FROM IDEA TO MARKET – DEVELOPING A PRODUCT-MARKET FIT FOR INDIECOACH (PART 2)

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1. Introduction

Establishing a business is much more of an iterative journey than a linear process, which 9 out of 10 startups fail to complete. One of the major reasons for failure is trying to find customers for a product, rather than building a product that matches customers' needs (Kraft, 2016). Hence, the risk of failure can be reduced by learning about the needs and problems of potential customers, before starting to create allegedly brilliant products, that will never be successful simply because they don't serve any customer segment. Therefore, this field lab is dedicated to the journey of learning and validating customer needs and problems as well as deriving an according solution in form of a value proposition for the sport coaching industry. Particularly, we will consider the demand side of an online marketplace that connects sport coaches and students to lay the foundation for a minimum viable product to be developed in the aftermaths of the field lab. Our personal motivation is thereby not only justified because of sport being a huge market, it rather fascinates us that sport is a passion which billions of people from all over the world share. As a direct link to the first report of our field lab, written by Johannes, this part will focus on testing and validating our learnings. In the course of this thesis, we will describe the approach to this field lab in section 2 as well as the theory to the Lean Startup in section 3 as our mutual part. We will then examine the problem-solution fit by designing and executing a survey based on the four cornerstones of survey design: coverage, sampling, nonresponse and measurement in section 4, which will be concluded with the analysis of our survey data. Lastly, we will aim to achieve product-market fit in section 5 by setting up a first smoke test through an A/B landing page test. In section 5 we will not only provide an explanation of our landing page test design, but also analyze the results as well as explain the reasons for adopting our final value proposition. In section 6 we will conclude the field lab and give an outlook of the next steps needed to bring our product to the market.

2. Approach

In the following we are going to describe the core problem of our field lab and derive the consequential research question as well as an outline of our research approach. Also, we are going to explain the structure of the field lab and work allocation.

2.1. Background and Research Methodology

Since the rise of Airbnb and at the latest since Uber had strained the taxi industry, the sharing economy has disrupted many other industries. In the recent years, an increasing number of rather labor centric platforms like Fiverr and Helpling have proven that such marketplaces can not only provide an income supplement but also create full-time job opportunities (Clipperton Corporate Finance, 2016). However, sports and especially sport coaching is one of the few industries that haven't been disrupted yet, even though the market size as well as the degree of labor intensity could potentially create appropriate conditions for a successful marketplace. Nevertheless, our research prior this thesis had shown that there were already some failed attempts to establish such platforms. However, after interviewing one of the co-founders of Becoacht[1], who is a former Rocket Internet employee, we could gain an important insight. Apparently, it is no big issue to serve the offer side of the marketplace, but on the other side the platform was lacking demand. Therefore, the aim of our thesis is to examine the demand side of an online marketplace for sport coaching and develop a corresponding value proposition as well as learning about the needs of an according customer segment. In the scope of this field lab, we will hence disregard a deeper analysis of the offer side, which is represented by sport coaches. We will catch up on this, however, at a later stage in the development process of our startup. Understanding the customer's needs is consequently crucial, in order to derive reasonable features for an online marketplace and to target the right people the right way, which we consider to be the key to create demand and hence the critical

[1] Becoacht was a German startup that offered a brokerage platform for sport coaches, whereas users should have been able to find an objectively rated sport coach and/or class in less than three minutes.

mass needed to result in a market equilibrium. In order to do so we are going to utilize the lean startup approach, which will be theoretically described and analyzed in section 3.

2.2. Field Lab Structure

Since our intrinsic intent for this project, which exceeds the scope of this field lab, is to establish a "real" startup company, we applied for several incubators in Germany and finally got accepted to the Gateway[2] incubator in Cologne. The Gateway is part of Colognes founders network which is financed by several Universities - among others Germany's largest University for Sports[3]. Although we worked on most topics of this field lab mutually, we found that it was more efficient to divide specific tasks according to our abilities and skills. Johannes Fuchs was mainly in the lead for rather qualitative tasks like identifying the pains of sport lessons as well as identifying the market and potential customers which included 44 in-depth interviews. Lucas Habrich, on the other hand, was rather responsible for testing assumptions and all tech related questions including cluster analyzing a conducted survey with 1.102 participants as well as programming a landing page and creating a suitable A/B test. Consequently, and according to this work allocation we will conduct the documentation of our work through our theses.

[2] Gateway Cologne, Page of our Startup: https://www.gateway.uni-koeln.de/indiecoach/
[3] German Sport University Cologne: https://www.dshs-koeln.de

3. Theory

This section is dedicated to the evolution and the theory of the Lean Start-Up methodology. Furthermore, we will explain frameworks that we utilized for this field lab.

3.1. The Lean Startup

We facilitated the Lean Startup approach to create and constantly improve our product. As a relatively novel approach it is not to be found in every area of management yet, but it is promoted by a movement of entrepreneurs around the world and is since on the rise (Ries, 2011).

3.1.1. The Origin of the Lean Start-Up Methodology

Traditionally, there is a clear roadmap about how a business should be established. You write a business plan, pitch this plan to investors, assemble a team which introduces a product, and then you start selling this product as hard as you can (Blank, 2013). Within this roadmap, the introduced product is in most cases created, using the Product Development Model. According to this model, entrepreneurs or a company set up a plan for an arising business or product idea, build on market research and forecasting, and then develop and test the business or product, till the finished good is offered to the waiting customers (Blank, 2005). This is the traditional –the "old"– way. Recently, the way of building a business or creating a product by this product-centric model, is questioned by several successful entrepreneurs like Steve Blank (2005), Eric Ries (2011), or Maurya (2012). It might work in established markets where competition and the waiting customers are known, but it does not hold for start-ups which usually enter new markets of which they have not more than a dare imagination.

In the recent past, the Lean Start-up method arose as a contrary concept to the traditional methodology. It is based on the Customer Development Model, introduced by Steve Blank in 2005. This model, in contrast to the Product Development Model, puts the customer in the

middle of a product development process. The customer does not just receive the final product, but he is part of the development. In a first step, pains of the customer are identified to see whether the product does even tackle problems which are important to the customer. In later stages, the product is tested together with the customer to find out whether it really fits the needs of the customer and offers all desired features. In essence, this model is not product-centric anymore, but rather customer-centric (Blank, 2005). Following this idea, Eric Ries introduced the term Lean Start-Up. The core element is to applicate the idea of lean thinking to the process of innovation (Ries, 2011). Ries wants to "eliminate the tremendous waste" (Ries, 2011) of lost resources which occurs when start-ups fail by preventing them from building products nobody wants. To achieve this goal, structured experimentation, iterative product releases and customers' feedback is used to build a product that really fits the needs of a certain customer (Nientied, 2015).

3.1.2. Principles of the Lean Start-Up Methodology

An Entrepreneur is faced with uncertainty. Uncertainty about the market he or she is acting on, the customers he plans to serve, and nearly every aspect of starting a new business. The main idea of the Lean Start-Up methodology is to accept this uncertainty and see the process of starting a new business as a set of untested hypotheses. "Getting out of the building" and testing these hypotheses using the Customer Development Model to create new hypotheses, which again must be tested, is the main task of an entrepreneur according to the Lean Start-Up method (Blank, 2013). The outcome of this process is a proven hypothesis, which is more solid as every planning or research could possibly be.

According to Ries (2011), there are five principles that are leading the Lean Start-Up methodology.

Entrepreneurs are everywhere: This principle states, that entrepreneurs are not just founders of new, small businesses but can be everyone who works at a start-up which fits into

Ries' definition of a start-up: "a human institution designed to create new products and services under conditions of extreme uncertainty" (Ries, 2011). The underlying of this principle is that the Lean Start-Up (LS) approach does work for every institution, even large enterprises acting in any industry.

Entrepreneurship is management: A start-up is an institution and therefore it requires management. A special and new type of management which is used to the presence of extreme uncertainty and combines traditional management tasks with promoting innovation.

Validated Learning: This principle is a result of the main task of an entrepreneur as mentioned before. Previously defined hypotheses are tested "outside the building" with real customers and therefore "validated scientifically by running frequent experiments that allow entrepreneurs to test each element of their vision" (Ries, 2011)

Innovation accounting: Also in a start-up, progress must be measurable. The work which is done must be accounted to quantify the current state of a start-up and to improve entrepreneurial outcome. This accounting method must be adapted to the special needs of start-ups.

Build-Measure-Learn: The last principles, might be the most fundamental for the LS method. It is also the foundation for this work. It implies, that testing, reviewing the test, and then learn from the outcome is the most important thing for building a product which is wanted by the customers. The Build-Measure-Learn loop usually starts with a minimum viable product (MVP). A MVP is a version of the product of the company which is not fully developed yet and hence not perfect, but complete enough to demonstrate the value it brings to the user (Moogk, 2012). This MVP is then tested with customers and the outcome is measured. The outcome then again is the base to learn and build a new product and start the cycle all over again. This loop does not have to be carried out using a MVP but also works with every hypothesis which is part of the start-up. To work as efficient as possible, the loop

is repeated as fast as possible. For our work, we are going to use this build-measure-learn loop and iterate this process in several circles to build our product after the perceptions of market and customers.

3.2. Frameworks and Canvases

In the following we are going to introduce the two frameworks we utilized when building and testing our product.

The Business Model Canvas: Alexander Osterwalder was the first to introduce the Business Model Canvas and had in mind to create a common understanding of a business model to facilitate the description of a business model and the discussion about it (Osterwalder and Pigneur, 2010). The canvas shall be a counterproposal to the traditional business plan and is mainly a diagram of how a company creates value for itself and its customers (Blank, 2013). Its advantage against a business plan is that it is more of a sketch, which is not as precise but easy to change and to adopt to new insights. The business model canvas consists of nine building blocks[4], which cover the four most important areas of a company: the customer, the product, the infrastructure and the financial survivability (Osterwalder and Pigneur, 2010). In use for the LS methodology, it offers a framework which summarizes all the to-be-tested hypotheses an entrepreneur set up and gives an overview of how the start-up plans to create, deliver, and capture value (Osterwalder and Pigneur, 2010).

In this work, we will just concentrate on two blocks of the Business Model Canvas, the Customer Segment and the Value Proposition. Those are the two most fundamental blocks of the canvas, as they determine for whom value is created and what kind of value is created. They are the main factors when trying to find a fit between the problem and the solution

[4] (1) Customer Segment, (2) Value Proposition, (3) Channels, (4) Customer Relationships, (5) Revenue Streams, (6) Key Resources, (7) Key Activities, (8) Key Partnerships, (9) Cost Structure

(problem-solution fit) and fit between the product and the market (product-market fit). We are going to set up hypotheses for these two blocks and then test them via the build-measure-learn loop and iterate this cycle again and again, till our product fits the market.

The Value Proposition Canvas: As well introduced by Alexander Osterwalder, the Value Proposition Canvas (Appendix A), is a two-sided framework with the Customer Profile on one side and the Value Map on the other. Within in the Customer Profile one can clarify his customer understanding, within the Value Map it is described how the entrepreneur intends to create value for that customer (Osterwalder et al., 2014). The canvas focuses on the main blocks of the Business Model Canvas and works like a plug-in to zoom into detail and therefore describes the value proposition and the customer segment of a business model in a more structured and detailed way (Osterwalder et al., 2014).

In our work, we are going to use the Value Proposition Canvas to assemble the needs of our customers and to develop a value proposition which meets theses needs. We are trying to achieve a fit between the value map and the customer profile.

4. Validating the Problem-Solution Fit

This section is the direct link to the first report of the field lab written by Johannes and can be seen as a continuation. We will test the hypotheses made about the customer segment and the value proposition through a survey. Consequently, we will first describe our survey design in detail, explaining common mistakes when conducting a survey, while showing our countermeasures for these mistakes. We will then conclude this section with the analysis of the survey data and finally draw inferences for our customer segment and value proposition respectively.

4.1. Survey Design

Conducting a survey is a simple and yet powerful validator, if it's planned and executed the right way and seems to be an obvious step in confirming our assumptions made about the customer segments defined by Johannes. However, designing a comprehensive survey includes many stages while each influences the survey quality (Hox, et al., 2008). The main goal of designing a survey is to validate a construct, which is represented by the previously defined Value Proposition Canvas and the assumptions made about the pains, gains and motivation for practicing sport or attending sport lessons respectively. In addition, our survey aims to gather information about in which extend this construct can be relieved or created. We therefore tested the solutions we developed in the stage of finding a problem-solution fit. In order to validate a construct, which is the foundation of every survey Hox et al. (2008) suggests designing a survey based on four cornerstones: coverage, sampling, response and measurement. Each of these cornerstones potentially contributes to the total amount of errors and should therefore be investigated. Furthermore, there are several media through which a survey can be conducted, with every medium having different characteristics and downsides. For the sake of simplicity and cost efficiency we chose to entirely rely on an online survey using Google Forms. Also, the process of designing a quality survey took several iteration

circles, while we tested with altogether 30 friends who then provided feedback respectively in terms of understandability and appropriateness of the questions and tasks. In the following we will explain our survey design, while going into detail for each of the four cornerstones and explaining the process of minimizing the sources of errors for our survey.

4.1.1. Coverage

According to Lohr (2008) coverage can be defined by the proportion of the target population included in the sampling frame. Since we have already defined our presumed target group, our population of interest can be described by the three clusters established in Johannes' report or at least as people with a strong interest in sports. The goal of a quality survey is to gain maximum coverage – in other words reducing undercoverage and avoiding overcoverage. While undercoverage appears when a share of the population of interest is neglected, overcoverage appears when people who are not part of the target population participate in a survey (Lohr, 2008). In order to balance coverage and avoid asking people with low interest in sports to answer the survey, we aimed to spread our survey at the greatest possible extend only within the population of interest. In the course of gaining participants of our interest we posted the link for the survey into 97 Facebook groups (Appendix B) and forums related to sports being in line for an online marketplace for coaching with the restriction to address individual sports. Also, we've sent additional 200 private messages to people within our network asking to participate in our survey. We didn't post links in groups other than related to sports and avoided to post on our timelines on purpose in order to avoid overcoverage. Nevertheless, Lohr (2008) describes that coverage can not be fully determined in samples that consists of volunteers such as online surveys and always bear a risk of overcoverage through addressing people from outside the population of interest as well as undercoverage as people with no access or low internet affinity are omitted. The latter doesn't

apply for us as such people are obviously out of our target population by the nature of our product.

4.1.2. Sampling

The ultimate goal of most surveys is to make inferences about a target population. However, there are different ways of sampling in order to draw these inferences, each having different characteristics and degrees of reliability, while probability sampling is considered the gold standard (Lohr, 2008). Nonetheless, probability sampling is only possible if the survey administrator chooses participants randomly. As the survey conducted for this field lab consisted of volunteering participants, we couldn't ensure probability sampling which implies that we can't draw conclusions for the whole target population with certainty. Since we could only influence the group of people that we address but not the participants within these groups, our survey is based on volunteer sampling. Therefore, we need to assume that those volunteers are representative for the target population. Even though this assumption might be fairly strong and untestable, it seems justifiable as we only need tendencies for the sake of our analysis. Also, we can assume that people volunteering in our survey have an increased interest in sports which will supposedly bias our sample slightly. This bias can be considered to be minor though, as our target population has an increased interest in sports anyway. Nonetheless, a common way to decrease the sampling error, is to increase the sample size. In order to increase the sample size, we gave an incentive to participate in the form of two 25€ vouchers for a famous German sports retailer. This way, we were able to gather 1.102 participants for our survey (Appendix C), which corresponds to a 2,86% margin of error at an assumed population size of 27,4 Mio athletes to practice sport at least once a week in Germany and a confidence interval of 95% (Appendix D) (Hox et al., 2008). These numbers seem to be more than sufficient for the sake of drawing conclusions about tendencies of pains, gains and motivations for our target population to do sports.

4.1.3. Handling Nonresponse

According to Hox et. al (2008) nonresponse is the inability to collect data of all sampled units on all question. Usually, nonresponse can become a serious issue when probability sampling applies and nonrespondents are not distributed randomly. However, as described in section 4.1.2 our sample relies on volunteers and hence it is impossible to eliminate unit nonresponse errors, which describes the failure to collect any data from a sample unit as in a participant. Therefore, anyone who didn't volunteer to participate in our survey but had potentially the chance to do so, can be considered as a nonresponse unit. However, the second form of nonresponse is called item nonresponse, which refers to the failure of obtaining data for at least one question (Hox, et al., 2008). We eliminated this source of error by requiring answering every question. However, we had to make an exception with the demographic question for the amount of income. In the first stage of testing the survey, some participants complained that they don't feel comfortable to reveal such sensitive information. We found a workaround to estimate the missing data by drawing inferences from the amount of sport expenses. We only had to apply this workaround for less than 50 participants though.

4.1.4. Reducing Measurement Errors

Hox et. al (2008) describe measurement errors as errors that occur from unclear questions even though respondents are willing and capable to answer correctly. Obviously, these errors can be reduced by writing good questions. According to Fowler and Cosenza (2008) a well performing question can be measured by reliability and validity. In order to write reliable and valid questions it is necessary to understand what framework a respondent needs to follow for the sake of answering a question. In the following we will describe the framework by Fowler and Cosenza (2008) step-by-step and explain how we reduced measurement errors for our survey respectively. All corresponding survey questions can be found in Appendix C.

Understand the question: Obviously, if a respondent doesn't understand a question correctly, he or she is not capable to answer in the way the researcher intended. First, the choice of vocabulary is crucial as it influences the way information can be received by a recipient. While writing the questions for our survey we paid strong attention to use simple and yet clear vocabulary to eliminate room for interpretations. If questions could still be interpreted differently from what we intended, we added descriptions to our questions. For instance, when asking for sport habits we did not simply ask "How often do you exercise?" but "How often do you practice sport on average per week?" and added the description explaining that a unit of sport involves at least 30mins and is not the sole side effect of some other task such as gardening [translated from German]. Second, we have always given time frames making the answers comparable and more capable to answer for the participant. When asking for sport expenditures we first split the question into four different kinds of sport expenditures as in training, equipment, travel costs and expenditures for digital services. For each of these questions we specified the time frame "last year" as it is more comprehensive to use past time frames (Fowler and Cosenza, 2008). Third, we avoided to imbed assumptions to our questions. For instance, it would have been bad practice to directly ask for the sports in which the participant had already taken group lessons, because it assumes that he or she have had participated in any group lesson. Instead, we first asked "have you ever participated a group lesson?" - while specifying what a group lesson is in the description- and then added a second question "If yes, in which sports have you participated in a group lesson?". Fourth, it is considered to be confusing to ask multiple question at once which is why we completely abandoned this practice.

Retrieve information needed to answer: Even though a participant might understand the question the way we intended, we had to make sure that the information needed to answer the question can be retrieved easily. For this reason, Fowler and Cosenza (2008) suggests

adjusting the time frame according to the importance of an event. As for many people taking a sport lesson is not as important as most events, we kept the reference period as short as possible. Consequently, we kept the reference period for minor events such as participating in private lessons to the very lower limit and only asked for expenditures of the last lesson someone has taken. Obviously, this was a follow-up question as we couldn't assume participants had ever taken private lessons.

Provide an appropriate response: Finally, if the respondent understood the question and could retrieve the information needed to answer, it is necessary to translate these information into an answer. As we figured from the survey test iterations with 30 friends that open-ended questions are not quite appropriate for a volunteer survey we waived all such questions. Instead we relied on closed-end question which were written as described before and in addition used rankings in order to validate gains, pains and motivation for practicing sport as well as gain creators and pain relievers respectively. As suggested by Fowler and Cosenza (2008) we labeled all answers of these and specified the Likert-scale from 1 to 7. Another advantage of ranking scales can be seen in the analysis as we are able to apply basic statistical methods.

4.2. Analysis

After having designed a quality survey while eliminating most sources of errors using the four-cornerstone framework and gathering 1102 participants as described in section 4.1.1., we will describe the process of data preparation in the following and will then interpret the results to validate the previously defined customer segments and respectively draw inferences about the pains, gains, and motivations. We will then analyze the survey data of the pain relievers and gain creators in order to derive an according value proposition.

4.2.1. Data Preparation

For the sake of manipulating the data set we used STATA14. In the following we will refer to the logs which can be found in Appendix E, Appendix F and Appendix G. Since we want to be able to draw inferences about each of the customer segments, we first need to categorize the sample into the three cluster that correspond to our customer segments. Therefore, we need to create a dummy variable for each of the clusters which values 1 if a respondent belongs to that according cluster. The categorized criteria for the clusters are straightforward as they are mainly assembled by demographic characteristics such as age, income, education level. The only non-demographic criteria used to categorize the clusters are sportiveness, which is a weighted variable composed of the quantity of practicing sport per week and a self-assessment of sport enthusiasm on a scale from 1 to 7. Also, to distinguish cluster 2 and cluster 3 in some certain cases, we used the question if the participant has ever coached before. After applying the cluster categorization as described, we can observe that 239 participants were classified into cluster 1, while 156 and 121 were classified into cluster 2 and 3 respectively. Furthermore, we computed the means and variances of all Likert-scale ranking questions as supposed by the Statistical Science Centre (2001). Those were mainly questions about pains, gains and motivations as well as relievers and creators respectively.

4.2.2. Interpretation and Inferences

Before drawing further inferences, we need to validate if the assumptions made in Johannes' thesis about each cluster and hence the customer segments apply. We will then use the survey data in comparison with the presumed value proposition to infer an adjusted value proposition if necessary.

Customer Segments: As we categorized the clusters using demographic criteria it wouldn't add much value to analyze the demographic survey data. However, it is interesting to consider some non-demographic questions to learn more about the customer segments. One of our first

learnings from the interviews was that people tend to prefer practicing sports in groups. In fact, the data for all three clusters shows that group lessons are preferred over private lessons, while practicing sport with friends is more favored than practicing sports with strangers (Appendix H). Furthermore, all three clusters indicated the most interest in Surfing, Climbing/Bouldering, Combat Sports, Windsurfing/Kitesurfing and Winter Sports as desirable sports to try or improve in. Cluster 3 additionally had a strong interest in Mountain Biking, while Cluster 1 shows high interest in Yoga. The latter goes in line with an interesting demographic finding about this customer segment: 68% of the respondents that were allocated into cluster 1 are women. In terms of expenditures for sport lessons, the different customer segments vary. While Cluster 1 spends 23.75€ on average for sport lessons per month, Cluster 2 spends 49.22€, closely followed by Cluster 3 with an average spending of 47.53€ which is over proportionally high to the lower income level (Appendix H). This discovery is completely in line with the overall impression of Cluster 3 to be extremely sporting with an average sport consumption of 4.6 units per week and 60% who already have **given** sport lessons in return for payment. Furthermore, it is worth mentioning, that within Cluster 2 - which has a disposable net income of 2.432€ on average - 43% have taken private lessons before, while 80% have participated in group lessons. In contrast, within Cluster 1 only 26% have taken private lesson, though the average disposable income accounts for only 648€.

Value Proposition: Having validated and sharpened the three clusters that represent the customer segment we can now analyze the results of the survey questions that aimed to gather insights about pains, gains and motivations for practicing sport as well as corresponding pain relievers and gain creators. The main motivation across all clusters is simply having fun. (Appendix K) Obviously, this is a very broad term that usually implies a deeper source from where it originates, but gives a hint about a tendency towards low eagerness to competitive sport after comparison with the result of recognition/appreciation as motivation which was

stated to be a minor motivator across all clusters. Another main motivator for practicing sport is improvement in a particular sport which can be verified by learning new techniques as a motivation. Double checking these two motivations holds especially for cluster 2 and cluster 3 and would according to potential gain creators, be enhanced through lessons with professional athletes and coordinating training topics prior a lesson. Also, most respondents value if training partners have a similar skill level when it comes to improvement in a sport with relative frequencies ranging around 30% for all three clusters. Coming from customer jobs/motivations to pains, the survey data shows that across all clusters the worst pain of practicing sport is a lack of time (Appendix I). Although, we can't relieve this pain at the root of origin, we can enhance flexible scheduling of lesson hours, which valued 52% of cluster 1, 35% of cluster 2 and 42% of cluster 3 as the best suggested pain reliever. Additionally, most respondents see inflexible lesson hours as a major pain which is in line with a more flexible scheduling feature. Another striking pain for cluster 1 and cluster 3 are the costs of sport lessons. Since there is a sheer lack of competition between sport schools which would be increased through an extended offer at an online marketplace, we expect lesson prices to drop below the average market prices of offline competitors. Also, the survey data shows that our customer segments wish for a more straightforward overview of lesson offers to ensure higher comparability. Lastly, the major gains of sport lessons that all three clusters have in common is the improvement of techniques and motion sequences (Appendix J). A better coordination of learning targets and the performance level of a student would increase the efficiency of a coaching unit, as coaches could prepare training topics more target-oriented. In fact, many sport schools are lacking this ability, although it would be possible to develop an appropriate feature online for a better self-assessment of students. Furthermore, practicing sport outdoors is one of the major gains of sports for all clusters, which could potentially be enhanced by our platform by focusing on outdoor sports and classes.

4.2.3 Adjusting the Value Proposition

An important learning that we can apply towards product-market fit is the choice of sports that we want to focus on. Based on the results of the survey and not least because of our personal expertise within these sports we will from now on consider our niche to be extreme sports. Namely, we want to focus upon Surfing, Wind- and Kitesurfing, Mountain Biking, Climbing and Bouldering as well as Skiing and Snowboarding during the winter season. Also, all of these sports are outdoor sports that enable both technique training and group lessons. Furthermore, we potentially can infer two different value propositions from the results of the survey that will be the foundation of further testing. The first value proposition is related to individualized quality training with professional and semiprofessional athletes who will help to improve or learn techniques as well as enabling a real unique experience with a role model. The second value proposition highlights a broad offer of affordable lessons with high availabilities and flexible schedules. Obviously, these value propositions are quite different as one rather focusses on quality and the other on price. However, we believe that these two value propositions are interesting to test against to find product-market fit.

5. Achieving Product-Market Fit

This section is dedicated to testing the two different value propositions as mentioned in the previous section. A common thing to do when testing value propositions is performing a smoke test through a landing page. As Ries (2011) proposes the superior objective of any smoke test is measuring whether customers are interested in trying a product before investing money in a pure supposition. Furthermore, it gives a first approximation about data needed to estimate a growth model such as conversion rates and sign-up rates. The keys to effective online marketing and therefore effective landing page testing can be explained through the activity funnel (Ash, 2008). This funnel consists of three main elements: Acquisition, which is basically website traffic; Conversion, which can be any action that has measurable value for a business and Retention, which we can disregard for now.

5.1. Landing Page Test Design

In the following, we will describe the landing page test design based on conversion and acquisition as well as explaining the A/B testing framework and visual design.

5.1.1. A/B Test Setup

As mentioned before the aim of the landing page test is to validate and adopt a final value proposition. Hence, we will test the interest in the two value propositions concluded in section 4.2.3 by performing an A/B test. This means, that we will have two different landing pages whereas each has the same features and content, except for the value proposition and according headlines. Also, we will split the traffic evenly as far as possible between the two test pages so that we can compare the results without any bias. Besides this, the test arrangement is quite simple. Each landing page will have an own database for signups as well as unique URLs and analytics events. Further, the decision criteria are straightforward: the

landing page which relatively performs the best in terms of conversion actions -as described in the next section- “wins” the A/B test.

5.1.2. Conversion

According to Ash (2008) a conversion happens when a visitor takes a desired conversion action, which can be anything between a simple page view and the purchase of a product, while the latter obviously can’t be fulfilled in our case at the current stage. However, there is a wide range of possible conversion actions that we can implement on our landing pages in order to measure interest in our product as well as simulate buying interest. Bearing in mind, that the ultimate goal of the smoke test is to find the best fitting value proposition, we will interpret conversions as approval actions. In order to track conversion actions, we will use google analytics. The first conversion action we will use to measure user interactions and interest, is a call-to-action button placed under the headline. All this button does is basically scrolling down to the value proposition section so that the visitor gets nudged to read the value proposition. However, the button claims “find your coach” [lit. translated], so whoever clicks it, expects to be redirected to a search function. This way we can interpret this action to be an interest in our product. Another conversion action can be found at the bottom of our landing pages, which is probably the most significant conversion action. We integrated a mini survey with one question, asking for the sporting level and an email signup with a notice that we will contact the visitors for further news. This way we can not only test strong interest in using our platform, as leaving an email address involves a higher commitment than clicking a button, but also gather insights about whether to focus on a specific performance level. However, using Google Analytics enables us to gain more insights about the website visitors like page visits and scroll behavior. In order to track the latter, we implemented a script that triggers a Google Analytics event when a visitors scrolls down past 25%, 50%, 75% and 100% of the landing page. Also, we use Crazy Egg metrics for eye-tracking purposes to

gather further insights of interactions and behavior. The results of the smoke test will be analyzed in section 5.2.

5.1.3. Acquisition

In order to get users to visit our landing pages, we will make use of two traffic sources. First, we will set up an AdWords campaign. Second, we will make use of the roughly 500 email that we collected with the survey. Intentionally, we disregard other traffic sources like our personal Facebook accounts or personal networks as we want to avoid creating a bias towards signups of friends without an actual buying interest. For the AdWords campaign, we set a budget of 75€, which corresponds to a website traffic of 124 visitors. Luckily, most of the keywords we use are rather affordable with cost-per-clicks ranging from 0,52€ to 0,72€. In terms of keyword research, we created an ad-group for each sport and included two keywords related to learning sport as well as finding coaches each. Our benchmark for the AdWords campaign is the industry average click-through-rate of 1,66% (E-Commerce) with a conversion rate of 1,91% (E-Commerce)[5]. For the acquisition of traffic through the 488 email addresses collected from our survey, we decided to split the potential traffic evenly by sending the URL of value proposition A to half of the addresses and of value proposition B accordingly to the other half. In the survey, we asked for permission to contact the respondents with further details and results of our master thesis.

5.1.4. Visual Design

Obviously, visual design is crucial for the first impression of a visitor and determines whether to bounce straight away or not. According to Ash (2008) this decision is an emotional decision as the visitor haven't had a chance to scan any text message. Furthermore, he states that the most crucial elements of visual design are structure, language, graphics, color and effects. In terms of structure we decided to go with a proven landing page layout, which looks

[5] http://www.wordstream.com/blog/ws/2016/02/29/google-adwords-industry-benchmarks

like the following: starting at the top of the page with a large background image and an overlaid headline, subhead and call-to-action button. The next section is presented by the value proposition which is visualized with three vector icons that support and clarify the core claims. Scrolling down to the next section displays the features section which consists of a MacBook and iPhone mockup with an Indiecoach splash screen. Next to this visual we describe the main features of our market place, again supported by vector icons. Namely, (1) search and find the right coach in your area, (2) book an appointment of your choice and meet right at the spot, and (3) rate your coach and receive individual feedback yourself. At the very bottom of the page the visitor will then find the signup form including the previously mentioned question for the performance level. As it can be seen in Appendix K we chose to go with a very clean design using Google's Material Design as visual language. As we want to provide many sports finding the right image was challenging. Especially, because it is likely that people searching for Mountain Biking for instance will immediately bounce when they see an image of a surfer, as it is not what they were looking for nor what they expected. We solved this problem by a headline transition. In fact, the first part of our headline is fixed and the second part is a CSS transition which switches every 1.5 seconds –triggered by a JavaScript–displaying a different sport name. As suggested by Ash (2008), we avoided to use a promotional message in the headline. In this way, it says "Wanna Kitesurf?" [lit. translated], while Kitesurf gets exchanged with Windsurf, Mountain bike, etc. As a background image, we chose a neutral photo of two surfers sitting in the water with a blurry filter. Also, we included a bouncy arrow which indicates to scroll down.

5.2. Analysis

The landing page test ran for about 10 days, where we could attract 341 unique visitors and a total of 464 sessions through the two acquisition channels AdWords and Email. We purposely avoided to visit the landing pages ourselves during this test period in order not to falsify the

analytics reports and therefore the outcome of the whole test. Furthermore, we collected a total of 42 signups which corresponds to an overall signup conversion of 9.05% as well as 155 clicks on the call-to-action button – equal to a striking 33.41% overall button conversion. Nevertheless, in order to be able to come to a decision which value proposition to adopt, we need to look at the landing page specific metrics for each of the respective value propositions. In the following we will refer to the landing page of value proposition A, which focuses on quality training with professional athletes, as version A and value proposition B, which focuses on affordable and flexible training, as version B respectively. Starting with the performance of the two acquisition channels for version A, we gathered 58 unique visitors with our AdWords campaign. The Ads for version A had 3078 impressions corresponding to a click-through-rate of 1.88%, which is above the average industry CTR. However, it seemed like that visitors acquired by our AdWords didn't find what they were looking for, suggested by an average session duration of only 9 seconds and a bounce rate of 73.58%. With 66 unique visitors and 2932 impressions, version B was slightly performing better resulting in a CTR of 2.25%. Nonetheless, bounce rate and duration were similar which suggests a bad overall performance of the Ads. However, our email "campaign" was performing way better, even though the email list consisted of only of strangers that we attracted through our survey and not of friends. Version A gathered 206 sessions of 127 unique visitors who spent an average of 52 seconds on our website with a bounce rate of "only" 29%. Version B on the contrary attracted 134 session of 90 unique visitors who even stayed 1.07 mins on average, although 46% bounced. In terms of conversion version A, collected 97 button clicks responding to a button conversion of 36.74% which is definitely a strong signal for interest or at least curiosity in the product. Version B slightly performed worse with a button conversion of 29%. Evaluating the results of the most significant conversion action shows, that both landing pages had exactly the same absolute amount of email signups. Both landing pages

collected 21 signups, but due to the deviating traffic, version A shows a signup conversion of 7.95% and version B of 10.50%. However, it is interesting to consider the results of the mini survey that only asked for the sporting level. It is significant that 76.92% of the people who signed up for version A are advanced sportsman, while 56.25% of version B signups consist of beginners. We can hence draw the conclusion, that advanced sportsman value quality and an idol coach, while beginners rather value affordability and flexible hours. Even though, version B may have shown a higher signup conversion rate, the decision is not as straightforward as it seems, especially because both landing pages had the same absolute number of signups and version A had a higher button conversion. As it was striking, however, that version A attracted more advanced sportsman and version B was rather popular with beginners, we can further narrow down the fit between customer segment and value proposition. In order to scale quickly and to reach the critical mass it is a good idea to serve a niche, rather than trying to handle multiple segments. For this reason, we decided to adopt value proposition A, and consequentially provide an online marketplace dedicated to quality training for advanced sportsman with professional athletes as coaches. Additionally, this decision can be supported by three further reasons: 1) In contrast to beginners, advanced sportsman usually have their own equipment so we won't have to find a solution how to equip our clients for their lesson. 2) This niche can only be served by offline competition until a certain performance level, as coaches at schools are usually not professional athletes. 3) We can assume that the willingness to pay and therefore the price of a lesson is higher with advanced lessons. Nevertheless, this is only supposed to be a starting point which doesn't exclude beginner lessons for the future and once the critical mass in the advanced niche is reached.

6. Conclusion and Roadmap

"Build something 100 people love, not something 1 million kind of like" - Brian Chesky

We facilitated the lean startup approach to learn about sport habits as well as the consumption of payed sport lessons in order to find our niche, advanced sport coaching with professional extreme sport athletes, which has the potential to be loved by many. We started off with a faint idea of building something like a platform for sport lesson. As the idea began to develop and we moved into an incubator in Cologne, we started our entrepreneurial journey towards finding product-market-fit. After examining the market and competition, we had to face that the market was more crowded than initially assumed, which led to our first pivot. Having learned about the market it was time to go outside the building to learn about our potential customers by conducting interviews, learning lots about sport habits and motivations as well as learning about pains and gains of sport lessons. We consequently clustered the interviews and were finally able to narrow down these clusters into three interesting customer segments, which was the conclusion of Johannes' thesis. Being the starting point of this work, we first validated the results of the interviews by conducting a survey which let us gather further interesting insights. From these results, we finally derived two value proposition that we validated with an A/B landing page test and adopted the one that focuses on quality training with professional extreme sport athletes. Even though, the scope of this survey has thereby been reached, our entrepreneurial journey won't end here. We will continue this project by developing our product in form of a MVP that we will obviously test and adjust using the lean startup approach. Simultaneously, we will need to deal with the legal formalities of founding a company and to fundraise equity. At the current state, we are planning to go live with our beta version in late fall of this year and start off with the winter sport season in the German Alpes.

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