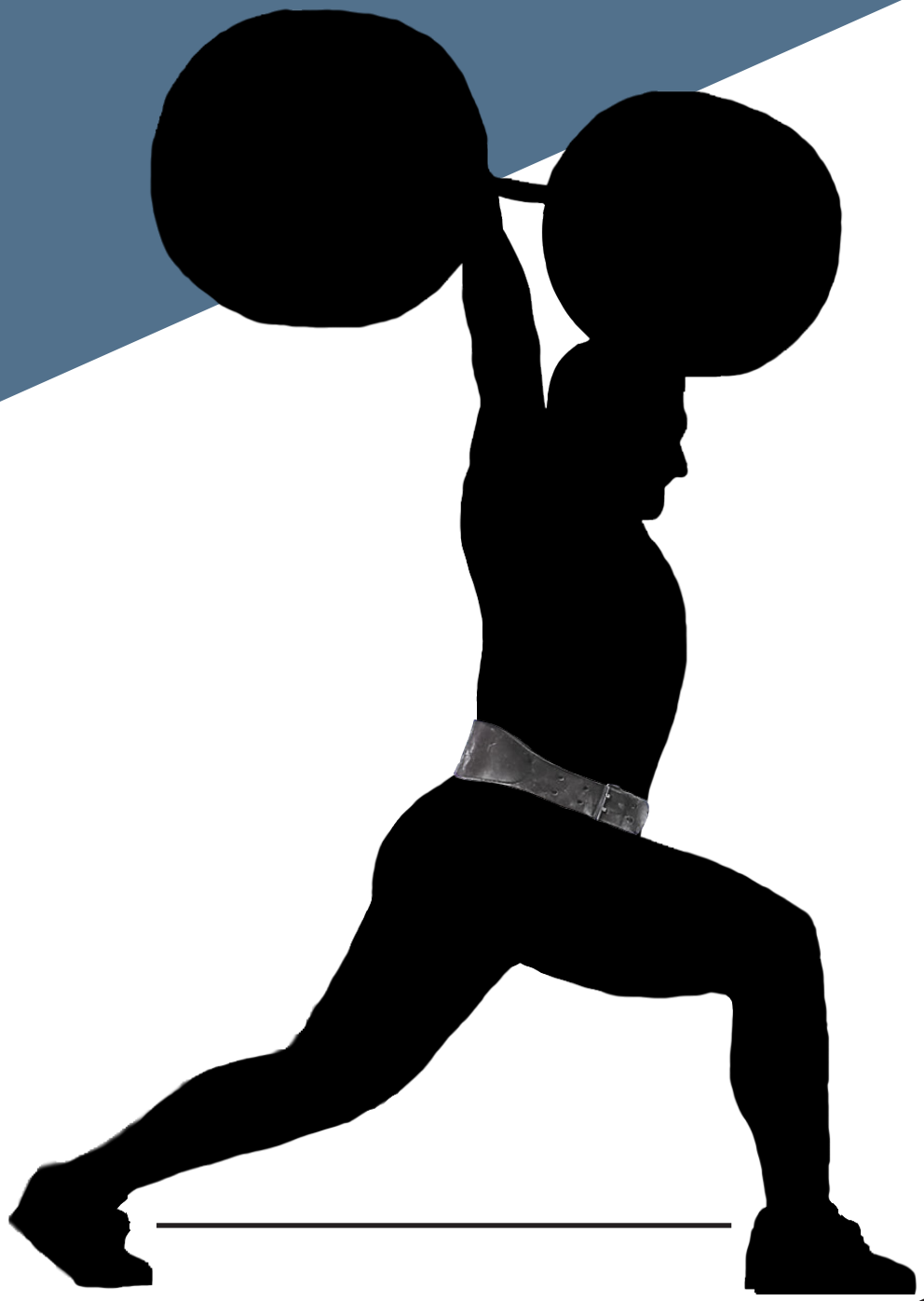


User Experience in the Product Development of a Weightlifting Belt

Saara Leskinen

TURKU AMK
TURKU UNIVERSITY OF APPLIED SCIENCES

AUTHOR

Saara Leskinen

Bachelor's Thesis 2019

Turku University of Applied Sciences

Design Degree Programme

USER EXPERIENCE IN THE PRODUCT DEVELOPMENT OF A WEIGHTLIFTING BELT

This thesis concentrated on defining the best possible weightlifting belt according to the users. This subject was assigned by Eleiko. Weightlifting belts are specially made for Olympic lifting to support the athlete and allow him or her to move heavier loads. This study contained a combination of three methods: benchmarking, user questionnaire and expert interview to collect and analyse information to facilitate Eleiko to further develop and improve the weightlifting belt. The aim was to support Eleiko's product development and provide more information about the users, their experiences and wishes concerning weightlifting belts. The goal was to define what the features are in a weightlifting belt that the users value the most. Based on the user studies the most preferable weightlifting belt was a belt that is designed to be wider at the back and thinner at the front; it should have a belt like mechanism which tightens step by step. Leather is the most preferable material. The belt can be monocolour or have a discreet pattern.

KEYWORDS:
Weightlifting belt, product development, user study, weightlifting

KÄYTTÄJÄKOKEMUS PAINONNOSTOVYÖN TUOTEKEHITYKSESSÄ

Opinnäytetyö keskittyi määrittelemään parhaan mahdollisen painonnostovyön käyttäjien mukaan. Aihe tuli toimeksiantajalta Eleikolta. Painonnostovyöt ovat erityisesti painonnostoon suunniteltuja vöitä, jotka tukevat nostajaa ja auttavat nostamaan isompia kuormia. Tutkimuksessa käytettiin kolmea metodia: benchmarkingia, käyttäjäkyselyä ja asiantuntijahaastattelua tietojen keräämiseksi ja analysoimiseksi, jotta Eleiko voi kehittää ja parantaa painonnostovyötään. Tavoitteena oli tukea Eleikon tuotekehitystä ja saada lisää tietoa käyttäjistä, heidän kokemuksistaan ja toiveistaan liittyen painonnostovöihin. Tutkimuksen tavoitteena oli määritellä millaisia ominaisuuksia käyttäjät arvostavat eniten. Käyttäjätutkimuksen perusteella mieleisin vyö käyttäjille on muotoiltu takaa leveämmäksi ja edestä kapeammaksi, sulkemismekanismeista parhaaksi koettiin vyön kaltainen asteittain kiristyvä solkimekanismi. Nahka valikoitui materiaaleista suurimmalle osalle mielekkääksi ja kuvionnilta toivottiin yksivärisyyttä tai hillittyä kuviointia.

AVAINSANAT:
Painonnostovyö, tuotekehitys, käyttäjätutkimus, painonnosto

Contents

CONTENT TABLES

CONTENT PICTURES

VOCABULARY

Weightlifting belt	A belt that is specially designed to use when performing Olympic lifts.
Snatch	An Olympic lift where the barbell is lifted with one movement from ground to over head.
Clean and jerk	An Olympic lift where the barbell is first lifted to the shoulders and from there to overhead.
Lats	Latissimus dorsi muscle is responsible for movements of the shoulder joint.
Pulling straps	Straps that are often used in snatches and in pulls. They help the lifter to hold on to the barbell.
Pull	Performing a snatch or a clean pull, where the movement stops before the lifter goes under the barbell.
Deadlift	A lift where the barbell is picked from ground to a standing position.
IWF	International Weightlifting Federation

1

1 INTRODUCTION

The subject of this thesis, User Experience in the Product Development of a Weightlifting Belt was commissioned by Eleiko. Weightlifting belts are specially made for Olympic lifting to support the athletes and allow him to move heavier loads. Eleiko company has a strong interest in further developing the product in order to better serve their clients. This study contains a combination of three methods, namely benchmarking, user questionnaire and expert interview, to collect and analyse information to facilitate Eleiko to further develop and improve the weightlifting belt. The company has not gathered information from the users in a large scale. A number of athletes have been consulted but this thesis views user experience with questionnaire that will allow to learn more about the users.

Eleiko has been one of the leading companies in making barbells and weightplates. In the last few of years the company has also launched a clothing line, accessories and strengthgear for weightlifting. Eleiko's barbell is one of the best ones in the world and taking on a new field in the market the company wants to deliver the very best for the clients.

The author's interest to the subject comes from the passion towards the sport of weightlifting. The author is an international level weightlifter representing the Finnish national team. The thesis is based strongly on personal experiences on weightlifting and weightlifting belts.

The aim of the thesis was to collect data about the market of weightlifting belts and study the users to define what they prefer in a weightlifting belt. The research concentrates on these two areas. The reseach in the thesis combines three methods which are benchmarking, questionnaire research and expert interview. The author's personal weightlifting career has brought significant tacit knowledge about the sport. This knowledge helps write about the different aspects of weightlifting. The thesis work aims to assist the product development process in the company. Eleiko will be presented concepts about the weightlifting belts.

After the introduction the company Eleiko is introduced.The theoretical part of the thesis starts with a chapter about product development. It looks into the process of product development, its phases and how user studies may benefit companies to design successful products. From product development the thesis moves to the research presenting the purpose of the research as well as its goals, questions and methods.

To provide a better understanding about weightlifting the fundamentals of weightlifting are covered by introducing the competition movements and accessory movements weightlifters perform. The use of a weightlifting belt has been researched in various studies. The chapter on the benefit of using a weightlifting belt will give more insight to the studied facts about weightlifting belts. The purpose is also to define why an athlete would use a weightlifting belt.

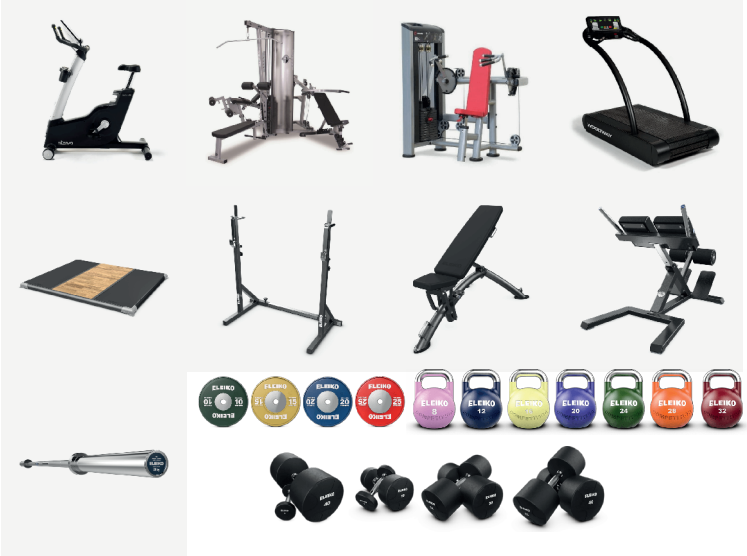
2

Eleiko is a Swedish company which makes barbells, gym equipments, clothes and lifting accessories including weightlifting belts, straps, wrist wraps and knee sleeves. The company started making weightlifting barbells in 1957. Before that they made small electronic devices such as waffle irons and toasters. In 1957 the future of the company took a turn when the factory supervisor Mr Hellström – a weightlifting enthusiast – became frustrated with bending and breaking barbells and he took the matter of building better barbells to Eleiko's managing director Mrs Johansson. (Eleiko)

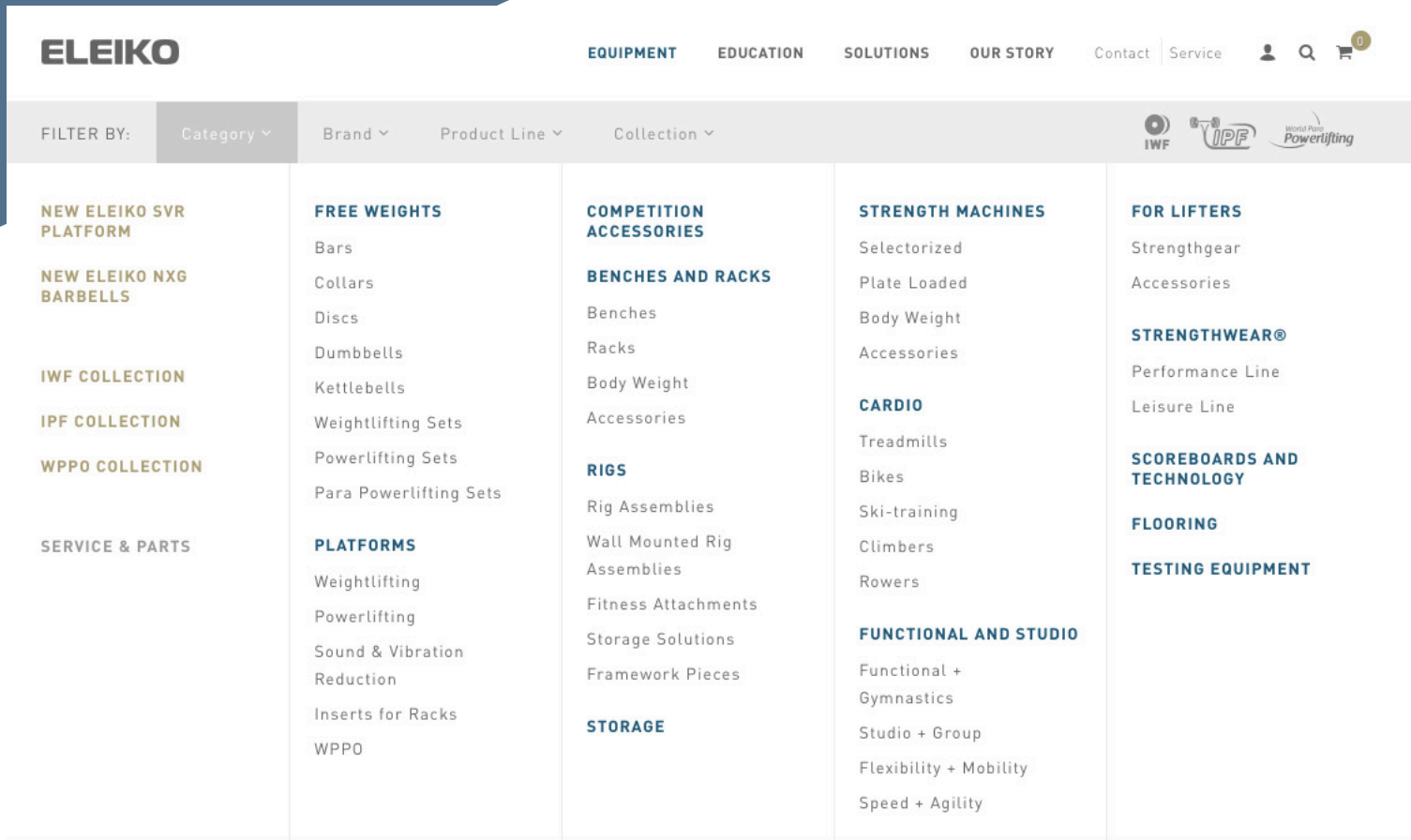
By 1963 Eleiko already provided barbells for the world stage and managed to do something that had not been done yet, to build a barbell that lasted the entire event without any damage or breaks. Eleiko was certified by the International Weightlifting Federation in 1969 and since then they have equipped over 40 World Championships in weightlifting. (Eleiko)

In Eleikos website there is a large selection of products as seen from Picture 2. They have specialized on strength training and they provide everything that is needed for a gym from platforms and weights to treadmils and strength machines. Eleiko also has a stregngthwear line and gears for lifters.

Eleiko has equipments for weightlifting, powerlifting and crosstraining. Their most famous products are barbells and weightplates. In Picture 1 Eleiko's large range of fitness equipments is shown. Eleiko manufactures most of its products by itself but also cooperates with other companies to be able to offer everything needed for a gym.



Picture 1. Eleiko's products (Eleiko).

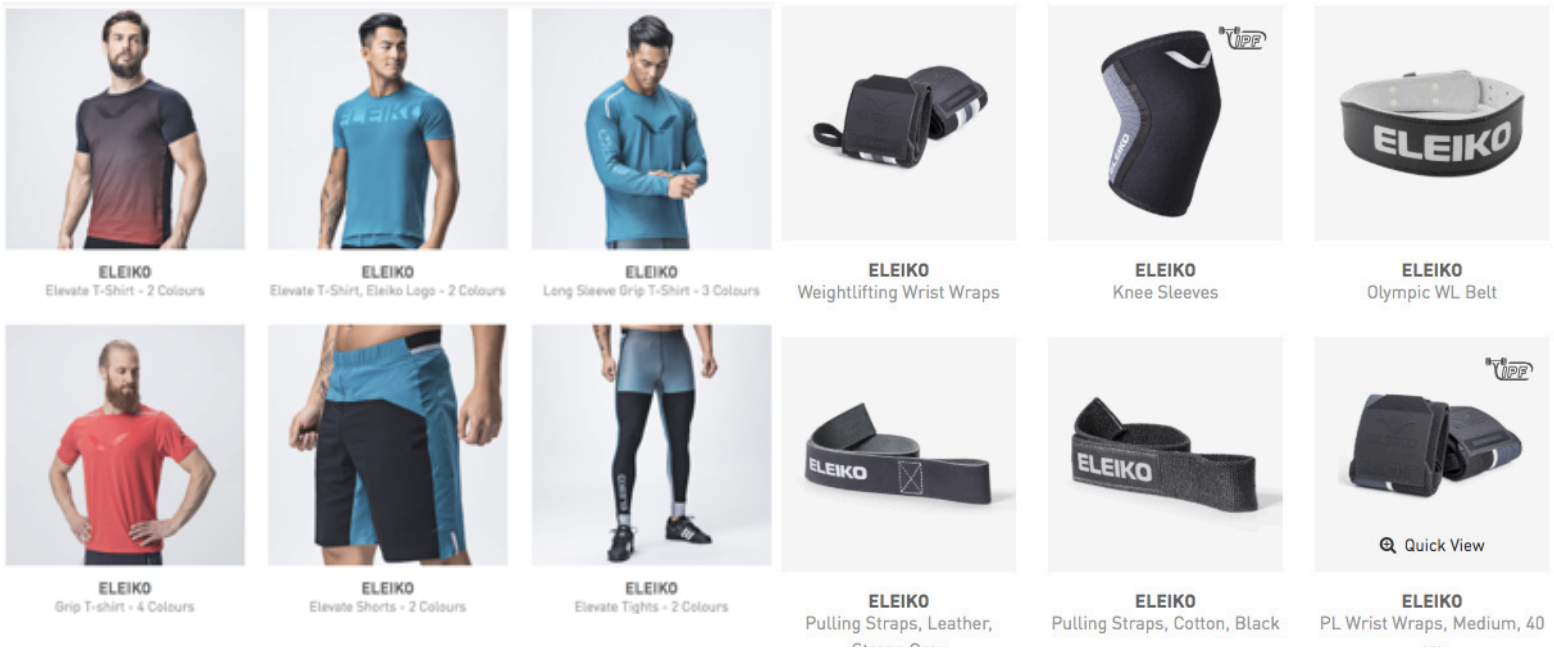


Picture 2. Eleiko's product listing (Eleiko).

Until 2017 Eleiko's clothes and lifting gears were mostly made for commercial purposes. In 2017 Eleiko launched a clothing line and new set of lifting gears. The company wanted to take over a new area and invest in product development for the clothing line and the lifting gear which is seen in Pictures 3 and 4. Eleiko's clothing line includes training clothes and casual wears. The training clothes are especially designed to last in strength training. The pants have reinforced fabric covering the front where the barbell often touches and can make wholes.

Eleiko's gear for lifters include a weightlifting belt, wrist wraps, knee sleeves, pulling straps, powerlifting belt, knee wraps and socks.. A weightlifting belt is made especially for Olympic lifters to be used in heavier lifts to support the athlete's back and abdominal area. The wrist wraps, the knee sleeves and knee wraps are meant for support as well, they can be used in training and in competitions. The pulling straps are used mostly in snatch and in pulls. They help the lifter to hold on to the barbell in heavier weights or in longer sets. Pulling straps are not allowed to be used in weightlifting competition but they are regularly used in training.

Picture 3. Eleiko's clothing (Eleiko).



Picture 4. Eleiko's clothing and lifting gear (Eleiko).

3

3 THE AIM OF RESEARCH

The thesis aimed to support Eleiko's product development and provide more information about the users, their experiences and wishes concerning weightlifting belts. The goal was to define what the features are in a weightlifting belt that the users value the most. The research consisted of three methods: a benchmarking, a questionnaire research and an expert interview.

The centre of the research was to study the markets and the users. Benchmarking provided the most information about the existing markets. The questionnaire research concentrated on studying the users and what they want from a weightlifting belt. The expert interviews provided understanding why an athlete would and maybe should use a weightlifting belt.

The aim is to provide conceptual proposals for Eleiko on what kind of weightlifting belt would be the best. The thesis also gathers the information about the users for Eleiko to use in their product development as they wish.

The research questions are:

- What features the users value the most?
- Why athletes use a weightlifting belt?
- What kind of weightlifting belts are there in the market?

In this study four different research methods were used: a questionnaire research, benchmarking, expert interview and tacit knowledge.

3.1 Frame of reference

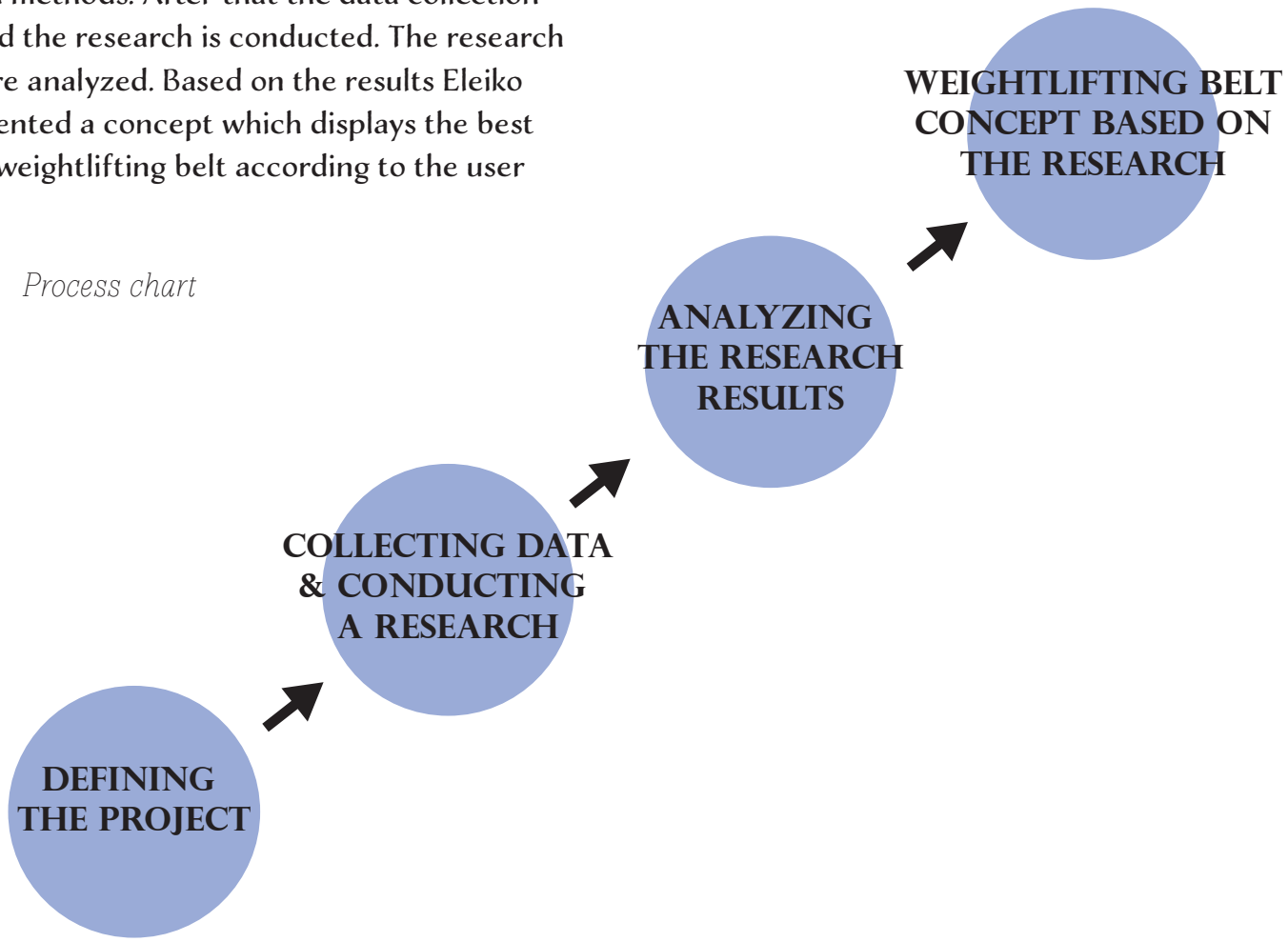
In Table 1 the frame of reference is presented. The employee for the thesis is Eleiko and as a company they are specialized on weightlifting. This thesis studies the subject User Experience in the Product Development of a Weightlifting Belt, the user research is exploited in the process of conducting a concept of a weightlifting belt.

Table 1. Frame of reference

3.2 Process chart and methods

The process chart is seen in Table 2. The research process starts by defining the project which includes determining the research goals, questions and methods. After that the data collection starts and the research is conducted. The research results are analyzed. Based on the results Eleiko was presented a concept which displays the best possible weightlifting belt according to the user studies.

Table 2. Process chart



Benchmarking is a technique to measure or compare a product against other products and identify opportunities and approaches to improve. It has been stated by NPD-solutions that "Benchmarking is the continuous process of measuring products, services, and practices against the toughest competitors or those recognized as industry leaders." Benchmarking relates to product development by providing an external perspective on opportunities to improve products, technology, manufacturing and support processes, the product development process, and engineering practices. (NPD-solutions, n. d.)

In this study the most important goal of benchmarking was to research what kind of weightlifting belts there are in the market of weightlifting belts. Benchmarking also determines what the main variabilities are in the features of weightlifting belts. Finding the variabilities will provide the basis to build the questionnaire research.

To collect the views, experiences and ideas from weightlifting belt users a questionnaire was designed and sent to them. The questionnaire is regarded as an easy and cheap method to receive data directly from the respondents. In a questionnaire a written list of questions is presented to the respondents and their answers are recorded by themselves. After answering, the questionnaires are returned to the researcher who then analyses the answers and is able to present results and make conclusions of the collected data. Often the challenge of mailed/e-mailed questionnaires is the low response rate. It is usually considered that the response rate around 50 % and above is successful. The loss of respondents may also lead to so called self-selecting bias, meaning that the attitudes, attributes and motivation of the respondents who return the questionnaire may differ from those who do not return them. One advantage compared to many other methods in a questionnaire is that it offers great anonymity. This may be helpful in obtaining accurate information. (Kumar 2011, 148-149).

The purpose of questionnaire research was to learn more about the users and their preferences in a weightlifting belt. As said, to build the questionnaire research's content the benchmarking had to be conducted and the different features of a weightlifting belt determined. The questionnaire was completed as an online questionnaire. The questionnaire was first tested with three subjects to make sure it was efficient to gain information about the users. After the testing phase the questinary link was sent to the Finnish and Danish national teams, two weightlifting

clubs in Finland and added to a social media account with over 2000 followers.

To gain a deeper insight, in addition to two other methods, expert interviews were used. Interview is often described as an verbal interchange, often face-to-face, in which an interviewer tries to elicit information, beliefs and opinions from another person. Compared to a questionnaire an interview can be a more flexible way to gather information since there is more freedom to decide the format and content of questions and if necessary clarify and explain the questions (Kumar, 2011, 144-45). In this study expert interview was administered to complete and reassure the data gathered by other methods.

The expert interview served the purpose to define why one would use a weightlifting belt when peforming the Olympic lifts. The expert was asked how he sees the differences in a weightlifting belt effecting the lifter and whether he would improve any features in the existing weightlifting belts. The expert who was interviewed is a Finnish weightlifting national teams physiotherapist.

4

4 PRODUCT DEVELOPMENT

Successful product development is one of the key requirements for a company's success. The company must constantly take care of product development, otherwise, the products may be outdated, sales will decrease and eventually end completely. The lifetime of a product, i.e. the time the product is manufactured and marketed, varies greatly. The trend products are manufactured for a short time and the industrial investments are significantly smaller compared to a products with a longer lifetime. In general, it can be seen that the life span of products is shortening in many areas. (Jokinen 2001, 9.)

Product development is an activity that aims to develop a new or an improved product. Product development is a multi-staged process, which pursues to fulfill the set goals as well as technically and economically possible. In product development the processes are in close contact with almost all areas of human life. (Jokinen 2001, 9.)

Product development can be about designing a completely new product or further developing an existing product. The aim in futher developing is usually to make the product technically better or cheaper to manufacture. (Jokinen 2001, 10.)

In the past, product development in companies was more of an action driven by the faced situations. However, there is a growing need for the applicable design methods that can be used in the process of product development. The shortening lifetime of products has influenced the need to increase product development efforts in companies. The tightening competition – between products and companies – requires lower development cost and cheaper and better quality products. Marketing and manufacturing requirements should be taken into account in the design process so that they stay closely linked to the designing. Properly completed, this reduces costs, shortens delivery times and produces more competitive products. (Jokinen 2001, 10-11)

4.1 The Process of a Product Development

In product development the process starts from

the needs of the user and it should be completed from the user perspective. On the other hand, a technical issue can also be why product development is needed. The aim of product development is to produce a new or an enhanced product. Product development is always a result of a discovered need to evolve the product or any current factor which needs to be responded. It could be as simple as a company's need to innovate a new product. (Windahl and Välimaa 2012, 9.)

The process of product development consists of several phases. The main nine phases are: a need for a product development, an ideation, a preliminary study, establishing the project, the product development, prototyping, finishing the product, launching the final product, the evaluation of the project and the finishing of a project. All these phases are important to succeed in a product development project. (Windahl and Välimaa 2012, 11.)

The requirement for launching a new product project is that there is a need for the product. In addition, there needs to be an idea of how the product can be improved. The detection of the need and the idea of the improvement may occur by chance or as a result of a systematic research. (Jokinen 2001, 17-18.)

Unexpected events often occur during product development and they can change the course of the project. In this way, the result of the project may differ from what was imagined when launching the project. Product development should be flexible so that the goals set, can be changed if unexpected difficulties or new opportunities arise. (Jokinen 2001, 18-19.)

Although chance may produce profitable product ideas, product development cannot be based solely on chance. A company needs to be systematic and organized in the pursue to design new products. To find product ideas, information is needed from the inside and outside the company. The information that can be provided from the company itself are for example available research, design and marketing personnel, the professionals in manufacturing departments, sales organization, customer relationships and marketing staff experience, it also includes manufacturing possibilities, patents and the financial capacity of the company. The things listed constitute so-called business potential, i.e. the resources that the company can operate. (Jokinen 2001, 19-20.)

Information about the company and its products can be provided outside the company by follow-

ing methods: market analyzes, customer inquires, analysis of competitior's products and general technological development trend studies. Information collected from the company's position outside the company provides a stimulus for product areas that might be worth targeting. (Jokinen 2001, 19-20.)

In the ideation phase the goal is to produce as many different solutions as possible without thinking about their feasibility or meaningfulness in general. After discovering a product idea or ideas a preliminary study is made and the company decides whether the project is established or not. (Jokinen 2001, 20.)

When the project is established the product development starts. The first part of the product development is sketching the new or the improved product. The stages of sketching are: analyzing the development task, setting requirements and goals, finding solutions, pruning, reviewing and testing partial solutions, combining sub-function solutions into a comprehensive function, pruning, reviewing and testing the solutions, making draft solutions and selecting, testing and evaluating the draft solutions. The most promising draft will be selected to be designed in detail into the final marketable product. (Jokinen 2001, 21.)

The sketching phase is followed by the development. During the development phase the details of the product are designed according to the technical and economic aspects, so that the work drawings and parts lists are easily accomplished in the finishing phase. (Jokinen 2001, 89.) The development phase also includes the production of a prototype, its testing and further development (Windahl and Välimaa 2012, 28.)

At the final stages of the project, the correctness of all documents is checked. The purpose of careful finishing is to eliminate the errors in the documentation and to ensure the functionality of the product. For the entire life cycle of the product the product development ends with the launching of the new product. The project is then finished with evaluation of the project and end report. (Windahl and Välimaa 2012, 29.)

4.2 User Experience and User Studies in Product Development

A company that exploits user experience and customer understanding lets external information give the company a direction. With user studies a compa-

ny can redirect their emphasis in product development. A user orientated company does not try to know and predict what customers want; they rather use the customers to gather information about their desires. (Lammi in Kortesmäki & co 2005, 14.)

Collecting data about users and use is one of the key skills in using user experience in product development. A great number of seemingly simple pieces of user information appear much more complex in practice. A successful product is designed based on three basic things: it must be technically functional, commercially profitable and provide the user satisfaction and benefit the user. (Hyysalo 2009, 12-17.)

Product development is often only identified as technical expertises. However, business expertise has gained increased attention as well. The company must have the abilty to find the buyers of their products, to price the the product correctly and to choose the right distribution channels and marketing methods. The user studies serve the company's need to gain user information which can be used to create a meaningful and beneficial product for the users. (Hyysalo 2009, 17-18.)

Users have demands for the products they buy. The demands come from needs and the needs vary depending on the user. A company can benefit from using user experience and customer understanding as part of their product development because this way they gain information why the product is used, what is wanted from the product and what kind of demands the environment places on the product. This information can then be used to design even more compelling and functional products. (Pekkala 2005, 146-147.) User information is not just market or customer information, it covers people's actions and delves into the needs of the users. (Hyysalo 2009, 19.)

A product that is successfully designed to be meaningful and beneficial for the user is desirable, beneficial, enjoyable and it has great usability. It meets the wishes and needs of users, it helps users to achieve their goals and develop their actions, its use is easy and leads to desired results in practice and the use of the product or possession of it brings pleasure to the users. A product that fulfills all things listed above increase well-being in working life and people's free time, they also tend to create a loyal customer base. (Hyysalo 2009, 20.)

In product development it is crucial to understand

what people want because even the finest technology or product will be worthless if it is not compelling to people. By studying and understanding people's lives, it is possible to find new opportunities for product innovation. The understanding of what matters to the user will allow to design relevant products for the users. (Pekkala in Kortesmäki & co 2005, 147-148.)

It can be risky to trust the product developer opinions and guesses on what kind of the product should be like. Understanding the needs of the user can be vital to see the product succeed. Often a company can feel as if they already know the needs of their users well enough and they do not see how they could benefit from user studies. However, Pekkala states that the experiences about user studies have been very positive after the first tries. (Pekkala in Kortesmäki & co 2005, 149.)

Studies on design work show that much of the solutions for usability are made either partially or entirely based on the estimates and assumptions of the designers. Comprehensive user study or testing cannot be performed for every detail. This is especially the case when the execution of the product requires number of changes and compromises. Assumptions and estimates are a rich information resource that should be consciously utilized and added to. (Hyysalo 2009, 78.)

In user studies the goal is to dig deeper. The fact that there is something wrong with a product is easy for the users to state but in user studies the company wants to delve in to the issues the users do not say and might not yet know they need. The important part of user studies is to interpret the gathered information. (Pekkala in Kortesmäki & co 2005, 149.)

User studies are most needed when the designer does not have first-hand information on how the product is used in real life. To completely understand how the product is used by the users the designer either needs to have personal experiences about the product or understand how the actual users use it. User studies allows designers to understand the users better. Sometimes even if the designer uses the product in everyday life it can still go wrong because every person has his own experiences and past which defines how a person uses products and how he feels about them. (Pekkala in Kortesmäki & co 2005, 150-151.)

When starting the ideation for a new product development project it is highlighted how well the

product developers know the needs and wishes of the intended users of the product, the industry, its trends and revenue logic. This information generates good product ideas. The product developers spot opportunities where the company's technical and business expertises can meet the users needs. (Hyysalo 2009, 61.)

For most companies making user studies is a new way to work in product development. It requires financial investments and the first study is crucial when weighing the benefits of the investment. Conducting user studies does not aim for quick wins but it should rather be a continuous and organized part of product development. When user studies is an ongoing project in a company it allows the company to gain information about the users continuously and stay on top of the changes in the users lives. (Pekkala in Kortesmäki & co 2005, 151.)

When product development project reaches the premilinary study and product development phases there is often a need for additional information on the use and the market of the product. During the design process it is found that there is not enough information or the information is not reliable enough. The better the users and the environments are known, the aptly the additional research can be planned to obtain: the aspects to research, the scope of the research, the methods, the resources and the questions that need to be answered. (Hyysalo 2009, 61.)

The information on use is present throughout the product development process, but in various forms and requiring different modifications. Product developers have versatile information about operating environment, their own experience, stereotypes and assumptions. The first form of information on use is the assumptions that are composed into the product idea. The first transformation of the user information and the possible interruption usually occur when trying to understand the effect of the product idea on its future users. At this phase it is advisable that the product idea is also viewed by people who specialize in users. (Hyysalo 2009, 66.)

4.2.1 Methods of user studies

Collecting user data can be separated into excisting ready-to-use sources, interview and observation-based methods and self-documentating methods. There will never be only one method that suits various product development projects because designing is always creating something new

and unique. It is impossible to define the process of creating in to a predetermined process that always stays the same. (Pekkala in Kortesmäki & co 2005, 153).

There is different ways and levels to approach the field of user studies. Roughly divided there are four different approaches. The first one is user-inspired design, which gathers user information to develop the designers intuition, there can be a method used to gather the information or it can also be the designers intuition. All the information is in the designers head and only he or she can use it, the information is not analyzed to a design solution. The second is product-oriented use research where the user information is used to improve and test the already ready idea. The information is gathered by number of suitable methods by making notes and records as well as relying on one's memory. The information is utilized to define user requirements, designs and design anchors. The third method user-centric design delves slightly deeper by using systematic user research as a basis for all designing. The research methods are systematic or a set of tightly related methods. All the information is recorded to the designs, database, notes and the designer's memory. The information is analyzed and utilized in design solutions. The fourth method is user-oriented product development which sees user information as a cooperation with the users. The research is conducted with participatory design methods, and the information recorded in all the ways that mentioned before adding the user competence. User-oriented product development utilizes the gathered information in collaborative design based on the models and data. (Hyysalo 2009, 77.)

User researchs are done by professionals who are specialized in the field, but the collection of user information may also be the responsibility of marketing or product developers, such as designers. At the start of the research, it is important to find the best possible subjects with the most useful information to study. They are people who either use a similar product or are assumingly going to use it. The number of subjects to be examined depends on the method of the research. In a qualitative user research the number of subjects to study is usually 4 to 8 people, because they go deep in their research and spend more time with each subject. Qualitative research methods include for example observation, interviews, self-documentation and empathising methods. Similarly, hundreds of respondents are used in quantitative research, such as surveys. (Pekkala in Kortesmäki & co 2005, 153-156.)

The basic methods of user research are observation and interview, they are simple to be conducted. Interviews are conducted either as individual or group interviews and can be used to collect of information. The progress of the interview and the questions may be precisely defined in advance or the interview may be more informal like in a thematic interview. In the thematic interviews the topics are pre-defined and the interviewer can choose the questions according to the situation. The most important matter is that all the themes are covered in the interview. The thematic interview is a suitable method for user research when the topic is stranger and the goal is to find the most essential elements for the user. The user must explain his opinions which gives the researchers great insight to the user's thoughts. (Pekkala in Kortesmäki & co 2005, 157.)

It is difficult to understand the use of a product by simply interviewing. Observation collects information on user behavior in a real environment. By following the actions of the user things that the user does not notice or can tell in the interviews can be noticed. Observation is done either by participating in user actions or by following the user's actions from distance. The observer can ask clarifying questions when monitoring the user's actions or asking the user to tell what he is doing at any stage. User activity can be observed without the user knowing he is being observed. The observer acts as a spy. In this method the ethical points should be taken into account, as the participants in the research usually need to know about their participation in the research. (Pekkala in Kortesmäki & co 2005, 158.)

A questionnaire research looks for information on customer satisfaction or factors affecting the purchase decision. The questionnaire uses large samplings to generalize the results. The results of the questionnaires are quantified by statistical methods, they seek to look for interdependencies, dependencies and averages. The questionnaire is carried out, for example, by post, via the Internet or by telephone. Respondents fill out a questionnaire with open or closed questions. The open questions are answered in their own words, and in closed questions the subject chooses from defined options. Questions and answer options are prepared in advance, the researcher decides what matters are asked and how they can be answered. In polls, low response rates are common. (Pekkala in Kortesmäki & co 2005, 158-159.)

5

5 FUNDAMENTALS OF WEIGHTLIFTING

In weightlifting athletes compete in two movements the snatch and the clean and jerk. Although there are only two movements in competitions in training athletes complete more than just these two. In weightlifting lifters tend to perform a great number of squats, pulls and upper body work as well.

4.3 Snatch

The requirement of the snatch is to lift the barbell from the ground to overhead in one continuous motion as demonstrated in Picture 5. With an extensive range of motion and speed the snatch is a lift that requires great mechanical power but to succeed the lifter also needs technical precision. The snatch is usually considered to be the harder lift to learn because of its technical demands. (Everett 2009, 73.)

In the snatch lifters use a wider grip to reduce the distance the barbell has to travel from the ground to overhead. To be able to stabilize and hold heavy loads overhead one has to find strong and structurally healthy positioning for the barbell. (Everett 2009, 74-76.)

Picture 5. Snatch (Hookgrip 2018).

5.1 Clean and Jerk

The clean and jerk consists of two movements. The first one being lifting the barbell from the ground to shoulders to a so called rack position. The clean is shown in Picture 6 in the top row. From the rack positioning the bar is driven up from the shoulders to overhead with the jerk as shown in the bottom row of Picture 6. Dividing the lift into be two allows the lifters to lift considerably heavier weights in the clean and jerk than in the snatch. (Everett 2009, 127.)

Picture 6. Clean and jerk (Hookgrip 2018).

5.2 Accessory Movements

In the clean and jerk the receiving position of the clean is – one of the great accessory movements – the front squat. In the front squat the barbell is racked on the shoulders and held softly by the lifters hands but mostly the bar is just resting on the shoulders. Getting the barbell in the right rack position is to make or break the lift or front squat (Everett 2009, 129). If the barbell becomes slightly too front the lifter is not able to hold it with the heavier weights. On the other hand if the barbell is too far back it can hit the lifter's throat and unbalanced the lifter and even make him or her to fall on their back. Activating the core muscles and keeping the torso upright will help the lifter to make the lift.

In addition to the front squat the back squat is also greatly beneficial for weightlifters. The back squat differs from the front squat in the placemen of the barbellt. In the back squat the barbell is placed on the back, to rest on top of the traps and shoulders. The squatting mechanics are very similar in the both of these squats.

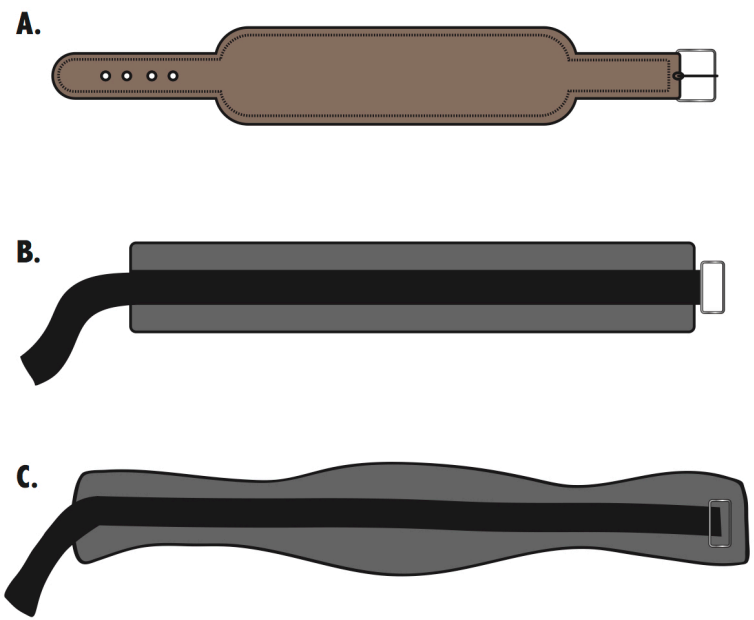
Weightlifters perform a great number of basic strength training including pulls, presses, push presses, pull ups, lat pulldowns, lateral and front raises and anything the certain athlete needs to gain strength to perform the competition lifts.

6

6 BENEFIT OF USING A WEIGHTLIFTING BELT

The weightlifting belt is a belt that the lifter usually uses when performing heavy lifts or squats. Various designs and materials are used in the weightlifting belts. Some of the materials used in the belts are leather, neoprene or reinforced neoprene and textile. The designs vary from straight design (B. in Picture 7.) to a design that takes into consideration the athlete's body (C. in Picture 7) as well as shown in Picture 7.

The most commonly used designs are a straight belt with even width (B in Picture 7), a belt that is wider from the front and back, leaving the sides thinner (C in Picture 7) and a belt that is wider from the back and thinner in the front (A in Picture 7). All these belts serve a slightly different kind of support. The one that is of even width will provide the lifter with the maximum support all around but it can also bruise the hip and the ribs depending on the user's anthropomethrics. A belt with thinner sides but wide back and front tackles the problem with bruising as it conforms to the natural shape of the waist. A belt that is wide



Picture 7. Belt designs

from the back and thin from the front concentrates on supporting the lower back without placing too much pressure on the abdominal area.

However, the decision on the kind of design weightlifters want to use depends greatly on their body type and anthropometrics, and of course their per-

sonal preferences. One might also compensate for weaker abdominals or lower back with a certain kind of belt.

Wearing a belt improves one's performance in most cases. Wearing the belt for the first time might not work for everyone, but once the lifter learns how to lift with a belt he usually can lift about 5-15% more than without a belt (Nuckols 2015). Nuckols also states that "Several studies have found that people complete lifts faster with a belt versus without one". The bar speed and percentage of a lifters one rep maximum is highly tied with the bar speed (Nuckols 2015).

Testing the bar speed might not be an important metric but we do know that the bar speed with submaximal load correlates greatly with ones one repetition maximum. Taking this into account these facts provide an indirect insight into how beneficial it is to use a weightlifting belt. (Nuckols 2015).

Without delving into training methodologies and physiologics of gaining strength, it can be stated that the two most important factors that impact the training adaptations are the intensity and the volume of the training. Using a weightlifting belt gives a lifter either 5-15% of more weight for the same sets and repetitions, or a lifter is able to move the same load for extra repetitions, or using the same weight as without a belt but using less effort. All these factors help to add strength and gain more muscle mass. (Nuckols, 2015.)

A common comment about using a weightlifting belt is that it weakens the core and does not allow your core to work. There are not enough studies about the core activation in deadlift or squats when wearing a belt compared to performing the lifts beltless. However, it can be said that the activation of rectus abdominis may actually rather increase when wearing a weightlifting belt. (Nuckols, 2015.)

7

7 ELEIKO'S WEIGHTLIFTING BELT

Eleiko's Olympic weightlifting belt is made from genuine leather, it has a belt like closing mechanism. The visuals of the belt are simple, the only colour available is black with white Eleiko logo and white inside lining as seen in Picture 8.

Eleiko offers their weightlifting belt in different sizes starting from small to triple extra large. They instruct the customers to measure around their waist where the belt is worn to define the size. The measurements are:

- Small 62-67 cm
- Medium 72-89 cm
- Large 82-95 cm
- Extra large 91-106 cm
- XXL 100-120 cm
- XXX 115-135 cm

The belt is wider from the back and thinner in the front. The back is 10cm wide and the front 5cm. The belt has a padding and soft lining on the inside of the belt to make it more comfortable. The belt buckle is made from stainless steel and it has two buckle pins. The belt has a strap, the end of the belt goes underneath the strap so that it does not come in the way while lifting.

Picture 8. Eleiko's weightlifting belt (Eleiko).

8

8 RESEARCH

This chapter provides more insight on the research methods used to study the markets and the users. The research results are reviewed in detail.

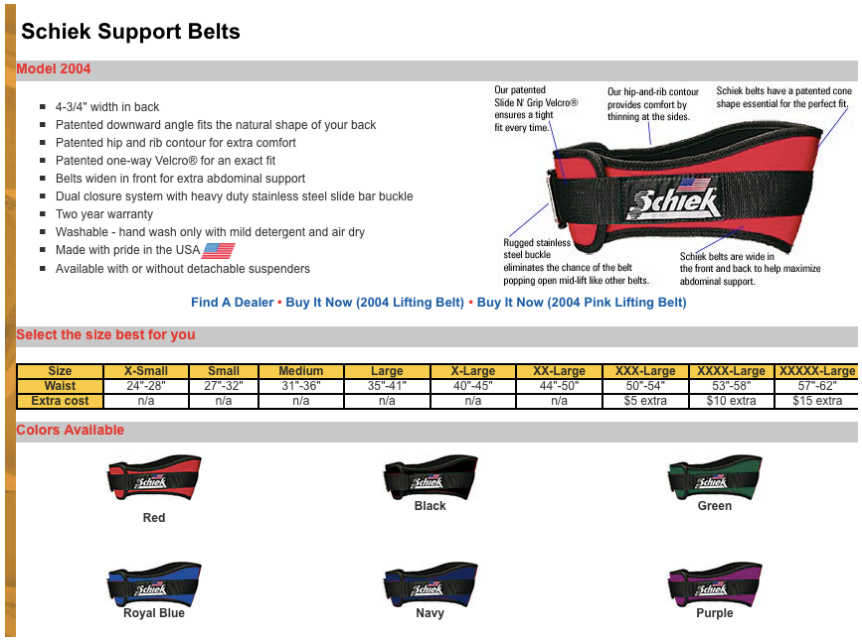
7.1 Benchmarking

Benchmarking studied the kind of weightlifting belts there are in the market, and spesifically the kind of variations there are in weightlifting belts. The greatest variations are in the design, the material, the patterns and the closing mechanism. All the variables are gathred in Table 3. The companies were chosen by the author's knowledge that these companies have weightlifting belts. The benchmarking was conducted online.

Table 3. Benchmarking

Brand	Material	Design	Pattern	Closing mechanism	Price
2POOD	Reinforced neoprene	Straight even width	Various: glitter, playful patterns, monocolour	Velcro with safety clamp	53,35€
MADMAX	Reinforced neoprene & leather	Wider from the back and thinner in the front & wider from the front and the back, leaving the sides thinner	Monocolour & army pattern	Belt like & Velcro	19,45-54,35€
RDX	Leather	Wider from the back and thinner in the front	Brand logo, leather	Belt like	20,90-52,30€
Rogue /Harbinger	Reinforced neoprene & leather	Wider from the back and thinner in the front & wider from the front and the back, leaving the sides thinner & straight even width	Brand logo, leather, monocolour, two colours	Belt like & Velcro	18,99-105,00€
Schiek	Reinforced neoprene	Wider from the front and the back, leaving the sides thinner	Two coloured, various options	Double Velcro	44,45€

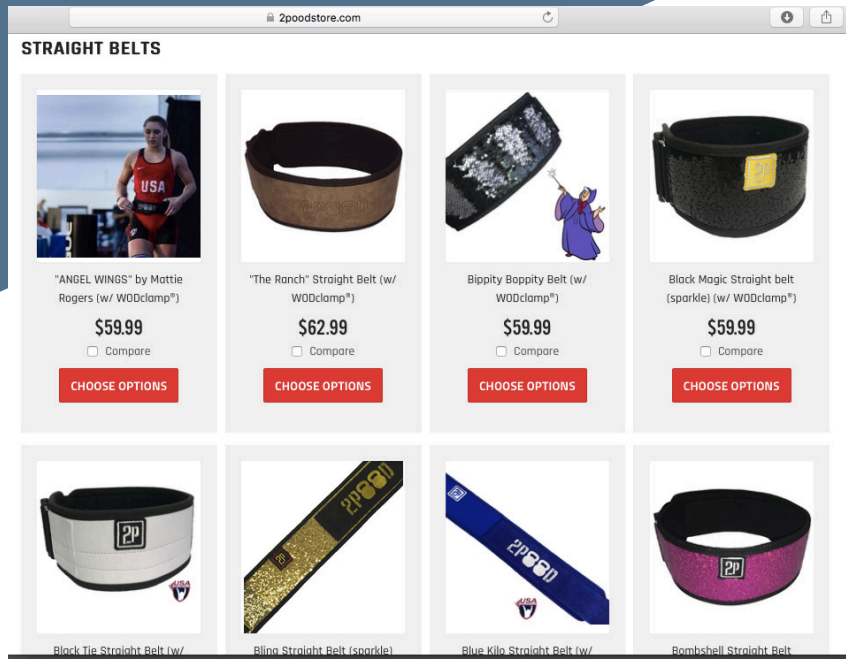
In the design there are mostly three different styles a straight belt with even width, a belt that is wider from the front and back, leaving the sides thinner which is presented in Picture 9 and a belt that is wider from the back and thinner in front.



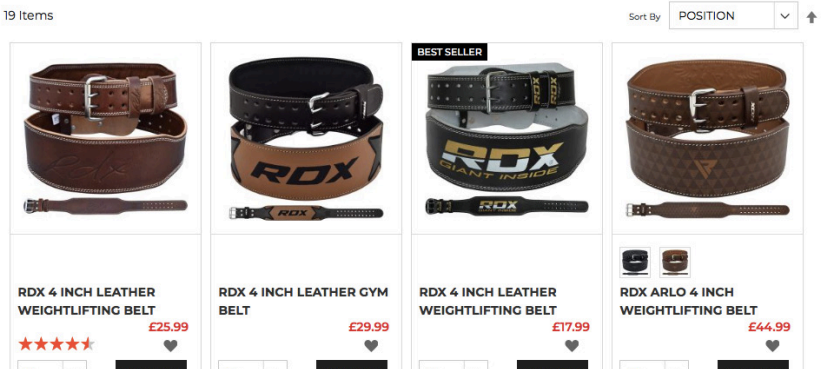
Picture 9. A belt that is wider from the front and back, leaving the sides thinner (Schiek).

Most of the even width belts are made of reinforced neoprene. The even width belts are seen in Picture 10 and 11. Also the belts that are wider from the front and back, leaving the sides thinner are made of reinforced neoprene. These two types of belts also have the same kind of closing mechanism in most cases. They either use a dual closing system with double velcro or single velcro with a safety clamp. The safety clamp example can be seen in Picture 10.

Picture 10. A safety clamp where the strap goes when putting the belt on (2POOD).



Picture 11. 2POOD belts (2POOD).

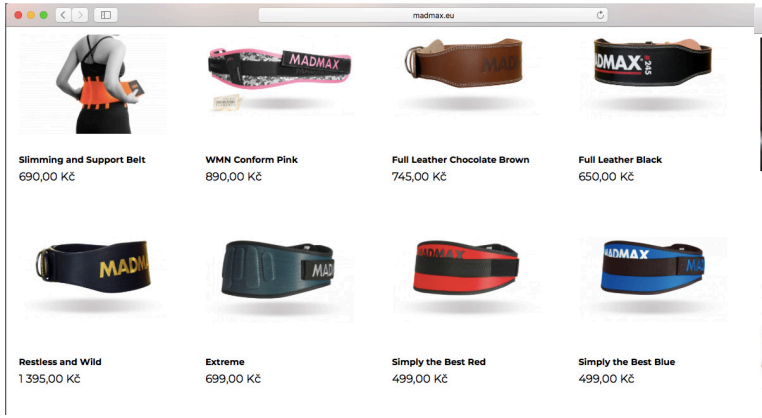


Picture 12. Leather belts with a belt like closing mechanism (RDX Sports).

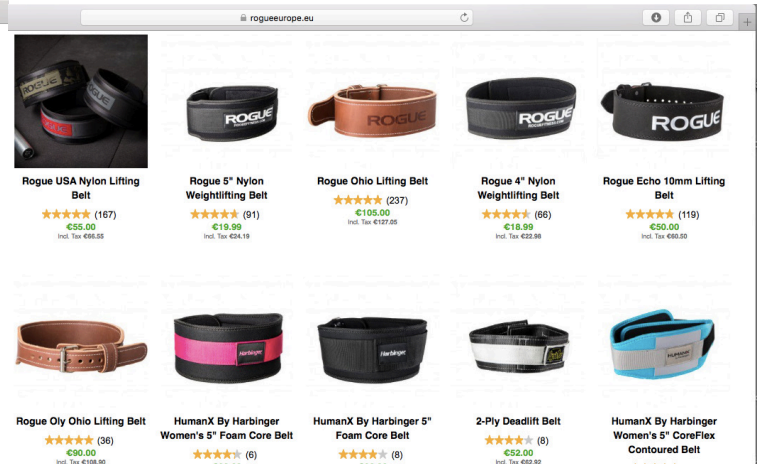
The leather belts have similar of closing mechanism as in a normal belt as seen in Picture 12. All the leather belts except for one have the same design being wide from the back and thinner in front. The one that was not the same design was on with even width.

The pattern design shows the brand of the belt quite visibly. Leather belts do not have any other than leather colours. A lot of belts are black or black with one colour. In Picture 13 and 14 the patterns of brands Mad Max and Rogue are seen. The brand 2Pood stands out with a large selection of different patterns. They have very playful patterns as well (Pictures 11, 15, and 16).

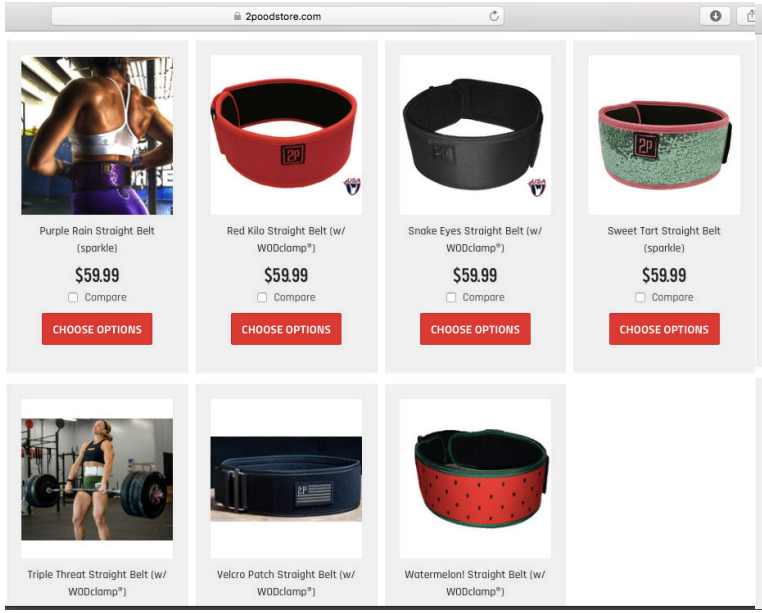
The closing mechanism differs mostly between double or single velcro or a belt like closing. Closing with velcro provides more freedom to the tightness but the belt like closing does not loosen at all. To ensure a belt like closing mechanism some velcro mechanisms use double Velcro and a safety clamp.



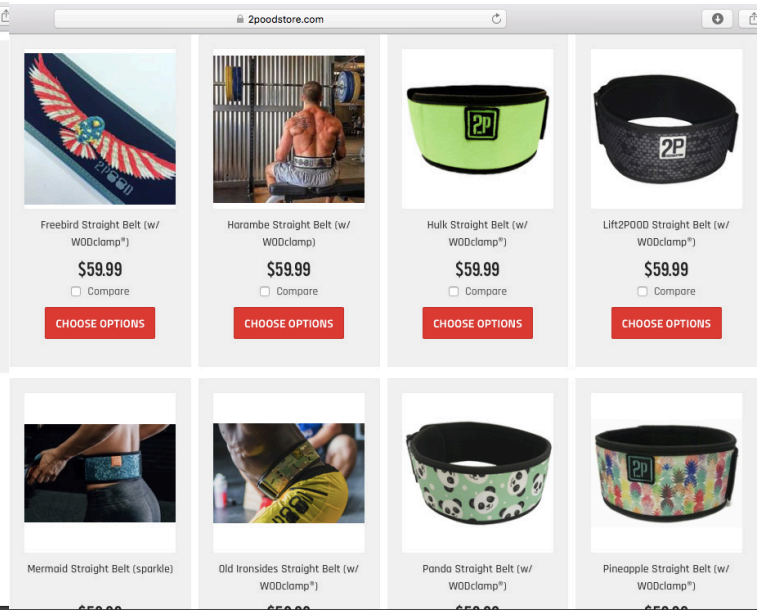
Picture 13. Mad Max's belt designs (Mad Max).



Picture 14. Rogue's belt designs (Rogue).



Picture 15. Playful patterns in 2POOD's belts (2POOD).



Picture 16. Playful patterns in 2POOD's belts (2POOD).

Benchmarking also showed the price range of the weightlifting belts. The ones made of reinforced neoprene are usually much cheaper than the ones made of genuine leather. The cheapest reinforced neoprene weightlifting belts are around 20 euros and the most expensive ones slightly more than 50 euros. The leather belts start from 50 euros up to 100 euros. (Table 3.)

8.1 Questionnaire Research

In the questionnaire research the purpose was to learn more about the users and their preferences. The users answered questions about the design, mechanics and patterns. There were 60 replies to the questionnaire with 55% of the replies were from females and 45% from males as seen in Table 4. For background information the subjects were also asked about their age and how often and in which movements they use a weightlifting belt.

Most of the subjects, 85% to be excact, were between 20-35 years old which is the senior category age in weightlifting. Athletes under 20 years old can still compete in the junior division although they can also compete in the senior competitions as well. The same applies in the other end of the age limit so that starting from 35 years athletes can compete in the so called master's division but if they want they can still stay in the senior division. 5% of the subjects were under 20 years old, 6.7% were between 36-50 years old and 3.3% over 65 years old. The age distribution is seen in Table 5.

Table 4. Gender.

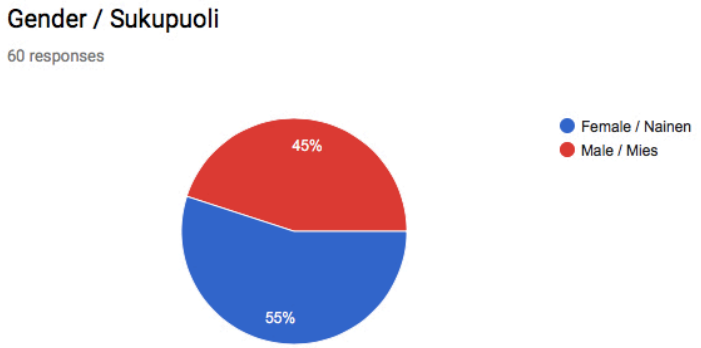
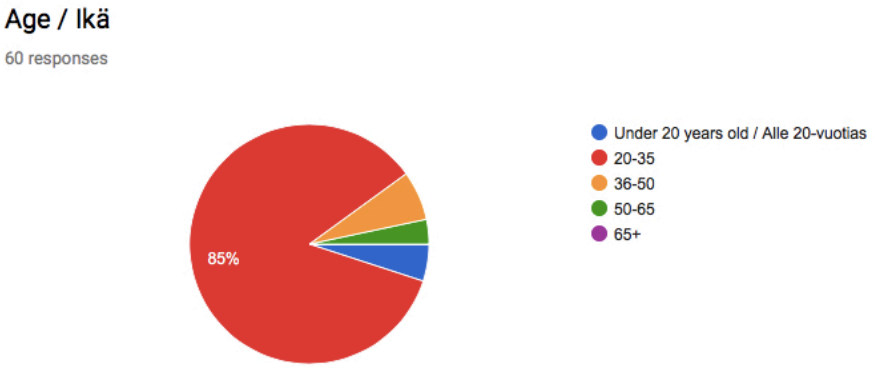


Table 5. Age.



The subjects were asked how many times per week they use a weightlifting belt to learn in what level they train weightlifting. The Table 6 shows that most of the subjects (35%) stated that they use a weightlifting belt twice a week. 31.7% of the subjects said that they use a weightlifting belt once a week. Using the belt three to five times a week was also quite common gathering 28.3% of the subjects. Only 5% stated they use a weightlifting belt six times or more per week.

Most commonly a weightlifting belt was used in the back squat with 83.3% of the subjects. Clean and jerk was also a common movement when to use a weightlifting belt gathering 81.7% of the subjects. 78.3% of the subjects stated they use a weightlifting belt in the front squat. Slightly less common was to use a weightlifting belt in deadlift (51.7%) and even less in the snatch or clean pulls (15%). The distribution between the lifts is shown in Table 7.

All in all, it makes sense that lifters tend to use a weightlifting belt in the movements where the heaviest loads are being moved. Although usually deadlift is the lift were people can lift the most weight, in weightlifting deadlift is only used as a movement to grow strength. In this case one wanst to make the mucles work rather than move a heavier load with a weightlifting belt. The same theory applies to why most do not use a weightlifting belt in snatch pulls and clean pulls.

Table 6. How often the subjects use a weightlifting belt..

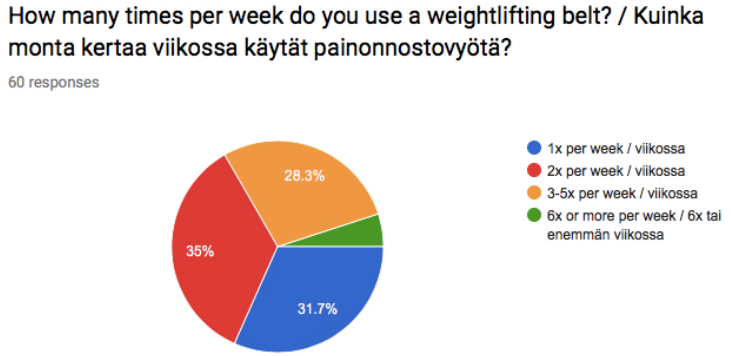
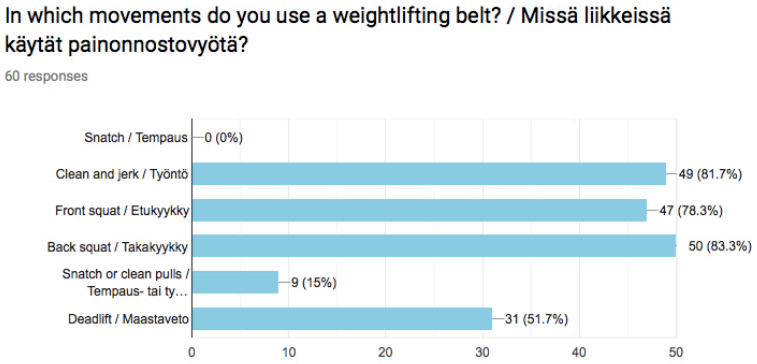


Table 7. The movements where a weightlifting belt is used..

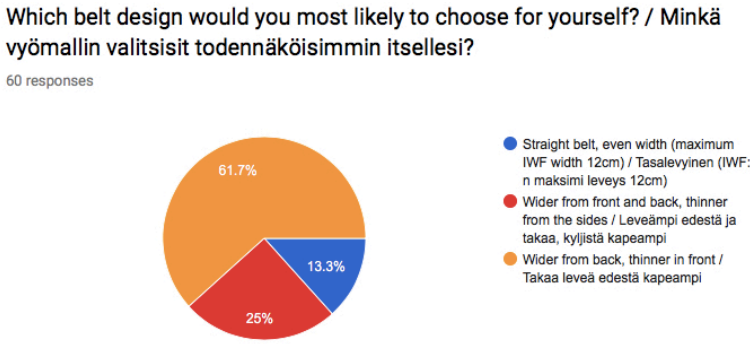


From the belt designs the subjects chose what they would most likely to choose for themselves:

1. straight belt, even width (maximum IWF width 12cm,)
2. wider from the front and back, thinner from the sides,
3. wider from the back and thinner in front.

As seen in Table 8 option number three was clearly the most popular design being chosen by 61.7% of the subjects. The second best was the option number two with 25% and the least popular with 13,3% the option one.

Table 8. Design..



The subjects provided also an open answer to why they chose a certain design. Below a few quotes about the most popular design, i.e. a belt that is wider from the back and thinner in front.

"It gives the best support for the back, but doesn't get in the way of the bar in front and still gives support for the core."

"I find it suits me the best."

"It doesn't put too much pressure on my sides."

"Supports my back the most."

"It feels comfortable without losing any support."

"After trying many different designs this one felt the best."

"Fits the best and doesn't restrict the range of motion."

Subjects provided the following comments about a belt which is wider from the front and back, thinner from the sides.

"Most comfortable and gives the best support."

"Gives an even support around the core and doesn't put pressure on my ribs."

"Gives me the full range of motion when squatting."

"I have a very little space between my lowest rib and the

top of my hip bone (ilium) so this design fits my waist the best."

Comments provided about the straight belt with even width:

"Gives even support."

"Gives me most support in the movements"

"It is what I'm used to and feel most confident with."

Based on these replies it can be said that people choose the design that fits them the best. Number of respondents value the support, others want it to feel comfortable, others need to make sure they do not restrict their range of motion too much. All in all it depends greatly on the antrophometrics of the lifter but the belt which is wider from the back and thinner in front fits most body types.

The subjects were asked what kind of closing mechanism works the best in their opinion. As seen in Table 9 a normal belt like mechanism which tightens step by step is the best option for most with 45% of the subjects. The second best option was a double Velcro system with the weightlifting belt. 35% of the subjects chose a double velcro system where the first velcro is in the belt and the other one on the strap which come over the belt. The third option, a velcro with a safety clamp was chosen by 20% of the subjects.

In Table 10 is seen that from materials leather was quite clearly the most popular material with 50% of the subjects. Neoprene was chosen by 31.7% of the subjects and textile by 18.3%.

Table 9. Closing mechanism.

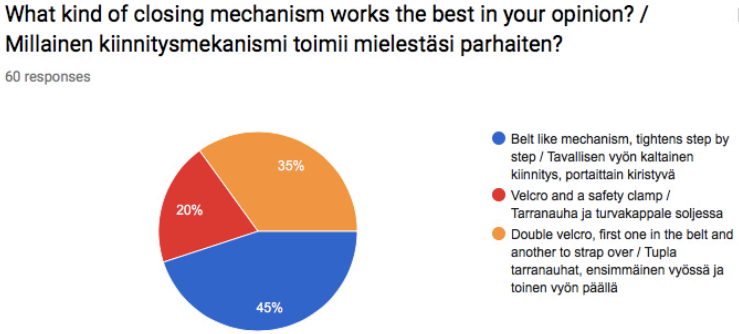
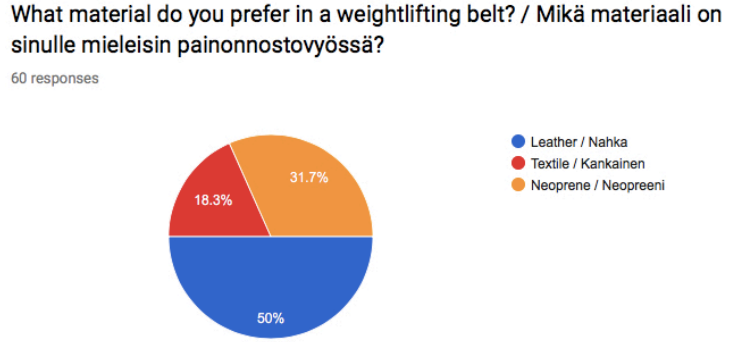
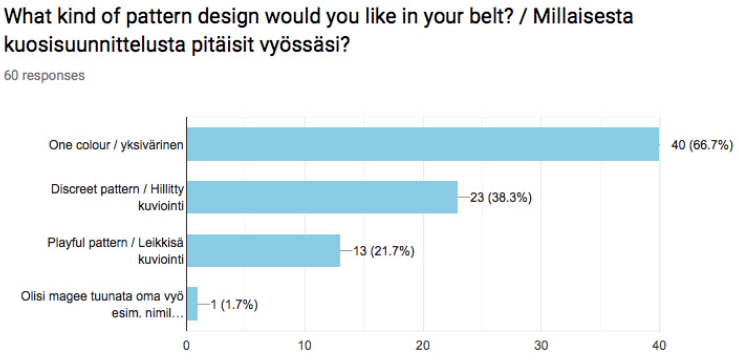


Table 10. Materials.



The subjects were also asked about a pattern designs, as to the kind of pattern design they would like in their weightlifting belt. In this question the subjects were able to choose multiple options. In Table 11 it is seen that 66.7% of the subjects would like a monocoloured weightlifting belt, a discreet pattern was preferable for 38.3% of the subjects, 21.7% of the subjects would like a playful pattern in their weightlifting belt. One subject chose an open answer and told that "It would be cool to design one's own pattern, for example a weightlifting belt with your own name".

Table 11. Pattern design preferences.



8.2 Expert interview

As an expert the physiotherapist of the Finnish weightlifting national team was interviewed about weightlifting belts on the 18 of February 2019. The expert Jimmy Taivaloja has been working with the national team for over four years already and he has a good understanding what is important in weightlifting.

He was asked five questions about how he sees weightlifting belts.

- As an expert how would you describe the use of a weightlifting belt?
- What are the benefits an disadvantages of a weightlifting belt?
- What is the most important function of a weightlifting belt?
- How do you see the differences of belt designs effecting the lifter? For example, is the belt even width, wider from the front and back, leaving the sides thinner or wider from the back and thinner in front.
- How would you improve the existing weight lifting belts?

The first question how he – as an expert – would describe the use of a weightlifting belt, from his point of view a weightlifting belt is a tool to be used when one considers it to be helpful. The benefits and disadvantages were described as follows: there is no direct disadvantage unless people always have to rely on using a weightlifting belt to lift something.

The most important function of a weightlifting belt according to the expert is that it gives the athlete the extra support when needed. When asked how he sees the differences of belt designs affecting the lifter he brought up that there are no studies about the subject. Therefore he would recommend one to choose what ever feels good or right for the purposes of the lifter.

He was also asked how he would improve the existing weightlifting belts. He would not change anything about the designs but a customer should receive a booklet about how to strengthen the core to not always have to rely on the weightlifting belt. He would also add a friendly reminder to the users that if they are in pain a weightlifting belt does not unfortunately work as a band aid.

9

9 RESULTS

Based on the research the perfect weightlifting belt is wider from the back and thinner in the front. It should have a belt-like buckle mechanism which tightens step by step. Leather is the most preferable material for a weightlifting belt. It can be monocolour or have a discreet pattern.

The user study showed that Eleiko's weightlifting belt is the kind users prefer. From Picture 9 it can be seen that Eleiko has a exactly the type of weightlifting belt that is defined to be the most preferable to the users based on the user study. What Eleiko could improve is to have more options for colours and patterns. The author's ideas on the pattern and colour options are seen in Picture 17. The colour scheme conforms Eleiko's brand colours.

Because the belt concept Eleiko already has is what users like the most, the suggestions based on the research are that they could have more options in colours and patterns an they could include an info booklet to the users as the expert suggested. If Eleiko wants to serve an even broader customer base, the second preferable belt is wider from the back and the front, leaving the sides thinner. The material would be neoprene (reinforced) and it should have a double velcro closing mechanism where there is two velcro straps. The second preferable pattern was a discreet pattern.

Picture 17. Weightlifting belt concepts designed by the author.

10

10 DISCUSSION AND CONCLUSIONS

10.1 Discussion

The aim of the thesis was to collect data about the market of weightlifting belts and the users of weightlifting belts. The research was conducted by using three methhods including benchmarking, a questionnaire and expert interview. Benchmarking was completed to study the market and define the kind of variations there are in weightlifting belts. Based on the benchmarking study the questions for the questionnaire research were decided. The variables in weightlifting belts were design, closing mechanism, material and visual pattern designs.

The questionnaire research was first tested with three subjects and it was found to be working well for the purposes. After that it was shared to weightlifting communities to receive replies. The questionnaire received 60 replies. The main results of the questionnaire research was that the users want a weightlifting belt that is designed to be wider from the back and thinner in the front. They prefer a belt like closing mechanism that tightens step by step. The material preferred by most subjects was leather.

The expert interview was conducted to support the studied facts about why an athlete would use a weightlifting belt when lifting. The purpose of the expert interview was to study how an expert sees the variables of a weightlifting belt and what aspects could be enhanced from an expert point of view. The experts outlook to weightlifting belt designs was that an athlete should choose the one he or she feels most comfortable and confident with since there are no studies on whether and how the designs affect lifting.

The expert pinpointed a concern that an athlete should not use a weightlifting belt to deal with pain while lifting. The expert's enhancement ideas included a proposal that maybe there should be a reminder to the user that a weightlifting belt should not be used to ease pain and also an idea that with the weightlifting belt the user could receive a booklet on how to strengthen the core so the user will not

always have to rely on a weightlifting belt.

10.2 Conclusions

The subject of the thesis was User Experience in Product Development of a Weightlifting Belt. The goal was to support Eleiko's product development and provide more information about the users, their experiences and wishes concerning weightlifting belts, and to define what the features are in a weightlifting belt that the users value the most. The research questions were:

- What features the users value the most?
- Why athletes use a weightlifting belt?
- What kind of weightlifting belts are there in the market?

These questions were answered with the research methods used in this thesis: benchmarking, questionnaire and expert interview. Before starting the user research the market was studied by benchmarking. The user research was conducted with online questionnaire. One of the research methods was an expert interview, it was conducted to gain information why an athlete would and should he use a weightlifting belt. The expert who was interviewed works as the physiotherapist of the Finnish weightlifting national team. The chapter "Benefit of using a weightlifting belt" also provides researched facts why it is beneficial to use a weightlifting belt.

Benchmarking showed that the variations in weightlifting belts are in the design, the material, the patterns and the closing mechanism. The design variations found in benchmarking were limited to three different designs: a straight even width belt, a belt that is wider from the front and back, leaving the sides thinner and a belt that is wider from the back and thinner in front. The materials found in bencmarking were leather and reinforced neoprene. The patterns varied from a monocoloured to a very playful patterns that had glitter, pineapples and pandas in pattern design. The closing mechanisms were either a belt-like buckle or a mechanism that uses velcro to tighten the belt. The belts with velcro used either single or a double system of velcro and one brand had a safety clamp to support the velcro system.

Benchmarking was done based on the author's former knowledge about how to find weightlifting belts online. If the author did not have the knowledge the brands chosen to benchmarking could have been

different. Although, the tacit knowledge the author has helped to choose brands who offer belts that fulfill the standards the International Weightlifting Federation has set for weightlifting belts used in Olympic weightlifting.

The questionnaire researched provided insight on what users value in a weightlifting belt. The questions were chosen to the author's best knowledge gained from the benchmarking. Since the questionnaire was conducted as an online questionnaire, it cannot be sure who answered the questionnaire and whether the respondent had enough information on weightlifting belts to answer the questionnaire without misunderstandings. This may effect the research reliability. In future studies a questionnaire could be conducted in more controlled environment where the subjects can be chosen.

The expert interview was originally supposed to have two experts but due the lack of willing experts to be interviewed the interview was conducted to one expert. To provide larger prespective on the subject, a greater number of experts to interview would be ideal.

This was my first time conducting a user research. I think the research was successful and provided a lot of important information about the users. The goals set for the thesis were met and the research questions were answered in the research. I also gained a great amount of new information about user studies and product development.

REFERENCES

Eleiko website Referenced 29.1.2019 https://www.eleiko.com/en/about/the-company/our-story - gs.1eghi3

Everett, G. 2009. Olympic Weightlifting: A Complete Guide for Athletes & Coaches. Catalyst Athletics.

Hyysalo, S. 2009. Käyttäjä tuotekehityksessä. Keuruu: Otavan Kirjapaino Oy.

Jokinen, T. 2001. Tuotekehitys. Aalto-yliopisto Teknillinen korkeakoulu

Kortesmäki, T. Lammi, M. Lautamäki, S. Pekkala, J. Sinkkonen, I. De Mooij, M. 2005. Kompassina asiakas. Tampere: Teknologiateollisuus ry.

Kumar, R. 2011. Research methodology. A step-by-step guide for beginners. London: Sage Publications.

MadMax website. Referenced 25.1.2019. http://www.madmax.eu

Merceria scharo website Referenced 23.3.2019 https://merceriascharo.com/merceria/velcro-de-coser-2/

Nuckols, G. 2015. Belt Bible. referenced 28.2.2019 https://www.strongerbyscience.com/the-belt-bible/

NPD Solutions Benchmarking Product Development, referenced 13.3. 2019 http://www.npd-solutions.com/bmpd.html

RDX website. Referenced 25.1.2019. https://global.rdxsports.com/?usr=1

Rogue website. Referenced 25.1.2019. https://www.rogueeurope.eu

Schiek website. Referenced 25.1.2019. https://www.schiek.com

Windahl, R. & Välimaa, V. 2012. Tuotekehitysprojekti AMK-yritysyhteistyönä Opas tekijöille ja toimeksiantajille. Turku: Turun Ammattikorkeakoulu.

2POOD website. Referenced 25.1.2019. https://www.2poodstore.com

APPENDIX

Appendix 1. Questionnaire

Weightlifting belt and its qualities / Painonnostovyö ja sen ominaisuudet

This questionary is a part of thesis work "User experience in product development of a weightlifting belt".
Tämä kysely on osa opinnäytetyötä "Käyttäjäkokemus painonnostovyön tuotekehityksessä".

* Required

1. **Gender / Sukupuoli**
   Mark only one oval.
   - ◯ Female / Nainen
   - ◯ Male / Mies

2. **Age / Ikä** *
   Mark only one oval.
   - ◯ Under 20 years old / Alle 20-vuotias
   - ◯ 20-35
   - ◯ 36-50
   - ◯ 50-65
   - ◯ 65+

3. **How many times per week do you use a weightlifting belt? / Kuinka monta kertaa viikossa käytät painonnostovyötä?** *
   Mark only one oval.
   - ◯ 1x per week / viikossa
   - ◯ 2x per week / viikossa
   - ◯ 3-5x per week / viikossa
   - ◯ 6x or more per week / 6x tai enemmän viikossa

4. **In which movements do you use a weightlifting belt? / Missä liikkeissä käytät painonnostovyötä?** *
   Check all that apply.
   - ☐ Snatch / Tempaus
   - ☐ Clean and jerk / Työntö
   - ☐ Front squat / Etukyykky
   - ☐ Back squat / Takakyykky
   - ☐ Snatch or clean pulls / Tempaus- tai työntövedoissa
   - ☐ Deadlift / Maastaveto
   - ☐ Other: _____

5. **Which belt design would you most likely to choose for yourself? / Minkä vyömallin valitsisit todennäköisimmin itsellesi?** *
   Mark only one oval.
   - ◯ Straight belt, even width (maximum IWF width 12cm) / Tasalevyinen (IWF:n maksimi leveys 12cm)
   - ◯ Wider from front and back, thinner from the sides / Leveämpi edestä ja takaa, kyljistä kapeampi
   - ◯ Wider from back, thinner in front / Takaa leveä edestä kapeampi

6. **Why would you choose the design you did? / Miksi valitsit kyseisen mallin?** *
   _____
   _____
   _____

7. **What kind of closing mechanism works the best in your opinion? / Millainen kiinnitysmekanismi toimii mielestäsi parhaiten?** *

Mark only one oval.

Belt like mechanism, tightens step by step / Tavallisen vyön kaltainen kiinnitys, portaittain kiristyvä

Velcro and a safety clamp / Tarranauha ja turvakappale soljessa

Double velcro, first one in the belt and another to strap over / Tupla tarranauhat, ensimmäinen vyössä ja toinen vyön päällä

8. **What material do you prefer in a weightlifting belt? / Mikä materiaali on sinulle mieleisin painonnostovyössä?** *

Mark only one oval.

- Leather / Nahka
- Textile / Kankainen
- Neoprene / Neopreeni

9. **What kind of pattern design would you like in your belt? / Millaisesta kuosisuunnittelusta pitäisit vyössäsi?** *

Check all that apply.

- [ ] One colour / yksivärinen
- [ ] Discreet pattern / Hillitty kuviointi
- [ ] Playful pattern / Leikkisä kuviointi
- [ ] Other: _____

Thank you!