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DEVELOPING A LEAN STARTUP PLAN FOR ONLINE BUSINESS

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The purpose of this thesis was to develop a lean startup plan for an online company Kiddsafe Ltd. The company is a UK based startup company selling children's locator devices, which resemble wristbands. The lean startup plan aimed to validate the business idea of the company by using practical methods of testing as defined in the lean startup methodology. The design and tactics of the research methods used were those defined by the lean startup methodology itself. The aim was to build a lean startup plan in three months, to validate the company's business idea with customer experiments, to show a business model coherently on one page, and to include new insights on product features and next steps for the company to carry out. The methodology of the thesis was that of the lean startup: pragmatism. Pragmatic philosophical stance was taken so that the research could focus on the relevant research questions and finding methods of testing which would have the most value adding findings for the startup. A mixed-method research consisting of qualitative and quantitative data collection techniques were used. A self-selecting sampling was chosen to study those willing to participate in the research in depth. Complementary research techniques were used in order to cover all aspects of the research investigation. The research strategy applied was a case study where Kiddsafe Ltd. was used as a single case. Questionnaires and structured interviews were a part of the survey strategy. A landing page was created as a minimum viable product to ensure the company was on the right direction. The Validation Board and Lean Canvas were used as tools to validate the business idea of Kiddsafe Ltd. By following the lean startup process, the assumptions that the business idea is based on were assessed. This was conducted as a step-by-step method of determining whether the business will have sustainable success in the future. After the data analysis, it could be confirmed that the thesis objectives were met. Lean startup methodology helped Kiddsafe avoid waste, it helped to build a lean startup plan in three months, and it showed the plan on one page. The business idea was validated, and it was determined that the company will have great potential future success. Specific customer preferences were discovered such as features preventing kidnappings and locators with GPS-function. Next steps were proposed including setting up Google AdWords campaign, a Shopify account, and a blog.

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1 INTRODUCTION

This thesis will describe the theory behind the lean startup methodology by using an online startup company as a practical example. Lean startup provides a framework for startups to follow when innovating new products or services. The thesis attempts to find intellectual honesty in its reserach experiments and then apply this honesty in the design of the lean plan. Noah Millman defines "intellectual honesty" in his post on The American Scene as "intellectually honest means you make arguments you think are true, as opposed to making the arguments you are "supposed" to make and/or avoiding making arguments that you think are true that you aren't "supposed" to make" (Millman, 2010). Two research methods will be used to arrive at the final plan.

The emphasis in the lean startup movement is in its practical methods applied. In the beginning, an initial version of the product will be built, the results are measured, and by learning what has to be improved, a better version of the initial product will be built. Iteration happens fast, and clearly shows when to stay with the project and when to discard it and change to a new idea. It comes down to analytics: learning does not happen accidentally, but rather, it is an essential part of the lean process. (Croll and Yoskovitz, 2013, 4.)

The company is a UK based startup company, Kiddsafe Ltd., which focuses on selling children's safety products online. The first chapter takes a look at the company itself and defines the objective and methodology of this thesis.

1.1 General information of Kiddsafe

Kiddsafe Ltd. is an online business selling children's safety products and services. Kiddsafe is about to launch a one-stop online store selling the latest high quality child locators, which look like wristbands. The wristbands are useful in crowded places or during outdoor play to help parents locate their children at all times and situations. The price is dependent on wristband specific features, such as geo-fencing, GPS tracking or an alarm button. In addition, there will be an informative blog for

parents on child safety on the website as well as reviews of the products the company is selling. The company's website will be found online at www.kiddsafe.co.uk.

1.2 Background of Kiddsafe

Kiddsafe Ltd. was founded in the autumn 2014 by entrepreneur Miss Angie Filardo. Before the company was founded, the founder was selling children's safety products on eBay for two years. From this experience, Kiddsafe Ltd. was born. The startup's business idea was accepted in the government's New Enterprise Allowance Scheme and it is considered to have growth potential.

1.3 Company objective

The company's first year objective is to grow and expand through re-investing its profits back into the business. In addition to selling branded products, the company will design and brand its own-branded products which will be sold both on the company's website and on Amazon. Further down the line, the aim is to have developed a strong brand image and trustworthiness in the eyes of customers. In the first three years, the company will look for suitable business partnerships to do business with. As the company's profits grow steadily, the requirement for hired employees also becomes evident

1.4 Thesis objective

The objective of this thesis is to find a big enough market to reach customers who need the product and are willing to pay a price that the business will be built around. In other words, the aim is to build an effective lean startup plan for an online company Kiddsafe Ltd. For the startup plan to be effective, the lean startup idea is to be developed considerably faster in comparison with developing a traditional business plan. The aim is to have the plan completed within three months together with customer experiment analysis and final business validation in place. Furthermore, the

plan should include new insights on what product features customers want, and suggested next steps for the business to carry out.

1.5 Thesis methodology

The research philosophy used in this thesis is pragmatism, which is the same as what the lean startup methodology uses. The methodology will be described more in detail in the introduction of chapter 2. The data collection techniques this thesis uses are the same as defined in the lean startup methodology. The hypotheses of the thesis will be tested and either confirmed or refuted in the final part of the thesis (Lewis, Saunders & Thornhill 2009, 115).

2 LEAN STARTUP METHODOLOGY

Chapter two will describe the theory and origin behind the lean startup. The lean startup methodology takes a pragmatist philosophical stance. Instead of focusing on one research philosophy of epistemology, ontology or axiology, the lean startup methodology includes more than one philosophy depending on the question at hand. Focus is on the research question, and the method for research depends on the question itself. The lean startup process has clear guidelines that should be followed in each case of business validation. In addition, both qualitative and quantitative research are used. Mixed methods are used to verify business ideas as can be seen in section 4.1.8. These methods work in a continuum rather than opposite positions. In some situations, the studying is conducted from a distance separate from the customers. In other situations, the studying is more interactive and the aim of the entrepreneur validating the business idea is to adapt the worldview of the customer. Another pragmatist tendency is to study about what is of value to the startup, use the most suitable design experiments, and use results which add most value to the business. (Lewis, Saunders & Thornhill 2009, 140.)

Furthermore, what makes a lean startup suitable specifically for startups will be looked at, and why it is so hard to have a successful startup. In this chapter, the key components of the methodology will be described.

2.1 Background of lean startup methodology

First, the term "methodology" will be looked at. According to the Oxford Dictionaries, it is defined as "a system used in a particular area of study or activity" (Oxford Dictionaries, 2015). Eric Ries developed a methodology and trademarked the term "Lean Startup". It combines Customer Development, Agile Software Development methodologies, and Lean practices from the Toyota Production System. "Lean" here means reducing waste and using resources, such as time and finances, effectively.

Steve Blank created the Customer Development Methodology in the 1990s, which is a cornerstone of the Lean Startup Movement. The main idea behind Steve Blank's methodology was that understanding the customer is crucial when developing a product. (Andy, 2011.) Eric Ries worked on Steve Blank's ideas and conceptualized the lean startup approach. In this approach a company's business idea will be validated through scientific experimentation, validated learning, and iterative product releases to make product development cycles considerably shorter than in a traditional startup process (Blank, 2013).

The lean startup philosophy goes back to Taiichi Ohno and his process of lean manufacturing of the Toyota Production System. The lean manufacturing methodology regards anything other than creating value for the end customer as waste, and in all ways tries to eliminate this waste. Constant quality control ensures no time is wasted developing a faulty product. Assembly will be stopped as soon as a mistake or imperfection in the assembly line is detected. Another important factor in lean manufacturing is to keep close contact with the suppliers in order to better understand what customers want. (Feld, 2001, 84-85)

In 2008, Ries developed his idea for a lean system for startups with what he had learned from his teachers such as Steve Blank. He used whatever personal experience he had and incorporated lean management principles to high-tech startups. In the same way as in lean management system, the lean startup methodology tries to eliminate waste during the product development phase and increase value-making practices. (Ries, 2011.) The definition of waste in this context is "any human activity which absorbs resources but creates no value" (Gustafsson & Qvillberg 2012, 18.) This is done so that a startup company does not need heavy outside funding, long detailed business plans, or the final product. (Ries, 2011.)

One of the main objectives in lean startup is to maximize learning about the customers. Customer feedback is essential to the product development phase to make sure the startup will deliver a product or a service that customers actually want (Tam, 2010). This is best done in small iterations in as little time as possible. One of the key ideas of the Lean Startup is the following quote by Eric Ries: "Startups that succeed are those that manage to iterate enough times before running out of resources." (Ries, 2011.)

2.2 Use of lean startup methodology in this thesis

This thesis uses approaches defined in the lean startup methodology. Blank's Customer Development Methodology will be used to understand what the customers actually want. This is the main emphasis of the methodology used in this thesis. The aim is to learn from customers as much as possible in a short time. Customer feedback is used to determine the product features the customers are most interested in. The research is conducted as "lean" as possible by keeping the costs down and using time effectively. Scientific experimentation and validated learning is used in a constructed manner to arrive at conclusions. Due to the lack of finances allocated to this thesis, there are no actual iterative product releases included in the research process. Instead, a landing page is created as the Minimum Viable Product to verify the interest of customers. This concept will be described in section 2.5.1.

2.3 Why use lean startup methodology

In the business environment today, it is easier than ever to build innovative products. The costs of building a new product are lower than before due to the prevalence of internet, cloud services, and access to open-source software. Regardless of this, not many more startups are successful when compared to before. Up to 90% of them still fail (Patel 2015). Out of the successful startups, 75% say they have changed their plan during the startup process. It shows that it is not important to have a great plan to start with; what is important is to iterate during the process to arrive at a great plan. (Maurya, 2012, XXI.)

2.4 The difficulty of having successful startups

It appears that often it is misunderstood how successful products are made. It is thought that a person with a great vision is in the right place at the right time. From the perspective of the outside world, it looks like success happens by luck, overnight. However, ideas that become successful have carefully been tested and developed after several failures. To quote Steve Jobs: "Take the iPad, which was years in the making, built on several incremental innovations (and failures) of software and hardware." (Maurya, 2012, XXII.) Furthermore, the product development has been overly product-centric with no real customer engagement until after the product has been released. A good example of a successful startup using the lean startup methodology is Groupon. In the beginning the company had very simple technology, and instead of developing software, customer support head Joe Harrow personally emailed all customers who bought vouchers that day. (Burry. 2014.)

If the customers are being ignored, the startup can end up building something which is not wanted anymore. Steve Blank describes this as the fundamental dilemma. (Blank, 2013.) He goes to suggest this be fixed with a process of "Customer Development", which is a continuous loop for getting customer feedback. The following quote is to mean that customers are there to give the product developer feedback on the problem at hand, but, ultimately, it is the developer's job to find the solution.

"It is not the customer's job to know what they want" – Steve Jobs

2.5 Key aspects of lean startup methodology

Lean startup prioritizes experimentation, feedback from the customers, and iterative design. Its concepts such as "minimum viable product" and "build-measure-learn" have become familiar with entrepreneurs in the startup world (Blank, 2013).

2.5.1 Minimum Viable Product

A minimum viable product (MVP) is the least perfect version of the product that can be given to customers for testing. Its main purpose is to gain feedback from the customers so that product developers can iterate and change the product accordingly. Often, MVP's are made with the least effort and fincacial output as is possible. In the lean startup system, an MVP's goal is to test company's business hypotheses and fasten the beginning of the learning process.

2.5.2 Innovation accounting

There is a specific metric for entrepreneurs for maximizing outcomes and for planning milestones called innovation accounting. It gives the startup guidance on where to prioritize and where to have planned calculated risks. With innovation accounting, the entrepreneur empirically measures and communicates the progress of innovation. Examples of this are customer retention and usage patterns. Crucially important is to use the right metrics of accounting as wrong metrics can lead to non-relevant results. (Website of the Financial Times.) Section 5.2.4 shows the metric of innovation accounting used for Kiddsafe.

2.5.3 Actionable metrics

Startups seek to employ actionable metrics as opposed to vanity metrics. Actionable metrics are used to enable a startup to make informative decisions and the course of

action that follows from these decisions. Instead, vanity metrics give an unreal positive picture of the company's state. A startup must establish what are its actionable metrics and what are merely vanity metrics as these can vary from one company to the next.

2.5.4 Build-measure-learn

Build-measure-learn loop helps to minimize a company's time used for product development. The loop consists of putting the idea forward to testing, build an MVP of the product, get feedback from customers and learn from that experiment. This is also called a learning cycle, and a company can have as many learning cycles as it needs. Through these cycles a product is finetuned and adjusted to fit the customers' needs. The entire business model can be altered through the build-measure-learn loop. (Maurya, 2012, 12.) The build-measure-learn cycle in this thesis takes place in the validation of the core assumptions in chapter 4 and the subsequent analysis of the experiments in chapter 5.

2.5.5 Lean management

A startup needs a different kind of management compared to big, established institutions. The startup environment is extremely uncertain and its management should take this into consideration. The management tools developed for big companies are not useful for small startups, and thus new tools are needed. Without the appropriate management tools, a startup risks ending up in chaos and not in success. Lean startup methodology proposes to have a solution for the need of new management techniques. Its techniques are adapted from the lean manufacturing principles of Toyota. The lean manufacturing draws on the knowledge and creativity of individual workers, the reducing of batch sizes, just-in-time production and inventory control, and accelerated cycle times. Lean startup adapts these principles suggesting that entrepreneurs measure the progress differently from other ventures. The unit of progress for lean startup is validated learning. In comparison, the unit of progress for lean manufacturing is the production of high-quality physical goods. (Ries, 2011).

3 VALIDATION BOARD AS A METHOD USED TO VALIDATE BUSINESS HYPOTHESES AND BUSINESS PLAN DEVELOPMENT WITH LEAN CANVAS

The selected methods for assessing the company's business idea are introduced in this chapter. This chapter will define the Validation Board as the first method and describe how to use it. Furthermore, it will give theoretical background of the method in a step-by-step manner. Tips on how to fill the validation board will be discussed in the last section of the chapter.

After validating the business idea with the methods used in the Validation Board, the components of the Lean Canvas will be introduced. Lean Canvas is the second method to be used for arriving in the thesis objective of developing a lean startup plan for Kiddsafe Ltd. Comparisons of main differences to Business Model Canvas will be descired in this chapter. The aim is to have a clear lean business plan on a single page as shown in Section 3.7 in Picture 2.

3.1 What is the Validation Board

The Validation Board is a tool developed by the Lean Startup Machine to test startup ideas, products or services. After coming up with an idea for new business, it needs to be tested to see whether there is market for it. The Validation Board is based on Eric Ries' Lean Startup methodology. It aims to push entrepreneurs out of their comfort zone and encourages practical experimenting. (Vollens, 2013.) With the Validation Board, the entrepreneur can test assumptions, learn from the feedback, and design a better value proposition. The Validation Board helps entrepreneurs using it get out of the building and talk to their potential customers (Vollens, 2013).

3.2 How to use the Validation Board

There are sections in the Validation Board which will be filled in throughout the process. As can be seen in Picture 1., there is a section on the top left where pivots are tracked over time. A pivot in the context of the Validation Board is to take a core idea and either apply it to a new target group or to modify it to fix a different custo-

mer problem (Walker, 2013). The length of a startup's runway for changing its direction is a number of pivots it can make before running out of resources. The goal is to decrease time and money spent between pivots. Bottom left section is for designing and experimenting. The product is defined as an experiment, and the goal in this phase is to learn about customers. Bottom left corner helps the startup measure its progress by learning. In the beginning stages of lean startup it is not important how much revenue it has; what matters is how quickly it learns. This is what it means to be productive in the lean startup. (Owens, 2010.)



Picture 1. Validation Board (The Lean Startup Machine, Trevor Owens, 2010)

3.2.1 Validation Board Core hypothesis

The first step is to define the core hypothesis for the Validation Board, which is done for each the customer, the problem, and the solution. The hypotheses defined here are used for business validation; they are not hypotheses of this thesis itself.

• Customer: The customer segment is defined as a group of people with a common aim. It is defined in descriptive terms to make it more specific.

- Problem: The problem is a specific problem which this customer group has.
 The problem is defined in the exact way as they would define it. More emphasis should be put into investigating the problem than the desire to solve it. That way the correct understanding of the problem is more likely. (Maurya, 2012, 100.)
- Solution: Initially the solution will not be defined. As every problem has multiple solutions, starting with a solution could result in ignoring even a better solution along the process.

3.2.2 Design experiment

The second step to is to design an experiment. The company decides what it is that should be learnt. This begins with defining core assumptions, which are facts that result in the failure of the business if invalidated. Next a priority core assumption is picked according to what is thought to be the riskiest. The riskiest assumption needs to be either validated or invalidated with a built test. The method of testing depends on the riskiest assumption. The three possible methods are as follows:

- Exploration → Includes doing customer interviews or finding problems and pinpoints.
- Pitch → Asking customer for currency (i.e. email addresses or currency) in exchange of solving a problem or finding a solution.
- Consierge → Delivering on the pitch with as little technology as possible to a small number of customers until they are completely satisfied with the product.

These three methods of testing increase in the cost of testing. The methods of this thesis uses are exploration and pitch. These methods will be described later in detail in connection with data collection. The last task in designing the experiment is to define the minimum success criterion. This decides whether the business is successful or not and what is the minimum validation needed to be still able to continue working on the product. (Owens, 2010.) One way to set the minimum success criteria for a company that is in its early stages is to ask the team members. Enthusiasm and the will to continue are important factors in deciding the minimum conversion rate the team is willing to accept. (Hopkins 2014.)

When designing a minimum viable product, no time should be wasted in the beginning stages. In case a customer needs to be shown a demonstration of the product, it can be a simple mockup, landing page or a video. An example of this would be when Drew Houston was building Dropbox, he posted a three-minute video on Hacker News and created a landing page. It attracted tens of thousands of early adopters, a co-founder, and granted an acceptance into Y Combinator. (Maurya, 2012, 81.)

3.2.3 Results

The third and last step in the lean starup is to get results. The entrepreneur will need to "get out of the building" and experiment with customers. With the real data collected, it is then decided whether the minimum success criterion has been achieved. If not, the riskiest assumption has been invalidated and it is time to pivot. The pivot happens with one of the core hypothesis. If the minimum success criterion has been reached, the product idea has been validated, and it is time to define the next riskiest assumption and do a test on that. (Owens, 2010.)

3.3 Tips for completing the Validation Board

To start with, it is imperative to come up with proper assumptions to test. After which, a customer and problem hypothesis is formulated. Good assumptions are ones, which cannot be known unless they are validated. Great assumptions are ones that without validating them, it would be impossible to launch or sell the startup idea. There are two types of assumptions: "the leap-of-faith" assumptions, which are the riskiest assumptions, and product assumptions, which come if we start building the idea into a product or service. (Owens, 2010.)

Good assumptions can be tested right away, not sometime in the far future. When writing assumptions on the validation board, one assumption per post-it note should be written for each solution and customer group. The Validation Board can be printed out and filled in manually or it can be kept in its electronic form.

3.4 What is Lean Canvas

Lean Canvas is a one-page business model diagram. In comparison with writing a business plan over weeks or months, a lean canvas can be filled in a day. This will give the outline of the business model. Because of the limited space, each word must be carefully written. The lean canvas extracts the essence of the product, which is useful when an entrepreneur needs to do an elevator pitch to an investor in 30 seconds or has 8 seconds to catch interest on their landing page. (Owens, 2010.) Because Lean Canvas is compact, it is more easily shared with others. As others see and read it, it will more likely be revised and updated from time to time. Same as the the Validation Board, the Lean Canvas can be had either on a piece of paper or online.

3.5 Business Model Canvas vs. Lean Canvas

The Business Model Canvas (BMC) is a management template for developing new business models or demonstrating existing ones. It was developed by Alexander Osterwalder and Yves Pigneur for strategic management. They defined business models as: 'A business model describes the rationale of how an organization creates, delivers and captures value" (Coes 2014, 19; Osterwarder & Pigneur, 2010, 14). The BMC was created to help companies align their key activities to create maximum value and to demonstrate possible trade-offs for minimizing risk factors. The BMC gives emphasis on customer segments, channels, and relationships.

The Lean Canvas is a variation from the Business Model Canvas designed by Ash Maurya made specifically for startups. Lean Canvas emphasizes on finding solutions to customer problems in a step-by-step manner and finding what the company's unfair advantage is. The unfair advantage is something that cannot be replicated or copied easily. Lean Canvas is meant to be used by entrepreneurs and their startup businesses purely. It does not lay much emphasis on customer segments because startups have no tested products to sell. (Maurya, 2012.) The limitations of the Lean Canvas are that it does not specify financial aspects, and that a section of Key Partners, which is included in the BMC, is omitted. Maurya assumes that startups do not have partners in the beginning, which is not always the case. (Coes 2014, 24.)

3.6 Components of Lean Canvas

Lean Canvas can be filled in in just a few hours. The content should be concise and show the essence of the business. Sections from 3.6.1 to 3.6.9 will give suggestions on what to consider with each component of the Lean Canvas.

3 6 1 Problem

The first thing to consider when turning ideas into products is defining the problem a customer group has that needs to be solved. It is all too common to focus on finding a solution to a wrong problem wasting time, effort, and financial resources. Understanding the problem is vital. Here a list of existing alternatives, or competitors, should be included. The list documents how early adopters are addressing the problems currently. The competitors are defined by the customers and not by the entrepreneur. The alternative is not always an obvious one. For example in the case of many online collaboration tools, the alternative could be email or doing nothing at all. (Maurya, 2012, 51).

3.6.2 Customer Segments

A target group for the product is defined through customer segments. Instead of focusing on technology and product features, more emphasis should be put on finding the correct group of customers (Karlsson & Nordstrom 2012, 19; Ries, 2010). However, in startups too much emphasis should not be put on a target group as the final products have not yet been tested in the market. In the lean startup, a customer group will be defined specifically. It does not focus on the mainstream customer but on the early adopter, the group that needs the product most. Early adopters can be useful in that they help the business perfect their product before targeting the main stream customer (Karlsson & Nordstrom 2012, 20). It is impossible to build a product that is suitable for everyone from the start. Even Facebook who now have 1.49 billion monthly users started with a specific target group of Harvard students.

3.6.3 Unique Value Proposition

A startup business' difficult task is to define what customer problem the new business is going to solve in their Unique Value Proposition (UVP). It should then be decided what value they are delivering to customers and what customer needs are being satisfied. The main question to answer is why is the new product different and why should it get the customers' attention. The UVP extracts the products essence and narrows it down to a few words; these words should fit in the headline of the landing page. It needs to be something unique to matter. Ash Maurya suggests the following techniques when drafting an UVP. The startup should be different, but it should make sure that the problem is worth solving. Also, he advices to target on early adopters and to focus on the finished story benefits the customer receives after using the product. For example, a resume-building service's feature could be "professionally built templates", its benefit then would be "eye-catching resume that stands out", and the finished story benefit would be "landing your dream job". Another technique is to pick a few key words to use frequently. For example, the following car brands are using "Performance: BMW"; "Design: Audi" and "Prestige: Mercedes". (Maurya, 2012, 35-47.)

Under the concept of Unique Value Proposition falls High-Level Concept. This describes what a company's product represents when looking at the big picture. An example could be "YouTube = Flickr for Videos" (Mauyra, 2012).

3.6.4 Solution

After defining the problem, an appropriate solution needs to be found. In the beginning, the solution should be a simple sketch to build for the problem. The problem and solution often change after interviewing customers, so finding a solution can be left until a later stage.

3.6.5 Channels

Channels are pathways through which companies communicate their value proposition to customer segments. As in the beginning the aim of a startup is to learn and not

to grow in numbers, any channel that gets the product to the customer is sufficient. In fact, the easier it is to get to the customer, the faster it is to get out of the building and learn from customers. However, it is worth thinking about more scalable and repeatable channels that the company can use to reach customers in the future. An entity which sell the product to customers is also considered a channel. A company should ask whether its channels will give enough visibility into the user, such as the ability to follow up with the user to maintain cutomer relationships. Examples of channels are listed below. (Maurya, 2012, 54-58.)

- Friends
- Daycare
- Birthday parties
- AdWords
- Facebook
- Word of mouth

3.6.6 Revenue streams

Revenue streams focuses on where revenue is directed. Instead of forecasts for the next three or five years, the lean startup model focuses on a ground-up approach. Ben Yoskovitz describes a ground-up approach as user acquisition where one customer at a time is acquired by using methods such as social media and social networking. The ground-up approach does not require large financial resources and it needs to be highly viral. (Yoskovitz, 2009.) The revenue streams' direction should be aligned with the rest of the business' focal points. It is worth stating whether the business is charging on value or perceived value. The price defines the target group the company is hoping to attract, and a target group should be chosen based on the maximum price they can pay. Because price is part of the product, there product should be priced from day one. In fact, getting a payment from the customer is a form of product validation, and for this reason, it should be done as early as possible. (Maurya, 2012, 74.)

3.6.7 Cost Structure

In the same way, as a company's key metrics drive revenue, they also drive costs. Costs can be variable or fixed, but they should always be aligned with the business' value propositions.

According to Maurya, the goal for the company is to have a healthy margin by building a scalable business model (Maurya, 2012, 62). In addition, others suggest that actually "a startup is the organisation used to search for a scalable business model." (Blank, 2010; Karlsson & Nordstrom 2012, 18.) After that the company can scale and execute its business model (Karlsson & Nordstrom 2012, 18.) Maurya proposes that in order for the startup to be successful in the long term, the lifetime value of the customer needs to be bigger than the cost of acquiring new customers by a minimum of factor 3. (Maurya, 2012, 62.)

3.6.8 Key Metrics

A startup company should focus on one or two key metrics and expand from it. The metrics are either products or services that a company wants to provide. Care should be taken to focus on the right key metric. Some key metrics for an online subscription based company are signup, register and upgrade. In this thesis, two key metrics are proposed, and they will be described in section 5.1.8.

3.6.9 Unfair Advantage

Unfair advantage is similar to company's competitive advantage. It sets a product idea apart from others and makes its difficult for other companies to easily copy. However, it should be noted that anything worth copying will be copied, and despite this, the company must still be successful. Some examples of unfair advantage are inside talent, expert endorsement, and insider information. (Maurya, 2012, 72.)

3.7 Illustration of Lean Canvas Template

Picture 2. Lean Canvas Template (Lean Stack Blog, June 2012)

PROBLEM Last your lay 1-3 problems.			PROPOSITION assager areas	UNFAIR ADVANTAGE Something that cannot easily be bought or capited.	CUSTOMER SEGMENTS Little your larged customers and colors.
EXISTING ALTERNATIVES List how these problems are solved today.	KEY METRICS Lift the key numbers that sell your how your business is ching.	HIGH-LEVEL CONCEPT List your X for Y analogy e, a four face = Flicia for videos.		CHANNELS List year path to customers (inhound or cushound)	EARLY ADOPTERS List the characteristics of your ideal customers.
COST STRUCTURE List your fixed and variable costs.			REVENUE STRE		
1 4 3 9 2 7 6					Lean Canvas

4 DESIGNING LEAN STARTUP PLAN FOR KIDDSAFE BY USING THE VALIDATION BOARD

This chapter uses the framework of the lean startup system described earlier. The lean startup plan will be designed according to the guidelines and suggestions of the theoretical part of this thesis. Facts and data are analyzed with qualitative and quantitative research. Both deductive and inductive methods are used.

4.1 Completing The Validation Board

The Validation Board is completed according to the suggestions given in Chapter 3. Each hypothesis is either validated or invalidated with a research method described in section 3.2.2. The needed data is collected with customer interviews and a ques-

tionnaire. Results are then analysed to arrive at the final conclusion for determining whether the hypotheses were correct.

4.1.1 Defining core hypothesis

In defining core hypotheses for each category of customer, problem, and solution, it should be mentioned that the customer hypothesis was changed once. This pivot took place early in the research stage during the first customer interviews.

- Customer: The customer segment in the start phase of customer hypothesis was middle and high earning UK parents. After speaking with potential customers, it was soon discovered that young-minded tech-savvy UK parents are more likely to be the early target group, or early adaptors.
- Problem: The problem for the start phase and first pivot is the same, that of
 no way for parents to track their young children. Smartphones enable the
 tracking of older children with features such as iPhone's "Find my friends".
 Younger children and toddles who do not yet have mobile phones is the
 group the product is meant for.
- Solution: In the first pivot, a solution is defined. The proposed solution is to set up a website selling child locators.

4.1.2 Create design experiment

In the second step, core assumptions are defined for the design experiment to either validate or invalidate. All the assumptions will be tested starting from the riskiest until the least riskiest is tested. The following list shows the core assumptions to be tested.

- 1) Parents want to buy locators from a website.
- 2) The price of the product is not important.
- 3) Quality is more important than price.
- 4) GPS function is essential
- 5) Most parents do not yet use child locators.
- 6) Parents want to track their children.

The two methods used in this thesis to find qualitative and quantitative validation fall under the theme "Exploration" as follows:

4.1.3 Data collection techniques

- Qualitative research involved interviewing the members of the target group to find out exactly what they thought of the new product idea. The aim was to get a strong negative or positive response to the product from thirty early adaptors. The aim was to translate the product into the sample group's worldview, and to find out what benefits they would want from the product's features. The end customer story was what the interview aimed to uncover. Five questions were crafted to which the results can be seen in section 5.2.4:
 - 1) What is your first reaction to the product idea?
 - 2) What are the top things to consider in a product like this?
 - 3) What do you most like about the product?
 - 4) How would you improve the product?
 - 5) Do you think it is something people need or want?
- Quantitative research was conducted through a Survey Monkey research.
 The target group of early adopters and their opinion and feedback was measured with a questionnaire. The questionnaire was used to verify what was learnt from customer interviews, but not for the initial validation.

4.1.4 Sample population

The sample population for the interviews was decided by using self-selection sampling. With self-selection sampling, a case group which was thought to be the early adopters was interviewed: tech-savvy parents in the UK. Each invited case could decide themself whether they want to be part of the research. Invitiations to participate were mostly sent through social media and emails. Some cases were approached in person. The same form of sample was used for the questionnaire. The reason for choosing a self-selection sampling strategy was to study those who responded in depth with their desire to be part of the research.

To avoid participant bias, and to ensure reliability, both the interview and the questionnaire were made anonymously. This was done to enable the participants to give honest answers. The validity of the results was optimized by carefully analyzing the answers. Any threats to validity were eliminated by ensuring the findings were what they appeared to be.

4.1.5 Innovation accounting for Kiddsafe

In an attempt to get currency from the customers, a landing page was designed as a Minimum Viable Product (MVP). The landing page was used as the metric in innovation accounting for Kiddsafe. It gauges the interest and commitment of the target group in the form of email addresses. Using an MVP is a way to test the business hypotheses without having to have the final product ready. The landing page is depicted in Picture 3. In the landing page analytics, it was possible to see how many people visited the website, and the conversion rate of how many of them actually left their email address. The conversion rate was determined by the author alone according to the guidelines given in section 3.2.2 as there were no team members to consult. The conversion rate achieved was 67% which exceeds the minimum requirement for the landing page validation. This shows that the company is making progress toward the ideal and it should continue to develop its business.



Picture 3. Snapshot of the landing page on mylanderpages.com

4.1.6 Minimum success criterion

The last task in designing the experiment is to define the minimum success criterion. The minimum success criterion used in the experiment is that 50% of respondents would be willing to buy the product on Kiddsafe's website. This determines whether the business is successful or not and gives the minimum validation needed to still-continue working on the product.

4.1.7 Results

In the third step, the research was taken "out of the building" and both qualitative and quantitative data were collected. First, interviews were used for the initial validation of the new product idea. Once the preliminary validation of the hypotheses were confirmed, a questionnaire was crafted to verify the findings quantitatively. The objective of the questionnaire was not learning, but to demonstrate scalability (Maurya, 2012, 80). Kiddsafe will use the quantitative results from the questionnaire to reach more customers and to gain more exposure.

4.1.8 Qualitative research

Qualitative data collection from the interviews showed a common trend among many of those interviewed. Below is a list of the most common concepts and results from the core assumption test:

- 1) Nearly 80% of the interviewees had a positive response to the product idea. This validates core assumption 6) from section 5.2.2 assuming that parents want to track their children. If parents had a negative response to the product idea, they would most likely not want to use the product for tracking their children.
- 2) The top things the customers considered were 81% quality, 62% price, and 35% value. This point invalidates the core assumption 2) from section 5.2.2. It shows price does matter: in fact, it is the top second consideration whereas 62% of the interviewees thought price was the most important factor. At the same time, core assumption 3) is validated showing 81% respondents consi-

- dering quality the most important factor. It shows quality is more valued than price for child locators.
- 3) The interviewees were more interested in the bracelet with a GPS function than without. This result validates core assumption 4) stating a GPS function as essential. All comments and ideas for improvement were directed at locators with a GPS function. Not one of those interviewed showed interest in a locator without a GPS.
- 4) The customers liked most about the product that it would give them peace of mind; 25% used exactly those words. Others said they would worry less about losing their child in crowded areas. Four respondents had a negative response and thought the product would feed paranoia.
- 5) When asked about desired features on the bracelet, a few trends appeared: 1) a feature on the bracelet which would make it impossible for the child or third party to remove it, such as a code; 2) an emergency button on the bracelet which could be pressed in an emergency; and 3) a two-part system where one part is a bracelet and one part hidden in child's clothes or bag. Other desired features are listed below:
- Different size/adjustable straps for growing children
- An app for connecting with parents' devices
- The ability to "call-back" children to parents' location
- Camera or voice communication
- Fun and unique designs for children's taste
- Durable
- Descrete and undetectable for outsiders
- Geo-fencing feature
- Alarm if the bracelet is cut or forcefully taken off

From analysis of the customer responses, it appears that the main concern is to have a child kidnapped. A child locator would be of most benefit when it has the features preventing kidnappings. More in-depth interviews on the responses above can be carried out at a later stage to decide which are the most wanted product features. The scope of this thesis is too narrow for such research.

4.1.9 Quantitative research

Quantitative data was collected with a questionnaire on surveymonkey.com where 61 potential customers were asked what they thought of the product.

The first question's purpose was to gauge the overall reaction to the new product idea. It can be seen in Figure 1 that nearly 80% of the group the idea was either very positive or somewhat positive. From this result can be inferred that the product is welcomed and people think it is a good idea.

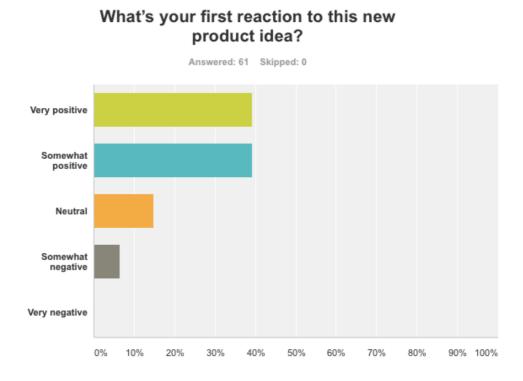


Figure 1. Questionnaire question #1 (Screetshot from Survey monkey website).

The next questionnaire question seeked to measure the novelty and newness of the product idea as can be seen in Figure 2. Close to 49% thought the word "innovative" described the product either extremely well or very well. This is a very positive finding.

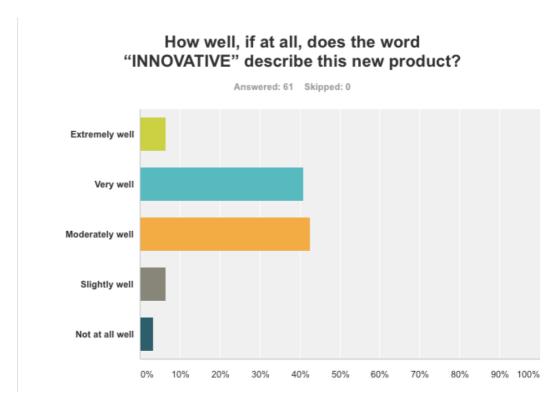


Figure 2. Questionnaire question #2 (Screetshot from Survey monkey website).

The third question assessed how commonly the product is used among customers. From the positive response to the idea in Figure 1. and from the result of Figure 3. showing that 80% of the customers do not use child trackers, it can be understood that the product has great potential in the UK market. This finding quantitatively verifies that child locators are not commonly used in the country as was suggested by core assumption 5) in section 5.2.2.

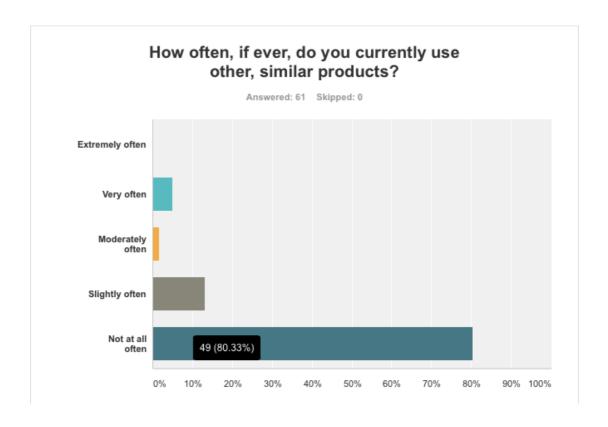


Figure 3. Questionnaire question #3. (Screetshot from Survey monkey website).

In question four, the likelyhood of customers to buy the product was measured. The results in Figure 4. show that customers were likely to buy the product 80% of the time. This percentage includes extremely likely, very likely, moderately likely, and slightly likely to buy the product. Even without the result of slightly likely, the likelyhood of buying the product is 65.6%. This figure is higher than the defined minimum success criteria of 60% of customers willing to buy the product on the company's website. The core assumption 1) from section 5.2.2 is quantitatively validated by the results. This was the riskiest assumption of the design experiment.

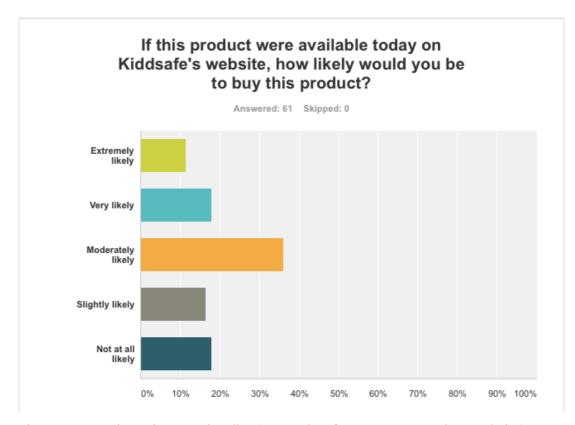


Figure 4. Questionnaire question #4. (Screetshot from Survey monkey website).

The fifth question measured how many customers thought the product was needed or wanted. Out of the 61 members of the sample group, 11.5% thought the product is needed, 67.2% thought it was wanted, and 21.3% thought it was equally wanted and needed. With 32.8% of respondents stating the product is at least partly needed shows the product has market potential. The results can be seen in Figure 5.

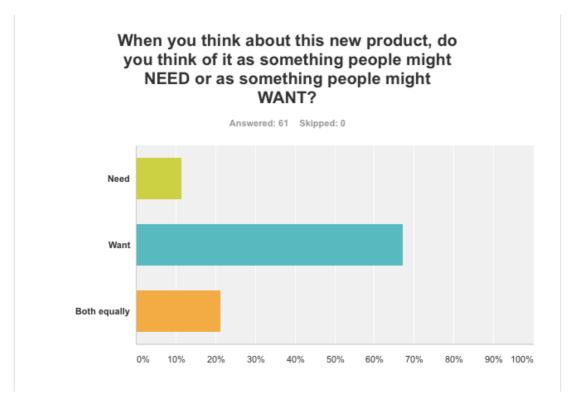


Figure 5. Questionnaire question #5. (Screetshot from Survey monkey website).

With the real data collected, it can be confirmed that the minimum success criterion has been achieved. All but one core assumptions were validated by using either qualitative or quantitative research methods. Validation Board used in this thesis can be found in Appendix 1 in its completed form.

5 APPLYING THE RESULTS TO FILL IN THE LEAN CANVAS

Steve Blank defined startup in following words: "Startup is a temporary organization used to search for a repeatable and scalable business model" (Blank, 2013). The goal of the Lean Canvas is to improve the likely success rate of the venture and to reduce the risk of failure. The Lean Canvas focuses on the early stages of the venture and includes Problem/Solution fields.

In this chapter, the Lean Canvas will be completed to arrive at a coherent business plan on one page. The theoretical guidelines of chapter 3 will be followed and findings from qualitative and quantiative research of chapter 5 will be used to fill sections on the Lean Canvas.

5.1.1 Three top problems

The first step is to ask whether the problem is worth solving. The problem will have to be tested through "customer discovery", or interviewing customers, and coupled with an appropriate solution. The top three problems for the chosen customer segment are 1) children get lost easily, for example during outdoor play, 2) parents worry about going to crowded places and losing their child, such as amusement parks or fun fairs, and 3) parents worry about having their child kidnapped whenever the child is out of their sight.

A list of existing alternatives shows how these problems are currently solved by the target group.

- Safegirl Security Online: Lower-end products only, no high tech products.
- Amazon: Individual child tracker sellers, usually have a narrow selection of products.
- Safetots: Sells a variety of safety products on the website, does not specialize on child trackers.
- No trackers used.

5.1.2 Assumed customer segments

The prototypical customer is a young-minded tech-savvy parent in the United Kindom. They are keen on using their smartphones to personally track their children. The target group is most likely to be interested in child tracking devices and use the apps that pair with the tracker, according to the early customer interviews. The target group has the potential to expand to mainstream UK customers and on to Europe after the initial market has been penetrated in the UK.

5.1.3 Unique value proposition

The unique value proposition (UVP) of what Kiddsafe has to offer is something new in the UK. The company offers a one-stop online store with a variety of child locators. This offers convenience and ease for the customers to find and purchase the products most suitable to them. In addition, the website comes with links to first aid courses and a blog about children's safety at home. The information the customers get in a one-stop service is valuable, and it is the only one of its kind in the country. This initial UVP is bound to change as the business develops, and this is nothing to worry about.

The High-Level Concept for Kiddsafe is "Kiddsafe = Expert on children's safety". Kiddsafe provides expert advice through its blog posts and offers latest tracking devices for children's protection.

5.1.4 Offering the solution

As a solution should only be written down after experimenting with the assumptions, it takes time to define a solution to the customer problem. After one pivot, a solution was found to the top three problems every parent potentially faces. The solution is 1) to have a website selling tracking devices with geo-fencing, 2) to sell tracking devices with a GPS-function on the website, and 3) to sell latest, high technology writs-band locators with a GPS-function, an emergency buttown, and a hidden second part of the device. The feature most parents want on the locator is that it should not be easily noticed or removed from the child other than by the parents. Thus, Kiddcare's website is to sell locators with all three functions, either in separate devices or all-inone devices.

5.1.5 Channels to customers

Kiddsafe uses several channels to get to their customers. Free channels are uselful as Kiddsafe can use them effectively. The following are direct free channels:

SEO

37

Social media – Facebook and Twitter

• Email/newsletter

Blog

The main paid channel to communicate and get to customers is amazon.co.uk. The company will use Amazon's advertising tool, Amazon Marketing Services, which functions by pay-per-click method. As the ratings bring the company higher in the list, the exposure to more customers follows. Company's SEO-boosted website, www.kiddsafe.co.uk, will be launched in the near future. It is another channel to directly reach customers. Another effective channel to advertise to customers and reach them is Google's AdWords. An account is set up and ready to go. Worth mentioning is word-of-mouth marketing from customer to customer. As the company is a startup and does not have proven products so far, it is not worth searching for indirect chan-

5.1.6 Company's cost structure

nels, such as parterships with other companies.

Kiddsafe is a value driven business. Instead of focusing on low costs, it focuses on value creation and premium value proposition. The aim is to emphasize specialization of the products and to gain the trust of customers for a good reputation. The initial inventory costs are kept low by using a home office for storing the products. In addition, batch sizes are kept small by inventory control. Products will be ordered directly from a supplier in China often and in reduced batches to accelerate cycle times. The packaging will be done in the UK at a competitive price. Most important costs for the first month are listed below:

• Inventory costs after packaging and delivery: 500/mo

• SEO in-house: £35/mo

• Amazon product ads: £60/mo

• Google ads: £60/mo

Shopify account: £79/mo

• To break even: £734/mo

5.1.7 Revenue streams

The company's revenue comes from an asset sale, which is uses a fixed price selling the products. When purchased through the website, customers pay with Shopify. The price is a list price and it is dependent on the features of the product. Each product will have different features on which the price ranges £10-£120. The revenue streams are divided between Amazon and website generated sales, Amazon being 70% and website 30%. In the beginning, the company hopes to make a 20% profit on the products. This would make the target of total sales for the first month £881.

5.1.8 Key metrics

One of the two main activities that drive revenue, or key metrics, is selling products in a proven marketplace with Amazon reviews. Amazon reviews are highly regarded and closely controlled. The second main activity is a platform of communicating with customers and directing them to the website. This platform is a blog about children's safety issues.

5.1.9 Unfair advantage

What sets Kiddsafe apart from others is that it is the only online shop with high quality premium products. The company sells a wide selection of products in a one-stop place, and it is continuously sourcing newer and better products, testing them and bringing them to customers always staying a step ahead of competitors. It is the only one of its kind in the UK.

5.2 Complete Lean Startup Plan

Kiddsafe will offer its customers peace of mind through the products. Every parent's worst nightmare is to lose their child either by accident or by abduction, and Kiddsafe's child locators will be there to help prevent this. The company provides an easy to find one-stop website with different locator models for customers to compare. In

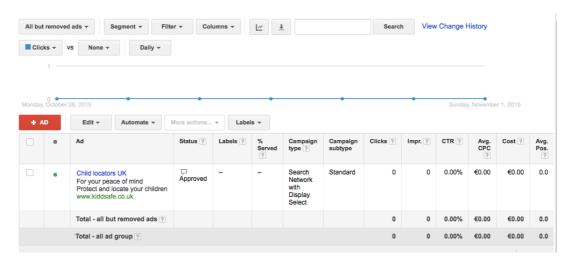
addition, the products will be sold and advertised on Amazon with links to the website. Each product will have full product details as well as reviews from early adopters. The company focuses on having the latest, high quality products which offer the most value to the customer. The goal is to eventually build a reputable trustworthy relationship with the customers. The publicity will be done through several channels, of which many are free. The biggest engine of growth is expected to be word of mouth which travels from parent to parent. Social media and both Amazon and Google advertising services will be used. The way to stay ahead of competition is to source the newest products and make them available in the country. The revenue will be coming from product sales through Amazon and Kiddsafe's website. A complete lean startup plan can be seen on one page in Appendix 2.

6 IMPLEMENTING LEAN STARTUP PLAN

Chapter 6 describes the practical implementation steps for the finished lean startup plan. Marketing, payment method, and setting up a blog for communication with customers will be discussed. Suggested further steps will be listed in the end of the chapter to give additional ideas for the company to undertake.

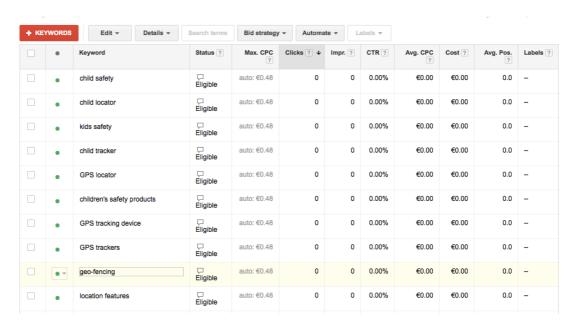
6.1 AdWords campaign for Kiddsafe

Setting up an AdWords campaign takes place after the validation of the business. It is not a cost effective way to be used in the beginning. At later stages, it can be used as a tool to get to customers. Picture 4 shows a screen shot of the Google AdWords campaign. It has yet to be activated at a later stage of the business.



Picture 4. Screen shot of Kiddsafe's Google AdWords Campaign.

A budget of £2 per day was set to keep the monthly costs down in the beginning. Suggested keywords can be seen in Picture 5.



Picture 5. Screen shot of Kiddsafe's Google AdWords Campaign.

6.2 Setting up Shopify

The customers shopping on the website are able to pay via Shopify. Setting the account is easy with no design skills needed. The online shop can be customized to have the most suitable theme for Kiddsafe. The most suitable choice for the company is to have a PRO account for £79 per month. Each credit card transaction rate is 2.1%+20p. The PRO account features a function for Kiddsafe's customers to pur-

chase products on its website and blog. Furthermore, it allows the purchase of gift cards and gives access to professional business reports.

6.3 Setting up a blog

"If you want a brownie store, become an "expert" in brownies first."—Gary Vaynerchuck

The side-benefit of blogging can be attracting an audience. It can be small in the beginning, but the blog should be set up early on in the startup process for the audience to start growing. Blogging can enable the meeting of other "experts" in the field of children's safety products. The biggest benefit of having a blog is to discover new customers and direct them to the product and Kiddsafe's website.

For the maximum effectiveness from an SEO perspective, it is best to use the product's domain for the blog, for example http://www.kiddsafe.co.uk/blog (Maurya, 2012, 91). Choosing a low-cost platform is relatively easy as there are several available. Wordpress is a good choice as there are several third party themes and plugins on offer and a possibility upgrade to WPEngine's help of scaling in the future (Maurya, 2012, 92).

When writing the first blog it is good to address the top problem the customers have; the concern about having their children kidnapped. The suggested approach is to talk from a personal perspective, addressing whatever concerns the blogger has about the problem. It is essential to have a personal voice and write naturally. A common post has 500-1000 words, which is enough for key words to come out sounding natural (Maurya, 2012, 93).

6.4 Suggested other next steps

The following actions are proposed to maximize the company's exposure in the market.

- Find organizations that offer first-aid courses and link them to the website and blog.
- Set up Amazon ads with Amazon Marketing Services account.
- Find products which are suitable as own branding for product launches.
- Connect with a company in the USA to find out the lastest advances in the child locator market.

These steps can be taken after the initial product launch. They require additional time and financial resources and fall outside of the scale of this thesis.

7 CONCLUSION

In this chapter, it will be assessed whether we have met the criteria which we set in section 1.4. The objective of the thesis was to explore a startup's business idea by using the lean startup methodology. The methodology was aiming to help Kiddsafe Ltd. avoid waste in time, energy, processes, and inventory when validating its business idea. After which the aim was to build a lean startup plan in a short time and coherently show it on one page.

The hypothesis was to effectively validate Kiddcare's business idea by using lean methodology. Lean Canvas and Validation Board were used as tools to prove this hypothesis right. Lean Canvas has let Kiddcare define its main customer problems and find a solution to them. Validation Board's experiment feature ensured that the research was rigorous, systematic, and relevant to Kiddcare's business idea. The management theory behind the lean startup system has shown to be effective in systematically giving the steps to either validate or pivot the startup's business idea. The process included one change of direction, or pivot, to arrive at a satisfactory place to continue with developing the business idea.

After conducting research on the lean startup methodology and studying the assocciated literature, experiments were designed to confirm the hypotheses. A step by step process was conducted and, after validating the business idea, a lean startup plan was developed. The hypotheses of this thesis were concluded true after the analysis of the data collected and the development of the lean startup plan for Kiddsafe Ltd. Specific suggestions of what customers want were demonstrated in the results of the experiments. Furthermore, chapter 6 shows a number of methods for the company to gain exposure with customers after its initial launch. Kiddsafe Ltd. has the benefit of being one of the first companies of its kind in the UK. By building a good reputation among early customers, it has great potential for growth and success.

REFERENCES

Andy. 2011. Steve Blank. Founder LY. Referred 28.10.2015. http://www.founderly.com/2011/04/steve-blank-part-1-of-5/

Blank, S., 2013. The Four Steps to the Epiphany: Successful Strategies for Products That Win. E-book. Referred 19.9.2015.

Blank, S., 2013. Why the Lean Startup Changes Everything. The Harvard Business Review, [e-journal]. Referred 9.10.2015. https://hbr.org/2013/05/why-the-lean-start-up-changes-everything

Burry. '5 successful businesses that got huge by starting small.' General Assembly blog. 26.7.2014. Referred 17.11.2015. https://blog.generalassemb.ly/businesses-that-started-as-a-minimum-viable-product/

Coes, B. 2014. Critically assessing the strengths and limitations of the business model canvas. Master thesis. Nijverdal: University of Twente. Referred 28.10.2015. http://essay.utwente.nl/64749/1/Coes_MA_MB.pdf

Croll A. and Yoskovitz B., 2013. Lean Analytics: Use Data to Build a Better Startup Faster. Sebastopol: O'Reilly Media, Inc.

Feld, W. M., 2001. Lean manufacturing: tools, techniques, and how to use them. Boca Raton, FL; Alexandria, VA: St. Lucie Press.

Gustafsson, A. & Qvillberg, J. 2012. Implementing Lean Startup Methodology – An Evaluation. Master thesis. Gothenburd: Chalmers University of Technology. Referred 31.10.2015. http://publications.lib.chalmers.se/records/fulltext/164603.pdf

Hopkins. 'How to set your minimum success criteria.' Teague Hopkins Group. 4.3.2014. Referred 17.11.2015. http://www.teaguehopkins.com/2014/03/setminimum-success-criteria/

Lewis, P., Saunders, M. & Thornhill, A. 2009. Research methods for business students. 5th ed. Essex: Pearson.

Karlsson, J. & Nordstrom, J. 2012. Implementing lean startup methodology in large firms. Master Thesis. Gothenburg; Chalmers University of Technology. Referred 1.11.2015. http://publications.lib.chalmers.se/records/fulltext/156964.pdf

Maurya, A., 2012. Running Lean: Iterate from Plan A to a Plan That Works. Sebastopol: O'Reilly Media, Inc. 2nd ed. 2011.

Maurya, A., 2012. Why Lean Canvas vs Business Model Canvas. Referred 7.10.2015. www.leanstack.com

Millman, N., 2010. Explaining Intellectual Honesty. The American Scene. Referred 28.10.2015. http://theamericanscene.com/2010/09/12/explaining-intellectual-honesty

Osterwalder, A. & Pigneur, Y. 2010. Business Model Generation: A handbook for visionaries, game changers and challengers. New Jersey: John Wiley & Sons, Inc.

Owens, T., 2010. Lean Startup Machine. Referred 6.10.2015. www.leanstartupmachine.com

Oxford Dictionaries. Referred 9.10.2015.

http://www.oxforddictionaries.com/definition/english/methodology

Patel, N. 2015. 90% of the startups fail: This is what you need to know about the remainig 10%. Forbes/Entrepreneurs. Referred 5.11.2015. http://www.forbes.com/sites/neilpatel/2015/01/16/90-of-startups-will-fail-heres-what-you-need-to-know-about-the-10/

Ries, E., 2011. The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. New York: Crown Business.

Ries, E., 2011. Creating the lean startup. Inc. Referred 13.10.2015. http://www.inc.com/magazine/201110/eric-ries-usability-testing-product-development.html

Tam, P-W., 2010. "Philosophy helps startups move faster." Referred 9.10.2015. The Wall Street Journal.

http://www.wsj.com/articles/SB10001424052748704635204575242543105830072

Vollens, M., 2013. The Validation Board: Business Prototyping Review. Board of innovation. Referred 8.10.2015. http://www.boardofinnovation.com/2013/03/06/the-validation-board-business-prototyping-review/

Walker. 'Using "The Validation Board" for Mobile App Developers.' Design Boost. 29.4.2013. Referred 29.10.2015. http://designboost.net/the-validation-board-for-mobile-apps/

Website of the Financial Times. Referred 17.11.2015. http://www.ft.com/home/uk

Yoskovitz. 'Top down vs bottom up business models and user acquisition.' Instigator blog. 19.5.2009. Referred 28.10.2015. http://www.instigatorblog.com/user-acquisition-business-models/2009/05/19/