



A focus on outcomes and value creation: leading to Skilloon continuous development opportunities

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leading to Skilloon continuous development
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The concept of customer centricity has been misleading organizations to ask their customers what they want and apply this raw finding directly to the design or improvement of their offering. As such, this study intends to make a step towards a new approach to integrate the customers' needs in the process of developing digital services, either to create a new or to improve an existing service, as the case study suggests.

Skilloon is a platform designed to create value for educators through the process of creating courses, monitoring each student, and improving teaching and the institution's capabilities. The case study explores the fit between Skilloon's value proposition, and the value realized by the customers in using the features deployed on the platform. The purpose is to support the development team with specifications for creating the right resources to facilitate value creation.

The qualitative study includes interviews with internal stakeholders, educators and students to first understand Skilloon's business and value proposition, and then detect the customers' expectation, perceptions and value priorities for using the platform. The findings follow the jobs to be done logic, offering an understanding of the desired progress, or jobs, customers hire Skilloon to help them achieve. The jobs were further analyzed by a focus group and the cognitive walkthrough technique.

As a result, 11 backlog items are specified, offering opportunities to realize future growth goals for scaling Skilloon's business into a new market segment while improving performance in the current one. The specifications go beyond a mere functional aspect, also addressing elements of social and emotional customer values. This combination reinforces Skilloon's value proposition with suggestions to increase customer loyalty and their willingness to 'buy' the offering.

Rather than introducing to the market resources which represent the providers' best guesses for a value proposition, the design work of this thesis suggests a focus on building resources that customers are more likely to use.

Keywords: Service logic, customer-centered, digital services, value creation, jobs to be done, dimension of value.

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1 Introduction

The new era oriented by service is changing the approach to business. Business is less about 'producing offerings to be consumed' but more about 'providing a service to fulfil the needs of the customer'. Especially with the growth of digital services, this shift has brought importance for business success. By embracing a customer-centered approach, companies are more likely to design features that customers seek to perform the desired outcome. However, the concept of customer centricity has been misleading companies to go about listening to customers in the wrong way. Instead of capturing customer input that focuses on outcomes, companies tend to ask customers what they want. Thus, the companies take these raw findings and apply them directly to design or improve their offering. The weakness of this user-led design approach fails to use the skills of experts to verify and extract real user needs. Kitson (2011) agrees that this approach undermines the design process because customers base their knowledge on what they have already experienced and, therefore, should not be trusted to define the solution. This mindset suggests that companies have to adopt an approach focus on outcomes and not solution to succeed. This also leads to the fact that many business initiatives are failing because they are introducing to the market an offering that no one wants (Diamond 2018). Customers do not want new or improved features or functions. What they want is to hire an offering to help them to achieve the desired outcome and thus create value for themselves.

Lean methodology is not a new concept, but its modern application to business is constantly evolving to support the new era where continuous improvement and respect for people are the key drivers to succeed. It aims to shorten product development cycles and rapidly discover if a proposed business model is viable. This is achieved by adopting a combination of business-hypothesis-driven experimentation, iterative product releases, and validated learning. The cycles increase access to information to ensure responsible decision making in the offering for creating customer value. The Agile methodology is a natural application of the Lean methodology outside of the manufacturing business. Conceptually it also follows a defined process, has some defined conditions of acceptance, and results in the delivery of tangible value. The main idea behind these methodologies is to ensure that the business features are adapted to the customer needs in order to become a solid and less risky plan to be launched. Blank (2013) states that in order to deliver a trustful offering to the market, companies have to first understand their customers' needs and the resources available to fulfil it. In other words, instead of concentrating on specifying assumptions to be implemented at once, companies can eliminate wasted time and resources by developing the product iteratively and incrementally. And so, provide only customer-driven versions of the product to the market (Ries 2011; Moogk 2012).

Through a case study called Skilloon, this thesis explores how to turn customer input into an opportunity for value creation within the service business logic and the mindset. Skilloon is a content-based platform aiming to support educators with a friendly and intuitive user experience to 1) provide a qualified set of activities and a proven methodology to generate positive outcomes to students, in the context of entrepreneurial learning, 2) create courses by using these existing activities, 3) monitor and assist each student's development process, 4) become better mentors through understanding each student's development process, and 5) foster their educational system with statistical information. The digital solution was developed as part of the Digitrainer for High School National Project coordinated by Mynämäki municipality and funded by the Finnish National Agency for Education, which has the copyright to implement Skilloon nationwide. The development of the activities and methodology behind the platform is not included in the scope of this thesis, but this process reflected in the rights for the Finnish company called 'Not a bad idea Oy' to further develop and internationalize Skilloon as a profitable business. Therefore, the outcome of this research aims to provide value to all business parts. The development process of Skilloon platform embraces the basic principles of the Learn methodology, where the starting point of the process was to figure out the customers problems to be solved and then create a minimum viable product (MVP), containing only the critical features to translate the value proposition. The MVP is experimented by the customers, and, with the knowledge gathered from this experience, the cycle starts over with a revised MVP. In this way, the risk of failure is lower while expected, and the offering can be easily fixed by integrating on ideas that enable customer value creation and, therefore, business value. The question is how to gather valuable input from customers to uncover opportunities for further development of Skilloon to an emergent market segment that goes beyond from the high school to the higher education. The goal is to apply a service perspective to the concept of the value and embrace a customer-centered approach for understanding the customers and their expectations/perception of value from Skilloon, and then translate these insights into an actionable language to guide Skilloon development team to build the right conditions and right resources to facilitate customers to create value for themselves.

1.1 Research and development objectives

Lean methodology clearly translates how to develop a service offering by scratch, but also provide insights on how to improve a service provided. In this development project, the solution developed during the Digitrainer for High School National Project, called Skilloon, is seen as the MVP, and the piloting period, highlighted in green in Figure 1, is seen as the cycle of experimentation that this research took place. Even though Skilloon was developed to embrace the high school needs, this experimental period involved the Tallinn University of Technology and the University of Jyväskylä which consists of a potential market segment to scale Skilloon and the main focus of analysis in this research. The design process proposed in

the thesis is aligned with the Lean principles aiming to test Skilloon's MVP with customers and translate this knowledge into opportunities for further design and development of Skilloon, meaning, that it is out of this thesis' scope to define or validate the right solution to be implemented. Therefore, the purpose of the thesis is first, to understand the fit between the value proposition and the value-in-use within the service business logic, and second, to support the solution development team in creating the right resources to facilitate value creation.

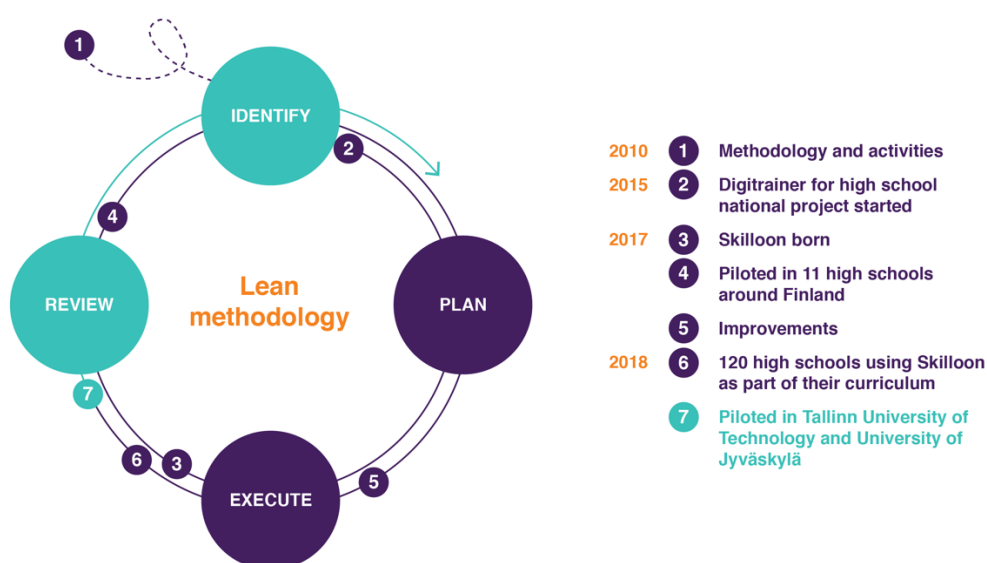


Figure 1: Skilloon development process

As a starting point of this qualitative case study, Skilloon's internal stakeholders were interviewed with the objective to get to know the development team and to understand Skilloon's business, including the vision, strategy and methodology that the platform is built upon. This study also aimed at uncovering internal stakeholders' perspectives of the service provided by Skilloon, uncovering design possibilities and limitations. Then, the customers were heard with the objective of understanding their environment and priorities for using Skilloon. The purpose of this study is to uncover the customers' expectation and perception of Skilloon aiming to answer this thesis's first research question:

What values customers seek from Skilloon?

Next, all data from the previous studies were compared in order to identify the gaps between the Skilloon's value proposition and the value customers are seeking for using it. This study aims to answer this thesis second research question:

How can Skilloon facilitate customer value creation?

The objective is to create a common understanding of the opportunities for value creation and support Skilloon's development team in creating the right condition for improving the solution.

1.2 Structure of the thesis

The thesis consists of seven chapters. This opening chapter presents an overview of the thesis topic, its research and development objectives. Chapter two offers a background of the case study, including an overview of the case organizations, Skilloon's development process, its business objectives and value proposition. The third chapter presents the theoretical frameworks of this thesis and explains in more detail the theoretical ground of value creation among its five sections. The first section highlights the difference between the terms 'services' and 'service' while the second introduces the concept of the service business logic. The third section explores the experience of value-in-use in services through the lens of service business logic. The fourth section proposes how value creation can be supported by the jobs to be done approach, and the fifth section deepens this understanding by including the dimensions and elements of value to translate the customer perspective for the realization process of a job.

Chapter four describes the development process and methods used in the thesis. The first section of this chapter covers the design process adopted in this study and the following sections provide a detailed description of the process' phases and the methods used. The summary of the empirical findings and results of this research is divided in the fifth and sixth chapters. Chapter five introduces the values customers seek from Skilloon, addressing this thesis's first research question. Chapter six offers insights on how the customers' values can be applied to the further development of Skilloon to facilitate value creation, answering this thesis's second research question. The final chapter offers a summary of the study and promotes a discussion about the opportunities for additional research.

2 Welcome to Skilloon

"The uncertainty related to the future of work has long been under discussion. The increasing progress of technology is modifying almost all areas of known professional activities and the humans' behavior" (Kataja 2017). "Digitization and the democratization of information are turning knowledge increasingly open to all, recognizing that develop continuous life learning skills is become a crucial need from the point of view of education" (Hartikainen 2014).

Embracing this challenge, Skilloon was born in late autumn of 2017. It is a content-based digital platform aiming to support upper secondary school educators to implement entrepreneurial activities for students to self-develop themselves. The platform promises an intuitive and fast way for educators to group existing activities in order to create a course

and send a link for students to start their training. All activities were designed by a powerful alliance of specialists in entrepreneurship education of Finland, which means that educators can rely on the platform's content to provide an effective outcome on student development. There are now about 100 activities available for educators to choose from to create courses. The activities are organized following a methodological grouping of six modules in order to facilitate this process. Besides the activities, educators can also use Skilloon to monitor each student's development process and consistently evaluate the educational institution.

Students are not seen as a target customers of Skilloon, because their experience through the platform depends on the ability of the educator to motivate them through their self-development progress. Skilloon is designed to foster students' self-esteem by engaging in activities related to subjects they are struggling with and thereby become successful members of the society (Juvonen 2018). Based on this, Skilloon, as a platform, is mainly intended to facilitate the educator value-creation, while the content of the activities is designed to create an impact on students' development process. The following sections introduce Skilloon's development process and provide a further background of Skilloon as a business as well as its value proposition.

2.1 Digitrainer for High School National Project

The quality of the activities developed and the methodology behind Skilloon are assured through reliable research nationally and internationally recognized (Seikkula-Leino 2016). It started in 2010 during a European Social Fund (ESF) project called Yvistä energiaa yrittäjyyskasvatukseeni (YVI). The project was coordinated by the University of Turku and the Teacher Training School with the focus on promoting entrepreneurship education, especially to Finnish vocational and academic teachers (Yöntilä 2010). During this project, a group of teachers, principals and researches willing to create a concrete solution aiming to link entrepreneurial mindset to each student's personal life was established. In 2015, this initiative resulted in the Digitrainer for High School National Project (kansallinen Digitreenari lukioihin-hanke), extending its partnership to include students in technology to actually implement the idea. Although the content of the activities and the methodology behind Skilloon being one of the triggers of the students' positive outcome, the ground research, as mentioned previously, is not the focus of this thesis and will not be discussed in detail.

Skilloon's development process was coordinated by Mynämäki municipality as part of the Digitrainer for High School National Project, and it was funded by the Finnish National Agency for Education (Opetushallitus). The purpose of the national project was to create a digital solution which facilitates upper secondary school educators to develop an entrepreneurial mindset; thus, to adapt the Finnish educational system to respond to the constant state of change in the world and the challenges that it creates in the students' present and future life. The development team was divided into two groups: the project management team and

the developer team. The project management team was responsible for creating the project plan, the platform content and the concept, and also for testing the solution developed. The developer team was in charge to make it actionable by using a cloud-based platform called Train Engage.

The development process lasted about two years. It was mostly done on voluntary basis by following a 'action-reaction' approach. The coordinator in the municipality sector stated that *"it was a long process of implementation due to difficulties of communication between the developer's groups, that were separated all over Finland, and also inside one group based in the same city. Also, testing was delayed because of the limited availability, especially from upper secondary schools' stakeholders that had challenges in organizing a time in their tight and strict timetable to engage with the development process"*. Another challenge was the cloud-based platform limitations. Its stabilized features did not enable the implementation of efficient user experience. This problem led to rounds of experimentation with other base platforms until the final decision to use Microsoft Azure was reached. During this transition, a design partner was responsible for designing the solution's user interface.

The solution implemented was piloted by the name Digitrainer in 11 upper secondary schools around Finland. During piloting, customers feedbacks were collected and reacted back in the form of user interface improvements. The Finnish Ministry of Education and Culture (Opetus- ja kulttuuriministeriö) incorporated the solution into its nationwide entrepreneurship education strategy, and this event propelled the creation of the solution's name, now known as Skilloon.

The Finnish education and strategy for entrepreneurship education

The high quality of Finnish education has been well known otherwise and routinely tops rankings of global education systems (Williams-Grut 2016). There is only a small difference in the learning results of different schools and the majority of students complete comprehensive school within the target time. The education system includes early childhood education, preschool education, comprehensive education, upper secondary education and higher education. There is also adult education, including alternatives from comprehensive to higher education, intended only for adults. Preschool education, comprehensive education, upper secondary education and the most part of higher education are free of charge. However, students have to purchase their own books and other learning materials after comprehensive school. The Finnish tax-funded education promotes for everyone to have an equal opportunity to receive high-quality education regardless of the family's income, and to grow up to become active citizens (Finnish National Agency for Education 2016).

In Finland, comprehensive education normally starts when the child turns seven and comprises of nine grades. All children residing in Finland permanently must attend comprehensive education until it ends or when ten years have passed after the beginning of it. All comprehensive school teachers have a Master's Degree, where teachers from grade 1 to 6 are specialized in pedagogy and teachers from grades 7 to 9 are specialized in the subjects they teach. Besides guidelines of the Finnish legislation and the national and local curricula, teachers have the freedom to plan their tuition independently. Children often have the same teacher for the first six years. This enables the teacher to know their students better for developing the tuition to suit their needs. The goal is that the students learn how to think for themselves and assume responsibility for their own learning. There are no national examinations as such before the ninth grade. Instead, the teacher evaluates the students' progress in school by monitoring with sample-based evaluations. After comprehensive school, students have the option to continue their studies with upper secondary education. It includes the upper secondary school and vocational education. The upper secondary school takes 2-4 years, depending on the student, and does not lead to any profession. Instead, it includes the same subjects from the comprehensive school, but the studies are more demanding and independent. At the end of the upper secondary school, students usually take the matriculation examination and are eligible to apply to universities, universities of applied sciences or upper secondary school based on vocational education. Vocational education takes about three years, and it is more practical-oriented. After finishing, students can complete a further vocational qualification or a specialized vocational degree. Vocational qualification can also be obtained through a paid apprenticeship training where students work in jobs within their own field and complete their studies at the same time. After this job-learning, students can progress from vocational education to higher education. The higher education is provided by universities and universities of applied sciences in Finland. The education provided by universities of applied sciences is more practice-oriented than in universities, where the tuition is based on scientific research. Completing a Bachelor's degree in a university of applied sciences takes 3.5-4.5 years, after which it is required to have three years of work experience in the suitable field before having the possibility to get a Master's degree. Completing a Bachelor's degree in a university takes about three years and a Master's degree about two more following years. Once the student completes a Master's degree, they can apply for permission to complete further studies and earn a Licentiate's or Doctoral degree (Infofinland.fi 2019).

Finland has actively promoted entrepreneurship education in general education and at all levels. The national core curriculum requires schools to create a study environment where students set their own objectives and learn to work both independently and collaboratively. For example, the module 'Entrepreneurship and Entrepreneurial Activity' is compulsory for all qualifications and ensures that students are able to assess and recognize their own skills and

strengths, make their own business plans and assess the value of being an entrepreneur (Luxembourg Chamber of Commerce 2016). The Ministry of Education and Culture announced strategies for entrepreneurship education in 2004 and 2009 (Seikkula-Leino 2011). The National entrepreneurship education guidelines published in 2007 (Ministry of Education and Culture 2017b) were prepared in cooperation with different operators in the entrepreneurial community. The partners included a range of government and national agencies, education organizations, regional authorities and business organizations (Luxembourg Chamber of Commerce 2016). The purpose of the guidelines is to target, develop and direct measures for promoting entrepreneurship at all levels of the education system: from the early childhood education to the higher education (Ministry of Education and Culture 2017a). The aim is to develop active citizenship, enhance creativity and innovation in education and training, create a positive entrepreneurial culture and promote business start-up.

2.2 Skilloon as a business

Skilloon's copyright is segmented between two organizations. The Finnish National Agency for Education has the rights to implement Skilloon nationwide through the Digitrainer for High School National Project, although the Not a Bad Idea Oy has the rights to further develop the solution and internationalize Skilloon as a profitable business. Currently, there are 120 upper secondary schools using Skilloon as part of their curriculum in Finland. Due to this effective implementation of Skilloon in Finland, Not a Bad Idea Oy aims to launch the solution internationally as a profitable business. Skilloon was developed to reach its main target group: upper secondary school. However, in the year of 2018, the solution started to be piloted in universities aiming to expand its market segment. The goal of this experimental period was to collect valuable knowledge on the higher education needs to adapt Skilloon platform and pricing model. The decision of scaling Skilloon came by the relevance of the students at this education level have in developing the right skills for their future work (Internal stakeholder 3).

Not a Bad Idea Oy has established a licensing revenue model for Skilloon to be internationalized. The model established a yearly fee for one student to use all business features at the platform. However, for institutions which provide solutions to schools and want to white label or channel Skilloon, partnership agreements are also considered (Internal stakeholder 2). In Finland, Skilloon is available to educational institutions for free, as a way to cope with the National Curriculum's strategy aiming to develop the students' skills to enter in the working life (Internal stakeholder 1). A participant of the Internal stakeholder interviews (further explained in the section 4.4.1.) stated that *"schools and universities abroad could also implement more ways to enable students to grow their minds and independence to be better prepared for their future and therefore, to develop their society"*. This statement translates the ambition to scale Skilloon abroad and also for a

different segment. In addition, all participants from the internal stakeholders' interviews agreed that there is a business advantage for scaling Skilloon internationally because of the low competition in the marketplace for an entrepreneurial learning content-based digital solution aiming to promote high-quality outcome in the students' development process. Instead, identified competition comes from in-person entrepreneurial learning programs organized by schools, universities or third parties (Internal stakeholder 2).

Finnish National Agency for Education

The Finnish National Agency for Education operates under the Ministry of Education and Culture that is the highest educational authority in Finland. The Ministry is responsible for preparing the educational legislations for all the publicly funded education, and its share of the state budget for the Government. In parallel, the Finnish National Agency for Education is responsible for developing early childhood, pre-primary, basic, general and vocational upper secondary and adult education. The Agency also promotes training and lifelong learning as well as internationalization. Its main activities include implementing education policies, preparing the National Core Curricula and requirements for qualifications, and providing services and information for the education sector. During the Digitrainer National Project for High School, the Finnish National Agency for Education funded the Skilloon's development process.

Not a Bad Idea Oy

Not a Bad Idea Oy is a Finnish limited liability company established in 2011 and located in Turku. It is a small company that consists of four members and has revenue category in 0-0.2 million EUR (Fonecta 2011). The company's field of activity is the education and training services, and its main business is consulting on how to develop an entrepreneurial organization. The company's strategy targets to develop HR and the educational sector. For the consulting service, customers can choose from a tailored package designed for a specific challenge or from pre-defined packages including different combinations of related topics, such as building leadership competence and strategy and training on entrepreneurial learning, to name few. Skilloon has been presented to international customers during consulting in entrepreneurial learning. Through Skilloon, Not a Bad Idea Oy became an official member of the Education Finland which is a governmental cluster program supporting the best education providers in their growth on the international market. The program is coordinated by the Finnish National Agency for Education, and by becoming part of it, Skilloon's image has been strengthened, generating better opportunities to international commercialize the platform.

2.3 Value proposition and business features

“As the world evolves rapidly, the knowledge-based learning through subjects is not enough to develop the students’ skills needed to cope with these changes. Students have to think and work in a more entrepreneurial way in the future. They have to be proactive and adaptable to constantly look for solutions. They need to lead a world where they can self-study and work efficiently” (Internal stakeholder 1). This statement reflects the intent of Skilloon’s methodology and activities, which is to provide for students to self-develop meaningful skills to be used in their future lives. Even though this thesis does not target Skilloon’s methodology and activities quality, the understanding of its essence provides a context to analyze the platform’s value proposition and its business features. As such, Skilloon, as a platform, aims to provide a set of qualified features for the educational institutes and its educators to foster their educational system. Skilloon’s promise is that educators are able to better understand each student and consequently become better mentors through their development process by using the tool. Its features also aim to promote the fast performance of educators’ regular tasks, such as creating courses or assignments, and monitoring and evaluating each student’s development process. Moreover, Skilloon promotes guidance for educators on entrepreneurial learning and how to use Skilloon in practice, and generates statistical information to foster the educational institute. Skilloon features are available to registered users only. For this reason, and to respect business confidentiality, screenshots of the platform are not provided in this thesis. Thus, this section aims to describe the platform’s features to create an understanding of Skilloon’s value proposition.

The platform is built by considering desktop and mobile devices. Each member of the educational institution needs to create an account to access the content of Skilloon. While creating a course, an educator can select existing Skilloon’s activities that will be part of it, and whether or not to include ‘assessment questionnaires’. After the course is created, the educator generates an ‘invitation link’ to students or even to another educator. Students also have to sign-up to the platform after having the ‘invitation link’ from the educator. The features behind an educator and a student account differs. The difference is that students are not able to create courses; instead, they can see and ‘execute the course’ (noticing that they can also freely check and conduct any other activity available at Skilloon, not meant for the course). Students can also ask for personal feedback, check their answers and reflect upon their development progress through the ‘student logbook’. In addition to it, they have an overview of their course progress in ‘my Skilloon’. On the other side of the platform, educators have access to ‘guidelines’ on entrepreneurial learning and how to use Skilloon. They can ‘create and edit courses’ and monitor and comment student’s answers from the ‘student logbook’. Finally, educators have also the possibility to check the ‘statistics’ generated by the ‘assessment questionnaires’ to understand each student personally, in order

to enhance the quality of teaching and therefore, the quality of the whole institution. The following are a list and further explanations of the mentioned Skiloon's features.

Educator guideline

As guidelines, Skiloon uses two terms (info material and educator training) that are linked to the same content. By using this feature, educators can find informative materials for developing teaching and counselling, and also to understand the ground of researches that the Skiloon's activities and methodology are built upon. In addition, educators can watch tutorial videos on how to use Skiloon's features more efficiently to provide the desired outcomes to students. Training activities for the educational staff are also available as guidelines; for an example, group activities for educators to develop an institutional entrepreneur culture.

Assessment questionnaires

Skiloon has two types of assessment questionnaires: the self-evaluation and the school-evaluation. The educator can enable and disable only one or both assessment questionnaires while creating a course. Skiloon's methodology advises educators to include the self-evaluation and the school evaluation as a start point of the course and once again as a conclusion. However, the feature is flexible and the choice of whether or not to have it as part of the course is the responsibility of the educator. If the educator decides to include the initial evaluations, students will not be able to open the course activities until they complete them. Following the same logic, the final evaluations will also be blocked to students until they finalized their course activities. The self- and school-evaluations are basically a set of statements in which students answer using a scale of one to four (one means that students fully disagree and four means that they fully agree with the message). Statements are clustered in modules, following the same methodological grouping of the activities. Automatic feedback is sent to the students at the end of each module. The purpose of the automatic feedback is to encourage and guide students through their self-development process. The data provided by students during assessment questionnaires are the source of the qualitative statistics available to educators.

Course creation, edition and execution

The set of activities at Skiloon is grouped in six modules: 1) achieve the trust and respect, 2) get to know yourself, 3) cooperation, 4) learn to set goals, 5) practice success and 6) path to future studies and working life. All these modules are designed with the purpose of developing certain skills to create a positive impact for students during their social-emotional learning experience. When creating or editing a course, educators first choose a course name, create a course description, and set a deadline for students to work on it. Then, educators

can enable or disable the assessment questionnaires. Finally, they select the compulsory activities to be done and inform students what the minimum number of activities they have to conclude in order to end the course is. Students can view and perform as many Skilloon activities as they wish, even if they are not intended for the course. However, completing the compulsory activities and the minimum amount of activities to be freely chosen ensures the completion of the course. A 'star icon' next to the module name guide students to find their compulsory activities. By clicking in the module name, all activities under this module slide down, and students can identify the compulsory ones by a distinct color and a text 'compulsory' placed next to the activity title. In addition, each module has a short introduction of its impact on students' life, and each activity explanation are displayed to students once they open it. Students can answer the activities by using an open field or by uploading files (e.g. PowerPoint, Word and Excel documents). In short, Skilloon's ready-made activities aim to reduce the time that educators typically spend preparing their courses from scratch (Internal stakeholder 2).

My Skilloon (the measurement of success)

In high schools, student success or failure is measured with numbers. To support this way of thinking and keep students motivated to progress, Skilloon generates a numerical award to students after the conclusion of an activity. However, at Skilloon, this punctuation is done through a metaphor, where the number measures how the student's 'balloon of skills' goes high. As an example, by completing one activity, a student flies 20 meters. Together with this numerical figure, students also have an overview of the course progress. The overview allows students to track the total amount of activities performed, the total amount of compulsory activities performed, and the remaining days to complete the course.

Invitation links

After creating a course, educators need to invite students to do the course, or even invite colleagues to follow and edit the course created. These two types of invitations are done through links which are generated by the educator. However, once the course is created, the educator needs to switch from the 'courses overview' page to the 'user overview' page. On this page, educators find a button that directs them to another page 'invitation links overview'. Finally, on this page, educators have access to the links already created and can also generate new ones. For creating a new link, educators give it a title, inform the number of people that will use it and a time frame that the link should be active. Then they choose the type of invitation (whether it is for students or educators) and select the course to be linked. The new link generated goes to the 'invitation links overview' page and the educator can copy it from the list and share with their students or colleagues.

Student logbook (personal portfolio)

Both educators and students have access to student logbook. This feature allows educators to see a list of all students registered for a certain course. By clicking on a student's name, they can check the student's answers of the self-evaluation and the activities performed during the course on the page or, if they prefer, download a 'pdf' file containing that content. On the same page, educators can also comment each student's answer. For students, the logbook allows them to check and review their answers, download the 'pdf' file, and also look at the educator's comments. They can also reply to the comment or write their own comments.

Statistics

Educators have access to two pages of qualitative statistics: the evaluation results and the course progress. The evaluation results page has infographics representing the average of the self-evaluation results and the average of the school-evaluations results. The average is measured from all the students assigned in a specific course, and it is divided by following the grouping logic of the questionnaires, which is aligned with the activities modules: 1) Trust and respect, 2) everyone is special, 3) open collaboration, 4) towards target and new opportunities, 5) pleasure and competence and 6) work-life and entrepreneurship. The competitive advantage of this feature is that it enables educators to quickly recognize their students' weaknesses and strengths to enhance students' personal care and better manage their development during the academic period. Educators can also collect valuable insights on how to grow the whole institution, for instance, brand and capabilities, in order to continually create a positive impact on the students learning experience. In the course progress page, educators have an overview of each student's progress over the course. The figures for this set are related to the total amount of activities performed, the total amount of compulsory activities performed and the final score of self- and school-evaluations.

3 The theoretical ground of value creation

The increasingly wider global distribution, the accessibility to knowledge, information and technology, and facility of outsourcing are decreasing the product life cycle and increasing and volatilizing the customer expectations. Companies are struggling in growing and remaining competitive by investing in creating a better product compared to their competitor. Customers are not buying products because of better features, but they want offerings that suit their specific needs. In order to create a competitive advantage to grow in these markets, companies have to embrace a new mindset and shift their business model from the traditional product business logic to a service business logic (Lusch & Vargo 2014). The biggest shift between these logics is the concept of value that changes the understanding of business thinking and value creation. Because customers are value creators through interaction with the offering, the role of the companies is shifting from being the producer of value (value-in-exchange) to a supporter of value creation (value-in-use). In this way, offering

providers have to focus on creating the resources and meanings to facilitate customers to create value for themselves.

The theoretical framework of this thesis (Figure 2) was created by the researcher to illustrate how the theoretical ground of value creation was applied in this development project. The framework embraces the service business logic mindset, in which Skilloon is seen as a set of resources created to facilitate customers' value creation. These resources, when exchanged with the customer's knowledge and skills, generates benefits for a party. In the service business logic, service is the application of competences, in which value is created by the customer's physical and mental usage process of the organization resources. Therefore, the exchange of service, suggested by Vargo and Lusch (2008) as the drivers of successful business, is the focus of analysis in this research.

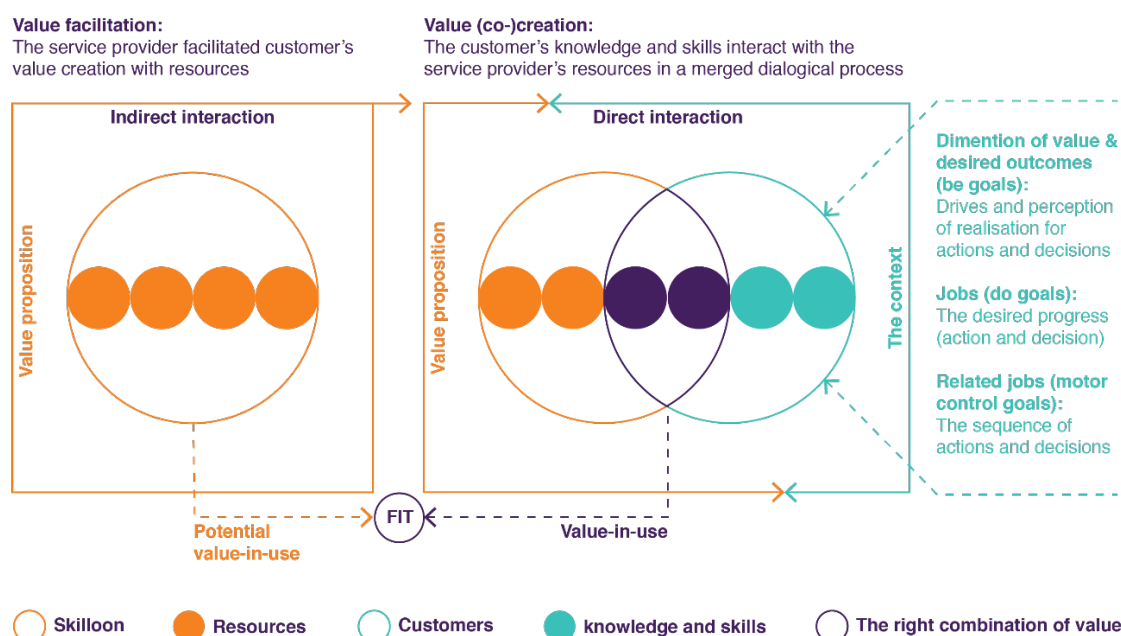


Figure 2: The theoretical framework of the thesis

The exchange of service determines the experience of value-in-use, where the service provider is in charge of creating the right conditions to help customers to create value for themselves. This perspective implies that the service provider only creates potential value proposition in an indirect interaction with customers, which means that value-in-use emerges in a direct interaction process with customers; the users of the potential resources created by the service provider aiming to generate value. If the value is only perceived and evaluated from the customers at the time of consumption, the experience of value-in-use is unique, based on individual aspects and the situations connected to each customer life. This fact

creates the complexity of this research, where the context or the environment in which a customer is located also acts as an influencer of the value creation process.

The concept of Jobs to be done complement the service logic with an action path for helping an organization to understand their customer needs and therefore uncover opportunities to develop the right resources to facilitate customer value creation. A Job is the desired progress customers want to make when, for example, a problem comes up. It describes the actions and decisions customers are trying to perform and complete in a given context. However, the desired outcomes of these actions and decisions are the metrics customers use to measure success to accomplish a job. While jobs are naturally functional, the emotional and social dimensions of value also drive the customers' perception of an action realization and decision making. Consequently, the dimensions of value, whether functional, emotional or social, are also tied to the job in the same way that the desired outcomes are. The importance of understanding the dimensions of value as the ideal self-drivers for the customer perception of a job realization extends the organization focus beyond the mere function of a product or service to precisely target the design of its offerings to fit the real customers' needs. Finally, the 30 elements of value create a framework for unleashing the complexity of organizations in understanding which values to deliver to customers. By identifying the connection and also interconnection that each element and its dimension of value provide, an organization can uncover the right combination of value that its products and services could deliver in order to facilitate customer value creation. The following sections provide a further background of the key concepts that this thesis theoretical framework is built upon.

3.1 From product to service

As a starting point, it is important to highlight the difference between the terms 'services' and 'service'. The term services (in plural form) comes from traditional marketing theory and practice. It refers to the market offering, and its processes aimed at creating value for the services providers' customers (Lindberg-Repo & Dube 2014). Services differs from goods from its four characteristics: intangible, heterogeneous, inseparability and perishable (Wilson et al. 2012). Table 1 summarizes the differences between goods and services and the implications of these characteristics.

GOODS	SERVICES	IMPLICATIONS
Tangible	Intangible	<ul style="list-style-type: none"> -Service cannot be inventoried -Service cannot be easily patented -Service cannot be readily displayed or communicated -Pricing is difficult
Standardized	Heterogeneous	-Service delivery and customer satisfaction depend on employee and customer actions

		<ul style="list-style-type: none"> -Service quality depends on many uncontrollable factors -There is no sure knowledge that the service delivered matches what was planned and promoted
Production (separated from consumption)	Inseparability (simultaneous production and consumption)	<ul style="list-style-type: none"> -Customers participate in and affect the transaction -Customers affect each other -Employees affect the service outcome -Decentralization may be essential -Mass production is difficult
Non-perishable	Perishable	<ul style="list-style-type: none"> -It is difficult to synchronize supply and demand with services -Services cannot be returned or resold

Table 1: Goods versus Services (Wilson et al. 2012)

In contrast, the term service (in singular form) is not restricted to imply market offerings. Instead, it is a new business logic that calls for all company activities to focus on customer value creation (Lindberg-Repo & Dube 2014).

3.2 Service business logic

The traditional business logic came during the nineteenth century when the focus of the economy was on the efficiencies in the production of tangible outcomes (Vargo & Lusch 2004). In this Good-Dominant Logic (GDL), the purpose of the organizations is to produce standard goods and sell them. In other words, standard goods are produced by the organization and exchanged to/with customers. Services, when used in this context, are seen as add-ons to this purpose. However, together with the fact that goods are becoming commodities by the rise of globalization and technology, organizations become more competitive by outsourcing the manufacturing function and concentrating on customizing their offering to fit their customer needs better. To support this market perspective, the focus is shifting away from the thing exchanged to the one on the process of exchange (Vargo & Lusch 2004). It means that organizations should shift from focusing on internal activities and processes toward customer value-creation as the goal of their business activities (Lindberg-Repo & Dube 2014).

The foundational proposition of Service-Dominant Logic (SDL) in business is the fundamental concern with the exchange of service - the application of resources (knowledge and skills) - so that a party benefits (Lusch & Vargo 2014). In this mindset, even when goods are involved, service is what drives the business activities (Vargo & Lusch 2008). On the other hand, Service Logic (SL) identifies service as facilitation of customer value creation. Thus, service is defined as helping the customer to create value by using the organization's and customer's resources (Lindberg-Repo & Dube 2014). These two service-centered views support the new service

business logic. It shifts the concept of value-in-exchange and embedded-value from the traditional business logic by embracing value-in-use and value co-creation. Consequently, instead of organizations being informed to 'market to customers', they are instructed to 'market with customers', as well as other value-creation partners in the organization's value network (Lusch & Vargo 2014).

3.3 The experience of value-in-use

In service business logic, service providers are in charge of creating the right conditions and right resources to facilitate customers to create value for themselves (Lindberg-Repo & Dube 2014). Value emerges through the physical and mental use of these resources, and sometimes even from the possession of them. Thus, the process of usage, whether social, physical, temporal and/or spacial determine the experience of value-in-use (Grönroos & Voima 2012).

Value-in-use implies that only customers, as the users, create value. Furthermore "*value is always uniquely and phenomenologically determined by the customer*" (Lusch & Vargo 2014) through its individual and social accumulated experiences from the past, present and the envisioned future context in the customer's life. While the value is created by the customer's experiences in an accumulating process, the service provider may support the value creation process by producing and delivering resources and processes that represent potential value or expected value-in-use for the customer (Grönroos & Voima 2012). In some cases, the customer invites the service provider to interact in the value creation process as a co-creator of value. From this perspective, co-creation is the function of interaction, and it happens when two or more parties influence each other in physical, virtual or mental contact. Prahalad and Ramaswamy (2004) state that "co-creation of experiences increases the uniqueness of value for customers". It suggests that companies should focus on creating the right environment to offer opportunities for all customers to co-construct their own experiences. In this view, the aspect of personalization is considered (Sandström et al. 2008).

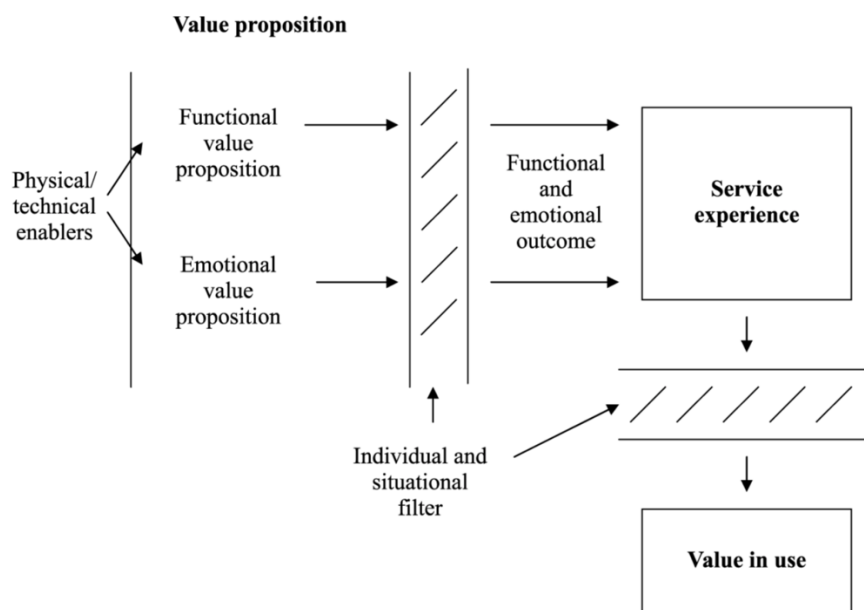


Figure 3: The links between service experience and value in use (Sandström et al. 2008)

Sandström et al. (2008) presented a theoretical framework for analyzing value proposition, suggesting that value-in-use is the evaluation of the service experience (Figure 3). The concept of service experience is linked to what Grönroos & Voima (2012) define as the customer usage of the service provider resources to create value-in-use. It highlights that experience can be provided through either intangible services or tangible products and that the service experience is “the total sum of the functional and emotional outcome dimensions of any kind of service”. The framework is in line with Vargo and Lusch’s (2004) statement that value is only perceived and evaluated from the customers at the time of consumption. Moreover, it also integrates the fact that value-in-use is unique for each customer since individual aspects and situations connected to the user life (e.g. the demographic dimensions, the competence and skills, or the surroundings) influence the creation process (Sandström et al. 2008).

		PROVIDER SPHERE		JOINT SPHERE		CUSTOMER SPHERE	
		Provider	Provider	Customer	Customer - individually	Customer - collectively	
Value	Potential value-in-use		Value-in-use	Value-in-use	Value-in-use	Value-in-use	
	Indirect interaction		Direct interaction		Indirect interaction		
	Value facilitation		Value co-creation	Value co-creation/ Value creation	Independent value creation	Independent value co-creation	

Value creation	The service provider facilitated the customer's value creation with resources/processes that are used and experienced in the customer sphere	The service provider's resources/processes/outcomes interact with the customer's resources/processes in a merged dialogical process	The customer's resources/processes interact with the service provider's resources/processes/outcomes in a merged dialogical process	The customer's resources/processes/outcomes (visible and/or mental) interact with the service provider's resources/processes/outcomes in an independent (individual and/or social) value creation process	Other actors/activities/resources interact with the customer's resources/processes/outcomes (visible and/or mental) in a collective/social value creation process
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Line of visibility/producer control

Table 2: Direct and indirect interactions: defining the roles of the customer and service provider (Grönroos & Voima 2012)

Grönroos & Voima (2012) stress two types of interactions that influence in the value creation process: direct and indirect. They define direct interactions as a process in which customer's and service provider's resources interact through an active and ongoing dialogue process, and indirect interaction as situations which customers use or consume resources that are the output of the service provider's process. The core of interactions is to enable service providers to create opportunities to engage with their customers' experiences and practices, and thus to influence their customers' perception of value. By conceptualizing value creation in a service business logic and understanding how complex the concept of value can be in this context, it is clear that it is necessary to conceptualize how service providers contribute to customer experience and perceptions of value-in-use through direct and indirect interaction. Grönroos & Voima (2012) have defined three value creation spheres and elaborated the customer's and service provider's role in each of them (Table 2). The first part of the value creation process includes only the service provider, while the second part includes both the company and customers interacting with each other. The third part, meanwhile, includes only the customers in their everyday lives (Lindberg-Repo & Dube 2014).

3.4 Jobs to be done and value creation

The starting point of talking about Jobs-to-be-done (JTBD) is to highlight Theodore Levitt's famous quote *"People don't want to buy a quarter-inch drill, they want a quarter-inch hole!"* (Padley 2017). This insight suggests that customers don't want to buy product or services buy its features, they want to use products or services to help them to accomplish a job (Christensen et al. 2005; 2007; 2016b; Ulwick 2016). This notion is the heart of JTBD

theory which explains how to develop products or services that customers are willing to buy (Christensen et al. 2016b). The theory was developed by Clayton M. Christensen at Harvard Business School in complement to the disruptive innovation theory. In the disruption theory, organizations understand which new entrants can pose the most significant threats when they are in danger of being disrupted. Although the JTBD theory emerged as the building block for organizations to predict growth and innovate by understanding what drives customers purchase in a given circumstance.

Christensen et al. (2016b) state that successful innovations help customers to solve problems, and these problems appear when they are eager to make progress even if there is any anxiety or inertia that may prevent them from doing so. Following this logic, JTBD is not about products or services as such, but it is about helping customers achieve their desired progress, so-called 'job' (Christensen et al. 2016a). The definition of 'job' is complex and multifaceted because of its functional aspect which is affected by an emotional and a social dimension to get the 'job' done (Christensen et al. 2005; 2007; 2016b; Ulwick 2016). This perspective suggests that JTBD works as a framework for understanding and identifying all the customer needs to consequently discover hidden opportunities, evaluate the business strategy and value proposition, and align all the company actions in order to systematically create value for customers (Ulwick 2016). The 'Jobs-to-be-Done Needs Framework' (Figure 4), developed by Ulwick (2016) aims to help organizations to realize what kind of needs their customers have to accomplish a job, and more importantly, to organize these needs in order to provide insights for better resources development with higher impact on customer value creation. The framework uses the following terms to enable the aforementioned understanding of the customers' needs: core functional JTBD, desired outcomes, related jobs, emotional and social jobs, consumption chain jobs, and financial desired outcomes.

JOBS-TO-BE-DONE NEEDS FRAMEWORK

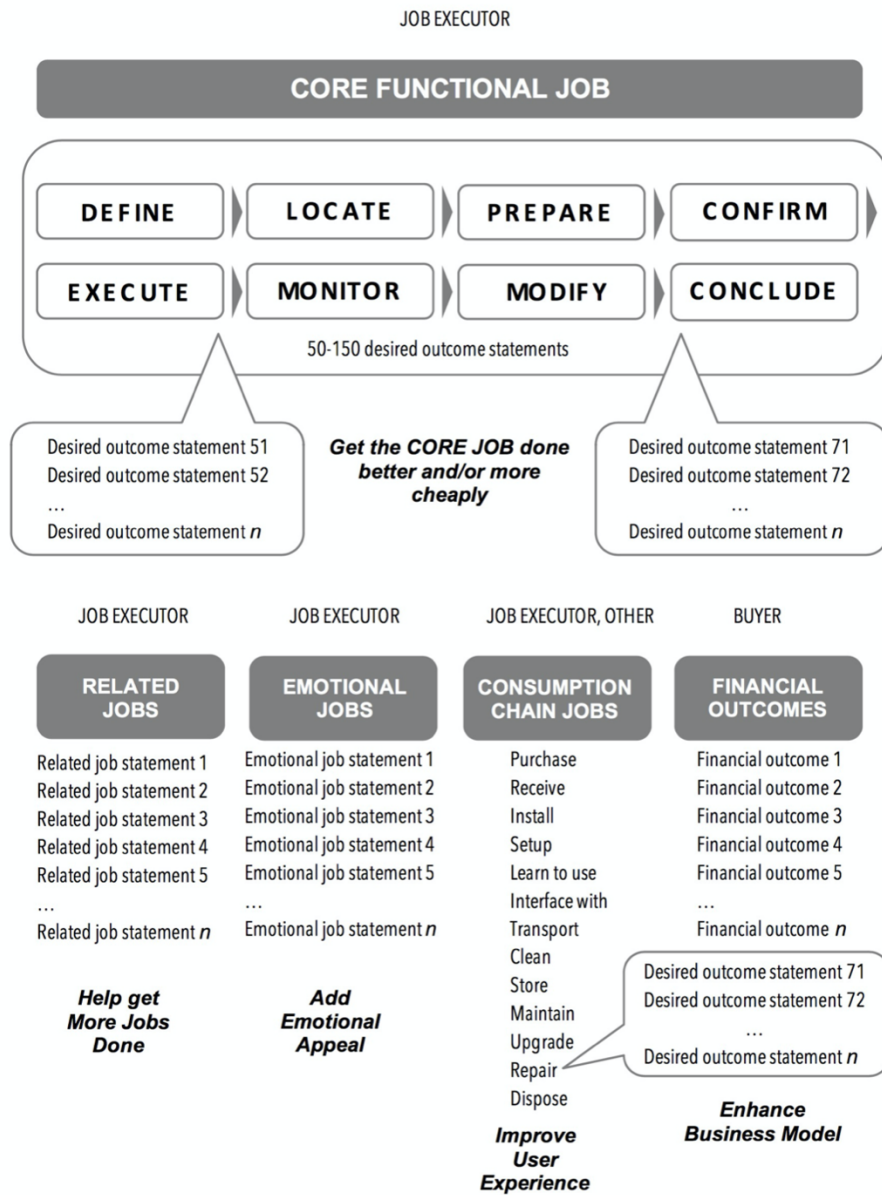


Figure 4: Jobs-to-be-Done Needs Framework (Ulwick 2016)

Core functional JTBD

The core functional job is the anchor to define customers’ needs. It provides a better understanding of the market and how to better serve their customers, and also reveals new jobs to be addressed and/or new market to be targeted. A functional job’s statement has three characteristics. First, it is stable and does not change over time. Second, it has no geographical boundaries, meaning that a job, in one geography, can be leveraged globally. Third, it is solution agnostic, rather than being linked to a predestine type of solution (Ulwick 2016).

Desired outcomes

Desired outcomes are the metric that customers use to measure success and value while executing each job step to get the core functional job done. A desired outcomes' statement is measurable, controllable, actionable, devoid of solutions, and stable over time. It describes how it is possible to get the job step done more quickly, predictably, efficiently and without waste (Ulwick 2016).

Related jobs

Related jobs are important functional jobs that customers want to get done in relation to the core functional job and can lead as a value creator of a platform-level solution (Ulwick 2016).

Emotional and social jobs

Emotional jobs define the feelings that customers desire to have or want to avoid from the core functional JTBD. Social jobs define how they want to be perceived by others. These jobs lead to the creation of the value proposition, effective marketing and product or service design (Ulwick 2016).

Consumption chain jobs

Consumption chain jobs define the life cycle of a product or service and impacts on the customer journey and experience while and after purchase. Each consumption chain job has its own desired outcome statement, which leads to valuable improvements to the solution and competitive differentiation (Ulwick 2016).

Financial desired outcomes

Financial desired outcomes are the financial metrics to make the decision of buying a product or service which lead to the creation of an innovative business model (Ulwick 2016).

JTBD has been seen as a complementary perspective to SDL by making value creation actionable (Bettencourt et al. 2014). Both perspectives shift the focus from what has being produced by the organization to the important role of customers in value creation. While SDL focuses on creating value with customers via the service, JTBD focuses on enabling customers to get their jobs done successfully. Together, service and customer jobs remove the obstacles of an 'output' focus that restricts business from realizing its potential as a contributor to value creation and thus helps organizations envision opportunities beyond current offerings. Bettencourt et al. (2014) introduce four premises to guide organizations to remove the restrictive limits on how marketing can and should contribute to value creation and strategic advantage by following the service lens on value creation and JTBD theory.

Customers always hire service to perform a job

Service is the application of resources for someone's benefit (Lusch et al. 2007), and the aim of a customer's acquisition is always to get a job done with the service that a market offering provides. Thus, the strategic advantage comes by focusing on redefining these resources to help customers to accomplish their jobs better.

Customers are co-creators of value to successfully perform a job

Products or services are not embedded with value; they are enablers of value. Leading that customers are not passive recipients of value, rather they are an active collaborators in value co-creation (Vargo & Lusch 2004) and have a role in the service provision itself. Moreover, value is realized by the customers through the usage of an offering embedded in resources to get a job done successfully. Thus, success depends on an appropriate match of the resources and capabilities of the organization and its service network with the willingness and ability of a particular customer segment to be part of the service operation (Ulwick 2005; Lusch & Webster 2011).

All organizations and individuals are involved with integration of resources to perform a job completely

Vargo & Lusch (2004) state that there are two types of resources: operand and operant. Operand resources are, in simple terms physical and have to be acted upon to be used. In comparison, operant resources are intangible and potentially can create beneficial effects on other resources. The integration of resources goes beyond the organization's inputs and outputs to include external partners and customers as well. It is critical for each stakeholder understands the role to be played in helping someone get a job done (Bettencourt et al. 2014).

Value depends on the circumstances in which a job is performed

Customers have unique access to market and personal knowledge and skills (Bettencourt et al. 2014). Considering, that value creation is realized when there is an integration of these customers unique set of resources through the service provided to get a job done successfully, it is understandable that the context in which a job is done alters a customer's value priorities regardless of any change in resources.

3.5 The dimensions and elements of value

From Ulwick (2016) 'Jobs-to-be-Done Needs Framework' description is evident that each job that customers need or want to do has its own dimensions of value. Whether it is functional, emotional or social, the dimensions of value define the feelings customers have while accomplishing a job. Although jobs describe the tasks customer are trying to perform and complete, the problems they are trying to solve, or the needs they are trying to satisfy, Osterwalder et al. (2014) agree that the job itself does not translate the customer perspective for the realization process of that job. This perception justifies the importance of attaching the dimension of value when investigating a job and it is aligned with the notion of jobs as progress by Christensen et al. (2016a) and Klement (2018). The understanding of these dimensions precisely targets the design of a product or a service to the customer jobs (Silverstein, Samuel & DeCarlo 2012).

Powers Motivational Hierarchy

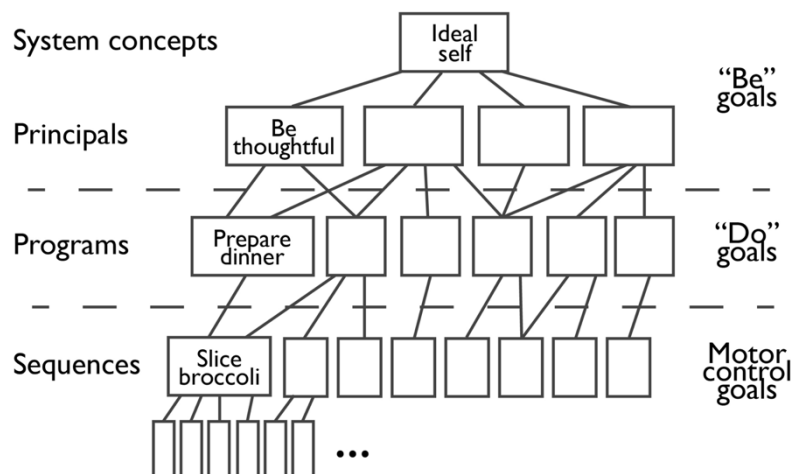


Figure 5: The Powers motivational hierarchy of goals (Carver 2001)

Figure 5 represents the relationship between things done and the reasons they are done. The idea behind the hierarch of goals is that a person's ideal self is a synthesis of principles (be goals) that drive all of that person's actions and decisions (do goals) which are then fulfilled by task sequences (motor control goals) (Klement 2018). The framework suggests that a 'do goal' does not need to be successfully performed to fulfil a 'be goal', and also that being able to accomplish a 'do or motor control goal' does not ensure that a 'be goal' is satisfied. In the illustrative example where a person's goal is to be thoughtful for the parents and chooses to prepare a dinner to fulfil this goal, the fulfilment of being thoughtful fails even if a person cooks a brilliant dinner, but the parents would have preferred going to a restaurant. In the

same way, the fulfilment of being thoughtful could succeed even without preparing a dinner if the parents find another way to show how much they think that the person is being thoughtful anyway (Klement 2018). This perceptiveness helps the understanding of how to apply JTBD for design innovations and emphasize the need for a service dominant business logic. It makes clear the importance of understanding the dimensions of value as the ideal self-drivers for the customer perception of a job realization, extending beyond the mere function dimension of an offering (Padley 2017).

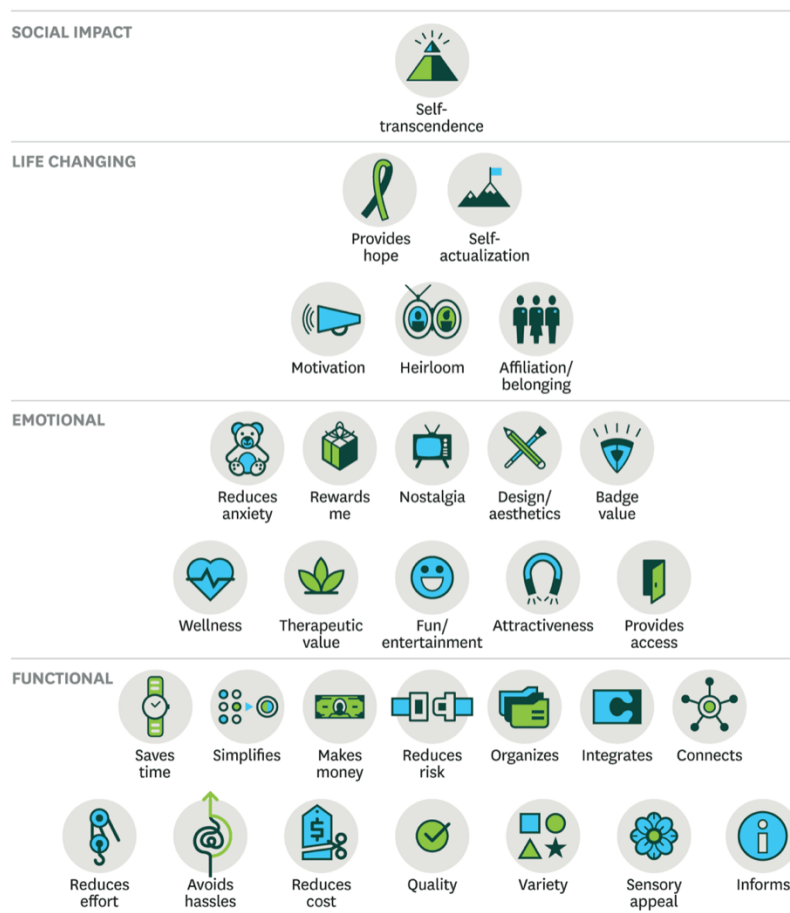


Figure 6: The elements of value (Almqvist et al. 2016)

Almqvist et al. (2016) point out that "*universal building blocks of value*" exist, suggesting a more practice-oriented approach to releasing the complexity of defining what customers truly value. After 30 years of quantitative and qualitative customer studies and observations, the model was realized. The model consists of 30 different elements, grouped into four dimensions of value: functional, emotional, life-changing and social impact (Figure 6). The relationship of this grouping with the functional and emotional value propositions proposed by Sandström et al. (2008) and the functional, emotional and social dimensions of jobs to be

done (Christensen et al. 2016b; Silverstein et al. 2012; Ulwick 2016) empowers the connection of customers jobs and value creation (Padley 2017).

By using the model, organizations are able to better understand their customer's priorities because of the descriptive connection and also interconnection that each element and its category provide. For example, if something saves time, it offers functional value and this functional value may also provide an emotional benefit of reducing the anxiety of the customer to have more time to do something else they desire. This suggests that an organization can uncover the right combination of value that its products and services could deliver in order to facilitate customer value creation. It is believed that when an organization find the right balance of value, customer loyalty is strengthened, and revenue grows (Almqvist et al. 2016).

4 Development process and methods

There is not only one way to design a service, nor there is not only one order in which service design tools can be used. Each design project is different and requires its own set of tools suitable for gathering the desired needs in a given context. Thus, the design of the process itself is the initial step of a service design process (Stickdorn & Schneider 2011). In this chapter, the process and methods used in this study are presented. The process and methods were chosen to understand Skilloon as a business, its potential value proposition, and the values customers seek from the platform. Thus, identify opportunities for Skilloon's further development to facilitate customer value creation. The resulting findings are detailed in chapter 5 - Introducing the customer values, and chapter 6 - Application to Skilloon.

4.1 The design processes

Although service design process is not a linear process (Moritz 2005), it usually has a certain structure that guides designers to diverge and converge their thinking (Design Council 2005; Stickdorn & Schneider 2011). The structure includes design phases that go through the understanding of the big picture (including the customers' needs and the service provider goals), the recognition of the real problem and the development of potential solutions to it. Next is the validation phase, when the concept is tested through a prototype in order to receive feedback, notice mistakes, and improve the concept to meet customer needs better. Only in the last phase, the solution goes to implementation.

The institutionally established and well-accepted Double diamond design process (Figure 7), developed by the British Design Council in 2005, provides a helpful illustration of the divergent and convergent stages. In this model, the design phases are called discover, define, develop and deliver (Design Council 2005). Although design processes are demonstrated differently, they usually follow a similar logic (Design Council 2005; Stickdorn & Schneider 2011). For example, the process suggested by Stickdorn & Schneider (2011) has distinct terms

for its design phases: exploration, creation, reflection, and implementation. Although the naming practice is based on the Double diamond approach, this process shifts the focus from diverging and converging thinking to the interactivity of its phases, which can loop and overlap (Rainio 2014). IDEO's human-centered design process encompasses both divergent and convergent thinking as well as the interactivity of its three main phases: inspiration, ideation and implementation. IDEO.org (2015) agrees that all design process is iterative by nature because each project has its own contours and character. As such, the common goal of each design process is to provide a framework to develop a new service or improve an existing one, where it is possible to understand the real problems that customers are facing, generate ideas to support value creation and learn from the mistakes as early in the process as possible so that the final solution is more likely to success.

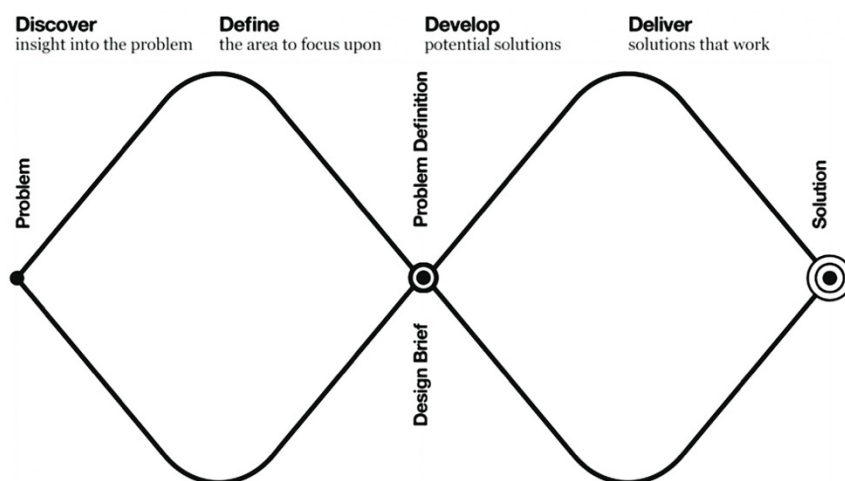


Figure 7: Double diamond design process (Design Council 2005)

Because the objective of this development project is to improve an existing service, and not to introduce a new solution to the market, the design process applied in this thesis has been adapted. The efficient representation of the divergent and convergent thinking of the Double diamond is adopted; however, the design phases are illustrated diverse to follow the characteristics of the project (Figure 8). IDEO.org (2015) states that a human-centered design process always starts from the understanding of the needs, dreams and behaviors of the people that the service provided is meant for. And so, business viability and technical feasibility are analyzed at the end of the process. However, the design process for a particular project depends on the circumstances of the project (Padley 2017). Thus, to improve an existing service proposition, the understanding of the current state of the business (for example, its value proposition, vision and limitations) is essential for generating sustainable or resilient changes (Polaine, Løvlie & Reason, 2013). In order to contextualize, without losing the design-driven nature of the design process used in this thesis, the first divergent and convergent stages are duplicated in two diamonds. The first diamond is related

to the internal stakeholders' study (section 4.2), and the second diamond is related to the customers' study (section 4.3). The following diamond aims to identify the gaps between the findings of these two previous studies in order to develop opportunities for improvements (section 4.6).

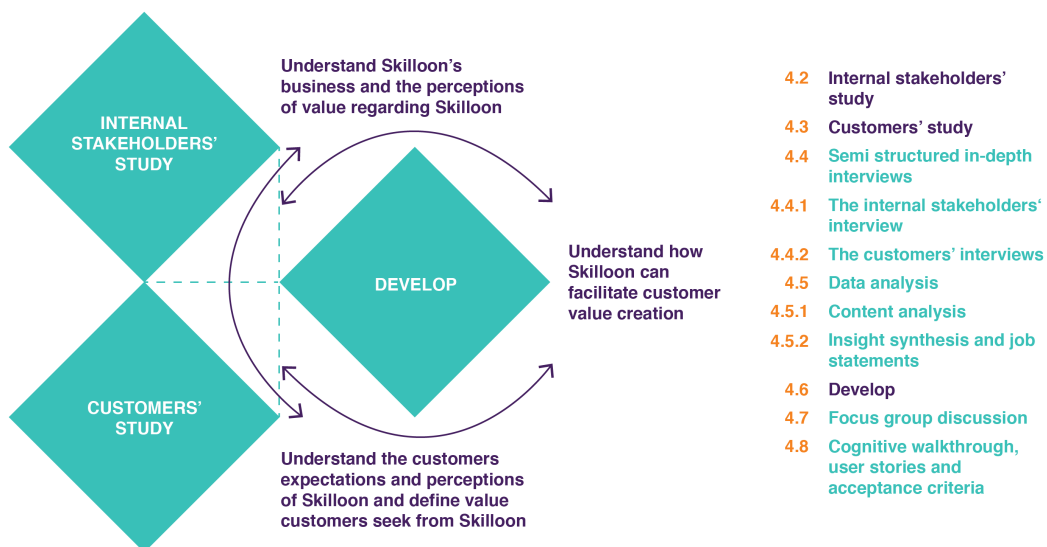


Figure 8: The design process and related sections for each phase and method

The vertical position of the first two diamonds highlights the interactivity of the process in the context of this development project, where the divergent and convergent stages from both diamonds were implemented in parallel. To be able to gather fresh and relevant information from the participants, the customers' study was conducted during the sprint 2018, due to the end period of Skilloon piloting. This timing also overlapped with the end of the academic year and summer vacations, meaning that considerations were made to support the participants' tight schedules. Second, the different geographic location between the researcher and the studies participants increased the need to use methods and tools that support remote collaboration and qualitative data collection. The following sections describe each design phase of the design process and the methods used. The structure of the sections is presented in the order that the design process took place in practice.

4.2 Internal stakeholders' study

INTERNAL STAKEHOLDERS' STUDY	
Objective	- Understand Skilloon's business and the perceptions of value regarding Skilloon.
Data input	- Notes and records (3 internal stakeholder in-depth interviews) - Notes (meetings, phone calls and e-mails)

Methods and tools	- In-depth interviews - Content Analysis - Insight synthesis
Output	- Potential value proposition - Key Skilloon business topics

Table 3: Internal stakeholders' study

Most of the service design processes start with the understanding of the problem, where the researcher first gathers insights on the problem (divergent stage) and then identifies the areas to focus on (convergent stage). Both the internal stakeholders' study and the customers' study (described in section 4.3) follow this logic and are divided into divergent and convergent stages. In the service and customer dominant logics, service providers are seen as the source of value by nature (Heinonen, Strandvik & Voima 2013) and aim to include the customer at the center of the design process. However, Stickdorn & Schneider (2011) agree that a project rarely starts with the customer. Almquist et al. (2016) also support this view by saying that organization must constantly investigate their role in value creation and refer to it as the 'organizational dimension'. These notions suggest the value of including internal stakeholders early in the design process. In this development project, the internal stakeholders' study contributed to getting to know the development team, to understand Skilloon's business, its potential value proposition, and its resources available for starting to detect design possibilities and limitations. The data analyzed during this study consisted of notes and recordings from individual interviews and also notes from internal meetings, emails and phone calls. As an output of the data analysis, a table with the potential value proposition was prepared, and key Skilloon business topics were summarized. These data were used to support the customers' study and also to ensure the visibility of opportunities identified during the develop phase. Table 3 provides an overview of the objectives, the data input, the methods and tools, and the output of the internal stakeholders' study.

4.3 Customers' study

CUSTOMER STUDY	
Objective	- Understand the customers' expectations and perceptions of Skilloon and define value customers seek from Skilloon.
Data input	- Notes and records (4 teachers' in-depth interviews) - Notes (Iran educators' seminar) - Notes and records (2 students' in-depth interviews) - End-course feedbacks (5 students)
Methods and tools	- In-depth interviews - Content Analysis - Insight synthesis
Output	- Context of use - Job statements and related desired outcomes

Table 4: Customers' study

As mentioned in the previous section, the customers' study was also divided into divergent and convergent stages. The objective of the divergent stage was to understand the customers' expectations and perceptions of Skilloon, while the convergent stage aimed to answer the first research question: what values customers seek from Skilloon? Customers' interviews were the main source of data input for this study. However, notes from the lectures that were part of a seminar held for educators from Iran were also included in this study. The seminar was organized by Not a bad idea Oy, Finnish National Agency for Education, Faculty of education, University of Turku, and Mynämäki and Lieto municipalities. The program consisted of two days of training. The first day had lectures about Finnish education and entrepreneurship. On this day, Skilloon was used to illustrate how to implement entrepreneurial learning in practice. The second day consisted of a visit to Lieto high school and a lecture on how the institution has used Skilloon. Another source of data input was the feedback that students gave to their teacher after attending a Skilloon course. This feedback was collected by the teacher in a Word document and sent to the researcher by email. As an output of this study, the context of use Skilloon was identified and the customers' job statements and their related desired outcomes were realized. Table 4 provides an overview of the objectives, data input, methods and tools used, and the output of the customers' study.

4.4 Semi structured in-depth interviews

Service design uses a wide range of methods and tools from various disciplines to understand and explore the behavior and mentality of human beings. As an example, the ethnographic approach from social science is the most common method used in service design (Stickdorn & Schneider, 2011). Portugal (2013) supports the use of interviews to identify customer needs to be designed, validate assumptions about a potential solution or even to redesign an existing product on the market. Another advantage of this method is that it helps to create a shared vision within the organization. This research follows these viewpoints and has adopted the interview technique as the main source of the data input for this development project.

Portugal (2013) also highlights the importance of preparing for the customers' interviews and points out that the first interviews to be conducted should be with internal stakeholders. Stickdorn & Schneider (2011) support this way of thinking and state that understanding the service provider's culture and goals is the first task designers should have. Thus, the purpose of conducting these initial interviews is to clarify the research objectives and to know the case organizations and the offer developed. With this knowledge in mind, the researcher can strengthen its performance during the customers' interview. In order to get deeper in objectives and establish collaboration, Portugal (2013) proposes the following topics to be

discussed during internal stakeholders' interviews:

- History of the organization and the research topic
- Current beliefs about their customer (or the users) and their proposed solution
- Organizational or other barriers to be mindful of
- Business objectives for the project and specific questions the research should answer
- Concerns or uncertainty around the methodology

The importance of having internal stakeholders' interviews as an outset of the project is also highlighted in the Learn methodology, where the first step is to summarize the hypothesis to engage in customer discovery. However, in this research, the understanding of the service provider's vision and capabilities aims to also support the develop phase. To fulfil this thinking, the internal stakeholders' interviews were divided into two parts. The objective of the first part was to understand the Skilloon's business, while the objective of the second part was to address the perception of internal stakeholders regarding Skilloon value proposition. This division made the categorization of the results of this study better applied to support the client study and the development phase.

Mandriko (2017) suggests using the Value proposition design structure to organize interviews and the capture of notes. The Value proposition design by Osterwalder et al. (2014), allows to evaluate the 'fit' between the values that the provider is intending to create and the values that the customers are expecting from the offering. The Value proposition canvas is the tool used to transform the pile of interview notes into a coherent picture aiming to describes a customer segment priority and therefore support the ideation of opportunities (Mandriko 2017; Osterwalder et al. 2014). This tool has two sides. The first side is called 'customer profile', where a specific customer segment is described by the customer jobs, pains, and gains. The second side is called 'value map', were the service features of a specific value proposition is described by its products and services, pain relievers, and gain creators (Osterwalder et al. 2014). The following is a short introduction of the terms used for both sides of the Value proposition canvas.

Customer jobs

Jobs describe what customers are trying to get done in their work or in their life, dependent on a specific context in which they are performed. Customers' jobs are divided into three dimensions of value. Functional jobs are related to tasks customers are trying to perform or complete, or a problem they are trying to solve. Social jobs describe how customers want to be perceived by others (e.g. be perceived as a professional). Emotional jobs are related to a specific emotional state (e.g. feeling good or secure).

Customer pains

Pains describe anything that annoys or prevents customers from doing a job. It consists of any undesired outcomes, such as problems, undesired characteristics, obstacles or risks of a potential undesired outcome. Pains can be functional, social, emotional or even ancillary.

Customer gains

Gains describe the desired outcomes and benefits customers want. They are the customers' requirements, expectations, or wishes for job accomplishment. Gains consist, for example, of functional utility, social gains, positive emotions, cost savings or anything else that positively surprises customers.

Products and services

As the name suggests, products and services are all the physical or intangible goods that help customers complete their jobs or meet their needs. Products and services only create value in relation to a specific customer segment, along with jobs, pains and gains.

Pain relievers

Pain relievers describe how exactly the products and services alleviate specific customer pains.

Gain creators

Gain creators describe how the products and services identified create customer gains.

The logical structure of Value proposition design that aims to identify gaps between delivered value and expected value is closely aligned with the focus of this research. For that reason, the interview guides for the interviews were developed by following this structure. However, the Value proposition canvas itself was not adopted as a visualization tool because this approach was not effective in organizing a large amount of data collected during interviews and also did not support online collaboration. Yet, it provided a logical structure for the interview guides and the data analyzed. Ulwick (2016) states that interview guides are an effective preparation tool and its practices provide a clear plan and a path to follow during the interview itself. In this thesis, having prepared interview guides avoided the researcher sense of 'loss' and ensured that all major topics were addressed during the interviews. Portigal (2013) agrees that interview guides should lay out a clear plan, but also states that a high degree of a structure during an interview reinforces the chance that the interviewees answer to only specific expectations of the interviewer. However, highly unstructured interviews aim to address a broad theme and interviews are more likely to take unexpected

turns (Alvesson 2011). For this research, semi-structure interviews provided a space for a structured plan and guidelines, but also supported the flexibility mentioned by Portugal (2013), meaning that during the interviews, the topics were covered, but relatively broadly and flexibly (Alvesson 2011). The following two subsections clarify how the interview guide structure was developed, how participants were selected, and how interviews were conducted for each specific study.

4.4.1 The internal stakeholders' interviews

INTERVIEW	INSTITUTION	ROLE	SCHEDULE	DURATION	LOCATION
Internal Stakeholder 1	Not a bad Idea Oy	Founder and entrepreneurship specialist. Skilloon's project owner	20.04.2018	1:30	Go to meeting
Internal Stakeholder 2	Not a bad Idea Oy (partner)	Sales consultant and the salesperson of Skilloon in Brazil	26.04.2018	1:30	Skype
Internal Stakeholder 3	Mynämäki municipality	Digitreenari national project development and marketing. Project coordinator of Skilloon.	03.05.2018	1:05	Skype

Table 5: The internal stakeholders' interviews

As introduced in the previous section, the internal stakeholders' interviews were divided into two parts to fulfill the objectives of the study. The first part aims to understand the Skilloon's business, while the second part aims to address their perception regarding Skilloon value proposition. The interview guide developed for this study (Appendix 1) also followed this division. The first part was named 'Skilloon overview', and it was divided into 3 sections. The first section included questions to provide an overview of the participant and its roles related to Skilloon. The second section included questions to uncover information about the business, such as their customer segments, market, competitors and price model. Finally, the third section included questions in order to support the 'value map' logic of the Value proposition design (service features, pain relievers and gain creators). The second part was named as 'customer overview', and it was structured by following the 'customer profile' logic of the value proposition design (customers jobs, pains and gains).

Table 5 represents an overview of these interviews. In total, three internal stakeholders involved in the Skilloon development and sales process were interviewed. The estimated duration for each interview was 1:30 hours. All participants chose to have an online interview due to different geographical locations and personal schedules. All interviews were voice recorder and notes were made by the researcher. Participants were free to share the screen

in order to provide a better explanation of their views. However, this rarely happened, and no screen recording was performed. After the interviews, the recordings were listened to and all key insights were transcribed. The key insights document was uploaded in a shared folder placed on Google Drive, where the stakeholders of this project have the right to access.

4.4.2 The customers' interviews

INTERVIEW	INSTITUTION	ROLE	SCHEDULE	DURATION	LOCATION
Educator 1	Tallinn University of Technology	Work in the business administration department. Background in teaching and entrepreneurship.	11.05.2018	1:09	Skype
Educator 2	Turun Normaalikoulu	Guide and counsellor teacher. Has experience in lower secondary school.	15.05.2018	0:38	Skype
Educator 3	University of Jyväskylä	Teacher of future primary school teachers and technical crafts.	18.05.2018	1:26	Skype
Educator 4	Lieto High School Mynämäki High School	Teacher in high school for comparative religion, psychology and philosophy. Student counsellor.	17.08.2018	1:00	Liedon lukio. (Opintie 1, Lieto)
Student 1	University of Jyväskylä	Doctor student on adult education. She is from Hong Kong	25.05.2018	1:00	Skype
Student 2	University of Jyväskylä	BA student on early child education. She is from Greece and went to Finland as a Erasmus student.	27.05.2018	1:00	Facebook video call

Table 6: The customers' interviews

In parallel with internal stakeholder interviews, the customer interview guides were constantly revised to include assumptions that emerged during the internal stakeholder interviews to be validated with customers. The interview guide was also divided into two parts, following the Value proposition design logic: the customer profile (customer overview) and the value map (Skilloon overview). The objective of the first part was to understand the participant's environment and to uncover their perception of education in general and in entrepreneurship. The second part was designed to determine the strengths and weakness of the Skilloon use in order to find gaps between its current value proposition and the real need of users. As mentioned earlier, the target customer segment in this research context is university educators, however students were also included to create a holistic overview of the

impact that Skilloon has on all its users. Ojasalo (2015) supports this approach by stating that in order to respond to today's rapid changes, the service provider must create learning experiences that meet the needs of students and educators. As such, two interview guides were created (Appendix 2 and appendix 3) to address minor differences between the student and educator environment. They also supported the researcher by grouping the assumptions from the previous study into the right customer segment interview guide.

Stickdorn & Schneider (2011) agree that participants are more likely to convey their experiences and personal context in more detail with interviews conducted in the comfort of their own environment. By considering this thinking, participants were free to choose the location and time for the interviews. However, due to scheduling challenges, most participants chose online tools as a source of communication, and only one interview was conducted at the participant's workplace, as illustrated in Table 6. The main criterion for the selection of participants was individuals involved in the Skilloon piloting. In total, the participants consisted of three university educators, one high school educator, and two university students. The idea of including this specific participant from the high school was to gather insights on how Skilloon was successfully implemented in that school. While conducting the interviews, the researcher took notes and the participants' voices were recorded. Participants were sometimes asked to share their screens to show a specific feature and possible material or documents. As in the previous study, recordings were listened and key insights transcribed. In this study, two documents were created: one with the educators' key insights and another with the students' key insights. The documents were uploaded in the same folder on Google Drive and shared with all stakeholders of this project.

4.5 Data analysis

In the broadest sense, qualitative research is the way of approaching the empirical world (Taylor et al. 2015). It produces descriptive data that refer to people's own written or spoken words and observable behavior. Thus, it is primarily exploration research that examines the why and how of decision making and not just the what, where, when, or who. Qualitative data analysis transforms data into findings and there is no single formula for that transformation, only guidance (Patton 2002). However, the challenge of the qualitative data analysis lies in making sense of the massive amount of data collected. This process involves reducing the volume of raw information, shifting trivial from significance, identifying significant patterns and constructing a framework for communicating the essence of what the data reveal (Patton 2002). The following subsections introduce the data analysis process used in both internal stakeholders' and customers' studies.

4.5.1 Content analysis

When working with the qualitative data, it is important to read the data in detail to identify strong themes and/or the essence of what is revealed (Crouch & Pearce 2013). Content analysis is an approach for data reduction and sense-making of all the material to identify core meanings (Patton 2002; Creswell 2011). In the content analysis process, phrases or words from text data are extracted into relevant categories in order to contextualize the vast amount of information (Kvale 1996; Creswell 2011). The approach can be applied to either qualitative or quantitative data. However, the principle of coding patterns in a countable way is considering by Muratovski (2015) as a quantitative method. Coding can be done inductively or deductively. In the inductive content analysis, categories are derived from the data itself, while in the deductive content analysis, categories are formed on the basis of previous knowledge or an existing framework (Elo & Kyngäs 2008; Patton 2002).

In this design process, content analysis was the starting point for data reduction. The analysis was done on Google Docs, using the files that contained the key insights for the interviews conducted by internal stakeholders, educators and students. First, all insights were reviewed and deductively coded for each participant group. The category used followed the same structure of the interview guide: customer jobs, customer pains, customer gains, service features, pain relievers and gain creators. The second step was to review the insights under each category and re-organize them in a sense to understand the patterns. Also, in this step, statements were created to convey the main message of all related insights behind a category. Finally, dimensions of value were attached to each statement created to extend beyond the mere functional perspective and shifts the logic in business from good to service. Table 7 illustrates one example of the content analysis done for the customers' study. The statement 'Know the students who need feedback: there is no time and the need to give feedback for all students' was realized out of seven key insights from educators and nine key insights from students. In addition, this statement belongs to the category 'customer job' and has a functional dimension of value. In this research, content analysis was fundamental to decrease the amount of data collected during the internal stakeholders and customers studies, without losing their core meaning. This allowed better visualization of manageable information for the researcher to start creating connections.

CUSTOMERS' STUDY	
Category: Customer job	
Statement	Dimension of value
Know the students who need feedback: there is no time and the need to give feedback for all students	Functional
Educators' key insights	Source (Recordings)

Trends that say that teachers have to have fewer students will give teachers the possibility to pay more personal attention to students and use different methods	(Educator 1)
A functional problem to solve every year is how to get more hour to my week because there are over 200 students and only one student counsellor	(Educator 4)
She wrote a summary about some of the student's answers and sent it to all students	(Educator 4)
Skilloon is only for personal development and she cannot evaluate it. In that case more relevant to the students	(Educator 3)
Did not give feedback to students through Skilloon. Used more the exercises and not the digital tool itself	(Educator 2)
Skilloon is for individuals. Students can use it by themselves and learn things for themselves	(Educator 1)
She wrote feedbacks to some students, not all, because she had 92 students doing 12 tasks each so not time real feedback to all (she picked the most important ones to comment and to the others just wrote 'please, continue')	(Educator 4)
Students' key insights	Source (Recordings)
She measures her own academic performance through teachers' feedback on what is good and what they think about it. Grades do not say much for her	(Student 1)
She always asks when she doesn't know something	(Student 2)
She does self-reflections in 2 parts: one for her studies and the other for personal things with her psychologist	(Student 2)
If a teacher evaluates a learning diary in Greece, they look only at the mistakes because of a lack of experience of giving student feedback.	(Student 2)
While doing an activity (that was something that she already knew, but wanted to reflect on), she just wrote something to herself because she knew that nobody would read or give feedback	(Student 1)
She took Skilloon just as a homework to be done and it did not help her on self-development a lot, because she did not have any personal feedback from the mentors	(Student 1)
Having personal feedback could enhance her personal motivation or expectation in use Skilloon	(Student 1)
It would be good if the facilitator will have more personal coaching. All the input is quite personal and unique, and a computer cannot generate feedback for each person as a measurement. It will be more effective if someone would read her goals, her paths	(Student 1)
As an Erasmus student, she did not miss the feedback from the teacher because the teacher don't know her as a student in the Greece context and in her field	(Student 2)

Table 7: Example of content analysis for the customers' study

Key insights from the internal stakeholders' interview, that did not match the Value proposition design categorization, were left out of this previously mentioned analysis process. Instead, they were inductively coded, resulting in six categories organically merged: customer segments, the context of use Skilloon, business vision and price model, competition, business limitations and ideas for improvements. These categories were aligned with the objective of

understanding Skilloon business and the key insights under each of these categories were summarized in the form of key Skilloon business topics. This knowledge was used to support decision making throughout the design process.

4.5.2 Insight synthesis and job statements

Qualitative data aims for exploration, and examines the why and how of people's decision making. After refining key insights into statements and realizing the related dimensions of value for each statement, insight synthesis was used as a method to make sense of the data. Insight synthesis is about identifying and interpreting the data and its relationships to force the introduction of a credible story of why the elements are related (Kolko 2010). This principle is aligned with the JTBD theory that also aims at building connections out of the data. The goal of this practice is to obtain a picture of the customers' needs that can be clearly communicated and easily translated into opportunities for value creation.

Christensen et al. (2007) agree that stories are based on the situation customers hire an offering and highlight the importance of understanding their environment in order to realize their needs. Following this view, all the statements from the content analysis were printed and cut on cards with distinct color for each category. For example, all statements under the 'customer jobs' category were printed in a blue card, while the ones under the 'customer gains' were printed in an orange card. This approach is aligned with the insight sorting technique suggested by Kumar (2012), and the recognition of the customer situations proposed by Christensen et al. (2007). The insight synthesis began with the internal stakeholders' statements and then with the customers' statements. After patterns and connections were revealed with the sorting, job statements were used to describe them.

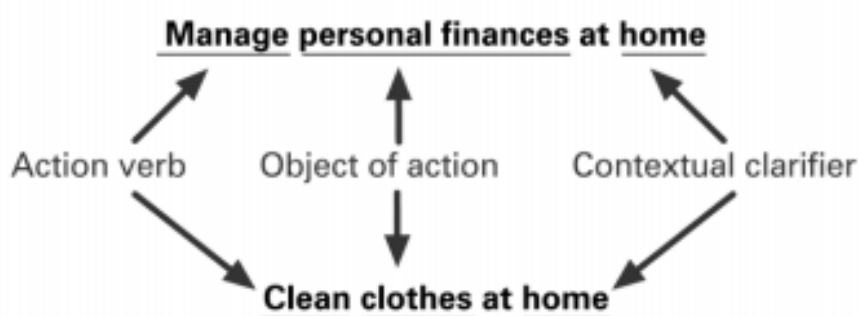


Figure 9: Structure of a job statement (Silverstein, Samuel & DeCarlo 2012)

Job statements reflect the progress that customers want to make and have hired Skilloon to help them. It consists of the action verb, the object of the action and the clarification of the context in which the job is performed (Silverstein et al. 2012; Figure 9). The insight synthesis resulted in six customer jobs: 1) have a purpose to use Skilloon, 2) have an intuitive flow at

Skiloon, 3) adapt Skiloon for specific needs, 4) improve the students learning process, 5) provide concrete outcomes to students, and 6) have the possibility of prosperity. For each customer job, desired outcomes and its dimension of value were also identified. The combination of jobs, desired outcomes and dimension of value provides a deeper understanding of the values customers seeks from an offering, encourages the focus on building the right resources to support value creation (Bettencourt & Ulwick 2008; Padley 2017). The customers' jobs and desired outcomes realized out of this analysis process are further explained in chapter 5 - Introducing the customer values, which aims to answer the first research question of this study: What values customers seek from Skiloon?

4.6 Develop

DEVELOP	
Objective	- Understand how Skiloon can facilitate customer value creation
Data input	- All data output from previous phases - Recording from the focus group
Methods and tools	- Focus group discussion - Cognitive walkthrough, user stories and acceptance criteria
Output	- Backlog items

Table 8: Develop

In the Double diamond design process, similar to most design processes, the last stage of the process is divided into develop and deliver design phases. While develop aims to identify a potential solution, deliver aims to undermine the solutions that work. However, the scope of this development process does not include tangible assets to be tested, instead, it aims to explore how a better understanding of the students' expectations of value can contribute to further design and the development of Skiloon. As such, the objective of this phase is to identify opportunities for the Skiloon development team to focus on in order to build the right resources to facilitate customer value creation. The source of data in this phase consists of the data output from the internal stakeholders' and the customers' studies. These data were presented for a focus group, with the purpose of helping them to understand the results of the previous studies and together start to discover opportunities (Polaine, Løvlie, Reason 2013). The discussion brought understanding on which customers' values are in line with Skiloon's vision, strategy and methodology. The insights from the discussion were further investigated by the researcher by using a cognitive walkthrough technique. This method allowed the selected customers' jobs and their desired outcomes to be investigated in practice in order to find the gaps from the existing Skiloon's features in relation to the expectations that customers have from them. Table 8 is an overview of the objective, the data input, and the methods and tools used in this study. As an output, backlog items were

realized to support Skilloon's development team to build the right combination of resources to facilitate customer value creation.

4.7 Focus group discussion

The focus group discussion took place in Turku, Finland, lasting two hours. The participants consisted of three internal stakeholders and two educators. The milestones of this collaborative approach were first to create a common understanding of what are the values customers seek from Skilloon, and second to understand how Skilloon might facilitate customer value creation by considering Skilloon's vision, strategy, methodology and value proposition. Stickdorn & Schneider (2011) state that ideation exercises provide prompts to the imagination and stimulate reflection during a group discussion. In order to inspire the participants and more effectively reach the second milestone, the data output from the internal stakeholders' and customers' interviews were exposed to the participants. After they became familiar with the data, a group discussion about opportunities began. The topics under discussion were spontaneously guided by the participants. However, the researcher took the facilitator role of directing the focus of the conversation on the risks, challenges and limitations of an opportunity identified. The facilitator role during the discussion was important to ensure that it generated the expected results of this practice at the right time. The focus group discussion brought a set of considerations regarding the opportunities identified to create customer value. It also completely excluded some possible opportunities because they were not aligned with Skilloon's vision, strategy or methodology.

For example, in the process of accomplishing the job 'adapt Skilloon for specific needs', educators expect to 'integrate existing activities at the platform to help them to follow up related tasks'. However, during the focus group discussion, it was realized that this desired outcome is not aligned with the Skilloon vision and methodology. Skilloon's vision is strongly based on its own research-proven activities and the impact they have on the students' self-grown. The argument was based on two facts: 1) *"Skilloon is not designed to be or become a basic platform for managing courses"* (Focus group recording), and 2) *"allowing educators to add their own activities at Skilloon can negatively affect the Skilloon's image of impacting students social-emotional learning development"* (Internal stakeholder 2; Focus group recording). Another topic was how to facilitate educators to manage group exercises. During this discussion, two considerations were highlighted for designing solutions to make it easier for educators to view only one response from a group of students. The first considerations were that *"the purpose of Skilloon is to develop self-learning, meaning that each student needs to upload individual responses of own learning"* (Internal stakeholder 2; Focus group recording). However, the second consideration was about the benefits that collaborative work can bring to improve entrepreneurial skills (Focus group recording). Opportunities for scaling Skilloon to different market segments were also discussed by looking at the job 'have a

purpose to use Skilloon'. The discussion brought insights into the business value of modulating Skilloon for different purposes. However, the purposes mentioned went beyond the needs of higher education and also covered the needs of music schools, special education and even distance education, to name a few (Internal stakeholder 1; Focus group recording).

The focus group discussion was recorded, and notes were also made about the potential opportunities and their considerations for further design. This knowledge was used during the cognitive walkthrough investigation, explained in the next section, to support the researcher in specifying the final opportunities for value creation identified.

4.8 Cognitive walkthrough, user stories and acceptance criteria

A cognitive walkthrough is a task-specific approach to usability that explores whether or not a task can be performed on a given system, considering the user's expectation for accomplishing that particular task. The Interaction Design Foundation (2017) emphasizes the benefits of this practice by saying that cognitive walkthrough enables quick understanding of decision making in the design process, before the budget is spent on developing an unusable product. In this development project, a cognitive walkthrough was done by the researcher without any customer involvement. The purpose of this practice was to understand the weakness of the current Skilloon's features in order to be able to satisfy customers having their desired outcomes of a specific job; meaning that when the researcher understood that a user's expectations of an action were not aligned with the actual action taken, an opportunity for improvement was realized. All the customer jobs were investigated, and its related desired outcomes (with the exception of those proved not visible during the focus group discussion) were analyzed towards Skilloon's features. The following four questions introduced by Blackmon et al. (2002) to be used as a guideline for cognitive walkthrough investigation, supported the researcher to identify the opportunities for improvements:

- Will the user try and achieve the right outcome?
- Will the user notice that the correct action is available to them?
- Will the user associate the correct action with the outcome they expect to achieve?
- If the correct action is performed; will the user see that progress is being made towards their intended outcome?

After an opportunity was identified, descriptive documentation of that opportunity was made aiming to provide sufficient context for the development team to begin imagining the right solutions to be applied at Skilloon in order to facilitate value creation. User stories are one of the core components of the Agile methodology, used to describe a digital service requirement from the user perspective (Servicedesigntools.org 2009) and thus connect user research to actionable input for solutions development (Stickdorn et al. 2018). User stories are formulated without the use of technology-specific language and are often framed like: 'as a'

(the type of user) 'I want' (the action), 'so that' (the outcome). This structure makes clear the benefit of using user stories to provide context for the development team about their efforts needed in creating a valuable solution. Rehkopf (2019) emphasizes this benefit by stating that *"after reading a user story, the team knows why they are building what they're building, and what value it creates"*. However, user stories alone only describe the user requirements, but not allow the development team to start envisioning the opportunities into possible solutions. Stickdorn et al. (2018) agree with this fact and suggest that adding a summary with more evidence from the user research to the user stories can reinforce the understanding of the opportunity. In the same way, Rehkopf (2019) highlights the importance of setting a clear goal when communicating opportunities to the development team to create a shared vision of how they can best serve the user to achieve that goal. Following these points of view, a set of components was adopted to enable efficient communication of the opportunities realized during the cognitive walkthrough to enable the development team to act on them. The mentioned components are the user story, the customers' jobs related to the story, the acceptance criteria and the current Skilloon's features affected by the criteria. Together, these components consisted one backlog item; the output documentation of this study to be then stored in the Skilloon backlog.

As such, each component of a backlog item had a specific purpose in the opportunity communication. The user story provided a description of the user requirement. The customer jobs attached to the story (JTBD) emphasized the intent customers have for using Skilloon in a given context. The acceptance criteria and the current Skillon's features affected by these criteria reinforced the understanding of the customers' expectations and priorities for building the right solution.

Povilaitis (2014) states that negatives surprises at the end of implementation can be avoided by having clear criteria defined up front. Effective acceptance criteria defines the ability of the development team to meet user needs and expectations. They are a set of statements, independent of the implementation, specifying what is expected from a solution, instead of what is the solution itself. The elements of value (Figure 6, page 29) introduced by Almquist et al. (2016) were used as a base for defining each acceptance criterion. The natural descriptive approach of the elements helped to frame the acceptance criteria statements in order to steer the development team toward the right solutions without losing the value dimension of the user requirements.

As an example of a backlog item creation, the following user story was realized with the analysis of eight customers' desired outcomes for accomplished the jobs 'have an intuitive flow at Skilloon' and 'have the possibility of prosperity'.

‘As an educator I want to see only one answer of a group activity and send the same feedback to all team members so that I can effectively use my time and enable students to learn from each other’

The story represents mostly a functional dimension of value, but interconnection with a social dimension does exist. Suggesting that while investigating Skilloon’s features ‘course creation, edition and execution’ and ‘student logbook (personal portfolio)’, it is evident that an educator is not able to group students in teams and thus easily find the answer elaborated by that team. This problem reflected three functional elements of value (integrates, connects and reduces effort) and one social element (affiliation /belong). These elements supported the following acceptance criteria creation:

- *Integrate* creating of teams for group activities
- *Connect* students to work together during a course or an activity
- *Reduce effort* for the educator in visualizing only one answer for a group activity and send the same feedback to all team members
- Enable students to *belong* to a group learning experience

The cognitive walkthrough resulted in 11 backlog items grouped in four main themes: 1) enable customization and transparent guidance, 2) enhance the course and activities user experience, 3) enable action from statistics with respect, and 4) enable rewards to educators. Each theme and its tied backlog items are explained in chapter 6 - Application to Skilloon, which aims to answer the final research question of this study: How can Skilloon facilitate customer value creation?

5 Introducing the customers’ values

This chapter introduces the customers’ jobs, addressing the first research question: what values customers seek from Skilloon? The concept of value adopted in this research is strongly guided by the JTBD Theory and the notion of value-in-use. Both support that when a customer is using a product or a service, value is only realized when they are able to accomplish a job successfully. Thus, service providers can only create the right conditions and right resources to facilitate customers’ value-creation by understanding the customer process of usage, the ‘customer jobs’, and the customers’ expectations for that job realization, the ‘desired outcomes’. In addition, the ‘dimension of value’ deepens the understanding of the customers’ expectations for a job realization that can go beyond the mere physical use, including the mental use of these resources. Bettencourt et al. (2014)’ premises (page 28) emphasize the role of customers and other resources in value creation. If service is the application of resources for someone’s benefit (Lusch et al. 2007) and if the driver for value creation is to accomplish a job, service is what is hired to get a job done. In this process, a customer integrates resources with the service provider resources to get a job done successfully.

However, value depends on the circumstances in which a job is performed (Bettencourt et al. 2014), as each customer has their unique combination of experiences, culture and mind to define their value priorities and to give meaning to the service received (Bettencourt et al. 2014). Suggesting that customers' involvement comes from their actions to do a job and also from the way they interpret and process information to define value. As such, the purpose of the first section of this chapter is to describe the context or environment of customers that may influence their perception of value in relation to Skilloon. The following sections introduce the customer jobs and answer the first research question: What values customers seek from Skilloon?

5.1 The context

“Being an educator is a pleasure. It is grateful to notice that a student starts afraid or not encouraged and then succeed” (Educator 3). *“The problem to solve is how to get more 24 hours in a day to be able to do things better”* (Educator 1). *“It is really common for educators to overwork every day without even an extra payment”* (Educator 4). *“It is a confusing feeling of willingness to do different things and the lack of time”* (Educator 1).

In the Finnish educational system, higher education is provided by universities and universities of applied sciences. A bachelor's degree consists of 180-270 ECTS (European Credit Transfer and Accumulation System), and the duration is approximately 3-4,5 years to accomplish at a full-time study pace. Bachelor's degree programs usually include compulsory studies, elective studies, practical training and a final Bachelor's thesis (Infonland.fi 2019). Educators are responsible for planning and organizing the courses, preparing the lectures, creating assignments, teaching and evaluating students by grades or feedbacks (Educator 1). Some educators are also responsible for guiding the thesis development process and researching current education-related topics. (Educator 3). Following the national guidelines, the educator annually updates the course lectures, materials and assignments to cover new trends and student feedbacks (Educator 1, 2 and 3).

The concept of entrepreneurial learning has been applied in higher education during class discussions, group activities and also through the work experience program (Internal stakeholder 1). The goal of these practices is to strengthen students' abilities to cope with their future working life. However, educators agree that achieving this goal requires a practice of understanding oneself, values, goals in life, personality and mostly everything that affects life decisions (Educator 2). In most cases, Skilloon was used by the educators as a source of inspiration for alternative assignments. This fact happens because of the tight timeline of the courses, which lacks the time available for implementing new educational methodologies that go beyond the course content and require personal assistance from the educators in relation to their students. Though ideas on how to implement Skilloon were also discussed during this thesis interviews, as shown in Table 9.

IDEAS TO IMPLEMENT SKILLOON IN HIGHER EDUCATION	Source (Recordings)
During a degree course, selected activities of Skilloon can be used as an alternative of assignment	(Educator 1 and 3)
During a specific course to teach entrepreneurial learning for future educators, Skilloon can be used as an example of a tool to be applied in their future work	(Educator 1 and 2)
During the academic year, courses at Skilloon can be provided to students by the counsellor to e.g. support students to make timetables for their studies and reflect on how to progress with their learning experience. And in the same way, to enhance the educational staff's capabilities to facilitate each student development process	(Educator 4)

Table 9: Ideas to implement Skilloon in higher education

Higher education students plan their own study path independently, as long as they include the compulsory studies and follow the overall structure of the degree planned by each university. At this level of education, students are good in reflecting on themselves and are conscious about it (Educator 2; Student 1 and 2). However, self-learning is time-consuming, and students are busy and stressed because they already have a lot of obligations to do (Educator 2; Student 1). In many cases, Skilloon courses or activities were not seen as a priority for students to choose it outside of their compulsory studies (Educator 1; Student 1).

5.2 Have a purpose to use Skilloon

JOB - HAVE A PURPOSE TO USE SKILLOON	
Educators' desired outcomes	Dimension of value
Find clear information of Skilloon in all channels	- Functional
Understand Skilloon's methodology and its benefits	- Functional
Understand how to utilize Skilloon in the university (cases of how to use - e.g as a course itself or within a given course)	- Functional
Students' related desired outcomes	Dimension of value
Have clear and consistent information of the courses and the activities	- Functional
Know the purpose of the course	- Functional
Know what are the skills learned from each activity and how they can be applied in a future job	- Functional

Table 10: Job 'Have a purpose to use Skilloon'

The first step for customers to start using Skilloon is to have clear information on how the platform can help them to perform their current work more efficiently. While looking from Skilloon website, social channels and the platform itself, they get overloaded of information that is not consistent and sometimes confusing. It creates to customers a sense of uncertainty of Skilloon's intent and value proposition. Also, customers do not understand the methodology

behind Skilloon and the relationship of it through the platform's features. Only after round of piloting they realize the benefits of using Skilloon and how it could be implemented in their organization or even in a specific course. This job (Table 10) was realized mainly by the educators' point of view, but students also agree that the hassles information, particularly about the benefits of the course and activities, is the hindrance for choosing Skilloon as a valuable source of a learning experience.

5.3 Have an intuitive flow at Skilloon

JOB - HAVE AN INTUITIVE FLOW AT SKILLOON	
Desired outcomes	Dimension of value
Have a more intuitive (and consistent) structure of the tasks and colors used at Skilloon	- Functional
Have a better flow of group exercises (e.g. show only one answer and groups the team members into it)	- Functional
Skilloon's performance should be faster than the current way of teaching and do not create more work for the educators	- Functional
Help educators to be organized, do things more efficiently and keep deadlines	- Functional
Have a fast way to see done or missed activities	- Functional
Have a better flow to review the answers	- Functional
Know the students who need feedback (there is no time and the need to give feedback for all students)	- Functional
Students' related desired outcomes	Dimension of value
Simplify the access to Skilloon	- Functional
Have intuitive guidance on what to do at Skilloon	- Functional
Better flow and guidance to upload successfully all answers / file needed under an activity (e.g. some activities are divided into three steps but only enable to be upload one file)	- Functional
Have group activities to develop something together	- Functional
Interact with relevant people to share ideas and frustrations	- Functional
Being able to count the time when doing activities to keep track	- Functional

Table 11: Job 'Have an intuitive flow at Skilloon'

To switch from a traditional way of teaching that educators are familiar with, and include a digital tool to support their work, it is essential that the tool provides enough intuitive user experience and an organized structure of its content. The object of action in this job (Table 11) is Skilloon's platform structure and its task flows. By definition, task is the intended goal customers have, and flow is the combination of actions needed to perform a task. Thus, less actions to conduct a task is what educators expect from Skilloon. In addition, educators' desired outcomes convey also the need for consistency and a better planning of meaningful actions across the whole platform. The desired outcomes also clearly describe the weakness

in Skilloon's user experience. As an example, educators have challenges to manage courses and the students' activities. The following quote from the educators' interview illustrates this message: *"Skilloon provides ideas for group activities, but the platform does not allow me to group students in teams"*. The same opportunities for improvement can be seen from the perspective of the student's desired outcome. During interviews, students state that *"group activities provide a rich learning experience because it enables develop something together, share ideas and frustrations with relevant people"*. In addition, students also point out that the weaknesses of Skilloon's user experience are in helping them to signup, to understand the timeline of a course or activity, and to upload their activities' responses.

5.4 Adapt Skilloon for specific needs

JOB - ADAPT SKILLOON FOR SPECIFIC NEEDS	
Desired outcomes	Dimension of value
Integrate existing activities at the platform to help educators to follow up related tasks	- Functional
Have the flexibility to use or not Skilloon's features to support different cultural aspects and purpose of teaching (e.g. automatic feedback, school-evaluation, the rights of seeing/use the students answers)	- Functional
Edit Skilloon' activities to better suit different level of students, language and personal cultural aspects	- Functional
Students' related desired outcomes	Dimension of value
Have information about the time required to perform each activity (to know what are the viable activities to take)	- Functional
Help students to organize their lives to do the course (help them to have discipline)	- Functional
Have automatic feedback only if it is relevant to the student	- Functional
Understand the 'school' evaluation questions	- Functional

Table 12: Job 'Adapt Skilloon for specific needs'

This job (Table 12) reflects the main problems customers have for implementing Skilloon in their organizations or in a specific course. The platform was built to suit the needs of the Finnish upper secondary education. Thus, to extend Skilloon's target segment to universities and also to export the solution outside Finland, special needs have to be considered. For example, in some countries, students do not have the right to evaluate schools or do not feel comfortable doing it honestly. Following the same logic, the content of Skilloon's activities and assessment questionnaires are sometimes not suitable or even understandable for the age or different culture of the students. This problem was highlighted by most participants of the customers' interviews, as the following quote by an educator suggests: *"the content of the courses, activities, and assessment questionnaires, and the automatic feedbacks are features at Skilloon that require flexibility of adaptation"*. Some students also agree that automatic feedbacks could be flexible and disable if needed. In addition, a student pointed out that

“school-evaluations are sometimes hard to be understandable in a university context or even for an external student”. Still, from the students’ point of view, Skiloon lacks providing information about the time required to complete an activity or the entire course. This information could help students to structure their study plan better. Finally, respecting the students’ data privacy was a significant customers’ expectation of Skiloon. This issue is clearly mentioned in this educator quote: *“it is important to respect students’ privacy and allow them to decide who can see their responses and how the data can be used by the organization”*.

5.5 Improve students learning process

JOB - IMPROVE STUDENTS LEARNING PROCESS	
Desired outcomes	Dimension of value
Have statistics to know the students’ personal factors that influence motivation	- Functional
Cooperate with other teachers to solve students’ problems (e.g. share results to all involved in student learning experience)	- Functional
Rely on statistics from the self-evaluations - students tend to only answer positively to the questions and the statistics out of it are not reliable	- Functional
Students’ related desired outcomes	Dimension of value
Have entertaining lectures and teachers	- Emotional
Have interesting activities to do	- Emotional
Reduce anxiety caused by life's challenges (e.g. live with limited money while studying and the changes of feeling in order to reach a personal goal)	- Emotional
Manage future uncertainty (e.g. succeed in professional life)	- Emotional
Feel comfortable to honestly evaluate yourself	- Emotional
Feel comfortable in evaluating the school	- Emotional

Table 13: Job ‘Improve students learning process’

Educators feel satisfied to see improvements on their students’ development process and want to be an enabler of it (Table 13). During the customers’ interviews it was validated that having statistics derived from the student self-evaluation draws the educators’ attention for choosing to use Skiloon as a way to support personalized mentoring. However, by piloting the platform, educators realized that students only provided positive answers to the self-evaluation and this fact made it difficult for the statistics generated to be reliable to be used as a source of improvements. Indeed, students confirmed that they are not comfortable evaluating their school honestly. One reason behind this behavior is the hierarchical structure of universities. Other reasons are also clear from this student’s quote: *“there is a fear of being recognized and judged for negative responses”*. The same problem was happening with the self-evaluation. The additional reason for that was the uncertainty students have about their data usability. Students also stated that they did not answer the assessment

questionnaires adequately, after realizing their size. In this situation, aspects of laziness, lack of time, tiredness and stress were the influencers of this behavior. Even so, the positive impact that statistics have on helping educators to better support their students' learning process and therefore for helping students to have the right resources to create value for themselves is evident. In addition, educators desire to share these statistics with other educators involved in the student's learning process. As an educator pointed out that *“the value of sharing the knowledge out of statistics is to create a collaborative mindset in the educational team for solving students' problems together”*.

5.6 Provide concrete outcomes to Students

JOB - PROVIDE CONCRETE OUTCOMES TO STUDENTS	
Desired outcomes	Dimension of value
Optimize student numbers per educator so they can evaluate all student activities within the same deadline	- Functional
Have the possibility to grade students as 'completed or not completed' tasks - <i>“the activities are done for the students self-development and don't require grade”</i>	- Functional
Meter as grades can be superficial and do not work as it should - some students type anything in the answer field just to get meters and play with their colleagues	- Functional
Provide statistics from self-evaluation to also to students reflect on their improvements	- Emotional
Students' related desired outcomes	Dimension of value
Receive constructive feedback from the teacher to support reflections	- Emotional
Reflect on applicability of the skills learned	- Emotional

Table 14: Job 'Provide concrete outcomes to Students'

This job (Table 14) refers to the biggest concern of the educators and expectation of the students. Educators, in most cases, are stressed about their time to conduct all the required responsibilities that they have in their work. This problem increases during times of student evaluation. Read assignments, write feedbacks and grade students are considering extremely time-consuming tasks to be done and reflect on the student perception of success. However, during the customers interviews, educators stated that *“the activities at Skilloon as non-graded by nature”*, meaning that there is no a numerical way for grading a student own reflection. For this reason, the metaphor of grading the activities as meters does not provide the value that educators want. For example, one educator noticed that *“university students see it childish and make fun out of it by concluding extra activities without real content just to get meters”*. This quote was also confirmed by the students' interviews. In addition, all the courses at the university have a metric as an evaluation. This metric can change in different countries and educational systems, although it always indicates whether the student passed or failed the course. Following this path, educators' expectations are that Skilloon could

provide them with an overview of the course progress, and the possibility to grade the students' activities as completed or not. From the students' desired outcomes, it is evident that receiving a personal and constructive feedback is what they value the most to support them in reflecting. However, educators pointed out that *"there is no time and need to give feedback to all students. It would be helpful to know the activities that require feedback so that you can better organize your time and thus focus on providing a richer feedback to those who really need it"*. In addition to this expectation from Skilloon, educators also hope that the statistics generated by the assessment questionnaires could be visible for students to reinforce their reflections on their self-development. Educators' desired outcomes of the Job 'have an intuitive flow at Skilloon' (Table 11), which are related to 'keeping deadlines', 'managing courses and activities' and 'optimizing feedback', strengthen these customer values and are tied to this job.

5.7 Have the possibility of prosperity

JOB - HAVE THE POSSIBILITY OF PROSPERITY	
Desired outcomes	Dimension of value
Get paid for the extra work	- Emotional
Be an educator but also have leisure time (do things for themselves) - do not create more work for them	- Emotional
Belong to educational communities	- Social
Have the possibility to update knowledge (educators have a lack of time and money to make courses, go to educational meetups or international conferences)	- Emotional
Get compliments of the work done to feel successful from their work	- Social
Know if students reach their future goals	- Emotional
Students' related desired outcomes	Dimension of value
Belong to learning communities	- Social
Know the market opportunities after graduation	- Social
Have time to take care of yourself and enjoy life while studying	- Emotional

Table 15: Job 'Have the possibility of prosperity'

As the customers' interviews showed, *"the problem to solve is how to get more 24 hours in a day to be able to do things better. It is really common for educators to overwork every day without even an extra payment"*. Time to time, educators have new concepts to be learned, new challenges to be addressed and less leisure time left for themselves. Educators stated that *"it would be desirable to receive at least compliments for the work done"*, although ideally what they hope is *"to be paid for the number of responsibilities required rather than a job title"*. Educators need to continually update their knowledge and, in most cases, use their free time to do so. In addition, they have no opportunity to engage in educational events and

to belong to educational communities as they would wish. Still, educators seem to be proud of their profession and, as a reward for their efforts, want that their students want their students to be able to achieve their future goals. Students also deal with the stress caused by the lack of time and desire to have more entertainment time while studying. For example, one student suggested that “belonging to learning communities is a perfect combination of entertainment and study”. Moreover, students expect to have information about their futures job opportunities after graduation. Table 15 is an overview of the job, customers’ desired outcomes and dimensions of value.

6 Application to Skilloon

After realizing the values customers seek from Skilloon, it is time to translate this knowledge in an actionable language to help Skilloon development team to build the resources needed to facilitate customer value creation. Jobs, desired outcomes and dimension of value created a foundation for identifying the gaps from the values customers seek from Skilloon and its current value proposition. Sandström et al.’s (2008) theoretical framework supports this approach by suggesting that value-in-use is the evaluation of the service experience. If the service experience is the total sum of the outcomes of an offering and if the value is created by the customer’s experiences process, Skilloon can only support value creation by producing and delivering business features to represent potential or expected value-in-use for the customer. However, in order to create new business features to support value creation, the customers’ values identified had to be managed and devised to be aligned with the Skilloon’s vision, strategy and methodology.

The following sections aim to answer the second research question: how can Skilloon facilitate customer value creation? Although delivering final solutions is out of the scope of this thesis, 11 backlog items were identified. The purpose of backlog items is to communicate what are the new features, changes of an existing feature, bug fixes, infrastructure changes or other aspects of the solution that the development team can deliver to achieve a specific result (Agile Alliance 2015). Thus, a backlog item is a single source of requirements for suggesting opportunities for further development of an offering to enable customers value creation and, therefore, business value.

For each backlog item identified, components such as user story, customers JTBD related to the story, the acceptance criteria, and the current Skilloon’s features affected by the criteria were included. The purpose is to provide context for the development team to build the right resources needed and to estimate their efforts for doing so. Scrum guides (2017) suggests that each item should be prioritized by the product owner to best achieve goals and missions and support the development team in planning their actions. However, in this study, backlog items were grouped into themes. The themes represent the full potential of an opportunity to create customer value creation. The intention of using this approach is to support the project

owner to prioritize the items, by improving their understanding of the ‘big picture’ and thus the value that each item has.

6.1 Enable customization and transparent guidance

STORY	JTBD
As an educator, I want clear information at Skilloon’s channels so that I can understand its methodology and the benefits of different ways of using it	-Have a purpose to use Skilloon
Acceptance criteria	Affected features
<ul style="list-style-type: none"> -<i>Inform</i> different possibility of using Skilloon -At the platform, <i>inform</i> this message through ‘educator guideline’ -<i>Organize</i> what are the benefits of using Skilloon for each of the different ways -<i>Avoid hassles</i> on presenting this information at Skilloon’s site, social media channels and the platform 	<ul style="list-style-type: none"> -All channels UI -Educator guideline
STORY	JTBD
As an educator, I want to adjust the content of Skilloon’s activities and the self- and school-evaluations questionnaires so that it suits best the level and context of my students	-Adapt Skilloon for specific needs
Acceptance criteria	Affected features
<ul style="list-style-type: none"> -<i>Reduce the risk</i> of the activities’ and assessment questionnaires’ content being inappropriate for student level -<i>Avoid hassles</i> on students’ performance 	<ul style="list-style-type: none"> -Course creation, edition and execution -Assessment tools
STORY	JTBD
As an educator, I want to modulate Skilloon features so that it suits best the course intents and the transparency of them to my students	<ul style="list-style-type: none"> -Adapt Skilloon for specific needs -Provide concrete outcomes to students
Acceptance criteria	Affected features
<ul style="list-style-type: none"> -<i>Reduce the effort</i> of educators to create courses with the right features to meet their intentions (enable or disable the use of automatic feedbacks, measurement of success, self- and school- evaluations) -Avoid hassles for students with meaningful courses and outcomes -<i>Integrate</i> privacy rights options, related to who can see and use students’ data in ‘course creation, edition and execution’ -<i>Reduce the risk</i> of harming student privacy 	<ul style="list-style-type: none"> -Course creation, edition and execution -Assessment tools -My Skilloon (the measurement of success) -Student logbook (personal portfolio) -Statistics

Table 16: Three backlog items of ‘Enable customization and transparent guidance’

Three backlog items were identified with the objective of enabling customization and transparent guidance at Skilloon (Table 16). By developing these items, Skilloon facilitates customers’ value creation through a process of accomplishing three jobs: ‘have a purpose to use Skilloon’, ‘adapt Skilloon for specific needs’ and ‘provide concrete outcomes to students’.

The items undermine the gaps between the value customers seek from Skiloon, its current features and the communication of its value proposition across all channels. The information that higher education customers search on Skiloon are what is the methodology, how can it be used and customized for my intent, and what are the benefits of these possibilities. Skiloon value proposition is ‘locked out’, meaning that its communication across channels, including the platform, does not allow customers to check different Skiloon usage options to fit their needs. The only information they get is ‘the full potential option’ that sometimes is not optimal. However, strategic thinking is required for the development team to be able to build the necessary resources. Embracing a Blue Ocean Strategy (Kim and Mauborgne 2014), this exercise can open up new market opportunities, demands and even provide insights for different price models. Insights on how to modulate Skilloons for the higher education needs were presented in the first subsection of the previous chapter: 5.1. The context. The most common implementation of Skillon was during a course, as an alternative to an assignment. Although it was also used during the entrepreneurial learning course as a tool to use, and throughout the undergraduate academic year as required support for students.

To enable customization and transparent guidance, basically, most of the Skiloon’s current features are affected. The reason behind this is that enabling customization is also about creating courses by starting from the purpose and then selecting the right features to provide students the best learning experience towards this purpose. Moreover, Skiloon’s activities instructions have to be improved to enable transparent guidance to students. The purpose of the activities is appreciated by the customers, but the language and content of them are, in some cases, not appropriate to higher education students. The same fact happens with the assessment questionnaires, being a clear example, the title ‘school-evaluation’. A missing feature at Skiloon is for managing student’s data privacy. Educators also relate ‘transparent guidance to students’ with informing students about who can see their data and how it will be used, and also allowing them to give their consent to it. The finding of this study presents three potential options for managing data privacy: 1) no-one can see, 2) one educator can see and use the data to generate feedback and improvements in the course, and 3) all degree program educators can see and use the data to generate feedback, improvements in the course and improvements in the educational institution. The General Data Protection Regulation (GDPR) applied for European Union (EU) members since 25 May 2018, aims to protect individuals “*with regard to the processing of personal data and on the free movement of such data*”. (European Commission 2019). Developing this feature ensures that the platform is acting in accordance with the data protection law active in the customers’ location, stimulating educators’ confidence to implement Skiloon in their universities.

6.2 Enhance the course and activities user experience

STORY	JTBD
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As an educator, I want to see only one answer of group activity and send the same feedback to all team members so that I can effectively use my time and enable students to learn from each other	- Have an intuitive flow at Skilloon - Have the possibility of prosperity
Acceptance criteria	Affected features
- <i>Integrate</i> creating of teams for group activities - <i>Connect</i> students to work together during a course or an activity - Enable students to <i>belong</i> to a group learning experience - <i>Reduce effort</i> for the educator in visualizing only one answer for a group activity and send the same feedback to all team members	- Course creation, edition and execution - Student logbook (personal portfolio)
STORY	JTBD
As an educator, I want to know the answer that requires feedback so that I can have more time to support the right student	- Have an intuitive flow at Skilloon - Provide concrete outcomes to students
Acceptance criteria	Affected features
- <i>Reduce effort</i> of educator in knowing which students need personal feedback - <i>Save time</i> for educators in providing better feedback only to students who request it - <i>Reduce anxiety</i> for students who need personal feedback to support their growth	- Course creation, edition and execution - Student logbook (personal portfolio)
STORY	JTBD
As an educator, I want to see the activities done or missed faster so that I can effectively follow my students progress over the course	- Have an intuitive flow at Skilloon - Provide concrete outcomes to students
Acceptance criteria	Affected features
- <i>Save time</i> for educators managing a student's progress during a course - <i>Reduce the effort</i> of educators to verify who completed the course	- Student logbook (personal portfolio) - Statistics

Table 17: Three backlog items of 'Enhance the course and activities user experience'

The user experience of the course and activities is the major enabler of Skilloon's value proposition, meaning that without promoting efficiency, customers are more likely to stay in their comfort zone, and not hire Skilloon for helping them to accomplish their jobs. Mainly, the job highlighted in this section is 'have an intuitive flow at Skilloon', which has a strong functional dimension of value. However, allowing customers to successfully 'provide concrete outcomes to students' and 'have the possibility of prosperity' are also the path for customer value creation. Three backlog items were identified, aiming to enhance the course and activities user experience (Table 17). The items hint opportunities for Skilloon to facilitate

customer value creation by enhancing two of today's features: 'course creation, edition and execution' and 'student logbook (personal portfolio)'.

Most of the customers were enthusiastic about Skilloon's group activities and even emphasized their benefits during the customers' interviews. Although the platform promotes ideas for group activities, it does not allow educators to group students into teams, nor does it allow these students to work together to devise an answer. Skilloon's methodology is based on self-learning, suggesting that a student's answer is always unique, even in group activities. In contrast, "group tasks" are part of Skilloon's value proposition (Skilloon.demo.site 2018), as they facilitate collaborative skills, seen as an important practice in entrepreneurship education. As such, it was identified that enabling educators to effectively manage group activities is a potential opportunity for improving Skilloon since the lack of this feature was experienced by most of the educators as a stopper of value creation.

If efficiency is one of the most essential value customers seek from Skilloon's course and activities process, value creation is also realized by allowing educators to know the students' answers that require feedback. With this feature, educators can use their time more efficiently to provide valuable feedback for the students who need it most. In addition, university educators need to keep track of their students' course progress to be able to evaluate their students and thus, successfully accomplished the job 'provide concrete outcomes to students'. This enables Skilloon to facilitate value creation by allowing educators to actively view the completion of their students' course or even their activities. It also implies that Skilloon needs adaptation on its measurement of students' success to scale its business to higher education.

6.3 Enable action from statistics with respect

STORY	JTBD
As a student, I want to know who can see my responses and the use of it so that I feel comfortable to honestly answer the activities and the assessment questionnaires	-Improve the students learning process
Acceptance criteria	Affected features
<ul style="list-style-type: none"> -<i>Reduce the anxiety</i> of students by providing information about the privacy rights (who can see their data and how it is used) while they are registering for a course -<i>Reduce the risk</i> for having only positive answers out of self- and school evaluation -<i>Inform</i> educators with reliable statistics to be turned into positive actions 	<ul style="list-style-type: none"> - Invitation links - Course creation, edition and execution - Student logbook (personal portfolio) - Statistics
STORY	JTBD
As an educator, I want to see self- and school- evaluation statistics from all the courses under a degree program to solve together with other educators our students' problems	-Improve the students learning process

Acceptance criteria	Affected features
<ul style="list-style-type: none"> - <i>Connect</i> all the degree program educators to see statistics of the self- and school evaluation average results from students in a specific degree program - <i>Integrate</i> a degree program level to the self- and school statistics - <i>Inform</i> the degree program while creating a course 	<ul style="list-style-type: none"> - Invitation links - Course creation, edition and execution - Statistics
STORY	JTBD
As a student, I want to see self-evaluation statistic so that I can reflect on my improvements	-Provide concrete outcomes to students
Acceptance criteria	Affected features
<ul style="list-style-type: none"> - <i>Reduce the anxiety</i> for students with concrete outcomes - <i>Save time</i> for students to reflect on their learning process 	-Student logbook (personal portfolio)

Table 18: Three backlog items of ‘Enable action from statistics with respect’

Together with the activities themselves, statistics are seen as the competitive advantage of Skilloon’s value proposition. Skilloon promises to educators that, in addition to implementing a concrete pedagogy for developing students’ entrepreneurial skills, they can use statistics generated from the students’ answers for the benefit of their teaching or their institution. The benefits proposed by Skilloon are as follows: motivating students in their studies, orienting them towards working life, fostering an entrepreneurial and motivating learning culture in the education institution, and becoming forerunners among the education institutions (Skilloon.com 2019). While the communication of the statistics’ value proposition is clear, challenges were identified to enable customers to successfully accomplish two jobs: ‘improving the students learning process’ and ‘providing concrete outcomes to students’. A crucial problem customers proved during interviews is that the statistics generated were not reliable to be turned into concrete action. In addition, it was also identified that students need to understand who will see their answers and how they will be used to minimize the risk that they will feel uncomfortable responding to their activities and thus provide realistic data for statistics. The same issue was covered in subsection 6.1, where three potential options for managing data privacy were suggested as an opportunity to improve Skilloon. In addition to this opportunity, two possibilities were identified to maximize customer value creation. The first possibility is to allow statistics access to other undergraduate educators. This means that all educators in the same program can be connected in a value co-creation process to support and improve their students’ learning process. The second opportunity is to allow historical statistics generated by the assessment questionnaires to each student. In this case, students can save time in analyzing and reflecting on their learning improvements and thus create positive value for themselves. The three backlog items aimed to enable action from statistics with respect are outlined in Table 18.

6.4 Enable rewards to educators

STORY	JTBD
As an educator, I want to have the possibility to attend courses and educational events so that I can update my knowledge with experts	-Have the possibility of prosperity
Acceptance criteria	Affected features
<ul style="list-style-type: none"> -Provide access for educators to update knowledge with experts -Provide access to educational events -Enable educators to <i>belong</i> to a group learning experience 	-Educator guideline

STORY	JTBD
As an educator, I want to get compliments from my work so that I can keep motivation on my profession	-Have the possibility of prosperity
Acceptance criteria	Affected features
-Reward educators of their most time-consuming efforts	-Student logbook (personal portfolio)

Table 19: Two backlog items of 'Enable rewards to educators'

Contrary to the previous subsection, where backlog items fulfill the gaps identified between the values customers seek from Skilloon and its value proposition, the two items in this subsection (Table 19) can be seen as add-ons for Skilloon value proposition. The potential benefits of opportunities are to design features at Skilloon to promote positive customer emotional and social value creation. Almquist et al. (2016) state that companies that score on emotional and social elements are more likely to succeed and tend to have higher NPS, on average, than companies that spike only on functional elements. In order to achieve this business outcome, the possibilities of enabling rewards to educators were identified. Being an educator in most cases involves a combination of gains and frustrations. This study showed that the gains are mainly related to the educators' passion for their profession, while the frustrations are related to the lack of recognition they have for their hard work. To maximize the gains and minimize the frustrations and also to support educators to create value by accomplishing the job 'have the possibility of prosperity', two opportunities for further design were identified. The first opportunity embraces a combination of emotional and social dimensions of value. It suggests the creation of a new feature to provide educators with access to learning communities with other experts. However, the complexity of developing this feature has not been discovered and needs to be further analyzed by the Skilloon's development team to ensure its business impact across its feasibility of implementation. Finally, the last opportunity aims to increase educators' motivation by giving them praise for their work done. The implication for developing this feature is that value creation is realized by promoting compliments to educators after they have performed their most time-consuming responsibilities on the platform, such as writing student feedback.

7 Conclusions

As a conclusion, this chapter provides a summary of this study divided in two sections. The first section addresses the knowledge gathered from the theoretical ground and the development project. It also includes the transferability of the results. The last section offers opportunities for further research.

7.1 Summary and transferability of results

This thesis explores value through service business logic, where the concept of value-in-use shifts the service providers' focus on creating resources that represent the needs and expectations of customers to hire them, rather than introducing to the market resources which represent the providers' best guesses for value proposition (Grönroos & Voima 2012; Lindberg-Repo & Dube 2014; Lusch & Vargo 2014; Sandström et al. 2008; Vargo & Lusch 2004; 2008). The design work in this thesis proposes an approach to rethink the traditional thinking of digital service development, while jobs to be done provides a lens for considering the customers' perspective for value creation (Bettencourt et al. 2014; Christensen et al. 2005; 2007; 2016a; 2016b; Ulwick 2016). The following are the conclusion for this theoretical ground:

- The exchange of service, within the service business logic, offers a new perspective on the service provider's role for facilitating customer value creation (Grönroos & Voima 2012; Lusch et al. 2007).
- The exchange of services determines the experience of value in use, which reinforces the importance of having customers as a co-creator of value, with their needs, perspectives and interests taken into account, as those of the service provider (Padley 2017; Sandström et al. 2008; Vargo & Lusch 2004).
- Considering customers perspectives for designing or improving a service requires an understanding of the customer segments, since the context in which a customer is also acting as an influencer of the value creation process (Bettencourt et al. 2014; Lusch & Vargo 2014; Lusch & Webster 201; Ulwick 2005).
- The concept of JTBD complement the service logic with an action path for helping the organization to understand their customer needs and therefore uncover opportunities to develop the right condition and resources to facilitate customer value creation (Bettencourt et al. 2014; Christensen et al. 2005; 2007; 2016a; 2016b; Ulwick 2016).
- Value emerges with the customers' actions and decisions while using a service. Thus, the desired outcomes of these actions and decisions are the metrics of customer satisfaction over the offering (Carver 2001; Klement 2018; Ulwick 2016).
- The dimensions of value are the ideal self-drivers for the customer perception of an action realization and decision making, extending the organization focus beyond the mere function of a product or service to precisely target its design to fit the real customers'

needs (Klement 2018; Osterwalder et al. 2014; Silverstein, Samuel & DeCarlo 2012; Ulwick 2016).

- The Elements of value framework diminishes the complexity and the abstraction of specifying what are the right value combinations involved in an identified opportunity to be further designed to generate value creation (Almquist et al. 2016).

Lean and agile methodologies support the new business era with an approach for developing a product iteratively and incrementally to only provide customer-driven versions of that product to the market (Moogk 2012; Ries 2011). However, the concept of ‘customer-centered’ has been misleading organizations to ask their customers what they want and apply this raw finding directly to the design or improvement of their offering (Kitson 2011). As such, this case study aims to bring reflections to digital service development organizations on how to turn customers’ input into opportunities for value creation by focusing on outcomes and the real customer needs.

The first research question (What values customers seek from Skilloon?) translates the context in which a customer segment is that it may affect their needs regarding a service like Skilloon. The realization of the physical and also mental situations provides to the service provider a better understanding of their customers’ values priorities and intents for hiring an offering. The answers to this question provide an initial basis for the case organizations to analyze their offering against their customers’ expectations and perceptions of it. First, it was realized that ‘have a purpose to use Skilloon’ together with ‘adapt Skilloon for specifics needs’ are the triggers for customers to engage with the service. This understanding can be used as inspiration for the service provider to rethink their strategy, business model and communication plan towards different customers’ needs. Second, the findings make it clear that efficiency plays an important value for customers to hire an offering in the higher education set-up. Not surprisingly, customers expect to ‘have an intuitive flow at Skilloon’. Within the same value, customers also wish to ‘improve students learning process’ and ‘provide concrete outcomes to students’. However, through these processes, the customers’ perception was that the platform did not support them with functional assets to successfully achieve these goals. Finally, ‘have the possibility of prosperity’ turns the discussion from a functional to an emotional and a social dimension of the customers’ values. It offers insights on how Skilloon can support customers to feel proud of their work or belonging to a community.

The second research question (How can Skilloon facilitate customer value creation?) brings business consideration to the design process. Customers’ perceptions and expectations from Skilloon were investigated towards the platform, and gaps between the Skilloon’s value proposition and the value customers are seeking from it were realized. From these gaps, opportunities for improving Skilloon were identified and then analyzed in order to ensure its

business visibility. As a result, the research was translated into an actionable language to support Skilloon's development team in creating the right condition and resources to facilitate customer value creation. In total, 11 backlog items were specified by using a combination of components aimed to promote a shared and unified understanding of each opportunity to be further designed. With better communication of these opportunities, the development team can more effectively work together to reach a common goal, that is more likely to be accepted by the customers. As such, the backlog items were grouped into four main design goals. The first is 'enable customization and transparent guidance'. Under this goal, three backlog items were specified to support the development team to build resources for educators to create courses by starting with the course's purpose, and then select the right features in order to provide students with the best learning experience towards that purpose. Another three backlog items were specified as part of the second goal 'enhance the course and activities user experience'. The purpose of these items is to promote efficiency for educators to manage their courses (especially for group activities), to know the answers that require feedback, and to grade students based on course completeness. Even though this goal is related to functional improvements, it also aims to reduce the students' anxiety about obtaining personal and constructive feedback when needed and belonging to a group learning environment. The third goal 'enable action from statistics with respect' was also divided into three backlog items to secure Skilloon's competitive advantage in promoting statistics to educators. However, statistics to be actionable need to be reliable and accessible to educators and students in the same program. Most importantly, students need to understand their privacy rights to feel comfortable in answering their activities with honesty to turn this data input into statistics. The last goal is to 'enable rewards to educators'. Under this goal, two backlog items were specified as add-ons to strengthen Skilloon's value proposition. The suggestion behind these items is to promote compliments to educators for their most time-consuming tasks performed on the platform and also to connect them to the community with other experts.

The findings of this research offer a possibility for Skilloon to realize future growth goals. The understanding of customers' values creates a path for Skilloon to scale its business into a new market segment while improving performance in the current one. It also suggests how resources can be integrated to increase customers' loyalty and their willingness to 'buy' Skilloon. Finally, the results of this study provide Skilloon's development team with specifications for further design opportunities. While the opportunities specified are mostly functional, elements of emotional and social values do exist. A shared understanding of the right amount of values to be delivered creates a unified mindset across the entire development team in designing a winning solution for customers.

The importance of considering and addressing the real needs of customers is often clear when, for example, design errors are expensive, or the product is rejected by the customers

(Diamond, 2018). This research aims to prompt reflection on how to integrate customers' insights into a digital service development process, either to create a service by scratch or to improve an existing service, as this case study suggests. The design work and findings in this thesis can be adopted by equivalent projects that aim to develop customer-centric digital experiences. The starting point for implementing this approach is the willingness to consider customers' jobs, needs and perspectives and use them at a tactical and strategic level to increase customer loyalty, greater willingness to engage with the customer and sustained revenue growth (Almquist et al. 2016).

7.2 Opportunities for further research

Three suggestions for further research can be provided based on the present work. First, the content of Skilloon's activities and assessment questionnaires were mentioned for most participants of the customers' interview as not suitable or even understandable for university students' age or different cultures. Also, it was clear that the fit between the content and the students' environment was one of the most significant expectations customers have for Skilloon. The platform's content was built to suit the needs of the Finnish upper secondary school, which differs from the higher education's needs both inside and outside Finland. These needs are related to the terminology used, the situational context and the individual cultural aspects of the students. Even though insights were collected and translated into opportunities (as shown on the second backlog items of Table 16), the content of the activities and the assessment questionnaires were not covered in this research and therefore was not analyzed in detail. However, further research in this topic can provide significant impact on the development of Skilloon since value depends on the circumstances in which a job is performed (Bettencourt et al. 2014), and having contextual activities for students represents a crucial factor for customers to hire Skilloon for helping them to accomplish a job successfully.

Second, there were limitations to include more students as part of this development project. Since Skilloon is a two-side platform, students play a significant role in value creation and co-creation. However, in this research, only a few students were heard, and the findings were strongly guided by the educators' needs. Although the number of students' interviews was not optimal to ensure that all students' needs were met, the approach of including some of them proved to be valuable to the results. For example, the opportunities to 'enable action from statistics with respect' (Table 18) came from the understanding of the problem identified by the educators (enable action from statistics) together with the reason identified by the students (with respect). These opportunities would not be realized without understanding why the students were not answering the assessment questionnaires honestly. In conclusion, the competitive advantage of Skilloon's value proposition can be guaranteed thanks to the

insights generated by students, meaning, that including more interviews with students in this design process could have a positive impact on the results.

Finally, it is not often that the first design is perfect in the design process. The opportunities specified in this development process lack tangible assets, such as wireframes or low-fidelity prototypes, to allow validation of the solutions identified with the customers before they are deployed. This practice can ensure that the decisions made by the development team are on the right track or if there are missing issues to be addressed. It can avoid that errors in design are implemented and not suitable for the customers' needs. Getting feedback from the customers also helps the development team to validate their efforts on a project. A better estimate of efforts, along with an understanding of the impact that features have on the business, supports the project owner to prioritize the backlog items to better achieve goals. As such, validating decisions made through tangible assets is an important step in the design process to give the development team a clear view of their actions, so they know what, when, and how to do it. More importantly, this step aims to ensure that, in the end, customers will use the implemented features.

References

- Agile Alliance. 2015. What is a Backlog? December 16. Accessed 13 October 2019.
[https://www.agilealliance.org/glossary/backlog/#q=~\(infinite~false~filters~\(postType~\('~page~'post~'aa_book~'aa_event_session~'aa_experience_report~'aa_glossary~'aa_research_paper~'aa_video\)\)-tags~\('~backlog\)\)-searchTerm~'-sort~false~sortDirection~'asc~page~1\)](https://www.agilealliance.org/glossary/backlog/#q=~(infinite~false~filters~(postType~('~page~'post~'aa_book~'aa_event_session~'aa_experience_report~'aa_glossary~'aa_research_paper~'aa_video))-tags~('~backlog))-searchTerm~'-sort~false~sortDirection~'asc~page~1))
- Almquist, E., Senior, J., & Bloch. 2016. The elements of value. *Harvard Business Review*, 94 (9), pp. 46-53.
- Alvesson, M. 2011. *Interpreting interviews*. Los Angeles: Sage.
- Bettencourt, L. A., Lusch, R. F., & Vargo, S. L. 2014. A service lens on value creation: Marketing's role in achieving strategic advantage. *California management review*, 57(1), pp. 44-66.
- Blackmon, M.H., Polson, P.G., Kitajima, M. & Lewis, C. 2002, April. Cognitive walkthrough for the web. In *Proceedings of the SIGCHI conference on human factors in computing systems*, pp. 463-470. ACM.
- Blank, S. 2013. Why the lean start-up changes everything. *Harvard Business Review*, 91(5).
- Christinensen, C. M., Cook, S. & Hall, T. 2005. Marketing Malpractice: The Cause and the Cure. *Havard Business*. Vol.83(12), pp.74-83, 152.
- Christensen, C.M, Anthony, S., Berstell, G., & Nitterhouse, D. 2007. Finding the right job for your product. *MIT Sloan Management Review*. Accessed 25 July 2019.
<http://sloanreview.mit.edu/article/finding-the-right-job-for-your-product/>
- Christensen, C.M., Dillon, K., Hall, T., & Duncan, D.S. 2016a. *Competing against luck: the story of innovation and customer choice*. HarperBusiness. Book from iBooks.
- Christensen, C. M., Dillon, K., Hall, T. & Duncan, S. D. 2016b. Know Your Customers' "Jobs to Be Done". *Harvard Business Review*. Accessed 25 July 2019. <https://hbr.org/2016/09/know-your-customers-jobs-to-be-done>
- Creswell, J.W. 2011. *Educational research: planning, conducting, and evaluating quantitative and qualitative research*. 4th edition. Boston: Pearson.
- Crouch, C. & Pearce, J. 2013. *Doing research in design*. 1st edition. London: Berg Publishers.

Design Council. 2005. The design process: What is the double diamond? Accessed 15 July 2019. March 17. <https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond>

Diamond, D.H. 2018. How To Write Better User Stories to Build Better Products: The best user stories aren't made up - they're built on real user insight. User Interviews. August 29. Accessed 25 October 2019. <https://www.userinterviews.com/blog/how-to-write-better-user-stories-using-ux-research>

Elo, S. & Kyngäs, H. 2008. The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), pp. 107-115.

European Commission. 2019. Data protection in the EU. Accessed 13 October 2019. https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en.

Finnish National Agency for Education. 2016. Funding in pre-primary and basic education supports equity and equality. Accessed 13 October 2019. <https://www.oph.fi/en/statistics-and-publications/publications/funding-pre-primary-and-basic-education-supports-equity>.

Fonecta. 2011. Yksittäishaku - Fonecta Kohderyhmäpalvelu - Fonecta Kohderyhmäpalvelu. Fonecta Kohderyhmäpalvelu. Accessed 18 October 2019. <https://kohderyhmapalvelu.fonecta.fi/yksittaishaku?yritysid=24188407>

Grönroos, C. & Voima, P. 2012. Critical service logic: making sense of value creation and co-creation. *Journal of the Academy of Marketing Science*. Vol. 41 No. 2, pp. 133-150.

Hartikainen, E. 2014. Sitra Trends: Skills will challenge information. November 2. Accessed 8 August 2018. <https://www.sitra.fi/en/articles/sitra-trends-skills-will-challenge-information/>

Heinonen, K., Strandvik, T., & Voima, P. 2013. Customer dominant value formation in service. *European Business Review* 25(2), pp. 104-123.

Infoninland.fi. 2019. The Finnish education system. September 14. Accessed 10 October 2019. <https://www.infofinland.fi/en/living-in-finland/education/the-finnish-education-system>.

IDEO.org. 2015. The Field Guide to Human-Centered Design. Accessed 25 July 2019. http://d1r3w4d5z5a88i.cloudfront.net/assets/guide/Field%20Guide%20to%20Human-Centered%20Design_IDEOorg_English-6b015db2a5cb79337de91e8f52a0ef03.pdf

Infoninland.fi. 2019. The Finnish education system. Accessed 10 October 2019. <https://www.infofinland.fi/en/living-in-finland/education/the-finnish-education-system>.

- Juvonen, K. 2018. Yrittäjämäisten taitojen digitaalinen treenari on innostanut opiskelijoita! (LUKE-verkoston blogi). June 19. Accessed 9 August 2018. <http://www.avoinvirta.fi/?s=skilloon>
- Kataja, E.K. 2017. Trend 1: The riddle of work and income. April 28. Accessed 8 August 2018. <https://www.sitra.fi/en/articles/trend-1-riddle-work-income/>
- Kim, W.C. and Mauborgne, R.A., 2014. Blue ocean strategy, expanded edition: How to create uncontested market space and make the competition irrelevant. Harvard business review Press.
- Kitson, L. 2011. User-Led Does Not Equal User-Centered. UX Magazine. March 17. Accessed 25 October 2019. <https://uxmag.com/articles/user-led-does-not-equal-user-centered>
- Klement, A. 2018. Know the Two -Very - Different Interpretations of Jobs to be Done. Medium. January 15. Accessed 20 October 2019. <https://jtbd.info/know-the-two-very-different-interpretations-of-jobs-to-be-done-5a18b748bd89>
- Kolko, J. 2010. Abductive thinking and sensemaking: The drivers of design synthesis. Design issues, 26(1), pp. 15-28.
- Kumar, V. 2012. 101 Design methods: a structured approach for driving innovation in your organization. Hoboken, New Jersey: John Wiley & Sons.
- Kvale, S. 1996. InterViews. An introduction to qualitative research interviewing. London: Sage.
- Lindberg-Repo, K. & Dube, A. 2014. Titans of service: building strategic service leadership. Helsinki. Finland: Brand Audit Group.
- Lusch, R.F., Vargo, S.L. & O'Brien, M. 2007. Competing through service: Insights from service-dominant logic. Journal of Retailing, 83(1), pp.5-18.
- Lusch, R.F. & Webster Jr., F.E. 2011. A stakeholder-unifying, cocreation philosophy for marketing. Journal of Macromarketing, 31(2), pp.129-134.
- Lusch, R.F. & Vargo, S.L. 2014. Service-dominant logic : premises, perspectives, possibilities. Cambridge: Cambridge University Press.
- Luxembourg Chamber of Commerce. 2016. State visit to Finland: Chambre de Commerce. May 13. Accessed 8 August 2018. <https://www.cc.lu/actualites/detail/state-visit-to-finland/>

- Mandriko, N. 2017. How to use value proposition design to organize interview. Medium. June 17. Accessed 24 July 2019. <https://medium.com/lean-startup-circle/how-to-use-value-proposition-design-to-organize-interview-4cbbbf19f767>
- Ministry of Education and Culture. 2017a. Entrepreneurship education. September 1. Accessed 28 August 2018. https://minedu.fi/en/article/-/asset_publisher/yrittajyyskoulutus
- Ministry of Education and Culture. 2017b. Entrepreneurship Education Guidelines. September 9. Accessed 28 August 2018. <https://minedu.fi/documents/1410845/4363643/Entrepreneurship-for-Education-Guidelines.pdf/ad2a7ecc-ae1b-4460-8fc6-d394e9a0a23a>
- Moogk, D.R. 2012. Minimum viable product and the importance of experimentation in technology startups. *Technology Innovation Management Review*, 2(3).
- Moritz, S. 2005. Service design. Practical access to an evolving field. Köln International School of Design.
- Ojasalo, K. 2015. Using service design methods to improve student-centricity of higher education. In: International Business & Education Conference, New York City. August 2015.
- Osterwalder, A., Pigneur, Y., Bernarda, G. & Smith, A. 2014. Value proposition design: How to create products and services customers want. John Wiley & Sons.
- Patton, M.Q. 2002. *Qualitative Research & Evaluation Methods*. Third edition. London: Sage.
- Padley, A. 2017. *Designing a student-centered learning experience: The Digital Wellbeing Sprint*. Laurea University of Applied Sciences.
- Polaine, A., Løvlie, L. & Reason, B. 2013. *Service design: From insight to implementation*. New York: Rosenfeld Media.
- Portigal, S. 2013. *Interviewing Users. How to Uncover Compelling Insights*. New York: Rosenfeld Media
- Povilaitis, S. 2014. Acceptance Criteria. *LeadingAgile*. September 9. Accessed 19 October 2019. <https://www.leadingagile.com/2014/09/acceptance-criteria/>
- Prahalad, C.K. & Ramaswamy, V. 2004. *The Future of Competition: Co-creating Unique Value with Customers*, Harvard Business School Press, Boston, MA.
- Rainio, I. 2014. *Co-Created Corporate Story - Creating a Concept for Engaging Staff into Change Implementation*. Laurea University of Applied Sciences

Rehkopf, M. 2019. User Stories - User stories are development tasks often expressed as “persona + need + purpose. Atlassian. Accessed 18 October 2019.

<https://www.atlassian.com/agile/project-management/user-stories>

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

Sandström, S., Edvardsson, B., Kristensson, P., & Magnusson, P. 2008. Value in use through service experience. *Managing Service Quality: An International Journal* 18(2), pp. 112-126.

Scrum guides. 2017. *The Scrum Guide*. Accessed 18 October 2019.

<https://www.scrumguides.org/scrum-guide.html>.

Seikkula-Leino, J. 2011. The implementation of entrepreneurship education through curriculum reform in Finnish comprehensive schools. *Journal of Curriculum Studies*, 43(1), pp.69-85.

Servicedesigntools.org. 2009. *User Stories: Service Design Tools*. Accessed 19 October 2019.

<https://servicedesigntools.org/tools/user-stories>

Silverstein, D., Samuel, P., & DeCarlo, N. 2012. *The innovator's toolkit: 50+ techniques for predictable and sustainable organic growth*. 2 edition. Hoboken, New Jersey: Wiley.

Skilloon.com. 2019. Results. Accessed 18 October 2019. <https://skilloon.com/results/>

Skilloon.demo.site. 2018. Research. Accessed 18 October 2019.

<https://skilloon.demo.site/research/>

Stickdorn, M., Hormess, M.E., Lawrence, A. and Schneider, J. 2018. *This is service design doing: Applying service design thinking in the real world*. O'Reilly Media, Inc.

Stickdorn, M. & Schneider, S. 2011. *This is Service Design Thinking: Basics-Tools-Cases*. Bis Publishers 2011. Amsterdam.

Taylor, S.J., Bogdan, R. & DeVault, M. 2015. *Introduction to Qualitative Research Methods: A Guidebook and Resource*. John Wiley & Sons, Incorporated.

The Interaction Design Foundation. 2017. How to Conduct a Cognitive Walkthrough. Accessed 18 October 2019. <https://www.interaction-design.org/literature/article/how-to-conduct-a-cognitive-walkthrough>.

Ulwick, A.W. 2005. *What Customers Want: Using Outcome-Driven Innovation to Create Breakthrough Products and Services*. New York, NY: McGraw- Hill.

Ulwick, A.W. 2016. Jobs to be done: theory to practice. Idea Bite Press. United States of America.

Ulwick, T. 2017. The Core Tenets of Jobs-to-be-Done Theory. November 28. Accessed 14 September 2018. <https://jobs-to-be-done.com/the-5-tenets-of-jobs-to-be-done-theory-ba58c3a093c1>

Vargo, S.L. & Lusch, R.F. 2004. Evolving to a new dominant logic for marketing, *Journal of Marketing*, Vol. 68, No. 1, pp. 1-17.

Vargo, S.L. & Lusch, R.F. 2008. Service-dominant logic: Continuing the evolution, *Journal of the Academy of Marketing Science*, Vol. 36, pp. 1-10.

Williams-Grut, O. 2016. The 11 best school systems in the world - Business Insider. Business Insider. UK. November 18. Accessed 14 September 2018. www.businessinsider.com/wef-ranking-of-best-school-systems-in-the-world-2016-2016-11?r=UK&IR=T#1-finland-67-11

Wilson, A., Zeithaml, V.A., Bitner, M.J. & Gremler, D.D. 2012. *Services Marketing: Integrating Customer Focus Across the Firm*. McGraw-Hill Education. United Kingdom.

Yöntilä, L. 2010. Welcome to YVI Project site! Accessed 10 October 2019. <http://www.yvi.fi/intro-english>

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Appendix 1: Internal stakeholders' interview guide

Internal stakeholders' interview guide
PART 1: SKILLOON OVERVIEW
Participant overview
1. Could you tell me about yourself? <i>Your background, position at Skilloon and roles?</i>
Business understanding
2. What are the most important Customer Segments? <i>Who are your customers?</i> <i>Students age?</i>
3. Where is the biggest growth potential? <i>Which segments are declining?</i> <i>Which peripheral segments deserve attention?</i>
4. What binds customers to a company and its offer? <i>How important is brand?</i>
5. Which products or services could replace ours? Why? <i>Is it easy for customers to find and purchase similar offers?</i>
6. How easy it is for customers to switch to these substitutes? <i>How much do they cost compared to ours?</i>
7. What is Skilloon Business Model? <i>What are customers really willing to pay for?</i>
Pain relievers
8. Could you describe how Skilloon alleviates, eliminates or prevent things that annoy your customers before, during, or after they are trying to complete a job?
Gain creators
9. Could you describe how Skilloon produce outcomes and benefits that your customer expects, desires, or would be surprised by? <i>Including functional utility, social gains, positive emotions, and cost savings?</i>
PART 2: CUSTOMER OVERVIEW
Customer jobs
10. What tasks are your customers trying to perform in their work or personal life?
11. What functional problems are your customers trying to solve?
12. How does your customer want to be perceived by others?
13. What can your customer do to help themselves be perceived this way?
14. What emotional needs are your customers trying to satisfy?
15. What jobs, if completed, would give the user a sense of self-satisfaction?
Customer pains

16. How do your customers define too costly?
Takes a lot of time, costs too much money, or requires substantial efforts.
17. What makes your customers feel bad?
What are their frustrations, annoyances, or things that give them a headache?
18. What are the main difficulties and challenges your customers encounter?
Do they understand how things work, have difficulties getting certain things done, or resist particular jobs for specific reasons?
19. What negative social consequences do your customers encounter or fear?
Are they afraid of a loss of face, power, trust, or status?
20. What risks do your customers fear?
Are they afraid of financial, social, or technical risks, or are they asking themselves what could go wrong?
21. What's keeping your customers awake at night?
What are their big issues, concerns, and worries?
22. What common mistakes do your customers make?
Are they using a solution the wrong way?

Customer gains

23. Which savings would make your customers happy?
Which savings in terms of time, money, and effort would they value?
24. What would make your customers' jobs or lives easier?
25. What positive social consequences do your customers desire?
*What makes them feel good?
What increases their power or their status?*
26. What do customers dream about?
What do they aspire to achieve, or what would be a big relief to them?
27. How do your customers measure success and failure?
How do they measure performance or cost?

Appendix 2: Educators' interview guide

Educators' interview guide
PART 1: CUSTOMER OVERVIEW
Participant overview
1. Could you tell me about yourself? <i>Your background, position at Skilloon and roles?</i>
Customer jobs, pains and gain
2. What do you aspire to achieve in your life? <i>What would be a big relief to your work or personal life?</i> <i>What do you dream about?</i>
3. What are your big issues, concerns, and worries? <i>Is there something that keeps you awake at night?</i>
4. How would you like to be perceived by others? <i>What you do to be perceived this way?</i>
5. What negative social consequences do you encounter or fear? <i>Would you be afraid of losing trust or power, for example?</i>
6. What positive social consequences do you desire? <i>What makes you feel good?</i> <i>What would increase your power or trust for example?</i>
7. Could you describe me how is your current work? <i>How you plan the academic year, courses, activities?</i> <i>How is your teaching approach?</i> <i>How do you facilitate your students during the learning process?</i> <i>How they are monitored and what are the criteria for monitoring?</i> <i>How do you measure success, failure, performance and cost?</i> <i>How do you use digital solutions to support your work?</i>
8. What are the tasks that you perform in your work? <i>Perhaps students' feedback, grading system, create activities, exams, and others functional jobs.</i> <i>Is there some functional problems that you are trying to solve?</i>
9. What tasks, if completed, would give you a sense of self-satisfaction? <i>What emotional needs are you trying to satisfy?</i>
10. What are the main difficulties and challenges that you encounter in your work life? <i>What makes you feel bad in your work?</i> <i>Is there something that frustrates, annoys, or even gives you a headache?</i> <i>Do you have difficulties in getting certain things done, or resist particular jobs for some specific reasons?</i>
11. Which savings in terms of time, money, and effort would you value? <i>What would make your work or life easier?</i>
12. How do you update yourself regarding to new concepts of education? <i>How is the training of teachers regarding to entrepreneurial education?</i> <i>Can you see different aspects of teachers training in different cultures?</i>
13. Can you tell me why entrepreneurial learning interest you and your organization?
14. Could you describe how do you apply entrepreneurial learning concept in your work or organization? <i>What are the activities? How they are planned?</i> <i>How do you measure student's personal improvement and performance?</i> <i>How would be the perfect environment /scenario to integrate entrepreneurial learning concept with your current teaching approach at your organization?</i>
15. Which trends may influence your work life in terms of entrepreneurial learning education?
PART 2: SKILLOON OVERVIEW
Service features, pain relievers and gain creators

16. Could you tell me how Skiloon is implemented in your work or organization?
Is it extra-curricular or part of the academic year?
17. Could you describe how Skiloon alleviates, eliminates or prevent things that annoy you when you are trying to do your work?
18. Could you describe how Skiloon produce outcomes and benefits that you expect, desire, or be surprised by?
Including functional utility, social gains, positive emotions, and cost savings?
19. Could you describe Skiloon's features that enable and create value to you?
20. What are the main difficulties and challenges that you encounter by using Skiloon in your work?
21. What risks do you fear?
Is there some financial, social or technical risks that are you afraid to go wrong?
22. Could you describe how Skiloon could be improved?
What could create better impact in your personal and work life?
What could create better impact in the student life?

Appendix 3: Students' interview guide

Students' interview guide
PART 1: CUSTOMER OVERVIEW
Participant overview
<p>1. Could you tell me about yourself? <i>Your background, position at Skilloon and roles?</i></p>
Customer jobs, pains and gain
<p>2. What do you aspire to achieve in your life? <i>What would be a big relief in your life?</i> <i>What do you dream about?</i></p> <p>3. What are your big issues, concerns, and worries? <i>Is there something that keeps you awake at night?</i></p> <p>4. How would you like to be perceived by others? <i>What you do to be perceived this way?</i></p> <p>5. What positive social consequences do you desire? <i>What makes you feel good?</i></p> <p>6. What negative social consequences do you encounter or fear?</p> <p>7. Could you describe me how is your current student life? <i>Could you describe a good learning environment?</i> <i>What motivates you? What does not motivate you?</i> <i>What kind of activities do you enjoy?</i> <i>How is measured success, failure and performance?</i> <i>How do you use digital solutions in your school?</i></p> <p>8. What are the tasks that you perform at your university? <i>Is there some functional problems that you are trying to solve?</i></p> <p>9. What tasks, if completed, would give you a sense of self-satisfaction? <i>What emotional needs are you trying to satisfy?</i></p> <p>10. What are the main difficulties and challenges that you encounter in your university or personal life? <i>What makes you feel bad?</i> <i>Is there something that frustrates, annoys, or even gives you a headache?</i> <i>Do you have difficulties in getting certain things done, or resist particular jobs for some specific reasons?</i></p> <p>11. Which savings in terms of time, money, and effort would you value? <i>What would make your work or life easier?</i></p> <p>12. Could you tell me what education means for you? <i>How it could help you in your present life and future life (working life)?</i> <i>How do you learn new things? Could you describe how is your processes of gaining new knowledge and skills?</i> <i>Could you describe how do you measure personal success, failure and performance? How do you recognise self-development / self-improvement?</i></p> <p>13. Which trends may influence your life in terms of education?</p>
PART 2: SKILLOON OVERVIEW
Service features, pain relievers and gain creators
<p>14. Could you describe how are you using Skilloon? <i>How it is implemented in your school/course?</i></p> <p>15. Could you describe how Skilloon alleviates, eliminates or prevent things that annoy you in your current life?</p> <p>16. Could you describe how Skilloon produce outcomes and benefits that you expect, desire, or be surprised by? <i>Including functional utility, social gains, positive emotions, and/or cost savings.</i></p>

17. Could you describe Skilloon's features that enable and create value to you?
18. What are the main difficulties and challenges that you encounter by using Skilloon?
What makes you feel bad?
Is there something that frustrates, annoys, or even gives you a headache?
Do you have difficulties in getting certain things done, or resist particular tasks for some specific reasons?
19. What risks do you fear?
Is there some financial, social or technical risks that are you afraid to go wrong?
20. Could you describe how Skilloon could be improved?
What could create better impact in your personal, student and future life?