



**Generating customer insight for digital product development:
a start-up case study**

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<p>Customer insight is essential for building successful products that address customer needs and generate value for its users. Gathering customer insight is a part of every product and service development model but it is the integration into the development process that will determine the product's success. To generate customer value, product developers should utilize customer insight to design and improve not only products or services themselves but the whole customer experience: That requires a holistic view of their customer's ecosystem and the goals of different stakeholders involved in the value delivery. Companies, regardless of their size and maturity, often fail in either: gathering customer feedback, generating the right insight and/or integrating it into the company development process. Product development methodologies include at least elements of customer discovery and validation phases and highlight the necessity of customer insight for creating products. The importance and actual implementation of those processes in the business environment varies depending on the company, industry, and product.</p> <p>For start-ups who are building their first product for a new market, it is important to follow an iterative product development approach where the product evolves together with the customer. In the early stages company is serving the early adopters and each product iteration must deliver value to this group of enthusiasts who are already aware of the problem and eager to find a solution. It is only after those early adopters use the product, that the company starts to design and develop for the mainstream market where the needs and expectations may vary. In an environment of uncertainty and seemingly endless possibilities, a structured way of generating and integrating customer insight into the development process is important to stay on track with the maximum value delivery. Gathering insight is a first step but to bring value for product developers it must be documented and integrated into the development process. Product managers should maintain a constant loop of continuously generating and validating new hypotheses about users and the product and based on that drive product roadmap and feature prioritization. At each step, product features should be documented against users' needs and relevant validation data.</p> <p>In this case study, the structured approach to gathering customer data and producing customer insight has been brought to support the start-up in the product development process, preparing for its first commercial product launch. The start-up is building a mobile application that enables employees to train and strengthen their mental skills to enhance their well-being. The solution is offered as part of the employer's benefits package to make sure employees maintain good work-life balance and satisfaction. The objective of the thesis is to generate customer insight to validate the product concept and provide recommendations for product development based on customer data. The research was based on end-user interviews with the first product pilot participants as well as other potential users of the application. As part of interviews, both existing products as well as future development ideas have been tested with users to generate insight. Customer (employer) perspective was included based on the interviews with HR representatives. Information has been gathered about users, their attitudes towards mental skills development, the work environment, their interaction with the app, and the perceived value of using the product. Generic Product Development Model and Customer Development Model were adapted to integrate research into the digital product development process.</p>

Generated insights were used to identify product and user experience gaps and based on those improvement areas were defined and prioritized. The case study provides recommendations for the product development items answering user needs revealed in the research and described on the user journey. The study also provides insight into workplace context that can be utilized for further value proposition refinement and service development. Finally, the study serves as an example of a structured approach to generating customer insight for digital product development and includes further guidance for utilizing the voice of the customer in the company development process.

Keywords

Product development, customer insight, mental skills, well-being, workplace

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1 Introduction

For a business to succeed and be sustainable, the company must repeatedly generate customer value. Building products and services around specific customer groups and their needs enables the company to fulfill or even exceed customers' expectations and therefore maximize the value. It's not an easy job to discover and understand customer needs and desires, especially even before customers themselves can realize them. Designing and building products and services for explicit and implicit customer needs requires a deep understanding of the customer's environment, goals, jobs to do, behavior, and sometimes even personal characteristics.

To ensure that the product development team designs and builds products, services, and experiences around customer needs, a structured way of gathering customer insight must be integrated into the product development process. The value of customer insight becomes even more profound for startups, who are creating their whole company around innovative products targeting new markets, where customer segments are not known. In those circumstances, startups must prove both at the same time: a working product that provides value for the customer as well as a business model that generates revenue. Not only do they use customer insight to build the product but also to identify their target customer and validate that there is a market for their product.

This development-oriented thesis is a case study of a startup company launching its first product version. The company has been founded with a mission to provide evidence-based tools to develop one's mental skills. Users can do so by following learning programs in the form of bite-sized exercises via a gamified mobile application. The company was founded in 2019 in Helsinki, and it consists of four core team members. Customers of the platform are mid-size, growing companies looking to invest in their employees' well-being by offering relevant benefits and support programs. The company claims that developing one's mental skills enhances personal well-being and therefore helps companies to maintain good employee experience and retention. They believe mental well-being tools should be available for everyone when they need it.

In the current early development stage, the team is focusing on developing the product version that satisfies the needs of early adopters and gaining their first paying customers. The company has just launched the first version of the product and is launching the pilot with the first customer. The team hopes to gather the first user's and customer's feedback and utilize insight to validate the product concept and make decisions for further product development and business strategy. The thesis supports the company in gathering feedback and generating customer insight to provide product development recommendations.

As the leadership team believes that end-user engagement is the key to product success and a sustainable sales model, the primary focus of the research and thesis is on the end user. To provide recommendations on product development, the research must find out what makes users engage with the app and where they find value. Nevertheless, the context of the workplace and employer-employee relationship should be taken into consideration when developing the product and has been also included in the research.

The objective of the thesis is to gather and utilize customer insight to validate the product concept and provide recommendations for product development. At the end of the research, the company will receive recommendations on focus areas for the product development.

The research plan is built around 3 research questions:

- Is the product helping users to develop mental skills and what is the perceived value of using the app for the user?
- Are users engaging with the app and what supports and limits the engagement?
- What improvements should be included in the product roadmap to engage users and generate value?

The scope of research is to gather feedback from the users participating in the pilot, define a development hypothesis based on findings (phase 1), and test those hypotheses (phase 2). Research focuses on end users of the product, but customer perspective is also included in the research.

2 Customer insight in product development

2.1 Creating customer value

Theodore Levitt, a legendary Harvard Business School marketing professor said: *People don't want a quarter-inch drill, they want a quarter-inch hole.* To be successful, products and services must deliver value to customers, enabling them to fulfill objectives at the positive cost-benefit calculation. *Value fulfills a deep need, desire, or want for the customer that they do not even know existed (Crumlish, 2023).* Product development is not about creating products or services itself; it's all about delivering value to customers. Cristian Crumlish says (2023) that product management is responsible for *delivering value to customers, through the coordination and delivery of customer experiences, and making sure that the experience provided to customers brings enough value to be 'hired' by the user.* He also highlights (Crumlish, 2023) that to make business sustainable, the provision of value must reoccur as repeatable cycles of inputs and outcomes. The sustainable, successful business must then provide value but also provide a sustainable way of delivering it to customers to make a profit.

Over the last decades, business logic evolved from the value being embedded in the product sold to customers in exchange for money, towards the value being co-created by the customer and the business, alongside the entire course of the customer experience with the company. Service-dominant and customer-dominant logic emphasize the role of customer context, their daily practices, networks, ecosystems, and interactions for the value co-creation process. Experience-dominant logic puts the customer and their perception in the center, distinguishing 3 types of value: value in exchange (what did I get for the money?), value in use (did I fulfill my need or objective when using a product or service), value in context (was it useful in this situation?).

As the market logic evolves together with a rapidly changing world, to create sustainable customer value, businesses must create all 3 value types and continuously co-create them with customers in their context. Products are no longer sold as independent goods but rather as compact end-to-end solutions to customers' problems that they may not even look for. As the line between product and service blurs and the actual value is generated in the customer context, product developers must take into consideration the whole customer logic in a constantly evolving setting. It must take into consideration not only single customers' needs but the whole ecosystem and the needs of all actors.

Henry Ford said If I had asked people what they wanted, they would have said faster horses – we can only rely on what customer says, we must deeply observe and understand them to come up with innovative solutions and generate value. To do that, product developers must understand customer

context, their needs, and desires and that's why they need an efficient way of gathering and integrating customer insight into the development process.

2.2 Customer insight as a part of the product development process

2.2.1 The role of customer insight

Customer insight refers to the interpretation of customer data, behaviors, and feedback into conclusions that can be used to drive actions that improve product development and customer support (K.T. Hanna, S. Sachs, 2023). Customer insight gives us information about customers' motivations: needs, desires, and jobs to be done. It can also provide knowledge about customer experience along the journey and reveal customer pain points or delights. Customer insight is crucial to driving a customer-centric product or service design and development process as well as a sales and marketing strategy. It enabled all company functions to focus their efforts on provision of the customer value and efficient communication of value propositions to customers (Melander, 2022).

Gathering information about customers is an integral part of every product development framework, and its impact is widely proven by researchers. Involving customers in the product discovery and development process increases the company's innovation capability and improves the effectiveness of development processes (Ayoub, Abdallah, & Suifan, 2017). Gruner and Homburg (2000) show that customer involvement during the early and late stages is associated with new product success. Other research has shown that product development projects were more likely to succeed when they were based on carefully defined customer needs (i.e., a market factor) than those based on new technological opportunities (Verworn, Herstatt & Nagahira, 2008). Meeting or exceeding customer requirements to increase customer satisfaction is the ultimate target of total quality management (Kondo Y, 2001)

Below 2 product development frameworks and the role of customer insight in each of them are described.

2.2.2 Generic Product Development Process

Generic product development methodology (Ulrich & Eppinger, 2011) distinguishes 6 Phases of product development: Phase 0: Product Planning, Phase 1: Concept Development, Phase 2: System – Level Design, Phase 3: Detail Design, Phase 4: Testing and Refinement, Phase 5: Production Ramp – Up.

In this model, customer insight is gathered mostly in phase 1 and 4. The decision to initiate product development is driven by technological advancements and company business goals, not by

customer needs. In phase 0 Marketing defines market segments and market opportunity while the first concept development phase is where the actual target customers and their needs are identified, crosschecked with competition, and assessed in terms of implementation. After that system and detailed design and implementation follow including sales targets, marketing plan, design of tooling, and processes (Ulrich & Eppinger, 2011).

In the **product planning phase (phase 0)**, the product development ideas are generated based on existing customers' feedback on existing products and their suggestions, interviews with lead users, competitors' research, and emerging technology opportunities. Product ideas are prioritized based on the company's competitive strategy decided by senior leadership according to technology trends, customer focus, cost, and market trends. Customer segmentation enables the company to evaluate its portfolio against segments and identify the biggest business opportunities.

Once the project is approved in terms of its potential profitability, it's time to move to the **concept development stage (phase 1)**. This phase consists of identifying customer needs, establishing target specifications, generating, and selecting concepts, and concept testing. Economic analysis, benchmarking of competitive products, and modeling and methods used to support concept development. At the same time, modeling and prototyping allow the development team to prove the product's feasibility. The goal of the first stage is to comprehensively identify customer needs by establishing a high-quality information channel that runs directly from customers in the target market and the developers of the product. It consists of gathering raw data, interpreting them in terms of needs, organizing needs into a hierarchy (primary, secondary), establishing the importance of needs, and reflecting on results. Every identified customer need should be supported by a customer statement and expressed as an attribute of the product. What's important, the model allows concept generation and testing to be an iterative process that aims to verify that customer needs have been met.

Example: Concept generation and selection focus on clarifying the problem that the product is trying to solve, decomposing it, and focusing initial efforts to target subproblems. In the selection phase product prototypes are created. Those selected once are then tested with a survey population. Concepts can be presented to users in different formats such as a sketch, storyboard, video, or working prototype. Customer response is measured and used to decide whether to continue with the existing concept, modify it, or drop it.

After the winning concept is selected, the product team moves to System – Level Design (phase 2), Detail Design (phase 3) which are purely focused on delivering the actual product. Finally, in phase 4, it's time for testing and refinement. Alpha prototypes are built to test whether the product is working and satisfying key user's needs. Beta prototypes are built and tested in the user's product

environment to make sure products are reliable and perform according to specifications. Phase 4 is when the sales team develops a sales plan and marketing produces launch materials. Phase 5, the product ramp-up is where the production process is mastered, the product is delivered to the first customers and once production is smooth, the official product launch happens.

Urlih and Epinger (2023) in their book present a very systematic approach to product development and gathering customer insight, and even if the method is built around technical products, it can be applied to any type of product. It allows for multiple iterations of concept testing in the concept development stage, but it does not take the development-customer loop as a core of a process. The decision to build a product happens already in the product planning phase based on company strategy and known customer segment needs. Sales and marketing start work at the end of the process, while the actual product is ready to be shipped. Until the end of the process, the value proposition is not presented to customers and is not validated as to whether customers are ready to pay for it. This approach applies to a company with a known market, known customer segment and its needs, high confidence in the technical feasibility of the product, and a stable financial position that allows the company to generate revenue from other sources while developing new products. Customer insight is gathered through surveys, interviews, and concept testing but the sales strategy is not validated until the final product is ready and enters the market. While this methodology provides a very structured way of integrating customer insight into product development, it may not be enough for the startup entering an unknown market with limited resources and limited knowledge about the size of the market.

2.2.3 The Customer Development Model

Steven Blank in his book *Four Steps to Epiphany* (2013) questions the efficiency of a generic development model practiced by small and big companies and proposes an additional, more iterative, and customer-centric approach – Customer Development Model (CDM). According to Blank, CDM should go hand in hand with Product Development for a company to become successful. Blank categorizes companies as the once:

- Bringing a new product into an existing market
- Bringing a new product into a new market
- Bringing a new product into an existing market and trying to resignation that market as a low-cost entrant
- Bringing a new product into an existing market and trying to resignation that market as a niche entrant

The traditional product development model is proven to work in a first category where the company offers new products to well-defined, known customers. The difference for most startups

is that they usually do not know who the customers are and what the size of the market is. To find it out startups need an iterative, customer-oriented approach that enables them to learn fast and at a low cost.

The four steps of the Customer Development Model are: *Customer Discovery*, *Customer Validation*, *Customer Creation*, and *Company Building*. By design this process is iterative and focuses on learning especially for customer discovery and validation phases where it's encouraged to 'fail' until the customer need is validated. Customer Discovery focuses on understanding customer problems and needs, Customer Validation on developing a sales model that can be replicated, Customer Creation on creating and driving end-user demand, and Company Building on transitioning the organization from one designed for learning and discovery to a well-oiled machine engineered for execution (Blank, 2013).

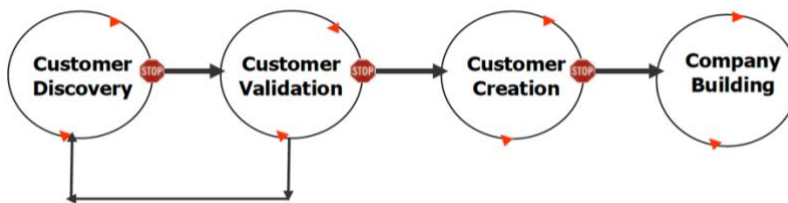


Figure 1 Phases of the Customer Development Model (Blank, 2013)

Let's look closer at the customer discovery and customer validation stages.

Customer discovery

The customer discovery phase is all about turning the educated guesses of startup founders into a tested hypothesis aiming to understand the early customer's needs and pains to eventually design your product and business strategy around them. Those early customers are called Early Evangelists, and they have 5 characteristics - they have a problem (1), they do understand that they have it (2), they are actively searching for a solution (3) the problem is painful enough that they cobbled together an interim solution (4) and customer is committed to solving a problem (5). In this phase, we learn about customer problems, who is the customer, the decision maker, and the user if those are different as well as what makes them use and buy the product (Blank, 2013).

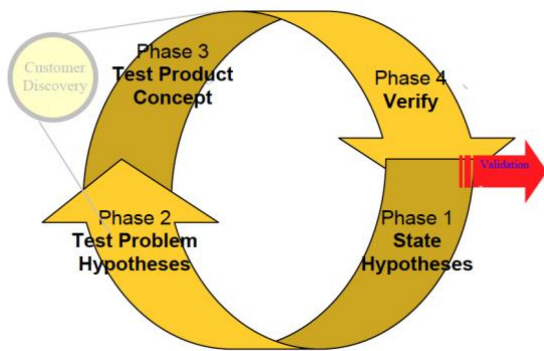


Figure 2 Blank's Customer Discovery phase (Blank, 2013)

Customer validation

The goal of customer validation is finding the first customers among early evangelists and creating scalable, repeatable sales, marketing, and business model business models. Customer validation includes:

- Articulate a value proposition
- Prepare sales materials and a preliminary collateral plan
- Develop a preliminary distribution channel plan
- Develop a preliminary sales roadmap
- Hire a sales representative
- Align your executives
- Formalize your advisory board

While going through those actions, learning from customer discovery is always in use and enriched with learning from formulating and testing value propositions to potential customers. At the end of the phase, a start-up should know who a buyer is, whether the solution sells, and if yes how to sell it.

After customer validation is completed, it's time for execution in **Phase 3: Customer Creation** – creating a scalable acquisition and demand creation model focused on acquiring a sustainable customer base. Marketing and sales strategy is a continuous experimentation around market types and the message. The fourth step, **Phase 4: Company Building** is all about scaling from serving the Early Majority to the Mainstream market. That may require coming to customer discovery and validation stages with the comfort of a stable customer base. Here is where the company grows and the structured way of integrating customer insight into product development is needed to align the entire organization around customer needs and iterating based on market feedback.

Blank (Blank, 2013) also highlights the value of the technology life cycle adoption curve and its role in the product development process. At different points of the product development lifecycle, a startup offers its product to different groups of customers: before crossing the chasm - Technology Enthusiasts, & Visionaries, and after crossing the chasm: Pragmatists & Conservatives (Mainstream market), Sceptics. In the initial phase, the startup concentrates on developing and selling products to a small group of early customers who believe in their vision and co-create the future product with them. While the product develops, toward phase 4, it must survey the mainstream market: early and late majority. According to the author of the diffusion of innovation theory, Everett Rogers, innovation must reach the critical mass, and enter the majority market to become sustainable (Wikipedia, 2024). That means that eventually, a start-up must provide a product that will meet the needs of the majority, but it will not happen with the first product iteration. As the product evolves, so does its audience and that's why customer discovery and integrating customer insight into product development is a core of startup growth at every phase.

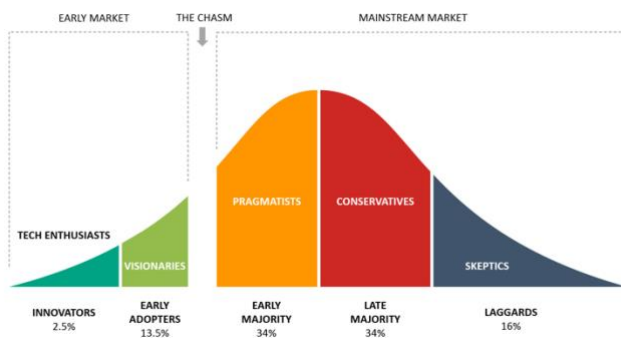


Figure 3 Roger's user types

What's important CDM doesn't replace the product development process but should go hand in hand, especially in situations of entering a new market, where customers are not known. The model establishes 4 steps of the CDM accelerate customer understanding, complement product development, and make sure the market for product vision exists. CDM is all about gathering and integrating customer insight not only into the product development but also into the whole startup lifecycle: as the customer changes from early adopter to majority, the company and the product must adapt to grow and become profitable.

2.2.4 Customer insight for digital product development in a startup

Despite the popularity of the above concepts and the widely acknowledged necessity of integrating customer insight into product and startup development processes, small and big companies fail to

deliver and launch successful products, often because they do not meet the needs of customers, or the customer does not realize the value of the product (Simester, 2016).

9 out of 10 startups fail in the long run (Embroker, 2024), 3-4 of those due to the lack of market-product fit (CBInsights, 2021) Lean startup methodology guides startups to launch early and often and fail fast to succeed. Following this model, what is often forgotten is the customer discovery phase at the beginning of the project as well as a structured way of generating customer insight when forming and testing new hypotheses and market opportunities (Eisenmann, 2021). A startup may fail because the customer has not been validated: maybe the need exists but is it big enough that the customer is ready to pay for it? Does the customer recognize the value of the product? Are there enough customers out there to make a business successful?

Designing, developing, and launching a product that solves customer problems is not yet enough to succeed. The customer and/or the user of the product must realize and understand the value that the product or service offers and also the whole experience of this product or service has to be good enough for them to continue using it, paying for it, and come back for more. Customer is not validated until the start-up is sure that they found an early majority group of users who are ready to pay for the provided experience. Unfortunately, often product development goes ahead of customer validation and that's where the financial resources get burned. Sales and marketing efforts can help formulate and test multiple value propositions before the actual functionalities are implemented in the product. Prototypes and products MVP helps to gather customer insight and validate whether customers can realize the value of the product. When the product is launched, user engagement serves as a validation for a product. For a start-up to be successful, customer discovery and validation must go hand in hand with actual product development. It is important that a product delivers the promised value or at least its part. Coming up with new ideas and validating them should be an integral part of the product development process that enables us to continue working on validated areas and reject those that do not provide customer value. In a startup with limited resources, developing things that do not provide direct customer value can cost the business its life, therefore experimentation should be at the core of startup operations, ensuring that each decision is backed up with customer insight and developed once validated.

3 Research

3.1 Research methodology and structure

The thesis is a case study that focuses on a startup company building its first digital product version and looking for the first group of customers. It is a development-oriented thesis that aims to gather and analyze customer insight to provide recommendations for the development of a product strategy.

The goals of the research and thesis have been formulated in cooperation with the whole start-up team consisting of the CEO, CTO, and CMO of the company during two group semi-structured interviews. Additionally, the Product Designer working with the team has been interviewed separately.

The first semi-structured interview focused on understanding the company's vision, plans, needs, and objectives. Based on this interview, the initial scope of the thesis has been agreed. The second semi-structured interview focused on clarifying pilot goals and what the team is expecting to learn from it. Based on the second interview with the founding and product designer, I formulated research questions, and thesis objectives and presented them to the team for validation. I also interviewed a Product Designer to learn about his objectives, and areas of interest to include them in the plan. After that, I prepared a research plan and shared it with the team. The initial scope of the research was based solely on gathering and analyzing feedback from pilot participants. The plan was to cover at least 3 customers in the pilot with 10 users each. Unfortunately, the company has not been able to recruit enough pilot companies to satisfy the need for the research. Failure to recruit the participants also highlighted the low maturity of the product as well as brought up the need for additional alignment and prioritization. After the first pilot ended, the company decided to focus on improving the product before expanding the pilot group. That's why additional research has been extended to non-pilot users and employers and divided into 2 research phases. The first phase involves collecting data from the pilot users of the product. The second phase is intended to test the development hypothesis and explore further questions based on the workshop with the product development team.

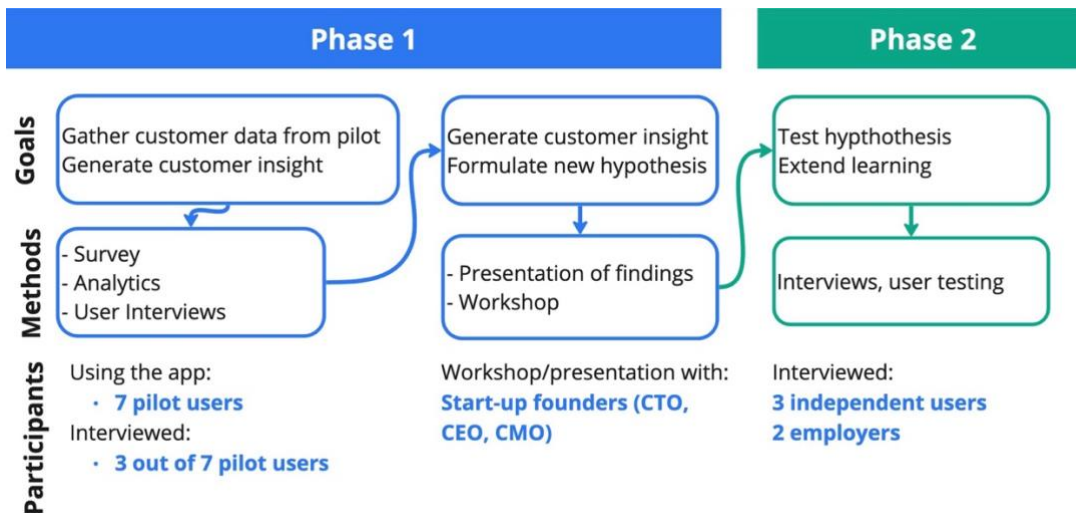


Figure 4 Research plan overview

In the first phase, 7 employees from the pilot customer took part in the pilot. Users were recruited by their employer who agreed to pilot the solution. Users were given access to the app, which included the first mental skills development program focused on building emotional intelligence. The program consists of 6 modules, each module including a short theory part and exercises. Participants were introduced to the app and program concept by email and video. As a part of a pilot participants were given 1 month of unlimited access to the app.

The goal of pre- and post-pilot surveys was to:

- Gather demographics and preference-related data about the users
- Compare perceived mental skills development pre- and post-using the app



Figure 5 Research phase 1: Pilot research plan

3 pilot participants users agreed to be interviewed. Findings and initial recommendations based on the first group of interviews, surveys, and analytics data were summarized in the hour presentation (attached in Appendix) for the startup team. After that, recommendations have been revised together with the team and a workshop has been planned. The goals of the workshop were to:

- Cross-check the planned roadmap with identified 3 areas of user's needs and ensure alignment.

- Select 1-2 planned features answering identified user needs for further testing

The overall results of the workshop did meet the plans but also revealed the need to summarize all assumptions and hypotheses the team had for their product and include them in further research.

As a result of the workshop, 3 hypotheses have been formulated for phase 2 of the research:

- By providing users with check-in functionality that contains emotion checks, we can answer the needs of relief and self-understanding as well as provide more relevant content. That should lead to better user engagement.
- Employers care about employee's well-being and want to provide solutions to support it but resources and structures to do so depend on the company size.
- Employees would use the app when provided by the employer.

In the second part of the research, the goal was to validate the hypothesis formulated during the workshop with the start-up team and expand on the main research questions. In phase 2, participants were identified from personal networks based on selection criteria defined: a person between 25 – 40, working in a small or medium company, preferably in a fast-paced start-up environment. For employer representative: person in the company responsible for HR or People's well-being, preferably with experience working in a startup or medium company. Five participants were recruited for interviews in phase 2 (3 potential user interviews and 2 employer representatives).

Overall, the research methods included qualitative and quantitative methods.

Quantitative methods:

- Survey – end users – before and after using the app
- Analytics gathered in the app: User's data collection points in the app: user login to the app, user coming back to the app, user completing exercise.

Qualitative methods:

- Semi structure interview with startup founders (2 interviews) and product designer (1 interview)
- Semi-structured interview with pilot users (phase 1 - 3 interviews)
- Semi-structured interview with elements of the product (MVP) testing (phase 2 – 2 interviews)
- Semi-structured interview with employer representative (phase 2 - 2 interviews)
- Workshop

3.1.1 Quantitative methods: survey & analytics

Pre-pilot survey was designed to gather general demographics from pilot participants, learn about their preferences and attitudes towards developing mental skills, and also get to know their perceived well-being & focus on developing mental skills before using the app. The goal of the first survey was to gather basic demographic information about the user and their attitude towards well-being and mental skills development. That information should serve as a base to formulate customer segments.

Post-pilot survey, apart from the above-mentioned demographic metrics, contained questions about the app experience and usage, perceived well-being & focus on developing mental skills after using the app. Perceived well-being & focus on developing mental skills were measured in both pre-and post-surveys to evaluate whether users perceive that their mental skills developed when using the app and offered program. The survey served as a first attempt to measure user's progress in terms of mental skills development and well-being. It should also collect feedback from users who did not want to participate in the interview.

Analytics were gathered and analyzed using the Post-Hog app in phase 1, containing anonymized data of app users. In the analytics dashboard, one can observe user retention and exercise completion with each app visit.

3.1.2 Qualitative methods: interviews

In both phases of the research, semi-structured interviews with pilot and potential app users were conducted face-to-face and via video call. All participants received an email invitation with information about the purpose of the research, interview as well as recording options. That information was also informed at the beginning of the interview and upon their agreement, audio and transcript were recorded.

Table 1 List of interviewed user and their characteristics

Date of the interview	Gender	Age	Role	App modules completion
Phase 1 of the research				
17.07.2023	Female	26	Employee	5/6, apart from the last one (bug to access)

7.08.2023	Male	35	Employee, team supervisor	3/6 modules
13.09.2023	Female	-	Employer	All
Phase 2 of the research				
31.10.2023	Female	31	Employee, contractor HR recruiter, small recruitment company	No app access before the interview. Interview, value proposition and prototype testing
17.11.2023	Male	30-40	Employee, Designer & Software Engineer, Ex- CEO of a Strat Up, now between jobs	No app access before the interview. Interview, value proposition and prototype testing
24.11.2023	Female	30	Employee, Partnership Manager	App access before the interview, value proposition testing, app feedback
6.11.2023	Female	32	Employer, HR Business Partner	Interview, value proposition testing
17.11.2023	Female	30-40	Employer, HR operations	Interview, value proposition testing

In the first phase of the research, the goal of the interviews was to gather data that enables answering research questions. Every pilot participant received an invitation for an interview two weeks after the pilot had started. The invitation was re-sent after a month toward the end of the pilot phase together with a post-survey link as an alternative to providing feedback. All performed

interviews were semi-structured interviews, where the list of topics to explore and a set of questions was prepared beforehand as an interview guide.

The following topics were explored during 3 interviews in phase 1 (1 employer and user, 2 users):

- participation in the pilot and perceived benefit,
- overall app experience and interaction with the app
- content and its structure in the app,
- the context of using the app,
- attitude toward personal development, and
- personal development and mental skills training – attitude and methods

To understand what creates customer value, it is necessary to understand what triggers the app usage and what motivates or could motivate users to continue using it. Users were also asked about their motivation to participate in the pilot, other strategies to develop mental skills, and past behavior when coping with difficult situations. Additionally, to answer what supports and limits user engagement in the app, participants were asked about the overall app experience, content, and interactions in the app.

The second phase of the research was designed to validate the hypothesis formulated during the workshop, test the new feature prototype, test the current value proposition with users and employees as well as expand on initial research questions. During phase 2 of the research, 3 interviews with potential app users and 2 interviews with employer representatives were conducted.

During 3 user interviews, 2 different research plans have been used.

In the first scenario, the interviewee was given the app access beforehand and asked to test it. The interview was then focused on gathering feedback on the existing version of the application and collecting data for the initial research question as well as testing the value proposition.

Topics in the first scenario:

- meaning of well-being and development of mental skills
- difficult situations in the workplace and employer strategy and support for mental well-being and personal development
- overall app experience and interaction with the app
- content and its structure in the app,
- the context of using the app,
- testing value proposition

In the second scenario, 2 interviewees did not use the app before the interview. In addition to general questions about attitudes toward well-being and employers' context, this scenario focused on testing the prototype of the new check-in feature to validate new product ideas and testing value proposition.

Topics for the second scenario:

- meaning of well-being and development of mental skills
- difficult situations in the workplace and employer strategy and support for mental well-being and personal development
- testing value proposition
- testing prototype

Two interviewed users were asked to try an app or prototype of a check-in feature followed by the presentation of a value proposition. They were also presented with a scenario in which their employer representative sent an email informing them that they could now use the app. The email contained needed information, an app, and a program description. After reading an email, users were presented with an app prototype. By presenting an email and prototype, the value proposition could be tested in terms of benefits understanding but also comparing expectations from the value proposition with the app offering presented in the prototype. This way, we could learn whether the proposed product fulfills the user's expectation created based on the presented value proposition, and explore the user's need for the product in general.

Hello All,

We are excited to inform you that the new service supporting your well-being is available to all our employees. The Oyama app offers evidence-based self-development tools in your pocket to support you in your personal well-being journey - for a balanced life. The 'Emotional Intelligence' program offered via the app will help you to understand and manage your everyday emotions. The app offers a variety of exercises that enable you to train your mental skills, starting from emotional intelligence.

You can download the app and learn more about it at www.getoyama.com
To start using the app, register with your company email address. For more instruction and information about the program the app visit our [Sharepoint](#).

Attached infographic with a snapshot of the program.

If you wish to give us feedback about the service please contact [HR Department](#).

Best regards,

Anna
Head of People & Culture



Figure 6 Email content

Figure 7 Email attachment

Also, 2 interviews with employer representatives (HR) were performed. Interviews were performed online as a 30m video call. Both interviewees had experience with working in medium and small companies and could discuss the different structures and approaches. During those interviews, topics of well-being and the interviewee's experience connected to providing support for employees were discussed. Also, the start-up website with the value proposition was presented to understand

the relevance and efficiency of the current value proposition for the interviewed employer representatives. The value proposition test was intended to verify whether the problem and value definition that the company created resonated with employer representatives and whether the information provided on the website allowed visitors to understand the value. We wanted to see whether the benefit of using the app is understood and valued by target customers.

3.2 Data analysis

Data from the analytics tool Post hog has been analyzed in the tool. Survey responses have been gathered in Excel format and analyzed together with interview data. Due to the very small number of participants, quantitative research methods provided little utility, which has been described in research limitations.

Data from interviews are the most valuable and insightful. Data from the interview has been analyzed in the inductive method. Interview data has been analyzed using the Miro board. First, I analyzed each interview one by one, categorizing data according to the main themes discussed in each interview. In the next step, I organized data from all interviews around commonly occurring themes.



<p>Step 1 Interview data categorization based on interview questions</p>	<p>Step 2: Data categorization based on common themes in all interviews</p>
	

Figure 8 Analysis of interview data using Miro board templates

In phase 1 common topics for all interviews were:

- Expected and perceived value of participating in the pilot and using the product.

- Trigger to use the app and the context of usage.
- Overall experience with the app and interaction with it

Similar to phase 1, data collected during the interviews can be organized around 5 topics. Additionally, users' pains and delights have been identified and data has been organized to identify common themes. From the second round of interviews, there could be main common topics distinguished:

- Understanding and current strategies around well-being and personal development
- Expectations and needs of the employer
- Perceived value based on presented email and app or prototype testing
- Check-in feature feedback
- Additional app feedback

3.3 Research limitations

The thesis plan and related research have been heavily dependent on the startup's readiness to launch the first product version and the overall evolution of commercial launch plans. Due to the summer holidays as well as challenges with releasing the first app version, the pilot took much longer than expected. The initial plan was to have the app open for a pilot or 1 month only, proceed by the pilot survey, and close by the pilot survey. Initial plans also included at least 3 pilot customers and triple the number of users. Because of the changing scope and limited number of participants, the research plan and methods had to be adjusted on the go and some initially planned methods (survey, analytics) were not as efficient due to the very small final participant probe. Research is based mostly on the qualitative interview method with a small user sample. Quantitative methods did not provide much value in this research setting.

Survey results in terms of comparing pre- and post-metrics, provided little value for this research. Users did not use the app enough for the evaluation to be reliable and not enough answers to post-pilot surveys have been received. Additionally, low app engagement, small sample and the timing of the survey coming much after the user interacted with the app did not allow for gathering any reliable data. Also, executing a post-pilot survey remained a challenge: for participants who participated in the interview, a survey was too much additional effort to complete. Interviews were performed with 2 groups of users: one was a pilot group who undergo also a pre-pilot survey and the second was the collection of individuals selected from personal networks based on criteria. The second group did not fill pre and/or post-survey.

The survey can be used for further research and piloting with a bigger group of users but did not provide good quality data for this research with a very small sample. The general concept of

monitoring the progress of the user in terms of mental skills development must be re-evaluated together with the value proposition.

Similarly, the analytics gathered in the Post-Hog allow us to understand the app retention of pilot users but due to a very limited sample, they can serve as an indicator of user behaviors (lack of retention) but cannot inform us about trends or patterns in terms user's interaction with an app. Additionally, Post-Hog data do not allow distinguishing user cohorts for example to understand which users come from the pilot group. That can be enhanced with a premium app version as the company expands its user base.

4 Research findings

4.1 Main findings

4.1.1 About user's

All users who have participated in the research use English in their daily lives, and they found it intuitive and comfortable to use English as a primary language in the application. All participants are in the age group 18 -44, with most of them being between 25 -34.

All 7 pilot participants surveyed declared that understanding and managing their emotions is important for them and almost all of them feel quite aware of their emotions and how they impact everyday life. 5/7 declared that they are working weekly on developing their mental (psychological) skills, 2 of them are never doing that or are not sure. This data was not confirmed during the interviews with selected participants. Working on mental skills was rather a wish or desire, than a fact. Pilot Participants vary in terms of feeling of general well-being. The emotional intelligence concept is familiar to users but the benefits of it are not well understood, some of them wish to learn about it and how they can use this knowledge in daily life. From interviews, we could also observe that the emotional intelligence concept is familiar but the impact on it on daily life is not always easy to pinpoint. Participants described it as understanding and managing their own emotions and also understanding the emotions of others.

Most of the research participants utilized some form of mental skills development: psychotherapy, digital apps, at work training were methods mentioned by most participants. Surveyed pilot user users also claimed to utilize various learning methods: *Looking for various content on their own*, reading books/articles, and *face-to-face lessons* being the most popular.

What's important interviewed participants tended to compare or at least look for similar results from the app as from other familiar mental skills development strategies such as psychotherapy, personal coaching, podcasts, articles, and psychometrical assessments. This is of course natural for people to build expectations based on what's known and previous experience. They will compare it to other applications' experience (regardless it is a personal development app or other) as well as psychical experiences that they encountered. Some of them mentioned using other applications such as Nightingale, Oura app and ring, Coccoo app, Mindgram, and Dayilo to work on their mental strategies or health habits.

4.1.2 User needs, pains, motivators, and blockers

Primary all interviewed pilot users declared that the difficult situation was a trigger to look for help by opening the application. They expected that the app could help them to cope with the difficult situation.

Examples of difficult situations mentioned by users:

- *I received bad feedback* (Female, Employee, pilot participant)
- *I have a lot of running in my head* (Female, Employer, pilot participant)
- *I felt isolated, I didn't know if I was doing right or not* (Female, Employee, pilot participant)

Users' main need for ***coping with a difficult situation*** can be divided or described on 3 different levels: need for instant relief, need to understand feelings, and need to develop skills.

- **Level 1: Instant relief:** a form of relaxation to cope with immediate results of difficult situations or a stressful day. Instant relief is a reoccurring need and if the solution helps the user to cope once, they would probably come back again in a similar situation:
 - o *I need instant relief so that I can come back home and not be stressed* (Female, Employer, 30 -40)
 - o *I just want to zoom out.* (Female, Employee, 31)
- **Level 2: Understand oneself better and understand others.**
 - o *I need to understand my feelings better.* (Female, Employee, 26)
 - o *I would expect I would do the questionnaire and get guidance, and information. I did the Gallup test twice (...) because the questions were engaging, and I could learn about myself.* (Female, Employee, 30)
 - o *Using the app – helping people understand themselves better, learn new skills to avoid problems, and support growth* (Female, Employer, 30 -40)
- **Level 3: Developing skills to handle situations better in the future.**
 - o *If I get angry, I want to remove myself from the situation and come back, but that's not always an option I want to develop some skills that will help me to handle difficult situations better in the future. I need to learn how to handle difficult situations better and know how to defuse a bomb that might explode* (Male, Employee, 35 pilot participant)

The need for instant relief and understanding yourself better are the most immediate, interconnected needs where users would start interacting with an app. The third identified need is skills development, but it was not mentioned by any user as a primary trigger to open the app.

Apart from the 3 levels of user needs, based on all performed interviews, it is possible to distinguish common user motivators and blockers to either use the app or generally develop their mental skills. This can help app design to select the right strategies to support users in their journey.

User's general motivators

- Helping to relax or helping me to feel better.
- Learning something new about myself (like the Gallup test, psychotherapy), and receiving feedback or insight that one could not generate on its own.
- Helping me to reflect in a way that brings insight and results, that one could not generate on its own or it would take me more time.
- Reading own notes from before - tracking mood/thoughts/progress and accessing it afterward
- Learning about psychological concepts to understand what they mean.
- Naming own feelings and emotions
- Learn actionable exercises that can be put into practice
- Content that is related to actual life situations, the user can relate to
- Time specifically reserved, dedicated for a development activity (at work context), or prompted to use it
 - o *The app could be like an online therapist, coach, or someone who forces you to reflect because normally we don't do it. Resulting in psychotherapy but at a lower cost. (Female, Employee, 30)*

User's general blockers

- It's difficult to get a mental routine as a habit and prioritize it within daily activities.
 - o *When to do that: before or after work? During work? (Female, Employee, 31)*
- It's difficult to find quality content when looking for information on the internet/social media:
 - o *Some are good, and some are 'pop' psychology (Male, 30-40, Employee)*
- Reflection is not necessarily equal to learning
 - o *I don't feel like I am learning when I reflect (Female, Employee, 31)*
- The value behind mental skills training, and emotional intelligence training is difficult to recognize in daily life, it takes a lot of time to see the results of training or exercises.
 - o *If no clear motivation, I might get excited but then never come back to it. Analyzing emotional response exercise – that was nice, maybe it could help me to react better in some situations. But then again – it takes time to see that benefit, will that be enough for me to come back? (Female, Employee, 30)*

4.1.3 App engagement

During the pilot, 3/7 users completed all modules of the provided training, and 1/7 of them half of it. The remaining 3 opened the app, and 2 of them completed at least one exercise. Most logged users opened the app around the time of pilot started. 3/7 did not share their feedback via the survey or the interview which may suggest low engagement in the app concept and value proposition. All interviewed pilot users (3) went to the app to test it, and completed modules because they thought the topic was important and/or the product vision was great – they were happy and excited to support the idea. Participants interviewed in phase 2 got the app access: one used it twice before the interview and never after it, and two of them have never used it. It's fair to say that at this point, the app does not engage users enough to retain them and make them come back for more.

The first graph illustrates the number of users that logged in to the app in week 0 and the percentage of the same user group that logged in to the app in the following weeks. For example, we can see that in the week starting from Jun 11th - 4 users logged in to the app but none of them continued. In the following week, 2 other users started to use the app and they continued in the following week, one came back to the app a couple of weeks later. The next graph shows how many users completed at least one exercise when logging in to the app.



Figure 9 Post-Hog: User's login in the app.



Figure 10 Post-Hog: Exercise competition.

Existing app characteristics that support the engagement:

- Content is perceived as reliable – theory-based.
- Content is served in small pieces, a good amount of information.
- Active interaction within the app (clicking, and inputting content) is simple and helps to engage.

Existing app characteristics that limit the engagement:

- The content is too simple and does not provide new knowledge.
I understand it's superficial, but for me, it was too easy (Female, Employer, 35 -40)

- Content does not provide enough opportunities for user interaction, or input. For some users, it requires too much to read. Interaction with content is very personal, depending on the user's personal preference, attention span, focus level, and cognitive load
 - o *I felt like in the class/course, (there should be) more clicking and less writing* (Female, Employee, 26).
 - o Lack of positive reinforcement to inform the user whether their action was correct. *I didn't know when my answers were good* (Female, Employee, 26)
- The content doesn't match the current user's emotional and cognitive state
 - o *I felt disappointed when the app experience did not match my mood.* (Female, Employee, 26)
- Limited answer options, especially those describing positive emotions and thoughts.
- Typing in the app is tedious and users expect that inputting content will enable some additional functionalities – rewards they get from the app in the form of responses, feedback, and reinforcement. They wish that data could be analyzed and that's how the app provides them additional value. Some imagine that be accessed later because they find reading notes after some time, valuable. If user do not get any reward or clearly experience additional value, they most probably drop out.
 - o *If writing here doesn't have a function, I would skip it I think, because I would expect it to do something....maybe I would write it for myself, if I can see it later, but not sure.* (Female, 31, Employee)
- Limited information about the goal of the program and users' progress towards it:
 - o It is not clear to users what is an exercise, and what is the described step on the journey. They would wish to know how long the journey is and what happens at the end of it – what is the benefit when they complete it.
 - o Content feels repetitive in different modules.
 - o Users do not know where on the journey they are and what's left.
 - o Some users wish they could easily find exercises they like to come back to them later.

4.1.4 Observations about users' interaction with the app

- Users feel comfortable inputting personal reflections to the app but they would appreciate information about privacy and usage of information when starting using the app. For one user, the *Community* word, used in the prototype caused discomfort for a user and a worry that content might be shared with outs without his permission. It is important to inform users about the purpose of data usage and ask at every point if that's not clear.
- The app might be used in a space with limited privacy and internet access, such as public transport or office.

- Also, while introducing the application in the workplace-related context, it is interesting to observe that some users limit the usage of the app to the work context and do not want to use it for example while being on holiday. App usage may be related to work skills development only when offered to employees, especially if introduced in this manner. Also, the app is perceived, not as an additional tool for support and personal development but rather as an easy solution for employers to *show they are doing something*, whereas it's just an excuse, cover not to tackle problems with a more comprehensive approach.

4.1.5 New feature testing – mood check-in

Based on two users who tested the check-in feature, it had an overall positive effect on app perception. The feature has been designed to help users find support in ongoing distressful situations (answering the need for instant relief) and enable the app to provide personalized contact, based on the user's emotional state, and level of energy. The prototype allows users to test 2 scenarios: bad mood & low energy, and good mood & low energy.

The feature consists of two components user testing gives insight into:

- describing the current emotional state of the user,
- proposing exercises based on the emotional state.

In terms of describing current users' emotional state, one could observe:

- The slider was an easy-to-use way of describing users' emotional state and energy level; the descriptions below the slider were important for the user to understand what the slider position meant, helping to choose the best setup. While choosing the slider position, the user tried to find words to describe feelings, which in the app comes on the second screen, where emotions and feelings are listed. Combining both screens might be more efficient for the user.
 - o *I am curious what are the options for descriptions: you separated them into two so tiredness is more on energy level (Female, Employee, 31)*
- Users enjoy naming emotions and being presented with words to describe the feeling: The user could understand all of them but seeing all on the screen helped to choose and describe emotional state.
 - o *This is what I was looking for - descriptions! I like this! (Female, Employee, 31)*
- A place for additional written notes next to emotion descriptions made users expect some additional function of describing emotions in written format or expecting to be able to come back to those notes.
 - o *If writing here doesn't have a function, I think I would skip it because I would expect it to do something...maybe for myself but I'm not sure... (Female, Employee, 31)*

In terms of exercise–mood match, one could observe:

- In worse moments, one may want to focus on positive things
 - o *I chose the 'gratitude exercise' because if I feel low, I think it would give me more boost, It is easier to think what's good than what's important.* (Female, Employee, 31)
- All exercises require users to reflect on some topics. Their emotional state or energy level might not allow them to do so. Reflection might not provide relief or relaxation in distress moments or be too demanding.
 - o *What if I do not want to reflect? What if I just want to zoom out?* (Female, Employee, 31)

Additional notes

- Users are not used to thinking or describing about their emotional stages; they also noted they might differ during the day.
 - o *There can be multiple states during the day. You should ask 'How do you feel now?' It would be easier to capture at the end of my day. Usually, I can only describe my mood as good or bad.* (Female, Employee, 31)

4.2 Additional findings

4.2.1 Customer (employer) perspective

Employers care about the mental well-being of employees nevertheless it is to the extent in which they can ensure employees can deliver the expected results. The primary goal for employers is to have employees who can deliver outcomes and contribute to the company's success. Mental well-being is one of the areas that can enable or prevent employees from performing well at work. Employers want to limit the situations that decrease employee performance (burnout, conflicts, miscommunication, stress) and therefore they may see learning new skills such as self-awareness, emotional intelligence, and teamwork as useful to limit unwanted situations and trigger those that enrich employee performance and innovation.

Companies buy results, we are not a mental health company, we are not here to make people feel better but to provide income against services that are selling. If there is a tool people can use (a couple of minutes per day) and be more engaged or not be out sick for many days – this is what employers wanna hear. (HR Operations, Female, 35-40)

Based on the app and value proposition testing, it seems that the app and value proposition mention the important topic for employers and the company mission resonates with them. At the same time, the application concept and results of using it are not tangible enough – the company website and

value proposition message do not provide enough concrete results indication for them to see clearly how they could benefit from it. It was difficult for HR representatives to understand what the actual solution and its results are, and *what happens to people when they go in*. It is also important for employers to understand the costs of both financial and time investments of employers into using the solution. She highlighted the need for employers to know how much time it takes for employees to use that to get results.

I like bite-sized exercises – need to know how much time it takes, microlearning is also good.
(Female, Employer, 35-40)

Also based on the pilot with 1 customer, the app did not deliver enough value to its users and customers. Customers who participated in the pilot love the company mission and want to continue the free pilot, but do not yet see the actual value or results. The only positive value came from acknowledging the importance of the topics.

For now, it only helped us to show that this is an important (Female, Employer, 35-40)

4.2.2 Mental well-being in a workplace context

First, let's look at how the concept of well-being is perceived by employers and employees. Employers defined employee well-being as *having a clear border between work and private time*. Those two should not be influencing each other. Also, employees should understand their role and feel good about it. Value alignment is also mentioned as an important part of employee well-being and overall performance. Similarly, interviewed employees defined well-being as *taking care of both the mental and physical side, balancing work and private life, and knowing how to assist yourself and others in regulating your nervous system*. Employees tend to also talk about work-life balance and the clear division between work and private time. Wellbeing includes a healthy diet, physical activity, and stress reduction. When looking into the work-life situations that may influence employee mental well-being and performance, the below items have been identified either by employees or employers in their organizations.

Table 2 Problems observed in employee mental well-being by employees and HR professionals by company type

Problem observed in employee mental well-being	Identified by		Organization type	
	Employee	HR/ Employer	Small	Big
Over hours necessary to fulfil work amount	x	x	x	
Young people leaving the organization possibly due to misalignment between work requirements and expectations or/and lack of assertiveness in limiting the amount of work	x	x	x	
Value misalignment (medium company)		x		x
Faveolization, lack of appreciation		x		x
Employees do not talk about anxiety or mental problems, stigma around it, not enough trust. Possibly employees do not recognize alarming signals.		x		x
Not enough support for managers – both from employee and employer perspective as a lot of responsibility is on them in both big and small organizations.	x	x	x	x
People do not know each other across even small organizations.	x		x	
Miscommunication, feeling of isolation	x	x	x	
Difficult emotions affect energy level and lower performance		x	x	
Uncertainty, frequently changing plans and objectives	x	x	x	
Lack of security, comfortable environment to speak up		x	x	

Lack of structures, missing roles and processes	x	x	x	
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Employees in small companies and startups seem to be aware of uncertainty and lack of structure in those organizations. They feel like they learned to deal with it. They do expect more support from leadership to learn new skills and help them navigate the uncertainty. Unfortunately, often, the support is given too late, only when problems arise. Due to the priorities of keeping the business alive, there is no, or little effort put into team building which affects the overall belonging to the company and their goals. The manager interviewed from the startup sees the need for HR support, someone who represents the interests of young employees as well as takes care of equality and work-life balance for the youngest team members.

4.2.3 Solutions provided by employers to support employee well-being

Companies differ in the importance of well-being and mental skills development and the tools available for employees. Among medium and big organizations, efforts around employee well-being and more commonly funded and structured, going hand in hand with many employee experience initiatives. Both interviewed HR experts said that their organizations (200+ employees) have a dedicated person and budget to take care of employee wellbeing. In small organizations and startups, there is no dedicated person and that budget, and all initiatives are rather ad hoc. As a part of the benefit package, all organizations offer private or occupational health, where employees can seek help in case of mental issues and sports benefits. Afterwork and team-building activities are also mentioned by both small and big organizations. The common obstacle to implementing well-being programs for small and big companies can be the difficulty of monitoring the results of wellbeing solutions as well as the time dedicated by employee to related activities.

Medium and big companies have a variety of tools to support employees in their efforts. Apart from basic salary composition and clear job and task description, employees are entitled to different benefits and external support. The scope of benefits and insurance packages differs by company. Some offer also additional support and tools for managers, organized after-work activities, webinars, a coaching support platform (Auntie). Medium and big companies take care of employee experience and well-being in a more structured way, there are resources in place to provide well-being coaching support or educational tools such as webinars.

Startups and small companies do not have enough time and resources in place, but employees need it the most due to the hectic and demanding nature of start-up work. The startup way of dealing with issues is more reactive – support is provided when a problem arises and is identified by the employee or/and employer.

Obstacles to implementing well-being programs are more visible in startups and small companies.

Below items prevent them from investing in employee well-being:

- LT is busy with keeping the company running, if lucky there is an HR person to support it, if not LT is only reacting to problems.
- Lack of support from LT.
- Organizations and employees are busy building the structures and processes, it's difficult to find time for wellbeing.
- Budget restrictions, no budget, and/ or person dedicated. HR person might be trying to fill the gaps.

Also, the effectiveness of initiatives is measured in different ways depending on the company size. In small companies, again, as actions, also their monitoring is more ad hoc – There are quarterly surveys on work-life balance, HR person *keeping an eye* on employees over hours or other alarming signals, LT reacting to problems when notified by employees or HR for example by providing external coaching support to affected members. In medium and bigger organizations, monitoring of efforts is becoming more structured. Apart from pulse surveys and collecting managers' and employee feedback, usage of provided tools and sessions are tracked, as well as attendance (in webinars) along with the feedback. In big organizations, 15-30% of attendance on wellbeing webinars was perceived as a good result.

5 Discussion and recommendations

5.1 Discussion

This startup case also confirms the concern that Eisenmann (2021) brings up, highlighting that startups often miss a structured approach to customer discovery and miss it in their product development. This research case study provided a structured approach to gathering customer insight and documenting it for product development. The iterative approach of generating insight based on user interviews and product testing has been brought and utilized to cultivate the culture of experimentation and validation of ideas with users, based on the principles of Blanks' Customer Development Model. In the first phase of the research, customer feedback and insight have been gathered from the first product pilot. Based on those learnings, a new hypothesis was formulated and tested in the second phase. Blank's model (2013) also highlights the important and very close relationship between a product and its value proposition – those must be developed and iterated together as the company, product, and customer develop. Not only has the research focused on discovering customer needs (Customer Discovery Phase) but also testing its value proposition and concept (Customer Validation Phase). As Blank (2013) recommends, the iterative process of customer discovery and validation must be repeated until the start-up knows to whom they are selling the product and how to sell it. Based on one iteration of this cycle done as a part of this thesis, it's not yet clear who is the customer and what is the successful value proposition and that means that the cycle must be repeated. Crumlish (2023) highlights continuous experimentation process which is the main job of a product manager of digital product manager and this rule applies also to startup founders.

Blanks' Customer Development Model (2013) does not give a recipe for how to generate customer value and answer customer needs with a developed product or service. A structured process of building products according to user needs is covered under the Generic Product Development Process (Ulrich & Eppinger, 2011), Phase 1: Concept Development Phase. As the Generic Product Development model process is not very useful for a start-up as the model is mostly concerning creating new products for existing markets with known customer segments, the principles of documenting users' needs, and product development items are very applicable and can help to structure the product development process. User needs have been organized in the recommendation according to its hierarchy and relevant product features, based on the model guidance.

In terms of gathering customer feedback and generating insight, this is so much more effective when it is possible to observe or imitate the user's interaction with the actual product. This research was based on real product usage as well as testing feature prototypes, which provided much more

information about the value delivered to users but enabled users to talk about possible expectations toward the product. When trying to explore users' needs and what generates valuable products and services in an unknown market, it is much easier for the user to comment on tangible items rather than only their own experience. As we noticed, users often referred to known experiences from the area of mental skills development and could say what helped them or not. They would not provide us with the solution but based on the presented proposals, they can describe their feelings and opinions. Of course, this approach has also drawbacks since it may also limit the scope of information, we gather depending on what has been presented to the user. Nevertheless, by limiting the scope, we can test and validate product development steps. While the user base grows, it is possible to gather also more objective data about users' behavior via app analysis or short in-app surveys that can enable users to assess the value that the product brings.

During the research, customer insight helped to provide focus to the product development team and steer alignment towards common objectives. It also prevented the company from releasing unsuccessful products, pointing out critical gaps in value delivery and areas for improvement. Research provided the understating of users' needs and product gaps in a structured way that enables linking future product development to customer needs and exploration of areas that can support the generation of value. Unfortunately, the thesis will not be able to cover the next product launch but hopefully the recommendations provided will support the launch and help the company to learn from this next iteration.

Overall, the research provided answers to three main research questions: two presented below and one in the recommendation section. It also provided additional perspective into the workplace environment and customer value that had not been a part of the initial plan but came up as an important area during the workshop with the team.

The first research question was: Is the product helping users to develop mental skills and what is the perceived value of using the app for the user?

To create value for the users and customers, products, and services must address as many as possible needs they have. At a minimum, pilot users must perceive time spent in the app as beneficial for them. The company aims to generate user value by helping them develop mental skills, starting from emotional intelligence, what should lead to enhanced well-being.

Before using the app, pilot users have created their expectations based on the value proposition and we could observe different expectations and hopes users had towards the app. Interviewees perceived the topic of personal and mental skills development as important but often underestimated by themselves and their employers. For all participants, the value proposition was interesting and

intriguing, and they wanted to try the solution which means they have related needs and the company vision resonated with them. The expected value was based on 3 needs that interviewees referred to and hoped to address when using the app: instant relief, understanding yourself better, and developing skills to cope with difficult situations. Users also wished that the app would enable some extra analysis of their input data that would eventually help them to understand themselves and their feelings better or imitate the interaction with a friend, coach or psychotherapist. Users' expectations toward the app seem to be built based on previous experience with coaching or psychotherapy sessions, relaxation apps, and psychometrical assessment - all those giving users either relief or helping them to gain a deeper insight into their mind and behavior, raising self-awareness and preparing to either deal with the challenges of life or perform better. Also, other modern apps or even widely popular chat GPT provide a growing amount of interaction and intelligent responses to users' actions. That shapes the user's expectations toward the interaction and provides value. Other expected values referred to providing instant relief, a way of dealing with difficult emotions, and relaxation in moments of stress or after work. What's important users also wish to learn new skills, methods, and tools and see them positively influencing their lives.

When looking at the value from actual usage of the app, the outcome was rather disappointing for pilot users. The experience did not meet their expectations, and they could not get enough benefit from the time spent in the app to generate enough customer value to continue using it. Interviewed users, who had access to the app before the interview, did not find the app valuable enough to continue using it. Even if we could recognize the needs users have, the solution seems not to satisfy them, not providing good enough solutions to address users' problems. Regardless of the user's level of experience with developing mental skills, it did not provide enough interesting content to meet the need for skills development or any solution to address the need of instant relief. The perceived user value is not enough for them to continue using the app.

It felt boring (..) too easy. (...) Like my colleague said: if it hadn't been a free trial and we promised we goanna be beta testers, I would have dropped it.

(Female, Employer, 35-40)

The company's vision of enabling users to develop their mental skills, unfortunately, does not yet work in practice. The app and its content were not good and engaging enough to enable users to develop their emotional intelligence. The little app usage as well as the small number of participants made it impossible to access the progress in terms of the development of emotional intelligence.

Benefits perceived by users were mostly focused on the app encouraging them to reflect and this way learn about themselves and their emotions. Guided reflection was seen as useful also to look at the situation from another angle, that they may not have noticed without it. They also found

learning new psychological concepts as well as naming and describing emotions as new and valuable.

Additionally, the value for the customer (employer) focuses on 2 dimensions: the employee's ability to perform and the employee's perception. From the performance perspective, it refers to employees being able to deliver the results, limit sick leaves, and react when any difficulties arise. Anything that limits employee productivity should be addressed and anything that enhances it - supported. From the employee perception site, employees saw the app as an interesting benefit and a message from the employer that they care about their mental well-being and that the topic is important and not a tabu – they can openly speak about mental skills and wellbeing at the workplace.

The second research question was: Are users engaging with the app and what supports and limits the engagement?

All pilot participants and interviewees tried the app at least once. They were encouraged to do so by the communicated value proposition. Some of them completed some or all modules in the app. At this point of product development, none of the users would come back to the app more than 3 times. Also, if not pilot and testing context, most probably users would try it only once.

Elements that support the engagement are reliable – theory-based, served in small pieces as well as versatile interaction types within the app such as clicking, swiping, and inputting text. Also, testing of the check-in feature confirmed that users enjoyed describing their emotions and found the feature helpful to do it. We could not confirm whether it could lead to immediate instant relief and/or better user engagement in the long term, but it made the starting point of using the app more interactive and informative for the user which supports user engagement.

The main factors limiting users' engagement are not enough informative and applicable content, missing clear steps and results of a program, and lack of personalization of content. Users also expect the app to be more responsive to their input, providing feedback, analyzing data, and providing additional insight based on their input.

5.2 Recommendations

5.2.1 Build product development roadmap based on customer needs

This section answers the third research question: What improvements should be included in the product roadmap to engage users and generate value?

Content and app features development should go hand in hand as those are very much connected. The company must provide quality content but also an engaging and personalized interaction with it

to keep the user involved. User and customer needs should be taken into consideration when building the prediction. It is important to take into consideration not only individual users' needs but also the context of the workplace as well as the entire user and customer journey.

Let's first look at the user journey, where the desired flow has been visualized.

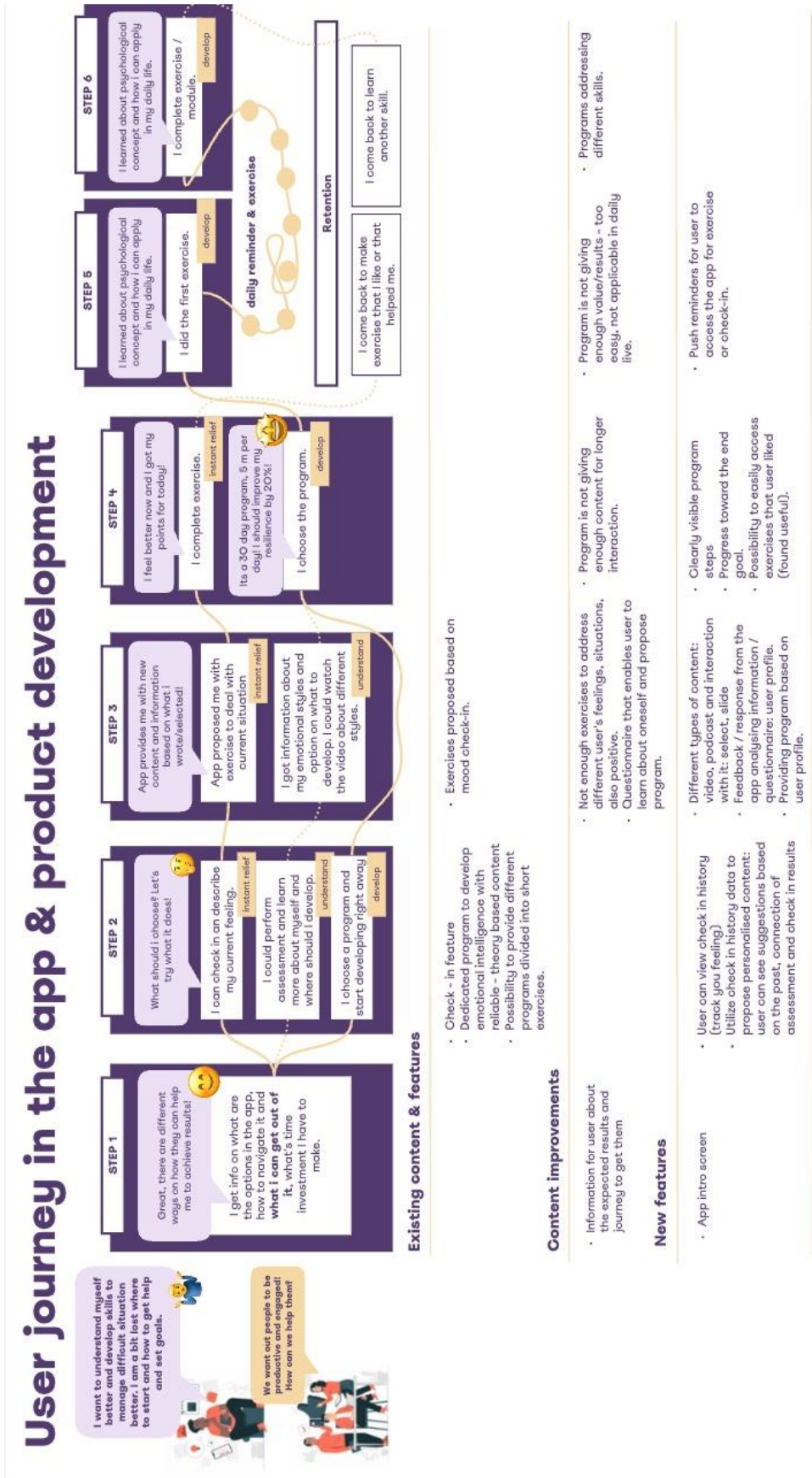


Figure 11 Envisioned user journey with improvement areas

Based on the journey visualization, the list of improvements has been proposed and linked to customer needs identified during the research. Proposed improvements are linked to identified user needs, as proposed in the Generic Product Development Model, and organized by priority, from most to least important. All improvement ideas should be prototyped and tested with potential users.

Table 3 List of product development areas based on user needs

No	Customer statement	Interpreted need	Improvement
1	<i>In the Gallup test, I knew how long it is and what's the reward</i> (Female, Employee, 30)	User wants to know what the expected result is, and what reward/benefit they get when completing the program.	At the beginning of app usage (home screen), provide information to the user about the expected results of the program and app usage and what s/he needs to do to achieve them. (Introduction home screen)
2	<i>I don't know where I am, where I am going, and what will happen. I feel lost.</i> (Female, Employee, 30) <i>Why am I reading the same thing again? I've been here already</i> (Female, Employee, 30) <i>I did not understand it at all. why 2 steps on the journey? Because I made 2 exercises?</i> (Female, 31, Employee)	User needs to know what's his/her progress toward the goal.	Visible program steps and progress, steps left to the end goal.
3	<i>Its easier to imagine those situations if they could really happen</i> (Female, Employee 29)	User needs to relate to given examples, know them from life to	Content should be relatable and applicable in daily life: illustrated by situations, and examples to which user can refer to, that are familiar, like

		understand them.	those in their lives, and align with their own experiences.
4	<p><i>I need to learn how to handle difficult situations better and know how to defuse a bomb that might explode (Male, Employee, 34)</i></p> <p><i>If someone would regularly ask me this kind of questions, maybe in real situation I would behave is it enough to sue the app? it's quite a long way from doing this exercise to actually experiencing the situation where I could see a benefit of it. (Female, Employee, 30)</i></p>	User needs to apply learning in daily lives to see a value.	Include actionable tools for the user to cope with difficult situations in the moment or the future.
5	<p><i>I felt disappointed when the app experience did not match my mood. (Female, Employee, 26)</i></p> <p><i>There is no option to say that I feel OK, all answers imply that I feel bad (Female, Employee, 30)</i></p> <p><i>Are there any other exercises? What if we don't want to think, just zoom out? (Female, Employee, 31)</i></p> <p><i>I would need crisis exercises (Female, 29, Employee)</i></p>	User wants to interact with content applicable to his/her mood or development goal.	Variety of exercises and selection options to address different user's feelings, and situations.
6	<p><i>This is what I was looking for - descriptions! I like this! (Female, Employee, 31)</i></p> <p><i>The app could be like an online therapist, coach, or someone who forces you to reflect because normally we don't do it. Resulting in psychotherapy but at a lower cost. (Female, Employee, 30)</i></p>	Users needs support tools to understand themselves better.	Help user to name their thought, feelings, emotions. Provide trigger for reflection.

<p>7</p>	<p><i>I would do the questionnaire and get some guidance, information (Female, Employee, 30)</i></p> <p><i>I would expect that if I input the content, it does something, analaze my data, does it? (Female, Employee, 31)</i></p>	<p>User needs objective insight, feedback on oneself and guidance on how to develop.</p>	<p>App provides answer or guidance based on user's input.</p> <p>The app analyze input content and provide the user with additional insight/response/feedback. For example, the user could perform an assessment based on which app could provide insight about the user and suggestions on the exercises.</p>
<p>8</p>	<p><i>I like that psychological concepts are named and described, I heard about it but i don't know what it is (Female, Employee, 30)</i></p> <p><i>I understand it's superficial, but for me, it was too easy (Female, Employer, 35 -40)</i></p>	<p>User wants to learn new things: concepts, skills.</p>	<p>Content should be reliable, professional, include concept definition to enable learning.</p>
<p>9</p>	<p><i>When to do that: before or after work? During work? (Female, Employee, 31)</i></p> <p><i>How to remember? Maybe if would reserve time during working hours. (Female, Employee, 30)</i></p> <p><i>Would the app follow up how do I feel after exercise? Did it change anything? (Male, Employee, 30-40)</i></p>	<p>Users' needs to be reminded / encouraged to do exercise.</p>	<p>Push notifications.</p> <p>Features supporting user retention: rewards.</p>
<p>10</p>	<p><i>Making Gallup test is like play game with yourself (Female, Employee, 30)</i></p>	<p>User needs different types of content to</p>	<p>Diversify interaction with content: Currently, the user interacts with the content by selecting (clicking) certain</p>

	<p><i>I like images and video, help me to learn (Male, 30-40, Employee)</i></p> <p><i>I love infographic! (Male, 30-40, Employee)</i></p> <p><i>Too little interaction, too much telling. More clicking less typing would be nice. (Female, 30-40, Employer)</i></p>	learn and engage.	<p>items or typing answers.</p> <p>Users mentioned that interaction helps them to digest the content and clicking is easier than typing. Diversifying interactions and easing them would help users to keep engaged. Diversifying content and adding more visual or audio elements can support different types of learning preferences.</p>
11	I didn't know when my answers were good (Female, Employee, 26)	Users needs confirmation that he/she is on the right track.	Provide positive reinforcement to customers.
12	<p><i>I think that it could be great to still have access without redoing all the steps to have access to the one I like. Now they are difficult to find (Female, Employee, 29)</i></p> <p><i>Should capture positive emotions to track the progress (Female, Employee, 29)</i></p> <p><i>It could be fun to come back to what I wrote, I have this diaries (Female, 31)</i></p>	User wants to access the history of input information to track progress over time.	Possibility to access history check-in content or other content history.

Naturally, not all *features* of the product can be implemented at the same time. The Kano model helps to organize desired improvements and features based on the expected impact on customer satisfaction. The model classifies features into Basic needs (the user will not use the product without those), Performance needs (the more of those, we have better but in the longer term they are not enough to succeed), Delighters (features that go beyond customer expectations, create joy and positive emotion), and Indifferent (the user may not notice whether they exist) (Conceptboard, 2023).

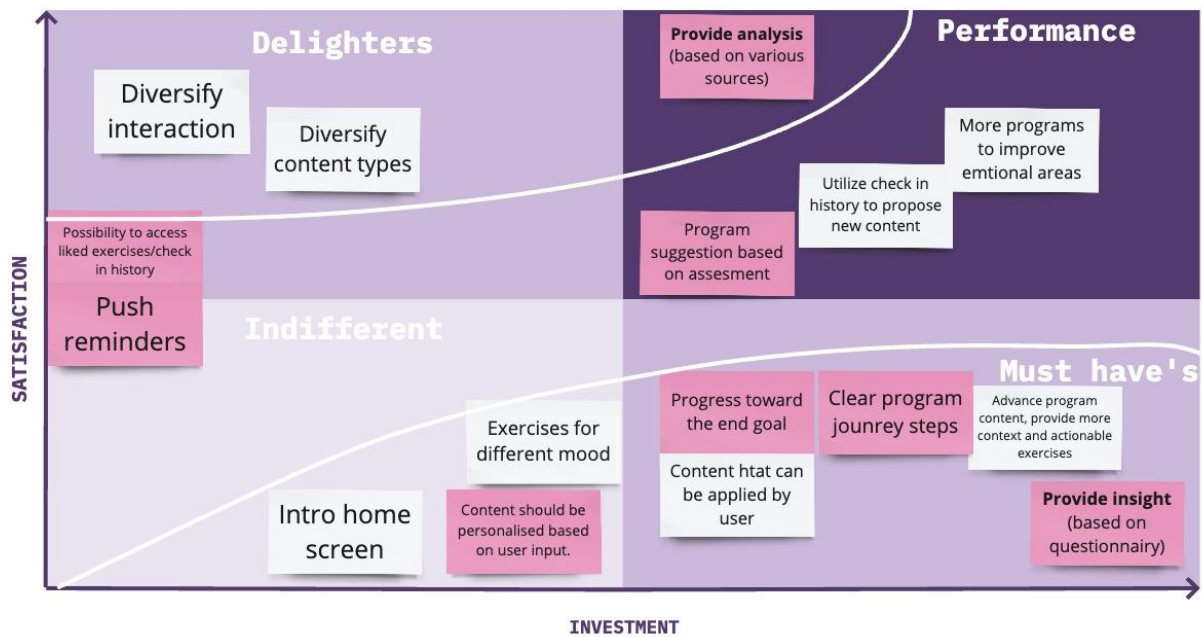


Figure 12 Feature prioritization based on Kano model

Basic needs (must have) are those focused on helping users understand the goal of using the app, helping them to navigate and see progress. Must-haves also include exercises matching different mood/emotional states as well as providing actionable and personalized content. To provide user value, the app must also provide the user with a response: insight based on user input. Must have features must include an introduction screen with clear steps and result definitions, visualization of current steps and progress toward the program goal, various exercises matching different users' states, actionable content, minimum insight, or response based on user's input that would help them to reflect, understand themselves and the needed change.

Items classified as **delighters** are those around gamified content as well as 'surprising' users with personalized suggestions or feedback: diversifying interaction and content types, providing suggestions based on assessment and more sophisticated analysis of input content, strengthening app personalization and value provided to users.

The **performance items** refer to those fundamental items that the product needs to succeed, but in contrast to 'must haves' they can be gradually improved, and its improvement will directly improve customer satisfaction. For us, those are the features that correspond to whether and how well the app can propose content based on different data sources: assessment, check-in history, user input as well as providing different types of programs addressing different skills development,

There are also 2 features that may be indifferent to customer satisfaction: push reminders, and the possibility to access history check-in content or other content. At this point, we do not know whether they have an impact on customer satisfaction.

To succeed, the company must focus on developing must-haves in the first place.

5.2.2 Continue to gather customer insight and validate plans

Following Blank's model, we could say that the company has not yet validated its customer. It is not yet clear who is the customer for their product/service. Also, the product they provide does not yet meet the needs of end users. While the company will continue developing the products and its content, it must make sure that the development is done with close cooperation with users and customers. The product team should formulate new hypotheses, for example, based on themes discovered in a workplace context, and explore them together with potential users. This way they can make sure that they develop their product and service and eventually find or create customers for them. They must be clear on what and to whom they are selling.

Customer insight can be gathered for example by interviewing and testing the app with new users and by presenting the company's value proposition to both users and employers in different types of organizations, based on the company's target segment. That will help to set direction for the next development steps: both for a product as well as sales and marketing strategy. Testing the check-in feature was a good example of prototype testing with users and feedback has been implemented into the development process. Ideally, testing would happen even before the decision to develop the feature is made. Testing has proven that the feature supports user engagement but when testing other product development ideas, we could find out more important items.

Also, while more people obtain access to the app, the company should monitor engagement metrics in Post-Hog, as well as introduce additional qualitative methods, possibly also using Post-Hog. Similarly to the pre and post-survey done within this research, users should evaluate the program they are taking part in and the app before and after using it. The company should gather more information about the users and their learning preferences already at the beginning of the app journey and that would help to first understand users and their progress in developing skills. Gathered information could enable the team to enhance the content and product but also in the future to provide further personalization and analysis within the app.

Short surveys, using Post-Hog can be applied already for the first product launch to understand how well current functions and programs perform. In this way, feedback can be gathered much more efficiently than using traditional surveys. App given in the moment of using the app reflects much better the actual user's feeling, is anonymous, and much more probable to obtain. For example,

option 1 could be used after a user completes the exercise based on the check-in feature, and Option 2 can be used once the user completes the program.

Did the exercise match your mood?

1 2 3 4 5

No at all Completely

Submit

Survey by PostHog

1. Did the exercise match your mood? ▾

Figure 13 Option 1: Short feedback displayed after a user once completes the exercise

Did the program help you to develop personally?

1 2 3 4 5

Not at all Very much

Submit

Survey by PostHog

1. Did the program help you to develop pe ▾

Figure 14 Option 2: Short feedback displayed after a user once completes the program

5.2.3 Explore workplace context and design the customer journey.

The company business model is built around the employer and employee relationship, where the company solution would be a part of the benefits package offered by the employer for employees. It is important to remember that the customer experience is not only the app. In this setup up both the customer and user must see the value in using the product: to maximize the value it should provide a direct or indirect benefit to all stakeholders. The company must provide and communicate benefits to all: HR department, leadership, and end user. Currently company focuses on the development of emotional intelligence as a goal of the first offered program and the company value proposition is focused on providing solutions for employee mental well-being, eventually leading to improved employee experience and retention. Based on the interviews and market trends also other teams could be explored and incorporated either in the value proposition or product development:

- What are difficult work situations that limit employee engagement and productivity? For example, misalignment of values has been mentioned as one. What are other factors that could be addressed?
- On the other hand, for employers improving performance is the goal. How can we help to achieve it? Soft skills, including emotional intelligence, are proven to increase employee productivity. Building on emotional intelligence improvements as the first soft skill, how does its development improve employee performance?

- Managers were mentioned by both employees and employers as those who bear a lot of responsibility for employee's well-being both in small and big organizations, often lacking appropriate support. How could we support managers?
- Work-life balance is affected by over hours and/or workload, monitoring of one's well-being, and ability to notice alarming signals of burnout or anxiety were concerning items mentioned by small companies.
- Employee attrition among young people, identified in a small company/startup: possibly due to misalignment between work requirements and expectations or/and lack of assertiveness in limiting the amount of work.

As the customer's and user's journeys go beyond the app, the company should design its service from a broader perspective. Small companies, without a clear structure and roles over employee wellbeing and development, may benefit more than big ones from additional service or support when implementing the app. Could it help them to solve the problems they are facing? Additional services might help the company to provide overall value, enabling small companies to act over employee wellbeing or efficiency. The company may enrich its services for example by:

- Supporting the company to identify problems in employee wellbeing and match them with program offerings.
- Performing an introduction webinar about the importance of emotional intelligence.
- Providing supporting materials for employers on how to communicate and encourage employees to use the app.
- Support employers to create frames for app usage: users must feel they have the employer's consent for dedicating 5-10 of their workplaces to use the app: reflect, do exercises.
- Providing additional tools for employers to identify problems in their organization.

5.2.4 Clarify the value proposition for customers and users.

Early Evangelists, the first product customers, will buy the company's vision and will contribute to its development. At this phase of the company, it aims to attract those early evangelists, and therefore the value position must resonate with them. That customer will be the one who has a problem, is aware of it, and is actively looking to solve it. The research did not confirm the company hypothesis that employers want to invest in happy employees. Employers want to invest in employee performance, and all benefits provided are there to support it. Employee well-being is important but it's not a goal of the employer. The main objective is to keep people efficient at their work – employee happiness or well-being is just one of the ways of getting there that most probably resonates with the target Early Evangelists group.

The value proposition for the employer should come first and be expressed in the employer's language, including results and time investment needed to achieve them. Based on this, value proposition for end users should be formed where psychological jargon is explained and translated into clear life examples, that users can relate to. The value proposition should state the key benefits of the product or service, differentiation: why your business is better than competitors, target audience, uniqueness, and promise of value.

The value proposition can serve also as a first validation for the direction of product development: it should state benefits that the company envisions creating for the users and their response can indicate the direction's success. As the product now aims to help users to raise their emotional awareness and develop emotional intelligence, the value proposition should highlight the results of this process and the benefits that come with it. The company must make sure that the promised value is delivered. The value proposition is a promise that sets expectations on what customers can expect to gain or experience by choosing your product or service. The current value proposition is interesting for customers and users, but it does not provide enough clarity on expected results and the actual benefit that comes with the solution. Also, after using the product, customers and users do not feel like they got what was promised.

Summary

Overall, the case study validated users' needs and highlighted the fact that the product requires further development to answer those needs and provide user value. Interviewing pilot product users, helped to confirm that users look for a solution to deal with difficult situations, understand themselves better, and develop their mental skills. Interviewing customers and testing products and prototypes enabled generating customer insight for defining gaps and prioritizing product improvements.

Limitations of the case study have been a hectic startup environment, changing schedules as well as limited interaction between the researcher and the team during the case study. In an ideal setup, a researcher should be a part of the product team and be able to work closely with the team to constantly gather and utilize customer insight in digital product development. Also, the research plan evolved during the case study due to a limited number of pilot participants and poor pilot results. More emphasis should have been put at the beginning of the project to align on the team's common vision of the product and the goals of the research that now has taken place during the workshop. Also, we must remember that research findings are based on qualitative data and should be expanded to quantitative, as the user base expands.

Product and customer development must go hand in hand. A product development roadmap should be created based on defined user needs and product features answering those needs should be

prototyped and tested with potential users before the development. Product development should consist of both software feature development and content enhancement – those also must go hand in hand. While the product is evolving, the value proposition should be re-evaluated and again tested with different target customer segments. While developing the product feedback collection points within the app should be implemented to measure the performance of features and content. Hopefully, the finding of this case study will give a frame for the next product iteration leading to product commercial launch and first sales, as well as a more structured approach to gathering and utilizing customer insight in the company development process.

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The production of Chapter 2.1 involved brainstorming using the ChatGPT 3.5 language model. The example prompts used were: 'How customer value is generated?' 'What is the difference between value and benefit?'.

The production of Chapter 5 involved brainstorming using the ChatGPT 3.5 language model. The example prompts used were: 'What is the Kano model?', 'What is the difference between must have's and performance items in the Kano model?'.

<p>11. How aware are you of your emotions and how they impact your everyday life? *</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p> <p>Never crossed my mind <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> I am master of emotional regulation</p> <hr/> <p>12. How important is it for you to understand and manage your emotions? *</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p> <p>Not at all <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Very important</p> <hr/> <p>13. During the last month, how much have you focused on better understanding and managing your emotions? *</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p> <p>Not at all <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> A lot</p>	
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Appendix 2 Post-pilot survey

<p>1. Your nickname or pin code that you used in the first survey (only used to match the first & second survey results) *</p> <p>Your answer _____</p> <hr/> <p>2. How do you feel in general at the moment? *</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p> <p>Terrible <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Fantastic</p> <hr/> <p>3. During the last month, how much have you worked on developing your mental (psychological) skills? *</p> <p><input type="radio"/> Never</p> <p><input type="radio"/> A couple of times</p> <p><input type="radio"/> Weekly</p> <p><input type="radio"/> Several times a week</p> <p><input type="radio"/> Other: _____</p>	<p>4. During the last month, how often have you felt emotional overwhelm, anger, anxiety or lack of motivation? *</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p> <p>Not at all <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Every day</p> <hr/> <p>5. During the last month, how much have you focused on better understanding and managing your emotions? *</p> <p style="text-align: center;">1 2 3 4 5 6 7 8 9 10</p> <p>Not at all <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> A lot</p> <hr/> <p>6. How many times on average did you use the Oyama app? *</p> <p><input type="radio"/> I did not use it at all</p> <p><input type="radio"/> I used app once or twice</p> <p><input type="radio"/> I completed all or almost all modules</p> <p><input type="radio"/> I completed all modules, came back to some exercises and waiting for more content!</p>
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<p>App usage</p> <p>7. How much did the Oyama content help you to develop your mental skills?</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>Not at all ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ Very much</p> <p>8. In what situation did you start using the app?</p> <p>Your answer _____</p> <p>9. How valuable was the time spent using the app?</p> <p>1 2 3 4 5 6 7 8 9 10</p> <p>Not at all valuable ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ Very valuable</p> <p>10. What could we improve in the app and/or pilot?</p> <p>Your answer _____</p>	<p>App usage</p> <p>7. Why haven't you used the app? (Mark all that apply) *</p> <p><input type="checkbox"/> I did not find it important</p> <p><input type="checkbox"/> I feel good, I do not need support</p> <p><input type="checkbox"/> I did not have time</p> <p><input type="checkbox"/> I had technical issues</p> <p><input type="checkbox"/> I had holidays, I didn't feel like using it</p> <p><input type="checkbox"/> Other: _____</p> <p>8. What could encourage you to use the Oyama app?</p> <p>Your answer _____</p> <p>9. Do you have any additional comments about the pilot or the app?</p> <p>Your answer _____</p>
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Appendix 3 Interviews guide: Pilot user interview

Introduction

- Thank you for participating.
- My name is Anna Pilch + introduce myself.
- Transcription and recording will be retained for 3 months.

Overall experience

- Questions about your experience with the pilot, app and also personal development.
- Could you tell me about your overall experience with using app during the pilot?
- How many times have you used the app? Do you know how many exercises you have completed?

Pilot

- How did you decide to participate in the pilot?
- What were your expectations when joining the pilot group?
- Overall, how have you been during the last month, before and during the pilot with the company?
- What did you get out of it?
- Do you feel like you developed personally?
- How did the program impact your awareness about your feelings and emotions?

Personal development and expectations

- What do you think one can do to develop mental skills and mental wellbeing?
- How do you find ways to develop your mental skills and wellbeing?
- Which of those are the most efficient?

- Which one do you enjoy the most?
- What kind of applications are you using the most?

Context

- Where were you when using the app?
- What happened before you started using the app? Why did you start using it?
- Could you describe situations when you used the app for the first time? How did it feel?
- How long have you been using the app?
- Why did you stop?

Context

- How do you feel about exercises?
- How do you feel about structure?
- Was there anything that you hoped to find but it's not there?

App interaction

- What was easy and what was difficult when using the app?
- Did you input any information in the app? How do you feel about it?
- Was there anything else you would like to add?

Appendix 4 Interviews guide: Research part 2 – user interview with user testing

Introduction

- Thank you for participating.
- My name is Anna Pilch + introduce myself.
- Transcription and recording will be retained for 3 months.
- Topic and plan of today's interview.

Personal development and expectations

- What well-being means for you? What developing mental skills mean for you?
- How do you think one can do to develop mental skills and mental wellbeing?
- How do you find ways to develop your mental skills and well-being?
- Which of those are the most efficient?
- Which one do you enjoy the most?
- What kind of applications are you using the most?
- How does your employer support your wellbeing? Or how they did in the past?
- What kind of situations you find the most difficult at your work? Where could you use some help?

Value prop in the email

- Imagine you have received this email from your company's HR
- What do you think when you see this email?
- Is this topic important for you?
- What would you expect from the app?
- Today we will actually not test the app itself but only one new feature that we are wondering about.

Testing the prototype

I would like you to imagine or think about the situation you felt last time: having rather low energy and low mood. Can you imagine opening the app in that moment?

- How does it feel?
- Is it applicable to your mood / feelings in this situation?
- Does it happen in your workplace?
- How do you feel about continuing using the app?
- What's missing?
- What do you expect/hope to see/do next in the app?
- In the second scenario, you feel more positive. Can you imagine using the app in those situations? How do you currently manage those situations?

Appendix 5 Interviews guide: Research part 2 – employer interview

- What's your role?
- What's important for you in your role?
- What is employee well-being for you?
- What kind of problems do you think your employees are facing and how do you address them?
- What kind of support do employees need and expect from their employers?
- What kind of activities are aimed at your organization to support employee well-being?
- How are those evaluated?
- What about previous experience with other companies?
- Do you have a special, dedicated budget?

Testing value proposition

- How does it sound to you?
- What is the company offering?
- How does it resonate with your and your company's goals?

Appendix 6 Research phase 1 - summary presentation for a startup

<h3>Overview</h3> <ul style="list-style-type: none"> 7 participants (6 employees and 1 employer) May 5th – kick off & pre-pilot survey June 8th Start – bug fixing – June 16th - access the app August 31st – end of the pilot <ul style="list-style-type: none"> Pre pilot survey: 7 answers 3 post - pilot interviews (July – August – September) Post pilot survey (1 answer, send to 4 participants who did not complete interviews) Post-hog data 	<h3>Overview of participants</h3> <ul style="list-style-type: none"> Age 18-44, majority 25-34 All usage in English in daily life Utilize various learning methods: <i>Looking for various content on your own, reading books/articles and face to face lessons being the most popular</i> Most of participants utilized some form of mental skills development, <i>Psychotherapy, digital apps, at work training are most common</i> Participants vary in terms of feeling of general well being Almost all find mental skills development important, one person didn't fully understand the term but managing and understanding emotions important more important for all Most of them stated to develop mental skills weekly, and most of them feel aware on impact of emotion on wellbeing <p><small>*Based on pre-pilot survey on very small group, more participants to draw insight</small></p>
<h3>Research questions</h3> <p>Q1. Are users engaging with the app and what supports and limits the engagement?</p> <p>Q2. Is the product helping users to develop mental skills?</p> <p>Q3: What functionalities or improvements would support users to engage with the app and content?</p>	<h3>What we've learned from our users – important notes</h3> <ul style="list-style-type: none"> 3 users completed all modules, 1 of them half, 3 – we don't know 6/7 users came back to app at least once All interviewed users went to app to test it, try it out because they think topic is important and/or product vision is great – happy to support the idea!
<h3>What we've learned from our users about the problem</h3>	<h3>Why to use the app?</h3> <p>I faced difficult situation and I need help to cope with it</p> <p><i>I received bad feedback I have a lot of running in my head I felt isolated, I don't know if I am doing right or not If a get angry I want to remove myself from situation and come back, but that's not always an option</i></p>
<h3>Why to use the app?</h3> <p>I need instant relief... <i>so that I can come back home and be not stressed.</i></p> <p>I faced difficult situation and I need help to cope with it</p> <p>I want to understand my feelings better <i>I would like the app help me to understand my feelings, comfort me. Normally I would talk with a friend but there is not always someone available.</i></p> <p>I noticed I could develop some skills that would help me <i>to handle situations better.</i></p>	<h3>Why to use the app?</h3> <p>LEVEL 1</p> <p>I need instant relief... <i>so that I can come back home and be not stressed.</i></p> <p>LEVEL 2</p> <p>I want to understand my feelings better <i>I would like the app help me to understand my feelings, comfort me. Normally I would talk with a friend but there is not always someone available.</i></p> <p>LEVEL 3</p> <p>I noticed I could develop some skills that would help me <i>to handle situations better.</i></p> <p>NEED: Cope with difficult situation: share it, get support</p> <p>NEED: Cope with difficult situation: Understand myself better</p> <p>NEED: Learn new skills or</p>

<p>Why to continue?</p> <p>LEVEL 1 App helps to cope with difficult situations that may happen multiple times – if it helped me once I will come back again.</p> <p>LEVEL 2 App helps me to understand myself better.</p> <p>LEVEL 3 I am motivated to develop skill that will help me in the future.</p>	<p>What we've learned from our users about the context</p>
<p>User's (employee) context:</p> <ul style="list-style-type: none"> • App is offered by employer and may be associated with work related self development only • Can be perceived as a easy solution from employer to <i>show they are doing something</i> but it's just an excuse • App used in public transport and at home <p>Customer's (employer) context:</p> <ul style="list-style-type: none"> • Employer needs high performing, happy employees to deliver results • Employer wants to limit situations that limit productivity: miscommunication, stress, burn out... • Using the app – helping people understand themselves better, learn new skills to avoid problems and support growth • For now: <i>it only helped us to show that this is important</i> 	<p>What we've learned from our users about the proposed solution</p>
<p>Content</p> <p>Content is perceived as reliable – theory based</p> <ul style="list-style-type: none"> • Describe concrete situations, case studies • Go 'deeper' - how can we help user's reflect? • User's suggestion: take positive emotions into consideration (little options for positive emotions) <p>Content is not enough engaging, too simple</p>	<p>Interaction & functionalities</p> <ol style="list-style-type: none"> To support user's engagement interaction in the app should help to display the content in a way that makes it more relevant & actionable. <ul style="list-style-type: none"> • Personalized/Relevant: <i>App adapts to situation I am in</i> • Actionable: <i>Tools that I can use to cope with a situation</i> • Flexible: Go back to exercises (mark favorite?), easy find what I liked Beyond the content interaction, app should offer diverse interactions to support the user their self-discovery and learning <ul style="list-style-type: none"> • Log in situations & your reactions/feelings • Write down your thoughts: <i>Nice to write stuff to give value to your thoughts</i> • Other input/interactions/gamification? <i>I felt like in the class/course, more clicking less writing</i> • Give user feedback, positive reinforcement: <i>i didnt know when my answers where good</i> • Different types of content (video, image): <i>less text could be good,</i>
<p>App – additional notes</p> <ul style="list-style-type: none"> • Usage in public transport – limited internet connection (!) • Good to know that is anonymous – that has to be states clearly. Users feel comfortable now, but also not much to input in at this point. 	<p>Overall</p> <ul style="list-style-type: none"> • Interaction should support the content but content is the key <i>App is a good start to help you mentally.</i> • Personalization is needed: proposed content must be relevant to user's context and feelings, level of self awareness? <i>I felt disappointed when the app experience didn't match mood</i> • Proposed content could be different depending on what's user's 'level' - need atm. Eventually we should guide user through all levels. <i>Could be helpful, but not with this version</i> • It's easy to follow but 'boring'.

Appendix 7 Final summary presentation for a startup

<h3>Summary of the research</h3> <p>RESEARCH QUESTIONS:</p> <ul style="list-style-type: none"> Is the product helping users to develop mental skills and what is the perceived value of using the app for the user? Are users engaging with the app and what supports and limits the engagement? What improvements should be included in the product roadmap to engage users and generate value? <p>HYPHOTHESIS:</p> <ul style="list-style-type: none"> By providing users with check-in functionality that contains emotion checks, we can answer the needs of relief and self-understanding as well as provide more relevant content. That should lead to better user engagement. Employees care about employee's well-being and want to provide solutions to support it but resources and structures to do so depend on the company size. Employees would use the app when provided by the employer. <p>Participants:</p> <ul style="list-style-type: none"> Using the app: 7 pilot users, 3 bank of 7 pilot users Workshop/presentation with: Start-up founders (CTO, CEO, CMO) Interviewed: 3 independent users, 2 employees 	<h3>Theory background</h3> <ul style="list-style-type: none"> Customer value generation: <ul style="list-style-type: none"> Product management is responsible for delivering value to customers, through the coordination and delivery of customer experiences, and making sure that the experience provided to customers brings enough value to be "loved" by the user (Crumlish, 2023) Customer insight definition: <ul style="list-style-type: none"> Customer insight refers to the interpretation of customer data, behaviors, and feedback into conclusions that can be used to drive actions that improve product development and customer support (K.T. Hanna, S. Sachs, 2023). Customer insight gives us information about customers' motivations, needs, desires, and jobs to be done. Customer Development Model (Blank) Diffusion of innovation theory (Rogers) Generic product development methodology (Ulrich, Eppinger)
<h3>Findings</h3> <ul style="list-style-type: none"> Benefits perceived by users were mostly focused on the app encouraging them to reflect and this way understand themselves and their emotions better. Guided reflection was seen as useful to look at the situation from another angle, that they may not have noticed without it. They also found learning new psychological concepts as well as naming and describing emotions as new and valuable. At this point, users could not notice the development of mental skills. We did not have enough data and app usage to determine it. <p>RESEARCH QUESTIONS:</p> <ul style="list-style-type: none"> Is the product helping users to develop mental skills and what is the expected and perceived value of using the app for the user? <ul style="list-style-type: none"> User expectations are shaped around the experiences they've had around mental wellbeing development: psychometrical assessments, coaching, therapist visits, other relaxation, mood tracking apps but also other modern applications. 	<h3>Findings – user needs</h3> <p>LEVEL 1</p> <p>I need instant relief...</p> <p><i>so that I can come back home and be not stressed, so that I can zoom out after work.</i></p> <p>NEED: Cope with accumulated stress or difficult situation; share it, get support</p> <p>LEVEL 2</p> <p>I want to understand myself better</p> <p><i>I would like the app help me to understand my feelings, comfort me. The app could be like an online therapist, coach, or someone who forces you to reflect because normally we don't do it. Resulting in psychotherapy but at a lower cost.</i></p> <p>NEED: Understand myself better</p> <p>LEVEL 3</p> <p>I noticed I could develop some skills that would help me</p> <p><i>to handle situations better, to react in a different way.</i></p> <p>NEED: Learn new skills, concepts, develop to cope better in the future</p>
<h3>Where is value created for the user?</h3>	<h3>Where is value created for user and customer?</h3>
<h3>User's general motivators</h3> <p>RESEARCH QUESTIONS:</p> <ul style="list-style-type: none"> Are users engaging with the app and what supports and limits the engagement? <ul style="list-style-type: none"> Helping to relax or helping me to feel better. Learning something new about myself (like the Gallup test, psychotherapy), and receiving feedback or insight that one could not generate on its own. Helping me to reflect in a way that brings insight and results, that one could not generate on its own or it would take me more time. Reading own notes from before - tracking mood/thoughts/progress and accessing it afterward Learning about psychological concepts to understand what they mean. Naming own feelings and emotions Learn actionable exercises that can be put into practice Content that is related to actual life situations, the user can relate to Time specifically reserved, dedicated for a development activity (at work context), or prompted to use it <p><i>The app could be like an online therapist, coach, or someone who forces you to reflect because normally we don't do it. Resulting in psychotherapy but at a lower cost. (Female, Employee, 30)</i></p>	<h3>User's general blockers</h3> <p>RESEARCH QUESTIONS:</p> <ul style="list-style-type: none"> Are users engaging with the app and what supports and limits the engagement? <ul style="list-style-type: none"> It's difficult to get a mental routine as a habit and prioritize it within daily activities. <ul style="list-style-type: none"> When to do that: before or after work? During work? (Female, Employee, 31) It's difficult to find quality content when looking for information on the internet/social media: <ul style="list-style-type: none"> Some are good, and some are "pop" psychology (Male, 30-40, Employee) Reflection is not necessarily equal to learning <ul style="list-style-type: none"> I don't feel like I am learning when I reflect (Female, Employee, 31) The value behind mental skills training, and emotional intelligence training is difficult to recognize in daily life, it takes a lot of time to see the results of training or exercises. <ul style="list-style-type: none"> If no clear motivation, I might get excited but then never come back to it. Analyzing emotional response exercise - that was nice, maybe it could help me to react better in some situations. But then again - it takes time to see that benefit, will that be enough for me to come back? (Female, Employee, 30)

Existing app characteristics that support the engagement

RESEARCH QUESTIONS:

- Are users engaging with the app and what supports and limits the engagement?

- Value proposition is interesting, people are curious to try even if they are not sure what they gonna get.
 - ↳ too much attention to offering something like that
- Content is perceived as reliable – theory-based.
- Content is served in small pieces, a good amount of information.
- Active interaction within the app (clicking, and inputting content) is simple and helps to engage.

Existing app characteristics that limits the engagement

RESEARCH QUESTIONS:

- Are users engaging with the app and what supports and limits the engagement?

- Limited information about the goal of the program and users' progress towards it: Users do not know where on the journey they are and what's left. It is not clear to users what is an exercise, and what is the described step on the journey. They would wish to know how long the journey is and what happens at the end of it – what is the benefit when they complete it.
- The content is too simple and does not provide new knowledge, feels repetitive in different modules.
 - ↳ I understand it's superficial, but for me, it was too easy (Female, Employee, 35-40)
- Content does not provide enough opportunities for user interaction, or input.
 - ↳ For some users, it requires too much to read. Interaction with content is very personal, depending on the user's personal preference, attention span, focus level, and cognitive load
- Lack of positive reinforcement to inform the user whether their action was correct.
 - ↳ I felt like in the class/course, there should be more clicking and less writing (Female, Employee, 26).
 - ↳ I didn't know when my answers were good (Female, Employee, 26)
- The content doesn't match the current user's emotional and cognitive state
 - ↳ I felt disappointed when the app experience did not match my mood. (Female, Employee, 26)
- Limited answer options, especially those describing positive emotions and thoughts.
- Typing in the app is tedious and users expect that inputting content will enable some additional functionalities – rewards they get from the app in the form of responses, feedback, and reinforcement. They wish that data could be analyzed and that's how the app provides them additional value. Some imagine that be accessed later because they find reading notes after some time, valuable. If user do not get any reward or clearly experience additional value, they most probably drop out.
 - ↳ If writing here doesn't have a function, I would skip it I think, because I would expect it to do something...maybe I would write it for myself, if I can see it later, but not sure. (Female, 31, Employee)
- Can not find exercise I liked: Some users wish they could easily find exercises they like to come back to them later.

Findings

HYPHOTHESIS:

- By providing users with check-in functionality that contains emotion checks, we can answer the needs of relief and self-understanding as well as provide more relevant content. That should lead to better user engagement.
- Employers care about employee's well-being and want to provide solutions to support it but resources and structures to do so depend on the company size.
- Employees would use the app when provided by the employer.

Check in feature

HYPHOTHESIS:

- By providing users with check-in functionality that contains emotion checks, we can answer the needs of relief and self-understanding as well as provide more relevant content. That should lead to better user engagement.

- Users enjoy naming emotions and being presented with words to describe the feeling: The user could understand all of them but seeing all on the screen helped to choose and describe emotional state.
 - ↳ This is what I was looking for - descriptions! I like this! (Female, Employee, 31)
- In worse moments, one may want to focus on positive things
 - ↳ of chose the "gratitude exercise" because if I feel low, I think it would give me more boost. It is easier to think what's good than what's important. (Female, Employee, 31)
- All exercises require users to reflect on some topics. Their emotional state or energy level might not allow them to do so. Reflection might not provide relief or relaxation in distress moments or be too demanding.
 - ↳ What if I do not want to reflect? What if I just want to zoom out? (Female, Employee, 31)

Check in feature

HYPHOTHESIS:

- By providing users with check-in functionality that contains emotion checks, we can answer the needs of relief and self-understanding as well as provide more relevant content. That should lead to better user engagement.

- The slider was an easy-to-use way of describing users' emotional state and energy level; the descriptions below the slider were important for the user to understand what the slider position meant, helping to choose the best setup. While choosing the slider position, the user tried to find words to describe feelings, which in the app comes on the second screen, where emotions and feelings are listed. Combining both screens might be more efficient for the user.
 - ↳ of am curious what are the options for descriptions: you separated them into two so tiredness is more on energy level (Female, Employee, 31)
- A place for additional written notes next to emotion descriptions made users expect some additional function of describing emotions in written format or expecting to be able to come back to those notes.
 - ↳ if writing here doesn't have a function, I think I would skip it because I would expect it to do something...maybe for myself but I'm not sure... (Female, Employee, 31)
- Users are not used to thinking or describing about their emotional stages; they also noted they might differ during the day.
 - ↳ There can be multiple states during the day. You should ask "How do you feel now?" It would be easier to capture at the end of my day. Usually, I can only describe my mood as good or bad. (Female, Employee, 31)

Findings

- Employers care about the mental well-being of employees nevertheless it is to the extent in which they can ensure employees can deliver the expected results. Employers care about and buy:
 - ↳ Results (more innovation, better teamwork, less anxiety and burnouts)
 - ↳ Time invested (how much of employees time go for that?)
- Bigger organizations are more structured in their efforts and provide benefit package. Small once miss resources and support.

What's wellbeing & how do we take care about it?

making sure you take care about both mental and physical site: internal balance, trendy word, balance work and private life

keeping nervous system regulated, and knowing how to assist yourself and others in regulating it

clear borders between work and private time: private life not impacting work performance and other way round

person understanding and feeling good in the role

What do I / we do to achieve it

- having time to relax, eating healthy, avoid stressful situations (traffic, doing physical activity, going for walk after or during work, zoom out after work to "forget it"
- measurement:
 - S quarterly survey on work - life balance
 - S HR person "keeping an eye on it"
 - S LT reacts to ad hoc problems
 - M Pulse surveys defined based on goals
 - M Employee & Manager feedback and usage of tools, attendance
- Clear role description & tasks
- Salary compensation
- Access to benefits and external support
- Tools for managers

What and who helps me...

- Oura, Nightingale Psychotherapy, Coaching Yoga, Meditation, Sport Friends, Family, Animals
- HR person "keeping an eye on it"
- LT reacts to ad hoc problems
- M Pulse surveys defined based on goals
- M Employee & Manager feedback and usage of tools, attendance

both

- ↳ sport benefits
- ↳ ad hoc after work activities
- ↳ non basic health insurance including psychological support

small org support

- ↳ 4 day working week
- ↳ support of more senior persons, on the job learning
- ↳ external coaching support where problems identified

medium org support

- ↳ organized after work activities
- ↳ extensive health and insurance options including psychological health
- ↳ AuhM, support line members

What problems do we face and what's the wish for future?

Not enough support for managers to support employees (tools, salary models)

Value misalignment Miscommunication Favoritism, lack of appreciation, feeling of isolation

Young people not having HR function to consult about well being, managed also by youngest people

LT has not enough time to focus on the team and wellbeing, only reacting to problems.

No support until problem arises.

People from different teams don't know each other.

Young people leaving organizations: lack of awareness? different attitude to work? lack of support?

if someone has a difficult moment during work time, they can take 5m assie and move on with their day, be on top of things and present

HR Person to support me in salary negotiation, hiring plans, helping people to "fight for their right" and understand work life balance

I wish I received managers training as this is my first time in managers role. I could have avoid the mistakes and learning on myself if someone just told me that. People who didn't manage well, got training.

My expectation would be that people has more self reflection so they can recognize alarming signals from themselves and others. Mental health support is a must for me (if only there is money).

Start ups are build around their value system and there are tools in place to support those

More support for managers so they can support people, HR as service

Findings

- Employees would try the app based on the value proposition.
- Not all employees will do it:
 - o 15-30% of employees taking part in mental wellbeing related webinars in big organization
 - o In small one, only few tried provided test app.
- It's not only about providing the option - how this is supported? Is there dedicated time?

HYPOTHESIS:

- Employees would use the app when provided by the employer.

Recommendations

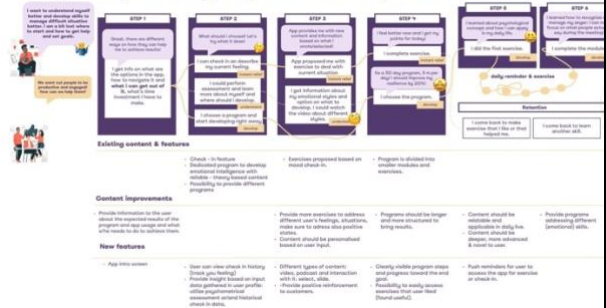
1. Product development based on user needs along the journey
2. Continue to gather customer insight and validate plans
3. Explore workplace context and design customer journey
4. Clarify the value proposition for customers and users



Product development based on user needs along the journey

- Development items should be linked to user needs along the whole user journey
- Content and app features must evolve together to deliver customer value, communicated in value proposition

User journey in the app & product development



For the future

No	Customer statement	Interpreted need	Improvement
1	<i>In the Gallup test, I knew how long it is and what's the reward</i> (Female, Employee, 30)	User wants to know what the expected result is, and what reward/benefit they get when completing the program.	At the beginning of app usage (home screen), provide information to the user about the expected results of the program and app usage and what s/he needs to do to achieve them. (Introduction home screen)
2	<i>I don't know where I am, where I am going, and what will happen. I feel lost.</i> (Female, Employee, 30) <i>Why am I reading the same thing again? I've been here already</i> (Female, Employee, 30) <i>I did not understand it at all. why 2 steps on the journey? Because I made 2 exercises?</i> (Female, 31, Employee)	User needs to know what's his/her progress toward the goal.	Visible program steps and progress, steps left to the end goal.
3	<i>It's easier to imagine those situations if they could really happen</i> (Female, Employee 29)	User needs to relate to given examples, know them from life to understand them.	Content should be relatable and applicable in daily life: illustrated by situations, and examples to which user can refer to, that are familiar, like those in their lives, and align with their own experiences.

For the future

No	Customer statement	Interpreted need	Improvement
4	<i>I need to learn how to handle difficult situations better and know how to defuse a bomb that might explode</i> (Male, Employee, 34) <i>If someone would regularly ask me this kind of questions, maybe in real situation I would behave is it enough to see the app? it's quite a long way from doing this exercise to actually experiencing the situation where I could see a benefit of it.</i> (Female, Employee, 30)	User needs to apply learning in daily lives (see a value).	Include actionable tools for the user to cope with difficult situations in the moment or the future.
5	<i>I feel disappointed when the app experience did not match my mood</i> (Female, Employee, 26) <i>There is no option to say that I feel OK, all answers imply that I feel bad</i> (Female, Employee, 30) <i>are there any other exercises? What if we don't want to think, just zoom out?</i> (Female, Employee, 31) <i>I would need crisis exercises</i> (Female, 29, Employee)	User wants to interact with content applicable to his/her mood or development goal.	Variety of exercises and selection options to address different user's feelings, and situations.

For the future

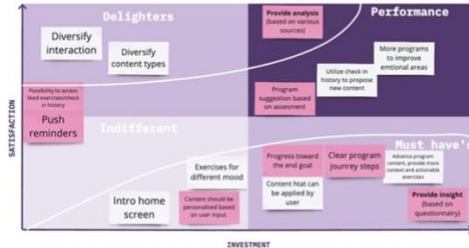
No	Customer statement	Interpreted need	Improvement
7	<i>I would do the questionnaire and get some guidance, information</i> (Female, Employee, 30) <i>I would expect that if I input the content, it does something, analyze my data, does it?</i> (Female, Employee, 31)	User needs objective insight, feedback on oneself and guidance on how to develop.	App provides answer or guidance based on user's input. The app analyze input content and provide the user with additional insight/response/feedback. For example, the user could perform an assessment based on which app could provide insight about the user and suggestions on the exercises.
8	<i>I like that psychological concepts are named and described. I heard about it but I don't know what it is</i> (Female, Employee, 30) <i>I understand it's superficial but for me, it was too easy</i> (Female, Employer, 35-40)	User wants to learn new things: concepts, skills.	Content should be reliable, professional, include concept definition to enable learning.
9	<i>When to do that: before or after work? During work?</i> (Female, Employee, 31) <i>How to remember? Maybe I could reserve time during working hours.</i> (Female, Employee, 30) <i>Would the app follow up how do I feel after exercise? Did it change anything?</i> (Male, Employee, 30-40)	Users' needs to be reminded / encouraged to do exercise.	Push notifications. Features supporting user retention: rewards.

For the future

No	Customer statement	Interpreted need	Improvement
10	<i>Making Gallup test is like play game with yourself</i> (Female, Employee, 30) <i>I like images and video, help me to learn</i> (Male, 30-40, Employee) <i>I love infographics</i> (Male, 30-40, Employee) <i>Too little interaction, too much telling. More clicking less typing would be nice.</i> (Female, 30-40, Employee)	User needs different types of content to learn and engage.	Diversify interaction with content: Currently, the user interacts with the content by selecting (clicking) certain items or typing answers. Users mentioned that interaction helps them to digest the content and clicking is easier than typing. Diversifying interactions and easing them would help users to keep engaged. Diversifying content and adding more visual or audio elements can support different types of learning preferences.
11	<i>I didn't know when my answers were good</i> (Female, Employee, 26)	Users needs confirmation that he/she is on the right track.	Provide positive reinforcement to customers.
12	<i>I think that it could be great to still have access without redoing all the steps to have access to the one I like. Now they are difficult to find</i> (Female, Employee, 26) <i>Should capture positive emotions to track the progress</i> (Female, Employee, 29) <i>It could be fun to come back to what I wrote, I have this diaries</i> (Female, 31)	User wants to access the history of input information to track progress over time.	Possibility to access history check-in content or other content history.

Looking for prioritization

Kano model



Looking for prioritization

Basic needs (must have) are those focused on helping users to understand the goal of using the app, helping them to navigate and see progress. Must-haves also include exercises matching different mood/emotional states as well as providing actionable and personalized content. To provide user value, the app must also provide the user with a response, insight based on user input. Must have features must include an introduction screen with clear steps and result definitions, visualization of current steps and progress toward the program goal, various exercises matching different users' states, actionable content, minimum insight, or response based on user's input that would help them to reflect, understand themselves and the needed change.

The **performance items** refer to those fundamental items that the product needs to succeed, but in contrast to must-haves they can be gradually improved, and its improvement will directly improve customer satisfaction. For us, those are the features that correspond to whether and how well the app can propose content based on different data sources: assessment, check-in history, user input as well as providing different types of programs addressing different skills development.

Items classified as **delighters** are those around gamified content as well as 'surprising' users with personalized suggestions or feedback: diversifying interaction and content types, providing suggestions based on assessment and more sophisticated analysis of input content, strengthening app personalization and value provided to users.

2. Continue to gather customer insight and validate plans

- Feature options tested with users for priority
- Roadmap item concept tested before implementation
- Short survey within the app to follow users success, metric for each program / matching feature



3. Explore workplace context and design customer journey

- What are difficult work situations that limit employee engagement and productivity? For example, misalignment of values has been mentioned as one. What are other factors that could be addressed?
- On the other hand, for employers improving performance is the goal. How can we help to achieve it? Soft skills, including emotional intelligence, are proven to increase employee productivity. Building on emotional intelligence improvements as the first soft skill, how does its development improve employee performance?
- Managers were mentioned by both employees and employers as those who bear a lot of responsibility for employee's well-being both in small and big organizations, often lacking appropriate support. How could we support managers?
- Work-life balance is affected by over hours and/or workload, monitoring of one's well-being, and ability to notice alarming signals of burnout or anxiety were concerning items mentioned by small companies.
- Employee attrition among young people, identified in a small company/startup; possibly due to misalignment between work requirements and expectations or/and lack of assertiveness in limiting the amount of work.



3. Explore workplace context and design customer journey

- Explore topics for the content that could clearly benefit both user and employer
- Design customer journey to provide additional value beyond the app and support the app integration and usage in company routines. Some ideas include:
 - o Supporting the company to identify problems in employee wellbeing and match them with program offerings.
 - o Performing an introduction webinar about the importance of emotional intelligence.
 - o Providing supporting materials for employers on how to communicate and encourage employees to use the app.
 - o Support employers to create frames for app usage: users must feel they have the employer's consent for dedicating 5-10 of their workspaces to use the app; reflect, do exercises.
 - o Providing additional tools for employers to identify problems in their organization.



4. Clarify the value proposition for customers and users

- Clarify and show expected results for employer (in numbers?%) and employee
- Clarify what the app does, what is the problem and solution, how much time needs to be allocated
- Make sure we deliver promised value (with the app and beyond it)
- Emotional intelligence: not well understood, not sure what do I get out of it. What's my motivation to do this? What do I get or avoid punishment?

There is a lot if stigma behind admitting you feel anxious at work

If there is a tool people can use (couple of minutes per day) and be more engaged or not to be out sick for many days - this is what employers wanna hear.

My expectation would be that people has more self-reflection so they can recognize alarm signals from themselves or from others

So people can understand themselves and others better to avoid miscommunication and behave professionally