Company X. Several prospect customers and end-users have immediately recognized the logo with the advertisement which has been advertised on magazines. Such advertisements are not only important for creating product awareness but also for strengthening Company X´s brand internationally. From the interview with

the existing partners it was also recommended that Company X should consider finding pulp and paper magazines which will publish written articles free of charge. Press kit was another traditional media that was recommended by the theory. Many customers have recently requested to have information which they can send to their supervisors. A brochure and data sheets are the main material given so far. Better improvement such as DVD or memory stick, official presentation, technical information, etc. should be considered by the company. This conclusion comes out from the open interview with both customer and partners but also from the feedback collected by potential customers and meeting minutes. A white paper introducing the technical benefits, presenting customers problems and solutions with concrete examples is also rated as highly important by potential customers. The existing partners also agree that in meeting with potential customers such document would always help. Such document can be distributed with the press kit or online. By analysing the existing marketing material it is confirmed that such document is not available yet. Considering the demand from the potential customers and Sales Partners, the author would recommend the creation of a white paper in each new product launch.

Direct mail has been already experimented last year in two markets. However it has been difficult to measure how effective this technique has been. From the interview answers this method is consider important in presenting the new products to the customers. The author believes that a measurement system such as follow up calls should be established for improving the evaluation system. On the other hand e-mail marketing has been ranked as number one choice of end-users as a channel to receive product details. This result has been retrieved from Haaga-Helia's 2012 report combined with feedback received directly by customers.

Another important part of Company X's media channels is social media. The analysis of the existing marketing plan shows that the company is paying attention to continuously send the messages to the customers by using the social media such as LinkedIn, Facebook or Google+. Social media has been considered as very important online media in today's business when launching the new products. The potential customers also see social media as an important source of information.

4.4.3 Sales material for product launch

From the theoretical review was found out that Sales promotion combined with personal selling is one of the most important factors which influence the success of product launch. Company X offers solutions that are completely new for the market. Several media activities were recommended in the chapter above, however constant interaction with the customers is required. From the interviews with both Sales Partners and Customers resulted that sales visits are very necessary for introducing Company X's products. This recommendation was justified with the uniqueness and the purchasing behaviour in pulp and paper industry.

"*Paper mills are very conservative when it comes on making new investments. The decision makers are used to the traditional technology and are very difficult to approach via phone or e-mail. I personally think that mill managers should be approached directly in sales visits to introduce Company X. Showing the conveyor in exhibition is also a genius idea*" Says Daniel X, one of the Assembly Partners and at the same time customer of Company X.

Moreover, from the product launch study conducted by Haaga Helia in 2014, sales visit were ranked as the second most preferred approach from paper mills after seeing the new products on the exhibitions. In the theoretical review it was stated that for a successful sales promotion, the sales steam needs to be well prepared and confident about the product that will be introducing to the customer. To fully prepare the sales team for a successful product launch, a set of the most important sales tools for a B2B product launch were suggested. Referring the theory and taking into consideration the industry in which Company X is operating, the author created a list of the most relevant sales tools which Company X should prepare in order to help its sales team for a successful product launch. A review of each tool by checking the current status was conducted. The table below presents the results found from this review.

Table 3. Recommended sales tools for Company X's product launch

Sales Material	Status	Need improvement
Company Presentation	Applied	Yes
Product Brochure	Applied	No
Product Presentation	Applied	Yes
Leave Behind Presentation	Not Applied	N/A
Case Study	Not Applied	N/A
Product Video	Applied	No
Product Data-Sheet	Applied	Yes
Presentation for Assembly Partners	Not Applied	N/A
Presentation for Sales Partners	Not Applied	N/A
Technical Report/Study	Not applied	N/A
Competitive product comparison	In process	Yes
Customer Stories	In process	Yes
Frequently Asked Questions	Not applied	N/A
Selling Guide	Not applied	N/A

From the analysis of the current sales materials the author discovered that the majority of the sales material recommended by the theory is not available for the existing products. The only materials that are fully completed are the company presentation that includes the technology and products and the videos of each existing products. The other materials are either in creating process or not applied at all. The author strongly believes that an immediate focus in creating such materials for each existing product is necessary. For the new products which Company X is planning for the future, the sales team must have available some of the most basic documents such as product presentation, data-sheets, frequently asked questions, technical report etc. As mentioned in the theoretical review, a well-prepared sales team is essential for the success of a product launch.

From the feedback collected by the author during this study, the majority of customers and end-users asked continuously for documents that prove the superiority of Company X's products towards the existing ones. Customer reference and technical details

were also among top most requested documents. Moreover, from the interviews with the assembly and sales partners the author confirms that customer reference and clear details are very important for the customers. The partners' opinion is very important, as they are the connecting bridge between Company X and the end users.

5   Main contributions and the learning outcomes

In this chapter the author describes me main contributions and learning outcomes of the report. Firstly the author presents the finalized recommended product development and launch process. Next, reliability and validity of the report is presented. The chapter is finalized with authors discussion on the process and his own learning and professional development.

5.1   The product development and launch process

In this report the author presented and discussed the product launch as an entire process from the idea to the launch of the product into the market. During the study of company's current situation in the product launch process it was found that the company's main difficulty when launching new products is the introduction of the product into the market. The result of the analysis also shows that using a structured method organized in phases practically has been made the previous product developments. However, as such method has not been documented or used constantly in all projects the author created a general map, which at the same time is the suggested product development and launch process for Company X . The final created process is based on the Stage-Gate model, theoretical review of product development and launch process and analysis of the company's business and strategy.

It is important to note that in the recommended product development and launch process has been adapted as closely as possible to the existing development process that Company X has been following during the last five years. This has been done for two reasons; Firstly, the activities which Company X has been executing on the previous product launches are in the same line with the theoretical suggestions for a successful product launch. Secondly, the product development process which the company has been following so far has already been very successful in delivering innovative prod-

ucts. Moreover, improvements and new suggestions which suit Company X's strategy by considering its resources are included in the new suggested process.

Figure seven, presented below, represents the recommended product launch process for Company X . The recommended model is based on the Stage-Gate model and it is an accumulation of the most important findings from the theoretical review, company analysis, interviews with the partners and feedback received from the customers. As mentioned previously Company X is a small company with limited resources. Taking into consideration the needs and resources of the company but also the theoretical recommendations from Robert Cooper (one of the founders of Stage-Gate model) a shortened version of Stage-Gate model is used as base for Company X's product launch process. Cooper states that depending on the project type or size, the stage gate model can be modified and adapted according to the company's needs. In such shorten version where stages one and two are combined as one stage (stage two) and stage there and four are combined in another stage (stage three). This shorten version is differently called Stage-Gate Express (Cooper 2009, 47-57). The picture below may serve as a map which may guide Company X in generating successful products and lower the risk of product failure.

As seen in the figure seven, the recommended products development and launch process begins with the idea generation as the first phase. According the theoretical suggestions, during this phase the company initializes the project by creating a product strategy and identifying the current market trends. What is the future of paper industry and what are the technological trends in the roll-handling industry could be two topics which Company X may analyse during this phase. As Robert Cooper suggests in the theoretical review, it is very important to have a product strategy which defines the areas of the strategic focus. For Company X is clear that the main focus is to innovate the roll handling process and the product strategy at this point will just need to be shaped into concrete ideas. To define the customer needs the author strongly supports the theory suggestions in using different channels to brainstorm for possible solutions. Moreover on **chapter 5.1** the author analyses Company X 's current used methods in finding new solutions and suggests other methods that the company should consider in the future.

The second stage of Company X 's product development and launch process continues with scoping and building the business case. As supported by many authors in the theoretical review, during this stage market, competitor, technical and financial analysis should be conducted. On the original format of the Stage-Gate model before the analysis, a "pre-assessment" was conducted during the scoping phase and main analysis when building the business case. Once again, taking into consideration Company X 's resources but also the project sizes of the company the author sees it more effective to conduct only one assessment for each analysis. More details of this stage at Company X's product launch process have been discussed in **Chapter 5.2**.

Testing and development are the two phases in which the author found least space for suggestions and recommendations. On this who stages as the process has been built efficiently and has been working very well in previous product launches. Moreover, most the theoretical suggestion matches perfectly with the activities that Company X has been using so far. There are three main testing methods suggested by the theory. Company X is using efficiently two of these testing methods and one partially. The R&D team has already structured the development process. **Chapter 5.3** describes more in details Testing and Development situation at Company X. However, taking into consideration the theory short description of development main activities have been added.

The final stage of the product launch process is the commercialization or the launch of the product into the market. As mentioned above, the commissioner underlined the necessity of more clear suggestions for the introduction of the product into the market, which in the model presented above is the "Launch" phase. In opposite to the other stages which need only to be structured and improved, this is the stage in which the company is uncertain and need further development. Moreover, according the theory, the introduction of the finalized new products into the market is a critical phase that can influence directly the success or the failure of the new products. For this reason the author focused his attention to the launch as a separate phase. The two most important findings in the launch process has been the media channels and sales materials which Company X needs to take into consideration or develop for helping the com-

pany in future successful product launches. Further more detailed description of this "promotion tools" is presented in the chapters above, respectively **chapter 5.4.1** and **5.4.2.**

The marketing plan is an entire process which needs to be studied in a separate study. Taking into consideration the author resources on this report such study was impossible to be done at the same time with the product launch process. However the author presents in the appendix three, the general content which is necessary in a marketing plan.

The suggested marketing plan content has been taken from the last edition of "Principles of Marketing" which has been written by the "guru of marketing" Philip Kotler and other well-known authors such Gary Armstrong, Lld Harris and Nigel Piercy. The presented content could be utilized as a general guideline which would help Company X 's marketing team and management in creating the marketing plan. However, some important aspects of marketing plan such as Marketing strategy, Marketing mix and including promotion tools have been briefly presented and discussed on the results of this thesis

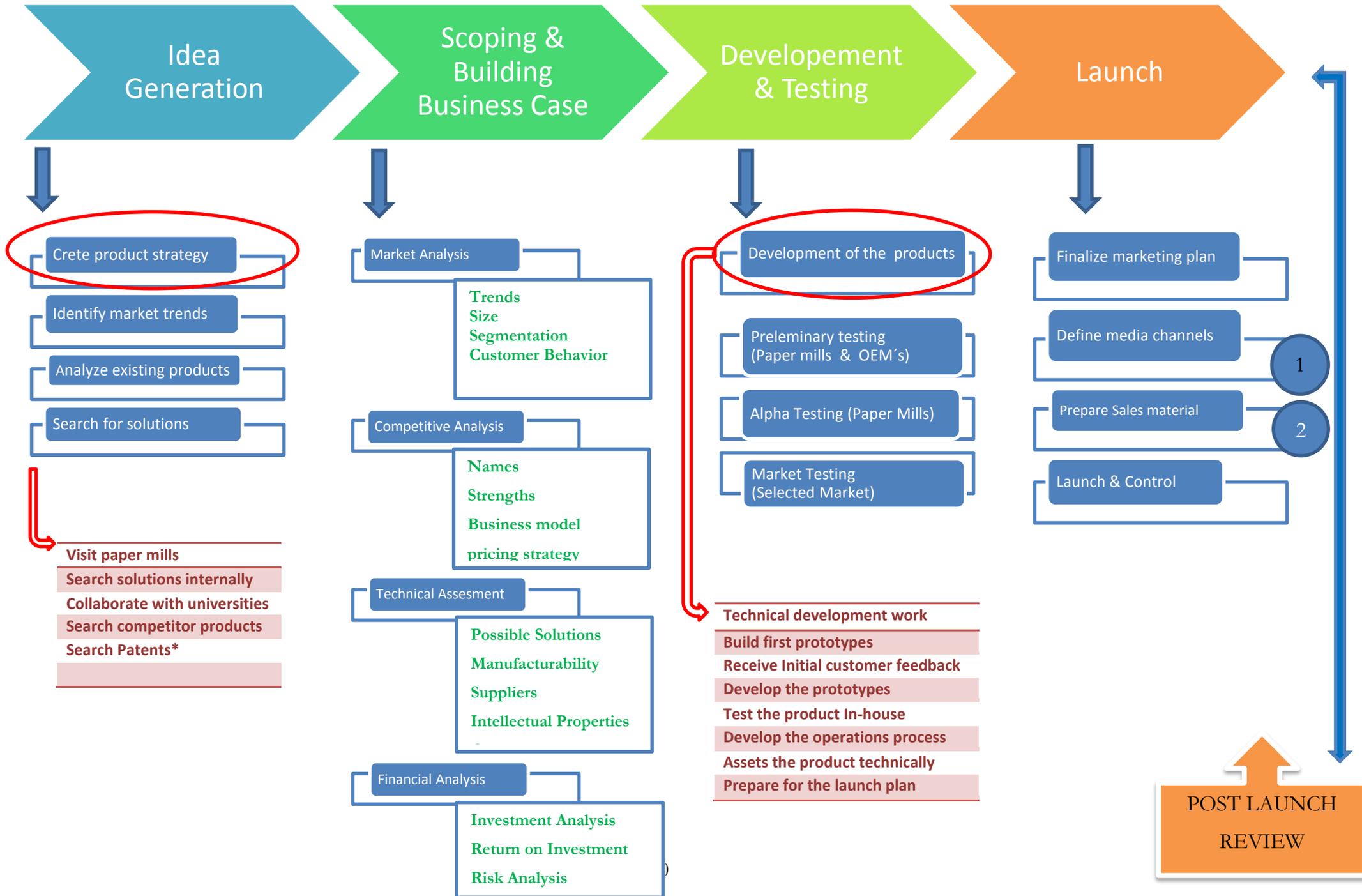# Recommended Product Development & Launch Process for Company X

Figure 6. The recommended product development and launch process for Company X

5.2 Reliability and validity of the report

The number of the interviews was decided based on the resources and the allocated time for writing this thesis. Furthermore, in all meetings with the potential partners and end-users the author collected the feedback in order to achieve more accurate results. The answers and the feedback from the interviews in the majority of the cases matched with the suggestions of the theory. This helped the author to be more confident in the choice of the information presented in the final recommended product development and launch process. Even the number of the people interview during this research is relatively small; the gathered data was considerable. The results of the internal research come via two sources; the management and R&D team interview and the research of all existing material related to product launch and development process. The Management and R&D team has all the necessary knowledge to give accurate answers on the actual product development and launch process. The existing materials are facts which are easy to analyse and evaluate if they are applied according to the literature suggestions and customer expectations. The results of external research came from two resources; sales and assembly partners and the continuous feedback collected from the author during on a period of one year. The feedback collected from the author is focused mainly in potential customers, partners and end-users. In both cases the final analysis and suggestions presented by the author contains reliable information which comes directly from the "voice of the customer" and not only from the literature review.

The author is certain that the same result can be duplicated and used from other small and medium companies as well. As mentioned in the research methods, the base of the final result was the theoretical review and interview answers. Other small-medium size companies which have a B2B focus may apply the theoretical part and conduct an internal and external analysis. The conclusion will be more or less a similar product development and launch process. Furthermore, the answers and all the information gathered from both internal analysis and external research were analysis with high objectivism. To assure valid results the author did chose different research tools such as; literature, open and semi-structured interviews, video lectures, data collection from custom-

er feedback etc. The utilization of these methods helped me to provide valid answers to my research questions. The results are valid as they answer all the three research questions; Firstly the author presented the introduction of the development and launch process. At the same time the author defined the main steps of product development and launch process. Secondly, the author suggested the Stage-Gate process as solution which can increase the probability of successful product launches. Thirdly, the author developed a process which would help the commissioner to structure its product development and launch process. In addition, the author defined the need of heavy improvement in launching of the product onto the market and took further actions by defining the missing gaps and offer concrete solutions to fill these gaps.

5.3   Further discussions

The framework presented on this thesis is based on an internationally recognized model which is applied in both business-to-business and business to consumer markets. This model was chosen for the fact that it is a process which has been proven to be successful in many different industries, including pulp and paper industry.

The finalized recommended process is unique for the fact that it can be modified and changed according to the product, customers or strategy of the company. Another uniqueness of this framework is that the empirical research is not done by only focusing on the research of the stage gate model. The author studied separately each stage of the processes,   and combined different approaches, methods and suggestions related to the topic. The stage gate model has served only as a guide to help the author to study the important stages in a product development and launch process, from the idea generation to commercialization of the product into the market.

It is important to note that the delivered process is only a general framework created from the author based on the theoretical suggestions combined with external and internal research. One of the main founders of the Stage-Gate model, Robert Cooper (2001) states clearly that designing and implementing this process by only one person in the company can lead to failure of the project. Everyone in the company should be involved in designing and implementing the process in order to ensure the success of

the projects. The process recommended by the author is a base structure for the final product development and launch process and not a ready to implement process. As mentioned above it is suggested that everyone in the company works together to review and further develop each stage of the process before implementing it. The information and data analysis provided in this report has been analysed and studied in accordance with the company's current strategy and is supported by data gathered from important and reliable sources.

The commercialization or differently called the launch of the product into the market, had a very important focus in this thesis. By the commissioner request the author studied how to increase the customer attention when launching the new products. During the empirical research the author found very valuable information for a successful business-to-business product launch. A qualitative research was conducted to understand what customers want and if the current product launches of Company X have fulfilled the customers' expectation. As the company does not sell its products directly to the paper mills but operates via its partners (at the same time customers), two interviews with the existing partners were conducted. The long experience of the partners in the industry and the continuous contact with the end users makes their opinion very important for Company X.

From the empirical studies there are many theories and suggestions aiming to describe a successful product launch process. However the author believes that there is not a good or a bad process or method which will fit to all companies. The suggested framework is a combination of different theories and suggestions combined with customer research, company business case and the authors own conception of the product launch process. The author hopes that the recommended process and suggestion will help the company to have a clear understanding of product launch process in a B2B market and based on the recommended model, finalize a successful product launch.

5.4   Own professional development and learning

Writing this thesis has been a challenging but at the same time, a great learning process. The topic, which was chosen by the commissioner, was a very wide topic which created difficulties when studying the theoretical part and trying to include all the important

aspects in one report. However, from the learning prospective this was the best challenge, as the author has learnt much more about product development and product launching process. Moreover, the author had the opportunity to study deeper the company's strategy, operations and activity. In addition to the valuable learnings, this thesis helped the author to improve himself professionally.

The results of this thesis are not important only for the commissioner but also for the author being part of company's marketing team. With the knowledge gained during this study the author will be able to help the team implementing the new strategy, especially the commercialization of the new products into the market. Another valuable learning was gained from the data collected from customers and partners. Collecting all the information about the customer vision and needs will help the author further with the professional career in Sales and Marketing. After writing this report, the author has a better understanding on how important the voice of the customer is when developing, launching and selling new products. The author learned a very important lesson; when visiting the potential customers the focus of his work is not only in making sales of product but also in trying to understand the customer needs and wants, and help the R&D team to develop new successful products.

Time management has been the biggest challenge of this thesis writing process. Working each day made it very difficult to find a lot time for studying the empirical part and writing it to a report. However, writing the thesis for a long time has helped the author to give better results to the company since during this time the author has had the opportunity to collect more data and feedback from existing and potential customers. This helped in archiving more valid and reliable results. The author is happy with all what he has been learning during this process and is motivated to continue studying more in depth each separate phase of the product launch process, and help the company to successfully implement the recommended product development and launch process.

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Attachments

Attachment 1. Questionnaire for Management and R&D team (interview in form of an open conversation)

Idea Generation for new product launch:

1- Where do the new product ideas come from?
2- Where should they be coming from?
3- How do you evaluate and implement the new ideas which you received?
4- Do you have an Idea generation system which you use regularly?

Studies

1- Does Company X makes user needs and wants study?
2- Do you study your competitors and their products in details?
3- Do you go to customer through face to face meetings or do you create concept solutions internally, and then make market research to test the product concept?
4- Are you willing to try a **user need and want** study in the next new product project?

Testing

1- Could you briefly describe the testing process at Company X ?
2- What are the types of testing you are currently applying before and during the launch of the new products?
3- Are you using concept testing effectively when developing new products?
4- Do you take the necessary time for concept testing before going to development?

Development

1- Do you follow any development model?
2- Do you involve the customers during the development phase? (model)
3- How testing is done during the product development?

Launch process

What are the obstacles you are facing during the launch process?

Note: the launch process will be mainly analysed by reviewing the existing materials, customer feedback and Partners interviews,

Attachment 2. Content of the interview with Sales and Assembly partners (interview in form of an open conversation)

1. How effective do you see the promotion of Company X existing products? What could be done differently?

2. What are the advantages and disadvantages of Company X products compared to the existing products?

3. What are the difficulties you are facing when introducing Company X to your customers?

4. Is Company X offering all the necessary supporting material, necessary to promote the products to your customers? What is good and what could be improved in this aspect?

5. In your opinion, keeping in mind Company X products, what is the best way to attract the customer attention when launching new products?

6. From your experience in pulp and paper industry, especially in roll handling process could you list some of the most important aspects which mills appreciate when investing in new products?

7. How would you evaluate Company X s current distribution channels? How about the pricing?

Note: This has been a last minute open conversation interview during an exhibition and questions are not arranged logically. However the open conversation gave me the opportunity to receive very important feedback and valuable information on Company X Product Launch.

Attachment 3. Content of a marketing plan (Kotler, et al. 2013, 56)

Section	Purpose
Executive summary	Briefly presents a summary of main goals and recommendations of the plan. A table of contents is also build in this section
Current marketing situation	Describes the target market and the company´s position on the market, including competition, distribution and product performance. This section should present; 1. *A market description* which defines the market major segments and the environment which may affect the customers decision 2. *A product review* which shows sales, prices and gross margins. 3. *A competition review*, identifying the major competitors, their market position, strategies and marketing mix. 4. *An evaluation of distribution(OEMs and Sales Partners?)* including sales trends and developments
Threats and Opportunities analysis	Assessing the major threats and opportunities which the product might face when introduced in the market. Can help the management to anticipate negative developments which may influence the company and its strategy
Objectives and Issues	States the marketing objectives which the company would like to reach in a given period of time. In this section the issues which may influence the objectives are discussed
Marketing Strategy	Explains the marketing logic which will help to customer value and relationships. (Chapter 3.3.1 in the thesis). The section also outlines specific strategies for each marketing mix, explaining how they respond to threats , opportunities and issues mentioned in previous chapters.
Action programmes	Defines all the actions which will evolve from the marketing strategy. The below questions are answered in this section; *What will be done?* *When will be done?* *Who will do it?* *How much will it cost?*
Budgets	A detailed supporting marketing budget including a projected profit-loss statement (forecasted sales), and expected cost of production, distribution and marketing.
Controls	The control will monitor the progress and give information to the management to review the implementation of the results on how successful is the product. It also measures the return on marketing investments