

Exploring new service opportunity as ABN AMRO to promoting customer's Financial wellbeing

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Preface

To showcase the skills and knowledge I've learn in the past two years, my final phase as a student of strategic product design started. This research wouldn't come to an end without everyone who helped, supported, inspired and guided me along the way, therefore, I want to take this opportunity to express my sincere gratitude before we dive into the thesis.

First of all, I would love to thanks Simon, innovation manager at team platform, group innovation for not only introducing me to this projects but also providing me with valuable and wise lessons as my mentor. I have learned so much from you.

Also I want to appreciate the support and guidance I have received from my supervise team, Pieter and Haian. I can not reach the finish line without your pushes. To Haian, you have taught me how to think outside box even if I couldn't, provide me with insightful suggestions from a fresh angle. To Pieter, you are a magical design chef. I came to the meeting with my so much, so raw materials, and you could just turn them into something beautiful and interesting. I admire you ability to exam the information from a unique perspective. It gave me so much confidence continuing this project even when I was doubting myself.

Of course, I'd like to thank ABN AMRO group innovation for this precious opportunity to explore the journey on the topic of financial well-being. And to all the people who welcomed me and helped me

with interviews. Your inputs were one of the most valuable discoveries

And I want to thank my friends who supported me and lent their hands to me during the ideation sessions.

Last but not least, I want to contribute this research in the memory of my grandma who passed away recently. Ever since I came to the Netherlands, I have not had the chance to go back home visit you and share you all the gossips and experiences with you. And I was devastated when I found myself not being able to be there when you were sick. I hope you are now in a better place with grandpa.

Abstract

Due to an ever-changing and complex world we are living in, more than half (55%) of the average earners and more than 1 in 3 top earners worry about their finances (Aegon, 2021). Moreover, financial stress is increasingly being recognized across society for its impact on happiness and productivity. Banking customers want to have ability to make confident, well-informed money related decisions resulting in financial security for both the short-and long-term, which has traditionally been covered by existing financial services. However, other key wellbeing factors such as meaning and prolonging positive emotions are yet to be explored.

At the beginning, three research questions were framed: what is financial well-being; How does money involved activity influence individual's financial well-being; and What can ABN AMRO do to promote the financial well-being of their customers? The research phase with in-depth literature review and qualitative approach to the target group, established a definition of financial well-being in this project and revealed insights from how activities influence one's financial well-being. Other findings from the interview also helped decide the design direction for the development phase.

With 3 design topic decided, development phase started with the intention to further narrow down the scope and identify potential service opportunities. A handful of service design tools and brainstorm session provided with new and fresh design angles, which formulated 3 design briefs.

With the help of co-creation sessions and rounds of iteration sessions, initial concepts were able to develop in-depth and final concepts were created.

Afterwards, 3 service examples that were created and developed during the project were shown as an inspiration to fellow designers. However, the value of this project was the exploration journey of how to develop new service ideas that will support financial well-being of the customers.

In conclusion, the project has sufficiently achieved its goals, and provided new perspectives for future research.

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1. Introduction

In the first chapter, some background information regarding the project is provided. This includes a short introduction of financial well-being, target group of the research. In addition, the assignment of this research is clarified along with the approaches and methodologies used throughout this project.



1.1 Background

What is financial wellbeing?

Financial well-being has drawn a lot of attention in social welfare, financial literacy discussions and report, but is still ill defined so far (Bowman et al. 2017). There is not a generally accepted definition of financial wellbeing, various definitions are proposed both in the scientific literature and in financial practices. Therefore a short overview will be given in this sector and later a definition that was used for the current project will be provided through literature research.

Sorgente & Lanz (2019) proposed that financial well-being has both an objective and subjective side, believing that objective financial well-being consists of individuals' material resources (e.g., income), whereas subjective financial well-being is individuals' perception and (cognitive and emotional) evaluation of their financial condition, both positive and negative. It suggested that financial well-being is determined beyond only having enough material and resource (e.g. income, assets). The study has shed the light on the importance of the role of subjective financial well-being. Further more, in the report of Using survey and banking data to measure financial well-being from commonwealth bank of Australia and Melbourne institute (Comerton-Forde, Ip, Ribar et al. 2018), They used perceived financial well-being and observable financial wellbeing as the measurement of people's overall financial well-being (see figure 1). Both sets of components are interrelated,

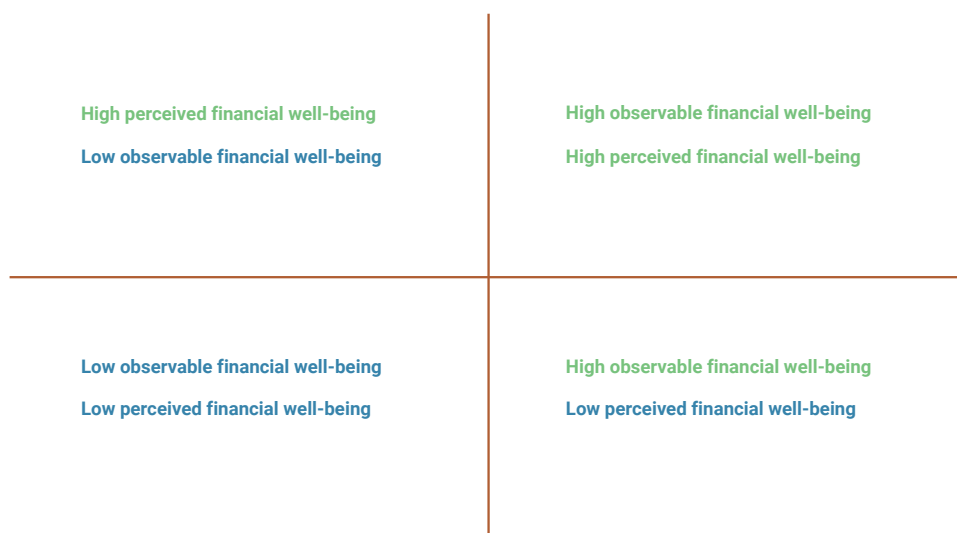


Figure 1

but they capture different aspects of financial well-being. Often, these two components align with each other, but for some people, they do not. Observable financial well-being mainly reflects on the objective financial wellbeing, and perceived financial well-being is used to reflect on people's subjective well-being.

More than ever, there has been increasingly interest in well-being in popular media and social policy. People are facing more financial stress and trying to understand the impact of social and economic changes caused by the corona virus pandemic. In the report of the commission on the measurement of economic performance and social progress (Stiglitz, Sen & Fitoussi, 2009), they recommended that subjective well-being data should be collected to assess social and economic progress and complement narrow measures of progress such as GDP. And in the report of Netherlands beyond GDP: A Wellbeing Index by Robobank and Utrecht university (2016), they have already used subjective well-being as one of the well-being dimensions. Netemeyer, Wsrmath, Fernandes & Lynch, demonstrated that perceived financial well-being is of a great importance to overall well-being in their findings (2017).

Who is the target group?

As showed in figure 1, the two-component categorization of overall financial well-being created four combination:

High perceived and observable financial well-being:

People in this category experience and perceive good financial outcomes, and they also have good objective financial outcomes.

Low perceived but high observable financial well-being:

People in this category have good objective financial outcomes, but they do not derive a sense of wellbeing from their finances. People in this category tend to report their financial problems but not financial successes.

High perceived but low observable financial well-being:

People in this category experience and perceive good financial outcomes, but they have bad objective financial outcomes.

People in this category report being successful in many situations, yet their financial statement indicates otherwise.

Low perceived and observable financial well-being:

People in this category experience and perceive bad financial outcomes and they also have bad objective financial outcomes.

In the Aegon financial well-being index (2021), findings shows that even in the highest income group in the UK, 1 in 3 is worry about money, resulting a conflict between perceived financial well-being and observable financial well-being. Furthermore, the most of prior research and studies put their concern on negative financial well-being outcomes such as financial stress, lack of financial capability, yet little was on stimulate positive emotions and experiences. Therefore, the project will focus on people with relative high observable financial well-being and low perceived financial well-being.

Money is a means to an end.

Under financial stress was proven to have negative influence on individual's happiness and productive. But having high level of financial outcome does not necessary equal to happiness. Only 4 in 10 people have ever considered what gives them joy or purpose in life (Aegon, 2021). Mogliner discussed the relationship between money, time, and happiness and suggested that rather focusing on time than money leads to greater happiness(2015). Muijnck, Bogliaccini and Surie (2021) also empathized the importance of recognizing "money is a means to an end". Information has all pointed to the link between happiness and money lies in what people do with money. In this project, money involved activity is one of the primary research objectives.

ABN AMRO

As one of the leading banks in the Netherlands, ABN AMRO provides various financial services to its customers from the Netherlands and Northwest Europe within four business categories: retail banking, commercial banking, private baking and corporate & insti-

tutional banking. In addition, different group functions support its business in areas such Innovation & Technology, Strategy & Sustainability.

The purpose of ABN AMRO is “banking for better for generations to come”, bank’s strategy is based on three pillars: customer experience, sustainability, and future-proof bank(see figure 2). The strategy resulted in a clear vision as to be a personal bank in the digital age.

Enhancing customer experience is at the core of the bank’s strategy. In order to do so, it follows the principle of stay close to the clients. Understanding customers helps to tailor the services to their needs. ABN AMRO wants to be there at every financial milestone in their customers’ lives such as opening first bank account, buying a home or starting a family. As in the age of digital, ABN AMRO also offers a fully digital experience to meet daily banking needs. The use of video banking makes the bank services much easier and more accessible to various clients.

However, the recent result in the customer sector failed to meet the goal in 2020. Both retail and commercial banking sector fell short on its Net Promote Score(NPS), which have negative scores and slightly dropped compared to 2019. In the bank’s new road map, the goal of 2024 is to get a positive score in the customer experience sector.

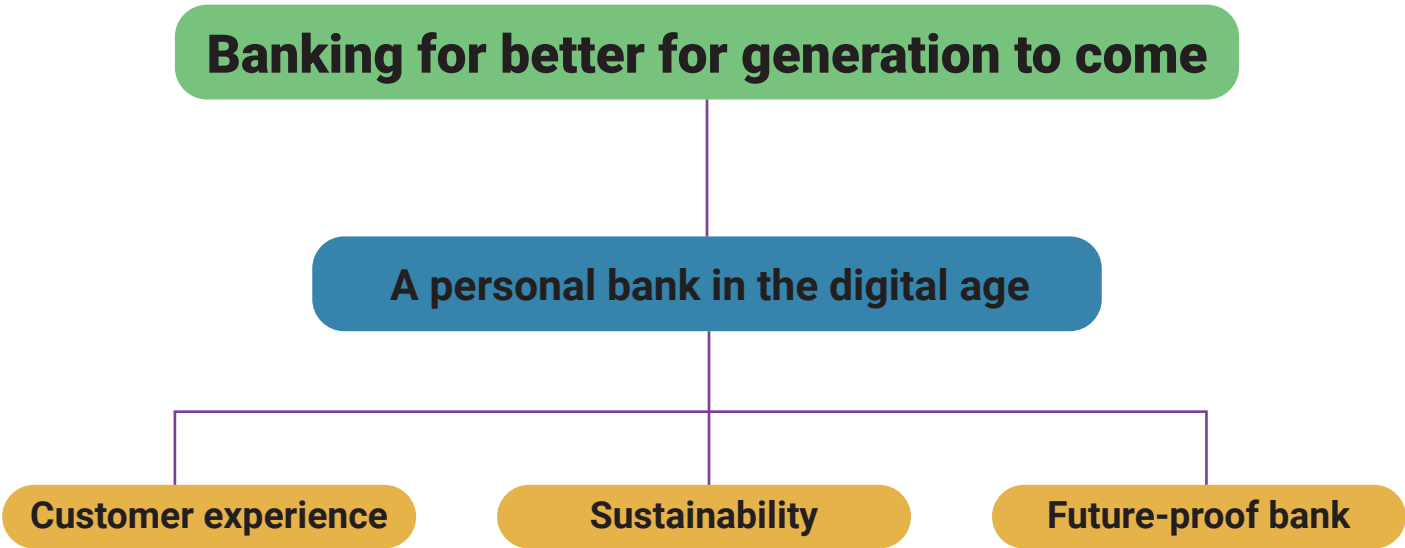


Figure 2

1.2 Assignment

This project aims to establish an understanding of financial well-being and to explore the role of ABN AMRO in promoting customer's subjective financial well-being through service design. The findings and outcomes of the research aim to provide new and fresh perspectives contributing to future innovation.

During the course of the project, the following research questions were answered:

1. What is financial well-being?

2. How does money involved activity influence individual's financial well-being?

3. As a service provider, what can ABN AMRO do to promote customer's financial well-being?

The outcomes of this project is a booklet that documented the process of project with three service examples demonstrating the potential opportunity to promotes financial well-being while remaining profitable (main focus is on the desirability).

1.3 Approach

Design thinking

Design thinking is one of the often used design methodologies for designers to tackle complex problems. The design thinking process is often demonstrated into a double diamond structure. The process starts by exploring what is desirable from a human-centered point of view by empathizing with the world of people. This approach is about fully understanding human needs and why they feel, think and demonstrate particular behaviors in a specific context.

As for this project, it is to support the financial well-being of users rather than solving a specific problem. Therefore, instead of identifying problems, the main goal of the first diamond is to identify opportunities(see figure 3). In the second diamond, potential solutions are developed through iterations, considering the viability and feasibility aspects.

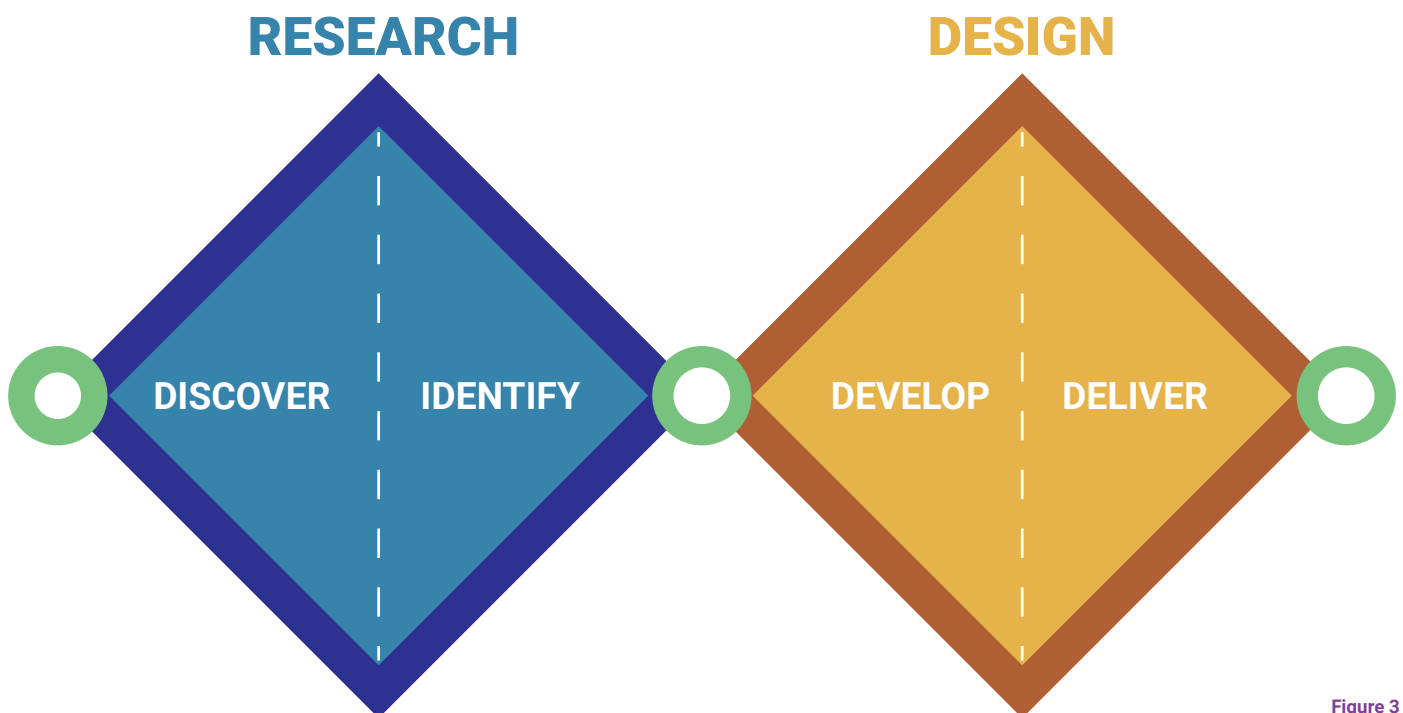


Figure 3

Service blueprint

In order to communicate the final outcome of this project to a larger audience, service blueprint was used to visualize the rela-

tionships between different service components that are directly tied to touch point in a specific customer journey along with story board (Nielsen Norman Group, 2022). Service blueprint can give an organization a comprehensive understanding of a service and the underlying resources and processes, which provides strategic benefits.

Emotional journey map

The Emotional journey map is a method used during identifying opportunities/problems phase in service design process. This method is about mapping and analyzing the emotional highs and lows of a user in their journey under a specific context(MSG, 2021). The focus of the map is not only on the interaction with the product or services, but rather on what makes the customer satisfied or dissatisfied in the end. The goal is to understand the feelings that are triggered in a customer makes it possible to create meaningful improvements or changes. By providing user profile and background information, design experts can become “actors” playing through the scenario from the user’s perspective.

1.4 Methodology

The project consist of four phases that help to structure the process and contribute to answering the research questions. Each phase has different focuses and approaches, in the phase one, the focus was on establishing an understanding of financial well-being in the context of this project mainly through literature review. It is important to set a foundation for this project and the findings have provided a structure for the following phase two. However, in order to understand the relationship between financial well-being, users, and company, it has been a continuous journey of literature reviewing and desk research throughout the whole project.

As the base was set for the project, in the phase two, semi-structured interviews were conducted to explore the relationship between customers, money involved activities and their emotions. The insights drawn from the interviews have not only created the design goal but also provided three topics for the following phases.

Phase three consist of two part: identifying opportunities and creating solutions(see figure 4). The outcome of phase two was materialized into customer profiles and customer journeys which were used to help the emotional-journey-mapping sessions. Based on the given information, “actors” can really put into customers’ shoes and understand the emotional roller coaster of the user during his/her journey. This method is often used in service design area to identify opportunities or problems. After opportunities have been identified, ideation session has been set up. Due to the limited resources and situation, method used in this part was self-brainstorm based on the insights from previous phase followed by interviews with customers and discussions with fellow students. The role of customers in this part was to provide practical in-put as iteration. The discussions also have been used as in-put for the project, students that were involved in are either strategic product design or design for interaction background.

The final phase is to finalize and showcase three service examples. Story board, service blue print and stakeholder map were the essential assignment for final outcome. These service design tools are great to communicate the concepts with audiences.

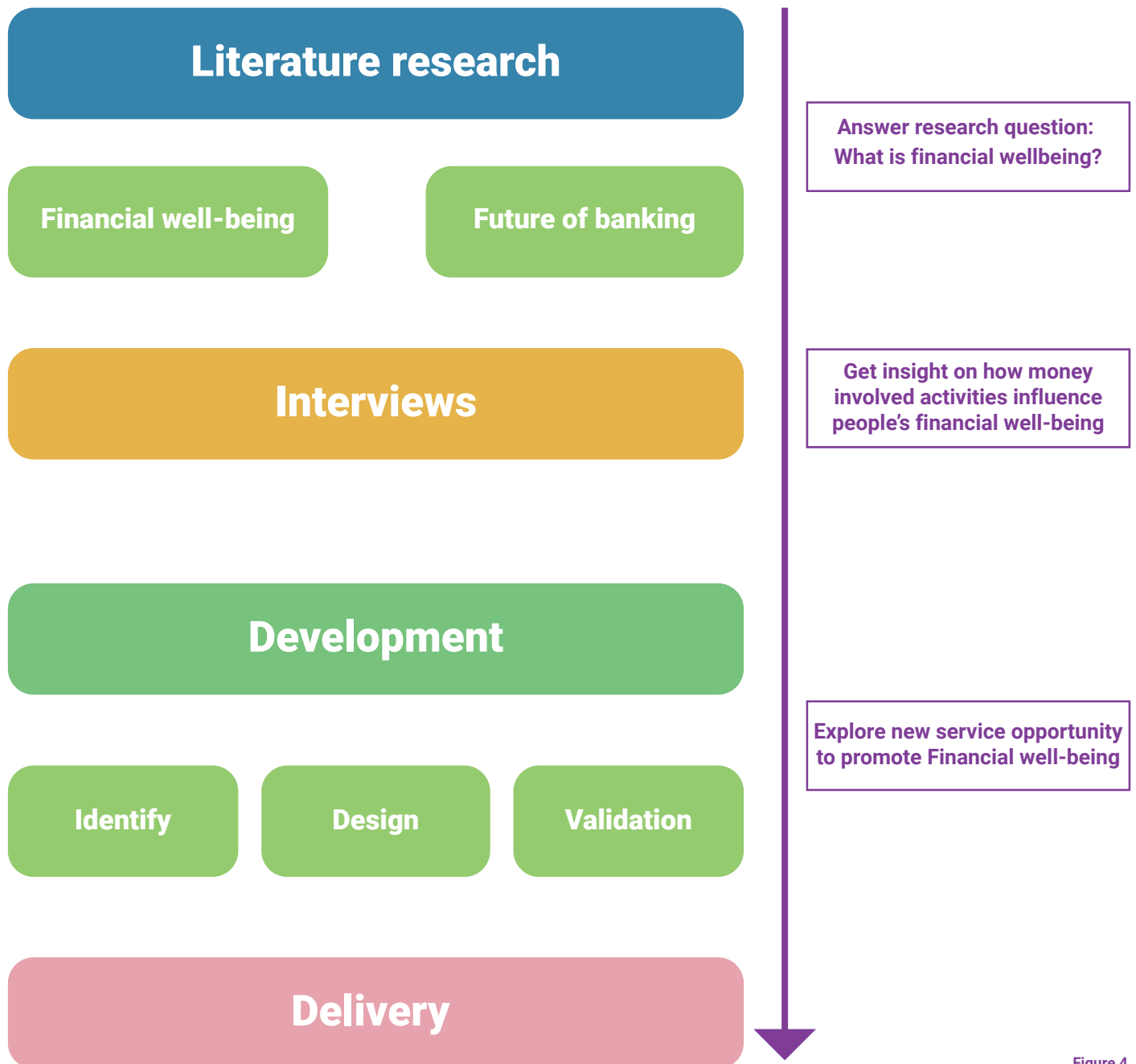


Figure 4

2. Research

In this chapter, two main research methods-- literature research and interview, were used to answer the research question. In literature review section, author discussed the definition of financial wellbeing through the body of literature, and conducted desk research on the future of banking aiming to understand the context better.

In the interview section, a qualitative approach was used to collecting insight on how money involved activities influence people's financial well-being. Through semi-structured format, author tried to indulge the participant to share their experiences and feeling.

The research result provided a clear direction and foundation to move forward to next stage.



2.1 Literature research

In order to answer the research questions, both literature researching on financial well-being, happiness and understanding of the context of future banking are necessary. Therefore, literature research consists of two sections: contextual (future of banking) and theoretical (financial well-being)

Financial Wellbeing

Definition

As mentioned in the introduction, there is a diversity of existing definitions of financial well-being both in scientific literature and financial practice. A table of different definitions of financial well-being is provided (see figure 5).

Although there is no generally agreed definition, it is clear that they frequently make reference to both the current financial situation as well to the future and some of the research include both subjective and objective dimensions.

To summarize, the general aspects of the financial well-being includes:

- 1. Meeting expenses and have some money left over for future.**
- 2. Acting in control and feeling control over one's finances now and in the future.**
- 3. Feeling financially secure and having a sense of satisfaction with one's financial situation.**
- 4. Being able to spend and enjoy one's financial outcomes.**

| Definitions | Source |
|---|---|
| Financial well-being has both an objective and a subjective side, believing that objective financial well-being consists of individuals' material resources (e.g., income), whereas subjective financial well-being is individuals' perception and (cognitive and emotional) evaluation of their own financial condition. | Sorgente & Lanz (2019) |
| Financial wellbeing is about a sense of security and feeling as though you have enough money to meet your needs. It's about being in control of your day-to-day finances and having the financial freedom to make choices that allow you to enjoy life. | CABA (harted accountants benevolent association) (2020) |
| Financial wellbeing is a state of being wherein you: Have control over day-to-day, month-to-month finances; Have the capacity to absorb a financial shock; Are on track to meet your financial goals; and Have the financial freedom to make the choices that allow you to enjoy life." | Consumer Financial Protection Bureau (2015) |
| Financial well-being is one's attitude toward the financial status based on objective aspects and judge them with regard to the standards | Financial Counseling and Planning, Porter (1990) |
| The ability to make confident, well-informed money-related decisions resulting in financial security for both the short and long term. "Thinking of finance as a utility – a service that is continually available to support our overall well-being, whereby we have enough confidence in our ability to spend, save and invest so that we can fully engage with our day-to-day lives, jobs, and society at large." | EY teams (2020) |
| Financial wellbeing is when a person is able to meet expenses and has some money left over, is in control of their finances and feels financially secure, now and in the future. | Muir, K et al, (2017). |
| The level of stress and well-being emanating from one's personal financial condition | Prawitz et al, 2006 |
| The state in which a household can optimally choose patterns of consumption over time and in uncertain states of the world. In other words, a household's ability to grow, manage liquidity and weather downturns | IFMR Finance, 2011 |
| The subjective perceptions and objective indicators of individuals' personal financial status. | Zaimah et al, 2013 |
| The material and non-material aspects of a person's perception from their financial status, improving their living standards and includes perceptions such as: ability to meet the needs, feeling safe, feeling comfortable and satisfied with the income and the award distribution system. | Academic Taft et al, 2013 |

Figure 5

Even though the well-being literatures acknowledges finance as one of the many domains of general well-being(Kruger, 2011) and the both dimensions of financial well-being, but the majority of prior studies often only discuss objective financial well-being. The subjective side of the financial well-being is yet to be fully explored. Considering the main angle of the project. The definition of the financial well-being in the current project is provided as following:

A state of wherein people are comfortable and satisfied with their financial choices, can feel secure in their financial future, and are able to spend their money on things that truly contribute to the level of happiness.

4 Aspects

During the definition literature research, some of the common aspects were summarized, based on which a definition that was used in this project was formulated. It is important to acknowledge that each aspect has both objective and subjective components. A table of detailed explanations for 4 aspects (see figure 6) is pro-

| Financial wellbeing means... | | | |
|--|---|----------------------------|--|
| Meeting everyday expenses | Being in control | Feeling financially secure | Being able to spend and enjoy one's financial outcomes |
| Meeting everyday expenses | | | |
| Definition | Includes having an adequate income to meet basic everyday needs, pay off debts and absorb unexpected financial shock and prepare for future | | |
| Being in control | | | |
| Definition | Includes both feeling and acting in control of one's finance now and setting and achieving one's financial goal in the future. | | |
| Feeling financially secure | | | |
| Definition | Includes having no needs to worry about money and having ability and access to secure one's finance. | | |
| Being able to spend and enjoy one's financial outcomes | | | |
| Definition | Includes being able to spend money on activities that promotes one's well-being, and to enjoy the financial outcomes. | | |

Figure 6

vided. Muir(2017) also pointed out the significant role of time in financial well-being. A person's financial wellbeing might be different yesterday, today and tomorrow. **One's financial well-being changes across one's life course.**

Future of banking

In this highly digitalized the society, banks have begun to reconsider their traditional business mode against the digital only player as they are shift their focus to create great digital customer experiences. However, in the report of It's time for a change of perspective from Accenture (Abbott, McIntyre & Bayel, 2021), they stated that even though great digital customer experience are necessary but only, it is insufficient to win. With a wave of digital-only players fragmenting and rebuilding the banking value chain with innovative propositions, it is not enough for traditional banks to be the best digital versions of themselves. Likewise, Ernest&Young, one of the biggest professional services consulting company, also suggested incorporate financial wellbeing as an integral part into bank's customer strategy (Bedford & Bellens, 2020). With FinTechs's growing fast, it was easy just to assume that the key to success was technology which is why so many traditional banks are investing in technology and partnership with tech startups including ABN AMRO. However, in the article, Bedford & Bellens (2020) pointed out that the desire of the customer is about wanting to develop and maintain a sense of financial wellbeing.

The way of banking will be hugely influenced by the growth of technologies such as Block-chain, Artificial Intelligence, but most importantly, incumbent banking player should acknowledge that the customer expectation is also changing. Going digital alone is not enough to fulfill the needs of customer and compete with the new comers in the future market. There is not doubt that digital payments, new banking apps and on-line banking experiences are

almost universally good in order to improve the customer experience. However, the problem—how to differentiate from other companies remains. **Creating new business mode and generating new value proposition will be one of the important strategies for banks to stand out in the future.**

2.2 Interviews

Interview set-up

In order to explore how ABN AMRO can develop services to support the financial wellbeing of their customers, the goal of the interview is to get insights on **how money involved activities influence people’s financial well-being.**

As It can be seen that there are two key components in this question, yet research on all “money involved activities” was impossible for the scope of this project. Therefore it is essential to categorize “money involved activities”. In this project, the 4 aspects of the financial well-being were used as 4 categories for money involved activities, and example activities were chosen accordingly (see figure 8).

| Category | Meeting everyday expenses | Being in control | Feeling financially secure | Being able to spend and enjoy one’s financial outcomes |
|---------------------------|--------------------------------------|---------------------|----------------------------|--|
| Money involved activities | Student loan Mortgage Payments | Management Goals | Saving Investment | Spending on joy |

Figure 8

Interview was decided to use a semi-structured qualitative approach to collect information to understand participant’s decision making process and underlying motivations. **Interview questions can be found in Appendix.**

Participant recruitment

As mentioned in the introduction section, the target group of this project is people with high observable financial well-being but low perceived financial well-being. People in this category tend to report their financial “problems” instead of their success. During the test run interview, it was realized that because financial well-being in this project was to be observed under specific money involved activities, it was difficult to establish a perfect group through recruitment based on the resources this project had.

Therefore, an alternative method was applied, by recruiting people with high observable financial well-being and asking people to report their feelings under each activities during the interview, then filtering out the statements that fall into the target group. The criteria of the recruitment and is showed below(see figure 9).

| | Requirement | Note |
|------------------------|--|---|
| Gender | No specific | |
| Job | Stable and relatively high income job | Objective financial well-being |
| Age | Between 25 --- 55 | |
| Location | Currently working and living in the Netherlands | Project context is in the Netherlands |
| Financial situation | Have reasonable amount savings and no significant debt | Objective financial well-being |
| Access to the Internet | YES | Interview will be taken via Zoom or Teams |

Figure 9

To recruit the participants for the interview, recruitment posts were posted on ABN AMRO group innovation WhatsApp group-chat and other network via social media such as Facebook and LinkedIn,

| | | | | | | |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Participant | A | B | C | D | E | F |
| Age | 52 | 28 | 33 | 42 | 48 | 40 |
| Gender | M | M | M | M | M | M |
| Job | Manager | Manager | Consultant | Banker | Director | Manager |
| Objective financial well-being | Ambiguously | Ambiguously | Ambiguously | Ambiguously | Ambiguously | Ambiguously |
| Participant | G | H | I | J | K | L |
| Age | 25 | 26 | 28 | 38 | 27 | 28 |
| Gender | F | F | F | M | M | M |
| Job | Manager | Consultant | Engineer | Professor | Engineer | Engineer |
| Objective financial well-being | Ambiguously | Ambiguously | Ambiguously | Ambiguously | Ambiguously | Ambiguously |

Figure 10

following up with email invitations to the people who showed interest in the topic. In the end, 12 participants (See figure 10) were picked for the interview.

Interview

Interviews were conducted by fully on-line video meeting due the Covid-19 situation. Each participant was schedule with a 45-50 mins meeting with the permission to record.

During the interview, questions were designed around examples of money involved activities in figure 8. Because experience differs from each participant, it was encouraged to indulge their own experiences into conversations.

2.3 Summary

After collecting information from all the interviews, clustering method was used to analyze the data and generate insights. The process can be found in the Appendix.

Three main insights can be drawn from the analysis:

Financial well-being is a life-long journey

There are many key financial milestones in one's life such as first mortgage, first investment. Unlike fairy tales, the story ends at happy ever after, those events often have a long lasting influence on people in real life. Their lifestyles, goals, priorities and needs may change after those events. Company should take a close look into "what has changed", "what they need after" when generating new add-value services.

Convenience is a double blade

People are living in an age where everything can be done in digital, even if it's money. Digital payment has made the money transaction a seamless process. But in the meantime, it also made money only a number and less memorable. In some scenarios such as gift giving and self-reflections, convenience is not the right approach for financial service to address the underlying needs of customers.

Financial services shouldn't only focus on safety

Current financial services often only put their focus on fulfilling physiological needs and safety needs (Maslow's 5 need category).

ries). However, the result of the interviews showed that when people's other needs getting neglected, it results a negative impact on their well-being. Hence, even though financial security is the backbone of all the financial services, company should also at least acknowledge other needs of their customers in the specific service scenario.

Other findings

During the interview, a few topics resonated more with participants:

Buying a new house:

Taking mortgage was relatively the most common activities among all the participants. They showed a high interest and adequate knowledge in the matter. Furthermore, most people continued the conversation beyond the moment of signing the contract. The house was not just a shelter over the head but a place people can call home.

"I see some possibilities to upgrade it and to say we can enjoy it and then I like to see that we can upgrade in an in a nice way that we can enjoy it and for example, last Sunday when the friends came over to watch the football and you can sit in the garden with them and have a drink and a barbecue etc, that's really yeah, that really and really enjoyable."

"You had a feeling was more about the house, not so much a word"

Donation to charity:

Another interesting topic that caught attention was donation activities. The result showed that most of the participants had or have donated their money to organizations like WWF, GreenPeace. They intentionally spend the money on the matter, yet did not improve their well-being, some of them instead presented feeling of insecurity and disappointment.

"It was the last year 2020, the beginning of 2020, where the whole forest fire thing happened in Australia. I felt so bad for the koalas. And like, generally, the animal population was like, wiped out by like, I don't want to say the wrong percentage, but like really decreased as a result of these fires. And I felt so bad. And I wanted to contribute"

"we had a subscription on this organization. That's for nature or for animal, an animal foundation. And we stopped that when I found out that the board member had some huge salary or something and they came into the news and I thought I can not trust my money with this person."

Paying for fine:

All the participants have showed very negative emotions when talked about paying for a fine even though they were more adequate to afford the payment. They often blame themselves for making the mistake or government for the relatively expensive compensation. Because the payment process was easy, they didn't recognize the reasons or show intention to change, improve their behaviors, only left frustrated when received the collection letter.

"It's like annoyed like this could have been avoided or like why isn't the government just making rules that are more like less strict in the sense because 90 euros for going five kilometers above two seems ridiculous."

3. Development

In this chapter, the project followed the double diamond mode of design thinking to develop service solutions — the identify opportunity phase and the ideate solution phase. The outcome of the first phase was three design goals that became the foundation of the phase two. In the second phase, an iteration cycle that includes a brainstorm session and an interview session helped to refine and improve the service solutions.

The final outcome of the service examples was presented in the next chapter.



3.1 Identify opportunities

Three topics

After interview was conducted, it was necessary to further narrow down the scope of this project. Three topics has shown high potential to create new services for ABN AMRO to support the financial well-being of their customers.

Buying a new house:

Buying a new house is one of the biggest financial decisions that one will make in their life journey. This milestone marks not only achieving at certain level of financial status but also the changes in one's life including life style, goals and priorities. However, starting a home does not end after signing the contract, merely the beginning of a life long journey. People invests money, time and their emotions into the house they bought in order to live the life they pictured. In order to fulfill the purpose of ABN AMRO— banking for better, financial services should be there for customer along with their journey, rather than only the beginning.

Donation to charity:

Showing kindness was supposed to be a pleasant experience and a boost for well-being for individual, yet, the reality says the opposite. Based on the interview and observation, people often have negative experiences and current services did not meet their underlying needs. As a financial services provider, what AMRO AMRO can do to change the situation and improving the well-being of the customers through donations can be a topic to provides new perspectives in creating new add-value services.

Paying for fine

In 2020 alone, nearly 7.8 million minor traffic violation were issued in the Netherlands. Paying for unnecessary expense has been proven to have a negative impact on individual's financial well-being which the finding of the interview also suggests. However, what financial service can do beyond already making the payment process as seamless as possible is yet to be discussed. As sup-

porting the customer’s transition to a healthier, more sustainable life style is one of the goals of ABN AMRO, this topic can give some new directions on the roles of financial services besides convenience.

Understand the context

As three topics were established, the next step was to understand the context where the topics were in. To do so, a series of interviews with people who was or recently had experiences under the topic was conducted. The goal of this interview was to establish a basic understanding about the topic and create a persona and a journey map that represents the experience of our participants which would be the material for brainstorm sessions in the next stage.

Participants were recruited by posts and email through writer’s personal network. The detail of the recruit information was shown as following(see figure 11, 12, 13).

The interview was in semi-structured format, lasting 20-25 minutes each. The list of interview questions can be found in Appendix.

| | | | |
|-------------------------------------|--|----------------------|--|
| Topic: Buying a new house | | | |
| Participant A | | Participant B | |
| Gender: | Female | Gender: | Male |
| Age: | 24 | Age: | 32 |
| Description: | Recently brought the first house with her boyfriends; Have on-going construction work; Renovate the house by her and her boyfriend. | Description: | Brought the first Apartment in 2020; Started the renovation process in the early 2021; Have moved in to the new house, but there is still on-going work such like bathroom and guest bedroom. |

Figure 11

| | |
|---|--|
| Topic: Donating money | |
| Participant A | Participant B |
| Gender: Female | Gender: Female |
| Age: 28 | Age: 36 |
| Description: Had monthly donation subscription before, but stopped because of the fading trust towards the organization; Recently started a new donation subscription with GreenPeace. | Description: Is a designer within Red Cross, and have knowledge on how donations and organization work; Have been involved in projects that require customer journey. |

Figure 12

| | |
|--|--|
| Topic: Paying fine | |
| Participant A | Participant B |
| Gender: Female | Gender: Male |
| Age: 31 | Age: 27 |
| Description: In the past year, have received 3 minor traffic fines. | Description: Recently have paid fine because of riding without light in the evening; have actively complained about the event multiple times. |

Figure 13

Emotional journey map

The Emotional journey map is about mapping out emotional highs and lows of the users while dealing with the products or services. Normally the journey map is created based on existing service or product. But in this project, the aim was to identify new opportunities and create new services. Therefore, the journey here mapped out all the actions were taken and emotions during the process of buying a new house, donating money, and paying fine purely from the customer's perspectives.

The maps were presented as figure 14, 15, 16.

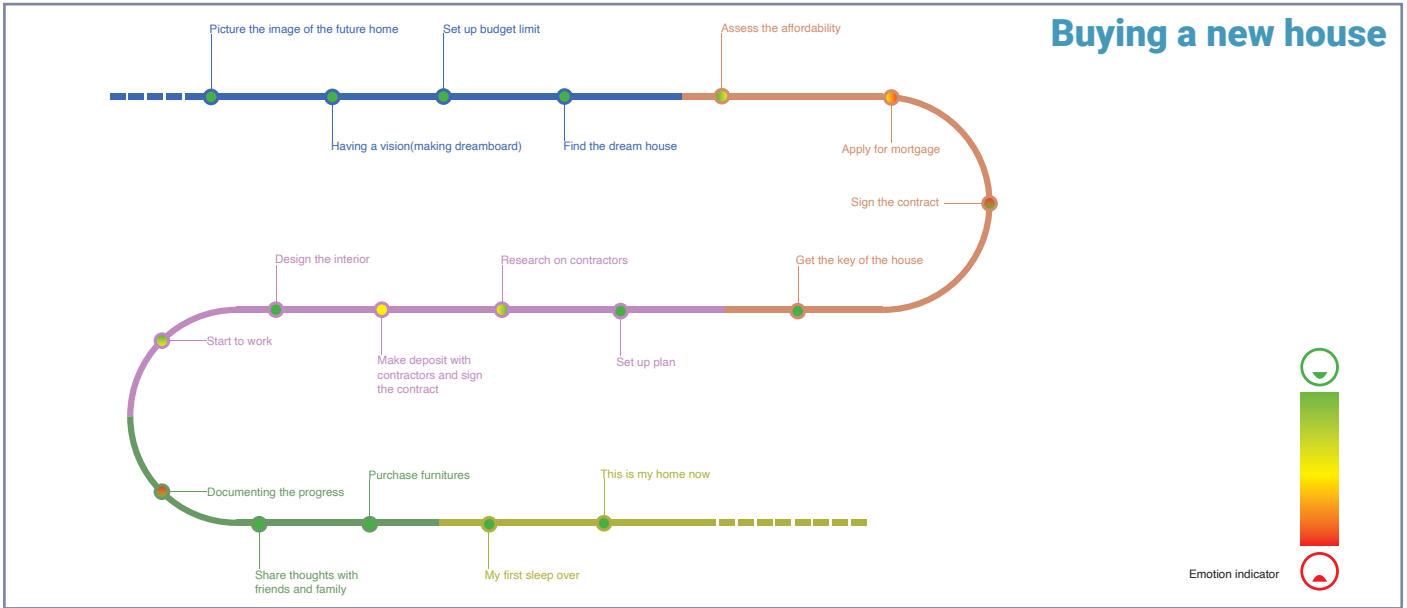


Figure 14

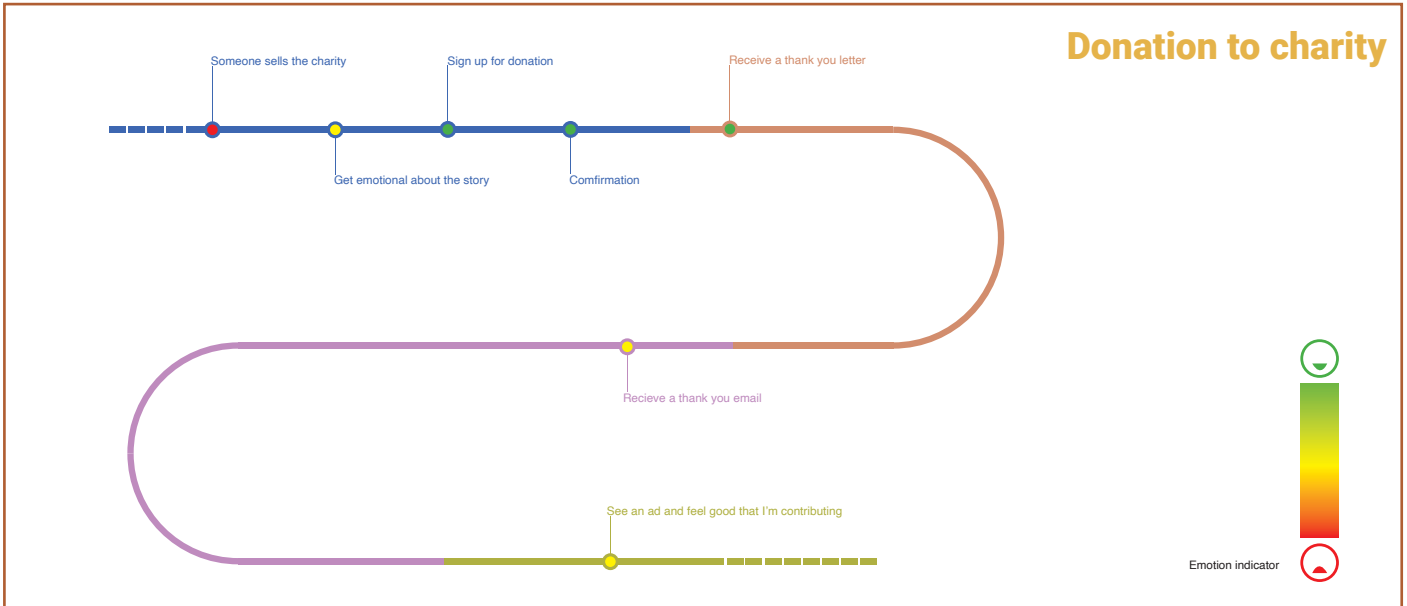


Figure 15

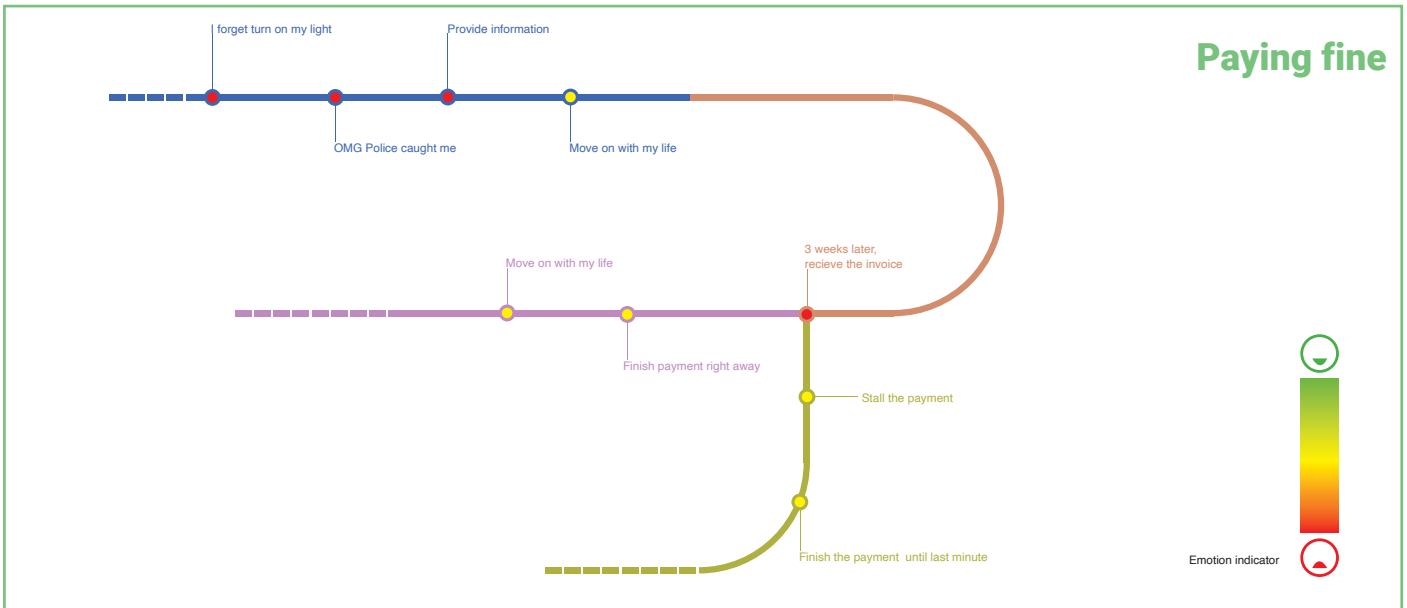


Figure 16

Personas

Personas is an often used design method in the design thinking process, created based upon the real data collected from the research in order to represent the different user types in the service scenarios. Personas provides meaningful typical or atypical users, which helps to understand patterns in the research.

In this project, persona was used as a guide in the brainstorm session to identify the opportunities. Therefore, personas were created with an emphasis on emotions, background stories, psychology which help participants of the following session engage with the characters so that they more likely would be to consider them during the process.

Personas were presented as figure 17, 18, 19.



Figure 17



| | | |
|-----------------------------|---|----------------------------|
| Name: | Jan | Donation to charity |
| Age: | 38 | |
| Gender: | Male | |
| Job: | Museum manager | |
| Hobbies: | Gardening, reading, rowing | |
| Relationship status: | In relationship | |
| Description: | <p>He loves spend the time in the community, is the head of the amateur rowing team</p> <p>He tries to live a sustainable life, buying organic food and compensate when traveling.</p> <p>He sometimes volunteers in the local community, like picking up trash.</p> <p>He follows the news to be updated, advocates equity and hates injustice.</p> <p>He has good savings and investment, never really was worried about money.</p> <p>He likes to have discussion with his friends, he says this will broaden his horizon.</p> | |

Quotes:

" I want to contribute to our planet, being part of it gives me hope for the future."

" Rather than a thank you letter, I'd want to know if we are making any progress. That makes me much happier."

"I don't feel good when people asking me to sign up on the street or in front of my door, I felt pushed under spotlight."

Figure 18

Brainstorm session

Three brainstorm sessions were hosted separately in order to identify the potential service opportunities. Due to the Covid-19 restriction, sessions took place in off-line with limitation of 3 participants each. Each brainstorm session last for 40-50 minutes.

Participants of these sessions were mainly students from TU Delft with design related background. Personas and emotional journey maps were used as guide to facilitate the session.

Each session started with a short introduction of financial well-being and the chosen topic. Following with a discussion to divide the journey into 3-4 smaller sections.

After personas were issued to participants, host helped all the par-



| | | |
|----------------------|--|-----------------|
| Name: | Sally | Paying for fine |
| Age: | 30 | |
| Gender: | Female | |
| Job: | Musician | |
| Hobbies: | Traveling, going to gym, trivia | |
| Relationship status: | Single | |
| Description: | She likes to travel by car, because it's free and spontaneous. | |

She doesn't have habit to pay too much attention, resulting occasionally incidents.

She likes to use Apps to help her such as fitness app, fasting app.

In the past year, she has been issued 2 speed tickets and 1 parking ticket.

Her friends are already aware of her recklessness

She complains a lot about the fine, but it still happens.

Quotes:

" Why it has to be me? There are other much worse criminal to deal with, right?"

" I will be better next time, I promise."

"The letter just ruined my day, I always pay immediately, so I can put it behind."

Figure 19

ticipants walk through first section together. Following with a 4 minutes self-ideation break, the whole group had a discussion and chose the most potential angle to develop new services.

After each section finished, whole group will discuss again and vote for the best angle among the sections.



Figure 20

Design brief

Based on the result from the brainstorm session, a design brief was formulated for each topic

Buying a new house:

Creating a platform that supports users to have their dream home, while enjoying and cherishing this unique journey with his/her family and friends.

Donation to charity:

Creating a service that meets the needs of self-fulfillment of users by creating meaningful connections and tangible experiences.

Paying for fine

Creating a service that encourages its user to self-reflect and form long-last healthy habits that will better their well-being.

3.2 Design process

Setting scenarios

By dividing the whole journey into smaller sections, the brainstorm session also helped further narrow down the focus for design challenges.

Buying a new house:

Buying a new house has a continuous influence through the life course, in the project, we will be mainly put our concentration on the time span from signing the new contract to moving in to the new house. During this journey, planning and executing the renovation is the main scenario.

Donation to charity:

There is a huge blank after people open their wallet and donate money to charities. And it was clear that people experiencing negative emotions and started to lose their trust towards the organizations. It has huge potential opportunities to overturn the situation during that time window.

Paying for fine

There is no follow-up nor self-reflection after people complete their payment. Often they simply move on with their life and at some point in the future, they will do it again. It is believed that focusing design on creating experience or services that can serve people after payment would be most promising approach during the brainstorm session.

Co-creation session

In order to get insider perspectives, co-creation sessions were hosted by inviting participants who were the target group. 20-min-

ute sessions took place via zoom meeting due to the time limitation and Covid-19 restriction. Participants (see figure 11, 12, 13) from the interview were invited to join the session.

First, session started with a short introduction of the session and topic, and then participants were shown the highlighted design brief and “how to” questions.

They started to do a self-ideation with the time limit of 5 minutes, followed with a 10-minute sharing. They were asked to improve their existing ideas or come up with new ideas for 5 minutes. Finally, they shared their new posts with each other and started a discussion.

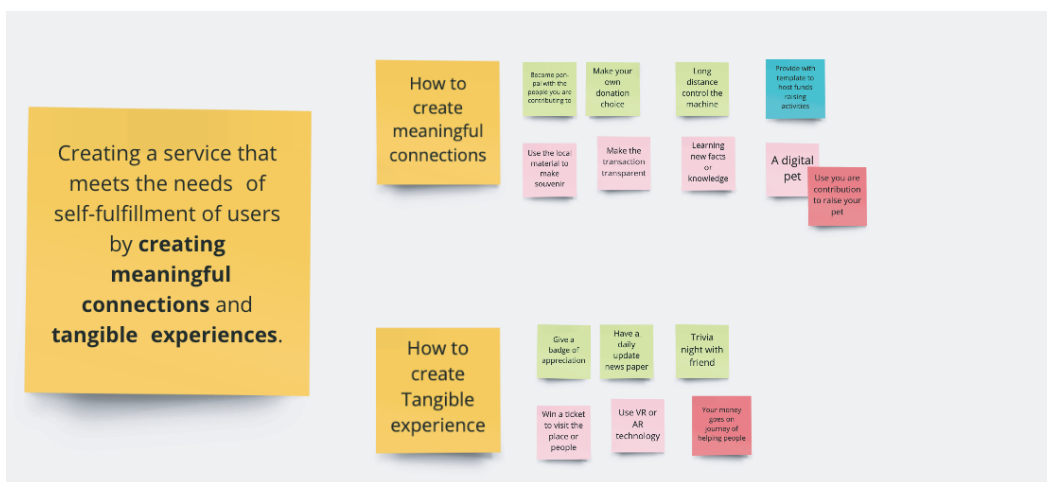


Figure 21

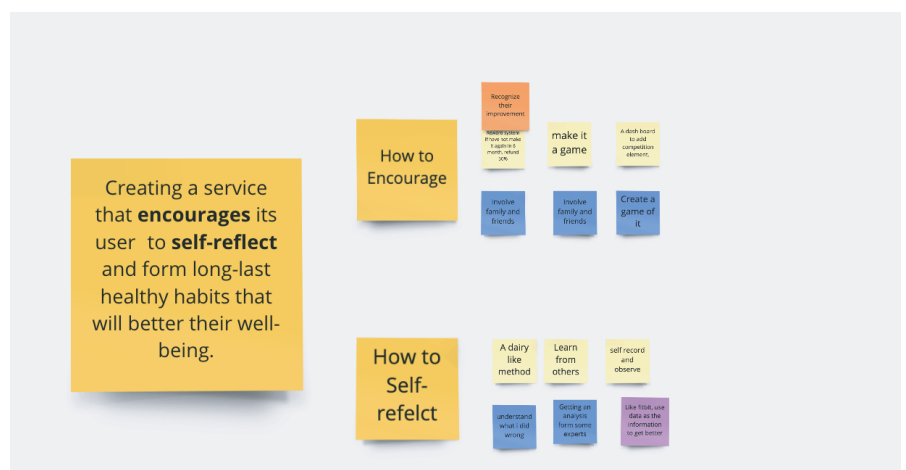


Figure 22

Initial ideas

Combining the inspiration from the co-creation session and some individual desk research, initial ideas were created.

Forest fighter:

There are hundreds of robots and devices working everyday to fight illegal deforestation and poaching. They function as eyes and ears of the protectors by generating tons of valuable data for research. And maybe those data can also be used as bridge that connects people who donate their money to the organization across the sea.

The concept is to use VR and AI technology that can create a bridge between users and nature they want to protect. By assigning drones to specific user, they can share live feed or even control the drone from a long distance. Through creating a tangible experience for its users, a deeper connection between the organizations and people who are trying to contribute something to make the world a better place, the service provides with feeling of in control and true joy that will support its user's financial well-being.

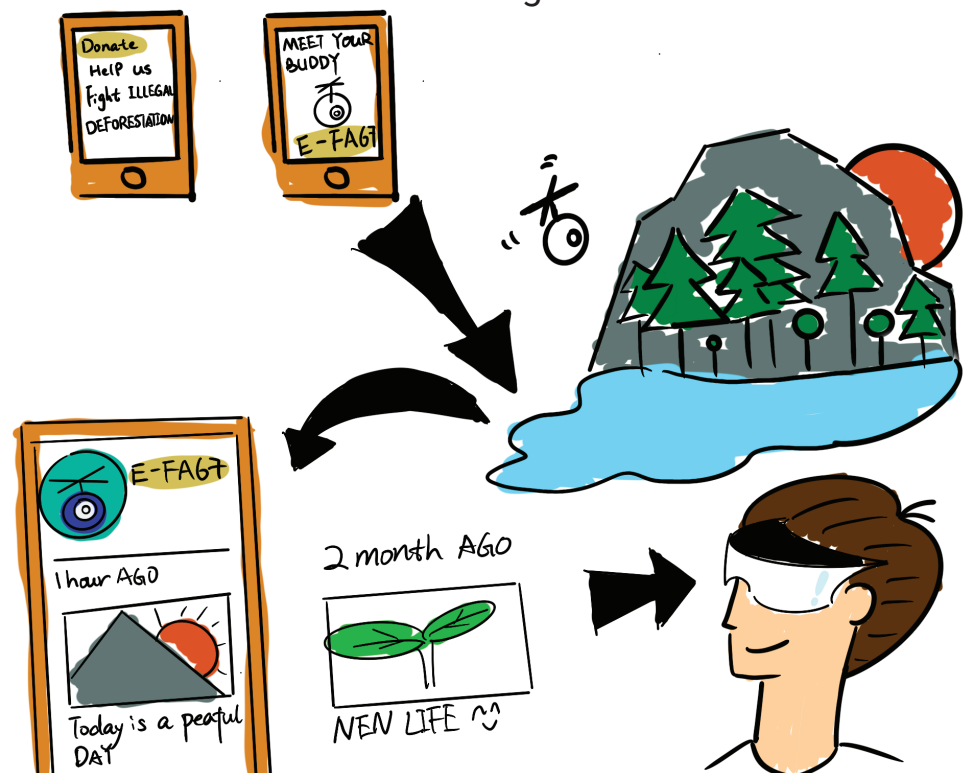


Figure 23

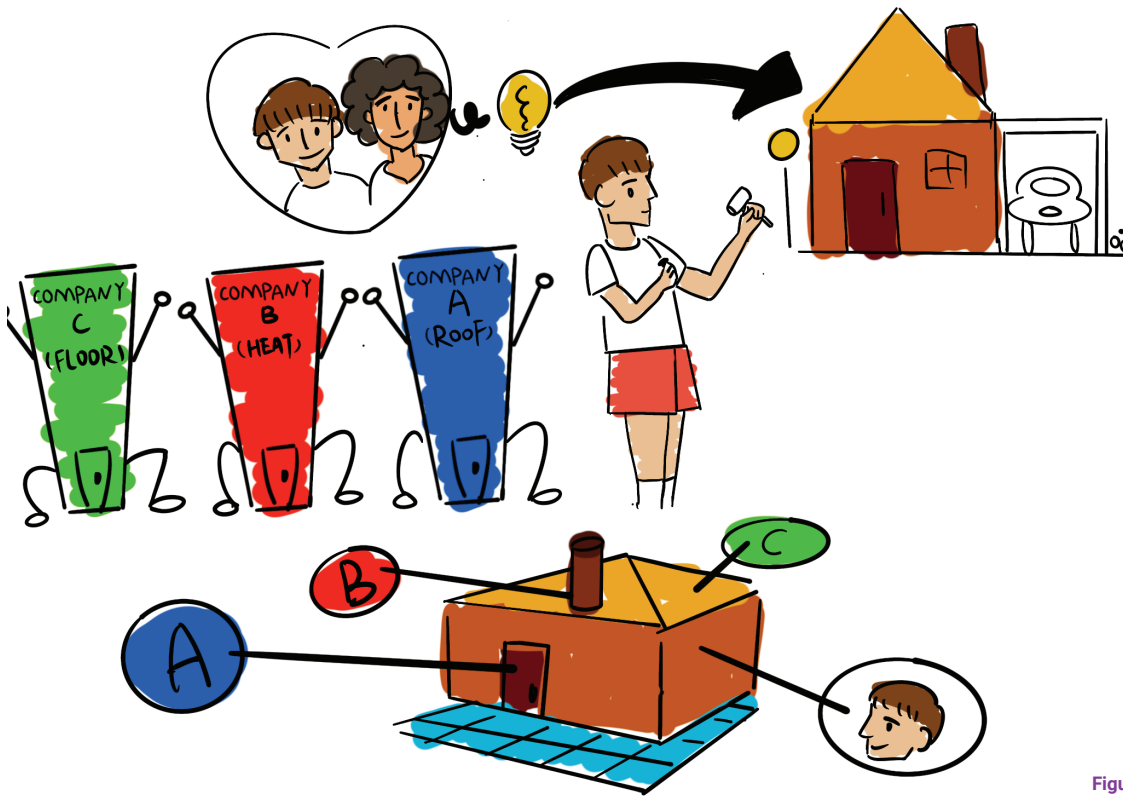


Figure 24

My house my rules:

Renovating their first home can be both exciting and stressful, because there are a lot of money, time and effort involved in the process. Lack of communication can result in the delay of the progress, unhappy interaction, resource waste. Often the whole process includes many different stakeholders and one miscommunication can cause a domino effect.

The concept is to create a on-line sharing platform where people can share their ideas, schedules, and progress with people that are involved in the process. You can share your new ideas for living room with your girl friend, or your window guy can directly share his progress with the floor guy, so they can work seamlessly. Everything is right where it is supposed to be. You as the owner, no longer need to worry about your money is to be wasted. By erasing the feeling of worry, this service can create a safe and joyful space that will support its user's financial well-being.

My private driving instructor :

DigiID is a digital ID card service provided by the Dutch government that become a part of daily life in the Netherlands. Your information such as medical, insurance, tax, is linked to your own identity by DigiID.

This concept is to provide a service that can link your car to you and create a private social network with your family and friends. Any action that involved your car can be done via the APP such as, paying traffic tickets, renew insurance, check your car's information. Further more, the private friends cycle can initiate annual challenge like no speed ticket which encourage user to form better habits. This Service also can provide with detail information on your misbehavior which can also help you self-reflect and improve. This service tries to promote user's financial well-being, by reducing unnecessary expense that triggers negative emotion,



Figure 25

Iterations

To further develop and detail the initial ideas, iterations were essential. The iteration cycle(see figure 26) consists of interview and development, two parts. Based on the feedback from the interview, concepts was able to improve and further development, adding details and new functions, and go back to the interview phase with outcome from previous cycle.

Due to the limitation of resource, after two rounds of iterations for each concepts, detailed ideas were ready to be finalized.

The purpose of the interview in the iteration was to gather valuable feedbacks that helped improve the design. The participants of the iteration process were the same group from the identifying opportunities interview participants. The list of interview questions can be found in the Appendix.

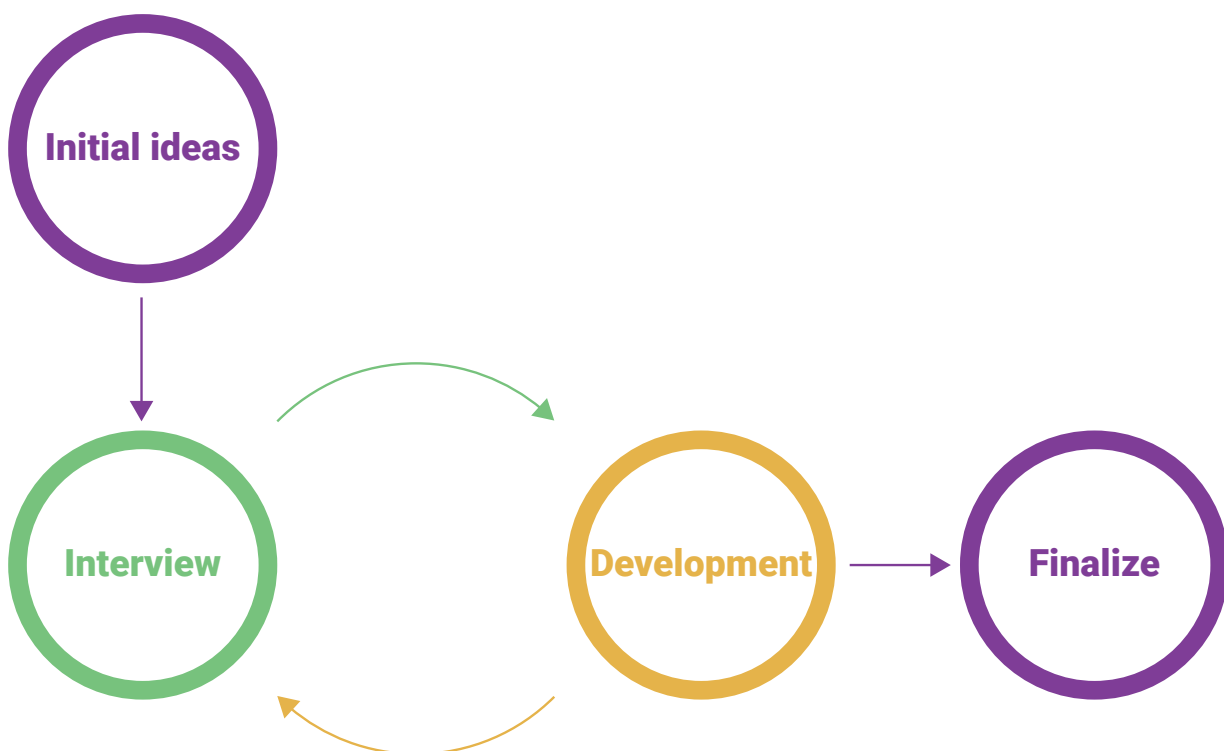


Figure 26

3.3 Validation

In the form of validation, a on-line session was designed. Using 13 fundamental needs as a conversation stater, a small group discussion was held with the same participants from iteration. Information about the participants can be found in figure 11, 12, 13.

"To be honest, I couldn't see other aspects expect this service is trying to improve my financial security at first. I would not notice that by creating sense of being in control also contributes to it."

"Although bank was some or sort part of each service, It feels like all these services can be done by some start-ups, do you think you can make people feel like yeah this is what bank do?"

"I feel like making process more transparent not only increase my sense of security, but also because I have more information, and options, I can be in a position of control."

1. Financial security is an outstanding factor that can contribute to one's financial well-being, but it can also overshadow other components, specially ones that associate with subjective evaluations. Both customers and service providers can be blind to other financial well-being factors rather than security.

2. When people talk about bank, the first thing comes to mind is money. In order to design new services that are out of box but fit into bank's business model and capability, it is important to understand how bank works. The focus of this project had been highly concentrated on financial well-being, instead, failed to generate new business model.

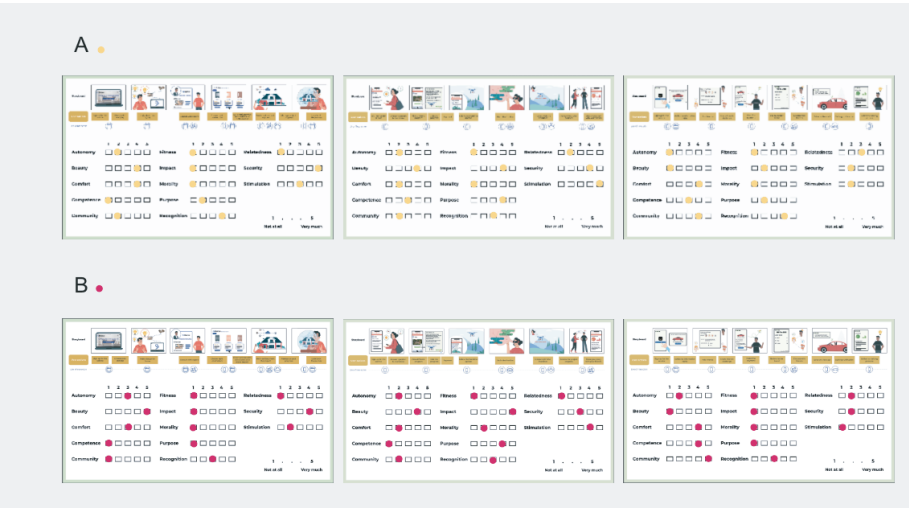


Figure 27

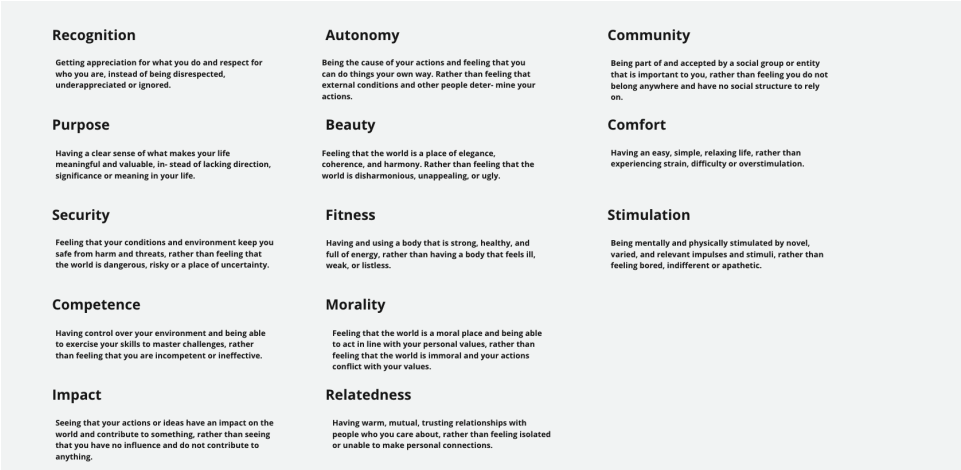


Figure 28

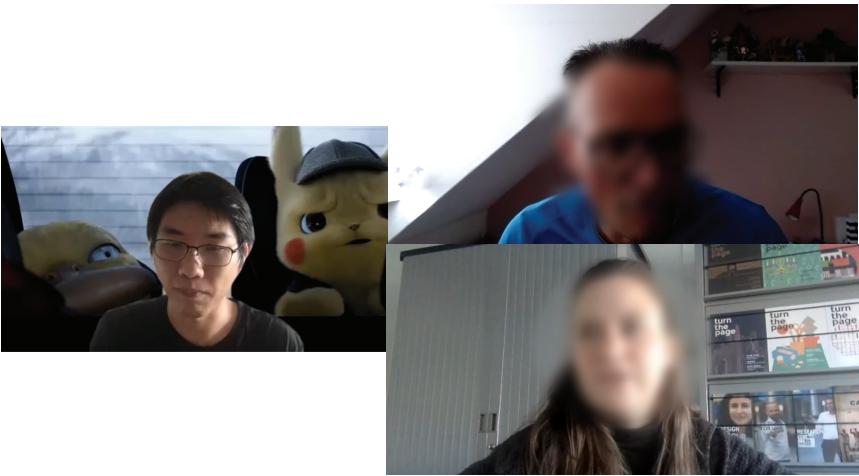


Figure 29

4. Design outcomes

In this chapter, three service examples are presented as the one of the final outcomes of the project. Detailed introductions of the concepts can be found along with the Story board and Service blueprint which are used to visualize the journey. Stakeholder map is used to outline the relationships between each involved party and to highlight the role of the ABN AMRO in each scenario.

This chapter marks the end of this thesis and concludes the whole project. The outcomes of the project will be presented in the form of a report, presentation and a booklet.



4.1 FrontLine

About the service

FrontLine is a donation service that aims to connect users with impact they are making, creating a deeper and meaningful connections between the organizations and users.

No longer have to worry about money used in wrong way, no longer have to feel hopeless and disappointment when you only throw your money into a black hole called charity. FrontLine is dedicated to empower its users, feeling secure, hopeful and appreciated.

How does it work?

First, user need to create a FrontLine account answering questions to **customize your preference and experience** with FrontLine service. As the user, you are able to choose from a various range of **certified charity program**.

After choosing a program and you will be connected to a working robot that belongs to the program. The **visual or audio data** that robot collected daily will be translate into a post which is **shared to you**.

With enough charity points you earned from the APP, you can exchange to a **VR device** which allows you to enjoy the shared post



Figure 30

in to a new level.

Further more, you can also choose to **join a charity challenge** with your friends. By completing tasks like sharing informations, participate in local activities, you can earn charity points.

Finally, you will receive a good-hearted report that **documents your efforts and recognizes your contribution.** (See figure 31)

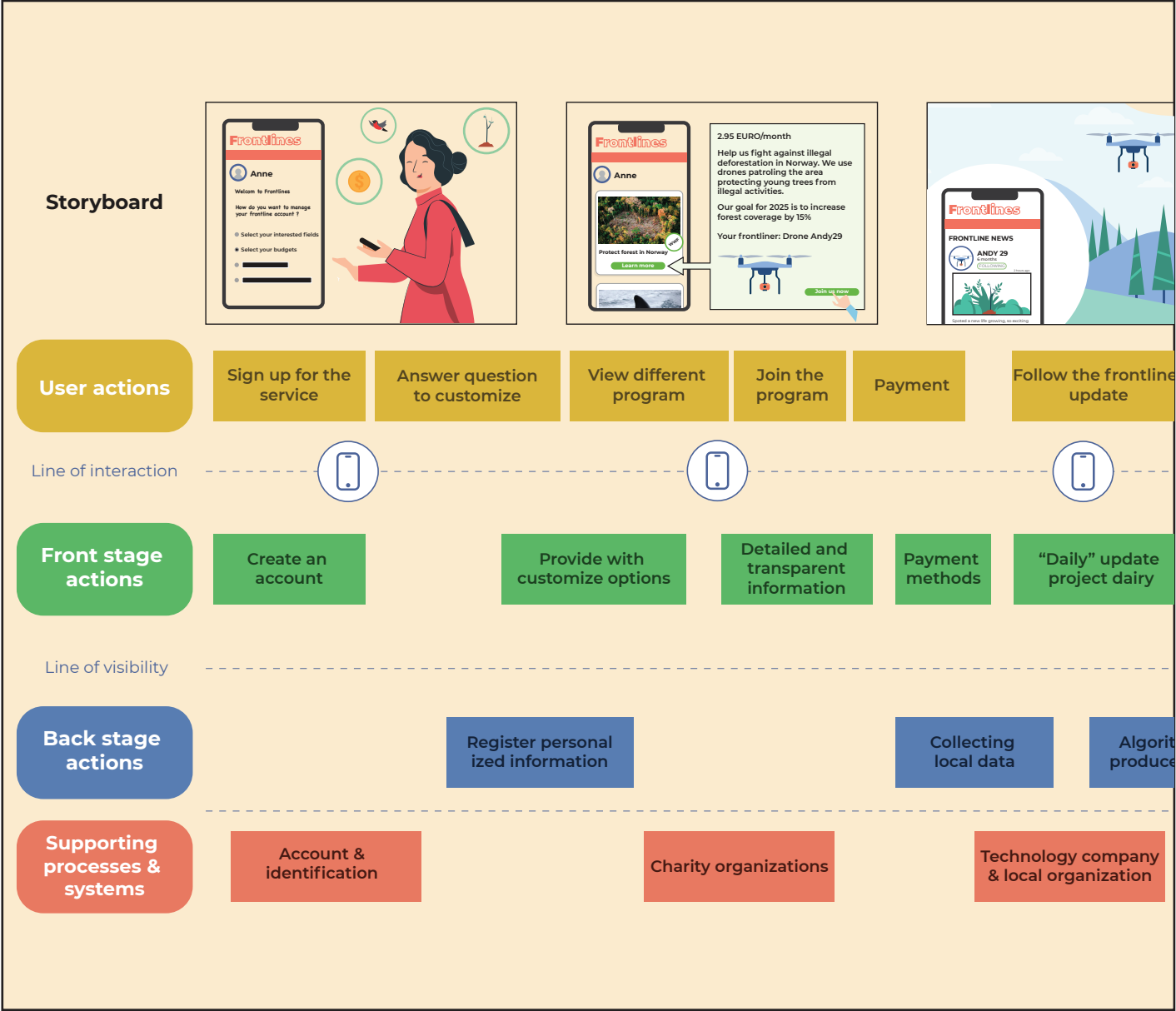


Figure 31-1

The role of ABN AMRO

In this service, the role of ABN AMRO is the trust worthy gate keeper. The programs presented on the APP need to be financially checked by ABN AMRO, and it will monitor each transaction to protect the interest of the users. It will help ABN AMRO establish a trust worthy brand image. For charities, ABN AMRO can also provide financial consulting, giving financial suggestions.

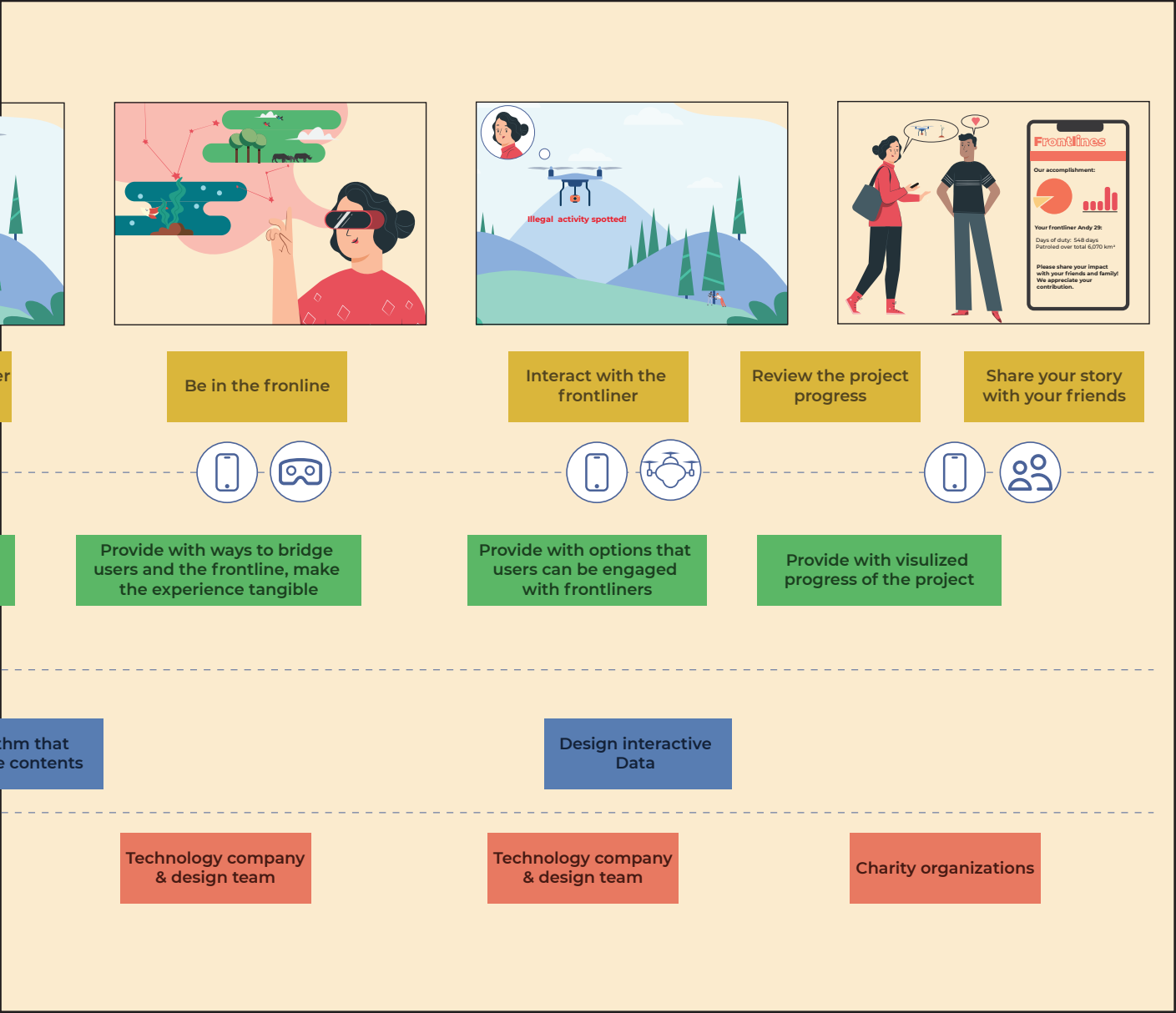


Figure 31-2

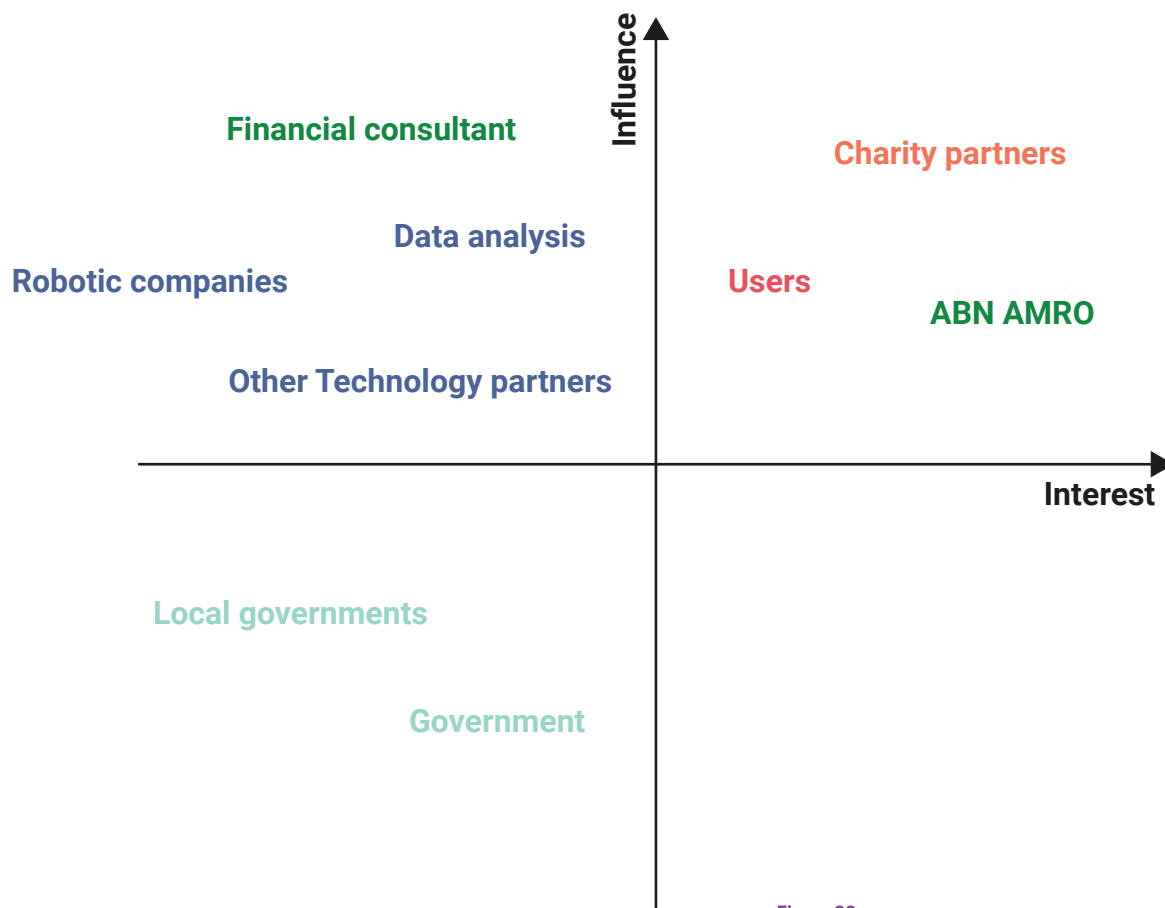


Figure 32

How does it support customer's financial well-being?

1. By creating transparency of process, users can clear see how the organization will do with your money, significantly improve the feeling of financial security.
2. By providing customization and offering more flexible options to its user, the service help users to acting and feeling in control of their finance and their decisions.
3. By making their experience more joyful and tangible, users spend their money on things that makes them truly happy.

4.2 NOMORE

About the service

NoMore is a automobile support app with a fine payment service for drivers. NoMore aims to support driver in its best including avoid same mistakes again and again.

Engaging friends support and self-reflection into learning process, plus a bit fun, everyone can be a responsible driver and say no more to your mistakes.

How does it work?

First, user need to create a register with your DigID, and link your car to your account. You can also adding your friends and family to create a group circle.

You can **create a challenge** and invite your friends and family to join, setting rule and rewards, **enjoy a friendly competition**.

Some day, you didn't pay attention to the traffic sign and received a ticket via App. The service provides with **a detail incident report with some advice on how to avoid it next time**. And of course, payment **transaction can be done via the APP**.

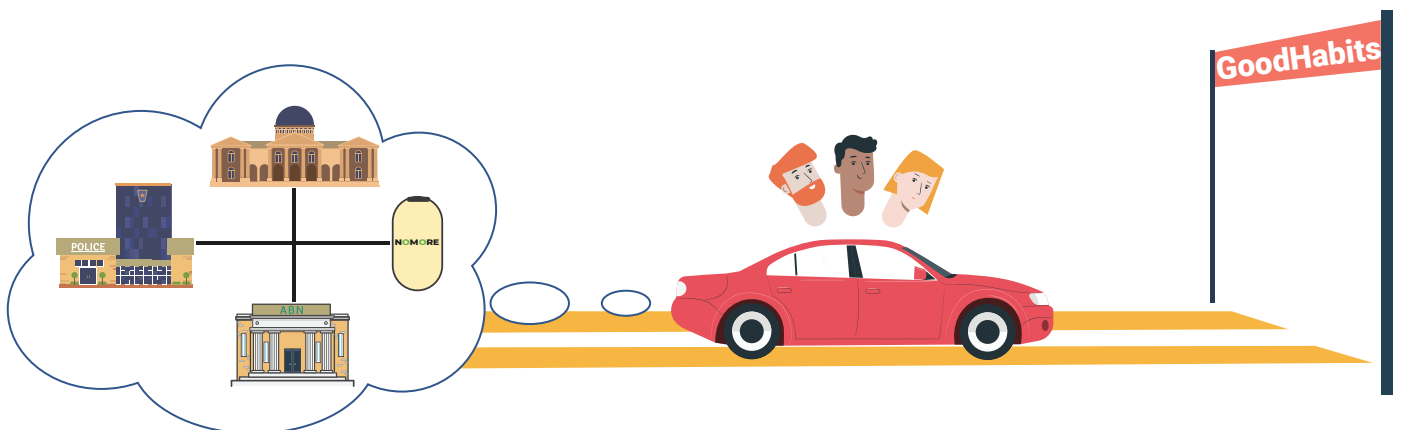


Figure 33

NoMore App also helps you **analyze your drive habit, and giving expert advice accordingly.**

To maxims, NoMore will help its user to be a better self.

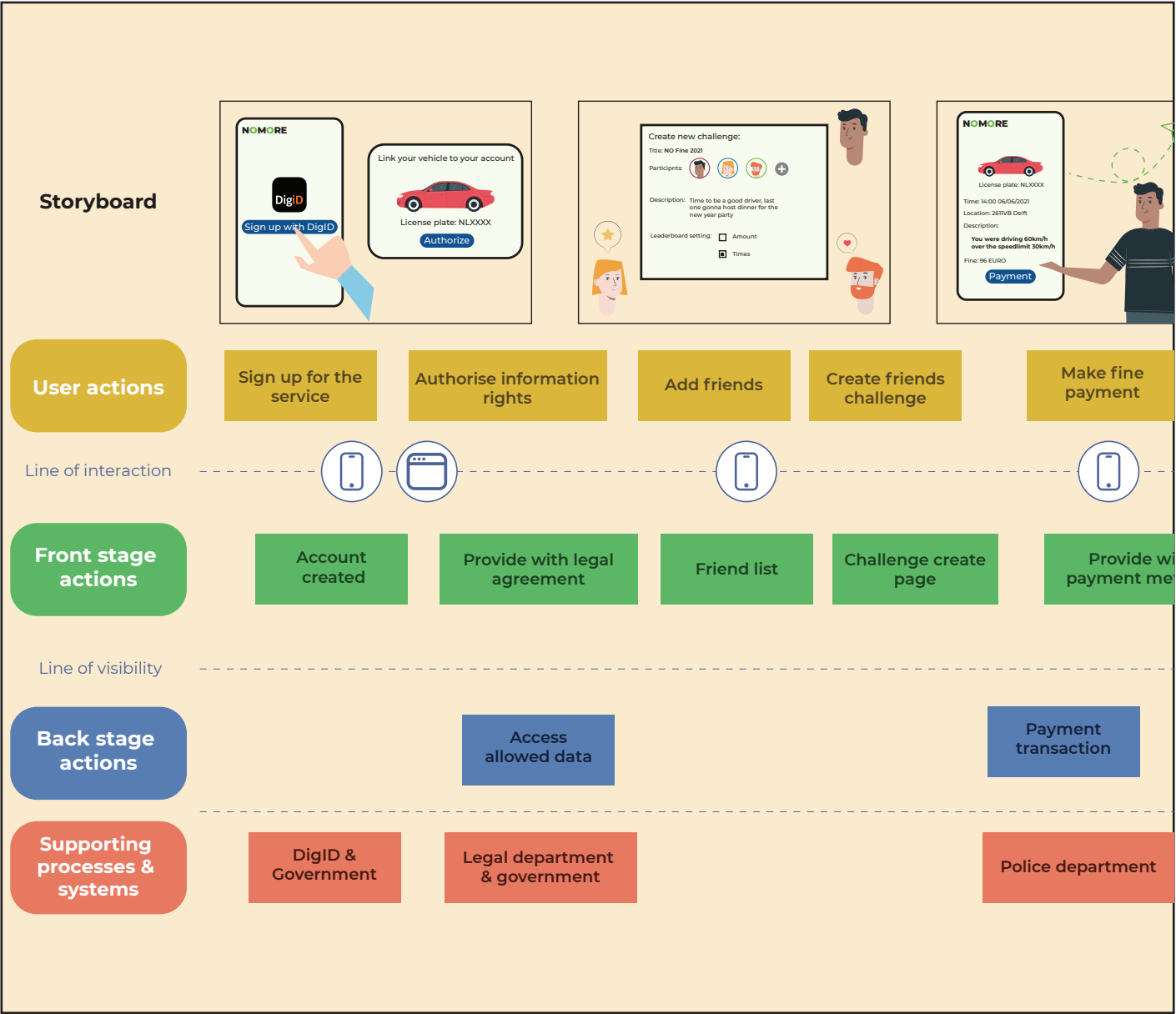


Figure 34-1

The role of ABN AMRO

In this case, the service is provided by start-up company with ABN AMRO as one of partners who is responsible for the transaction function in the APP. Because the service involves big amount of personal information and data. In the future, when data and information become a essential part of banking. ABN AMRO could become more influence among other stakeholders.

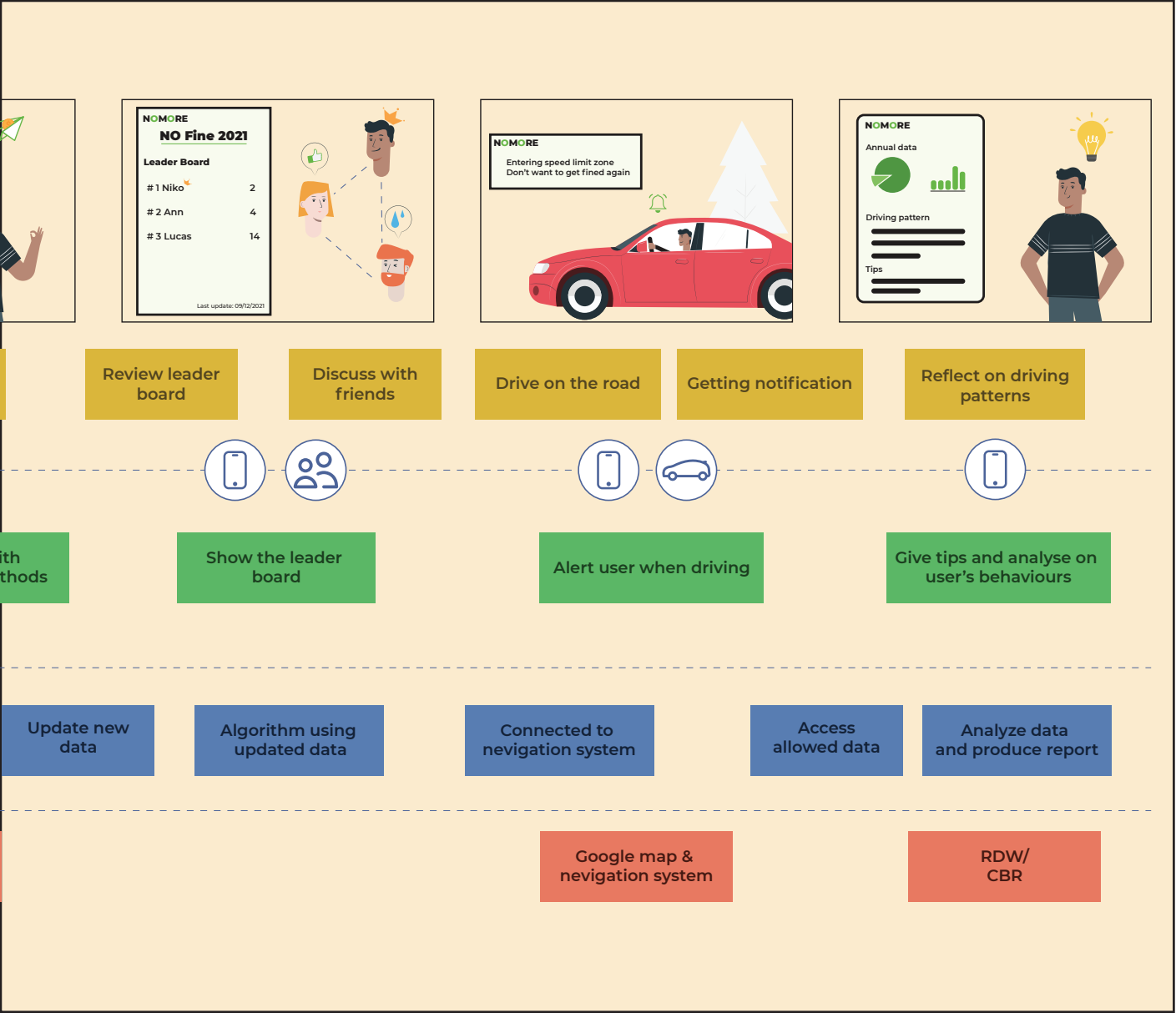
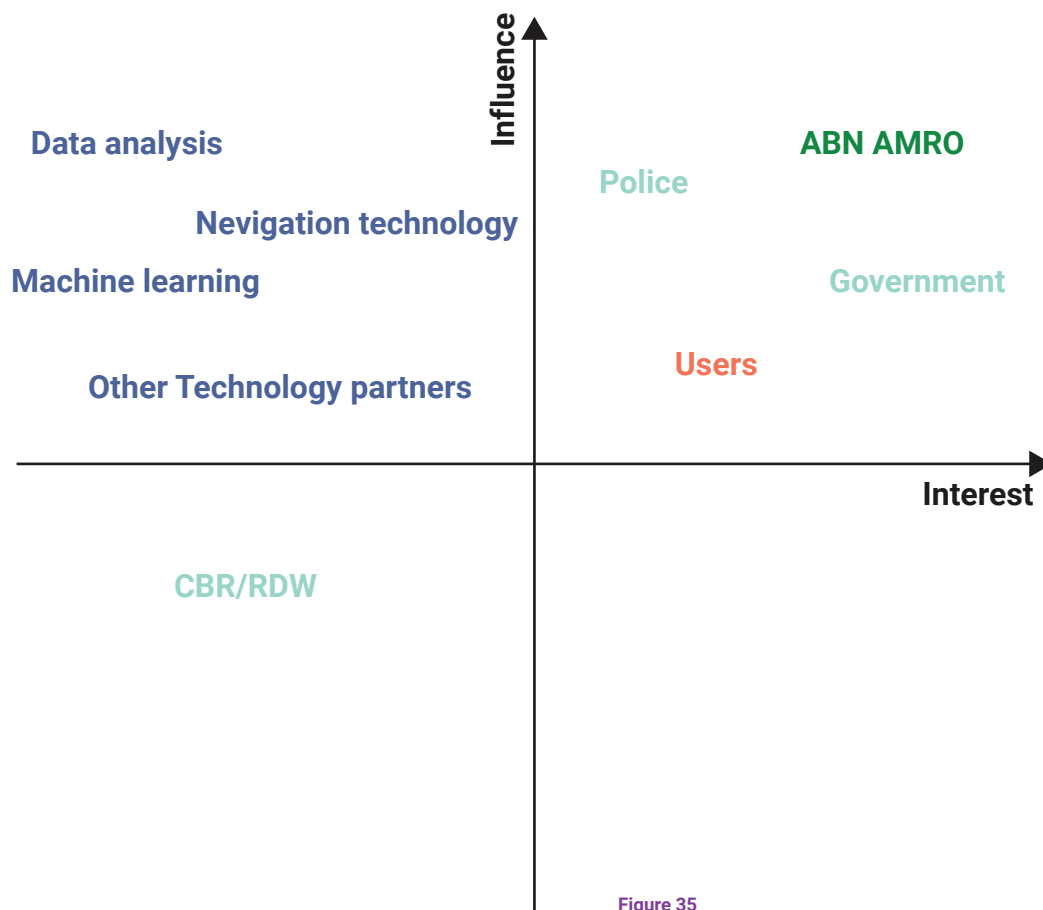


Figure 34-2



How does it support customer's financial well-being?

1. The aim of the service is to help people learn from mistakes and make no more. As an unnecessary expense, fine payment often also stimulate negative emotions. Through reducing the amount of unnecessary expense and convert the frustration into something positive and fun.

4.3 HiHome

About the service

HiHome is a interior design service that bring your dream home into real life, make the whole journey memorable and enjoyable.

Feeling speechless when you can communicate your dream home into reality? Feeling anxious when you have to deal with different contractors? Feeling monotonous when it seems no progress at all? HiHome is there to help you. “Sharing” is at the core of the HiHome service. We believe that sharing information can cause great positive change.

How does it work?

First, user can sign up and choose wanted plan for the HiHome services. With the help of easy to use digital modeling tools, user is able to translate his ideas into sketch or 3D models.

User can share his work to the professional designer, and receive tips, tricks and practical plan on how to make it into reality. Next step, user can find himself a contractor through the service data base. User can choose the most suitable company for the job.

As all the stakeholder involved in this process are linked to the cloud system. Data and information can be shared easily, avoiding miscommunication.

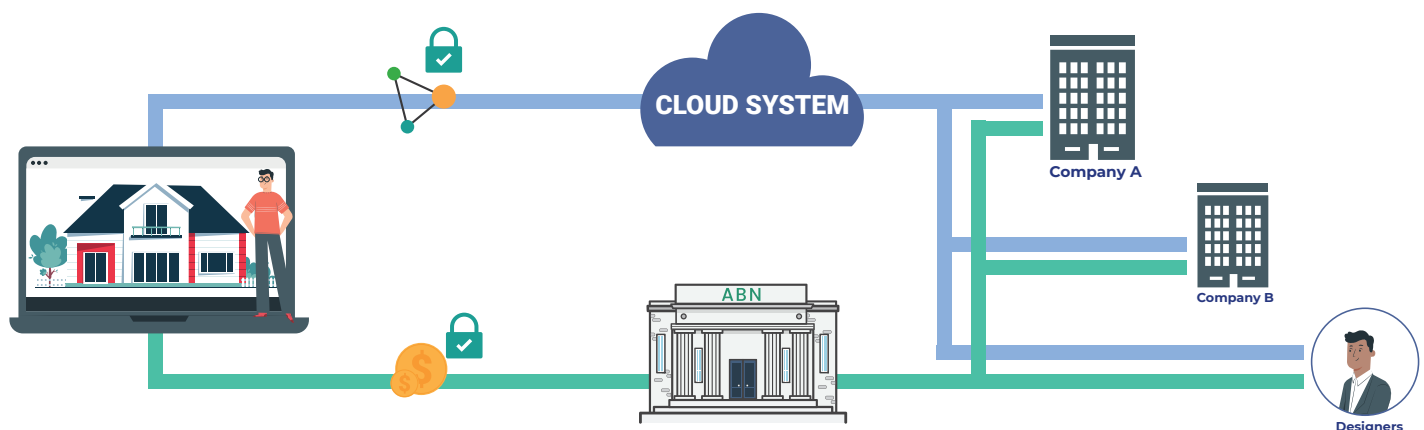


Figure 36

Based on the data that shared on the cloud, user can choose to create a digital twin of his house. The data will be updated daily, therefore, user can see the day to day progress of moving forward.

Beside practical data and information that will be shared on the cloud, other media can also be shared like video or audio. User may be able to collect some good memories.

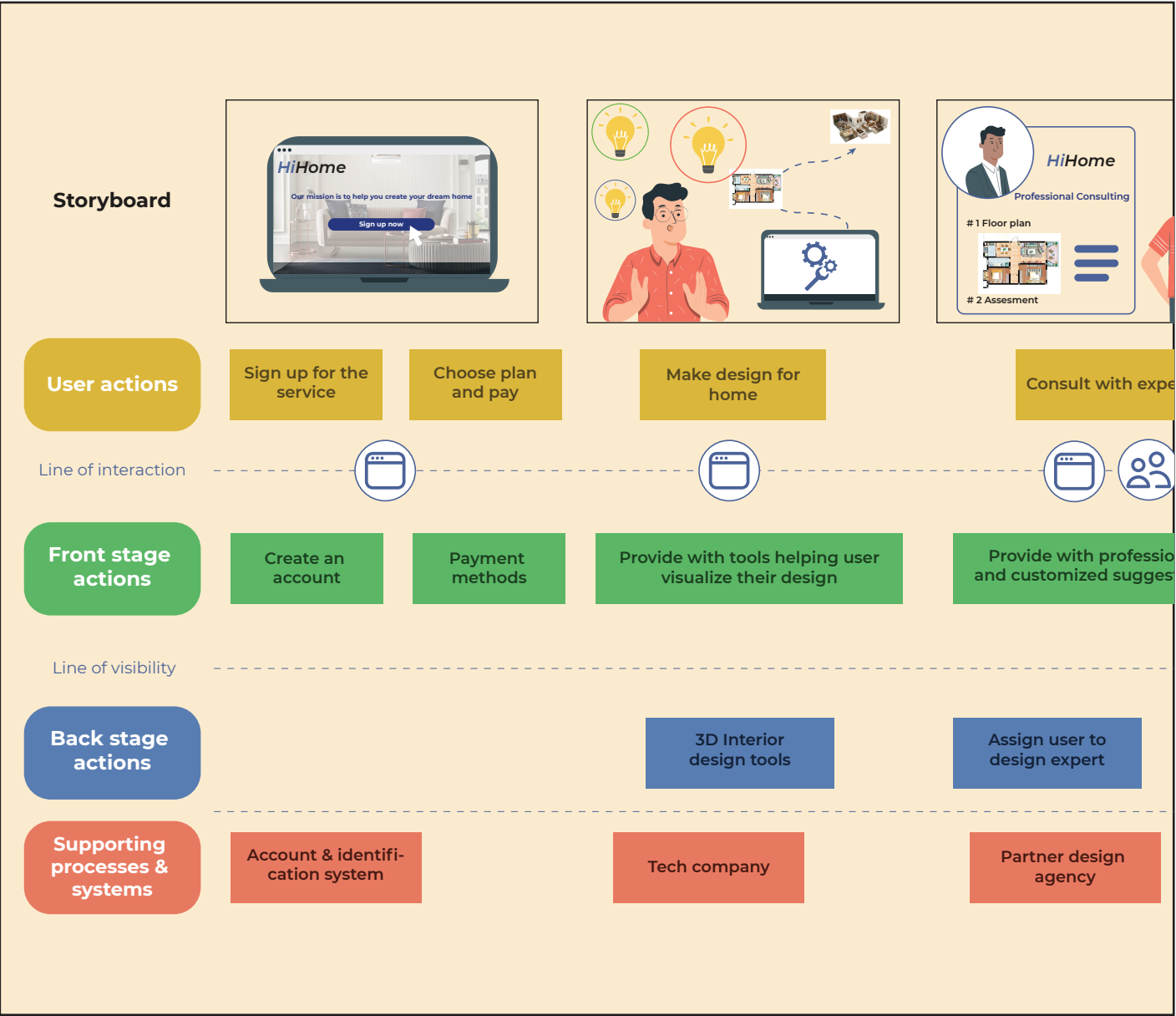


Figure 37-1

The role of ABN AMRO

In this service, the role of ABN AMRO is very important. First of all, ABN AMRO is the trusty third party that improve the speed and security of the transaction and deposit. Secondly, as house owner’s mortgage advisor, ABN AMRO can provide personal tailed budget suggestions.

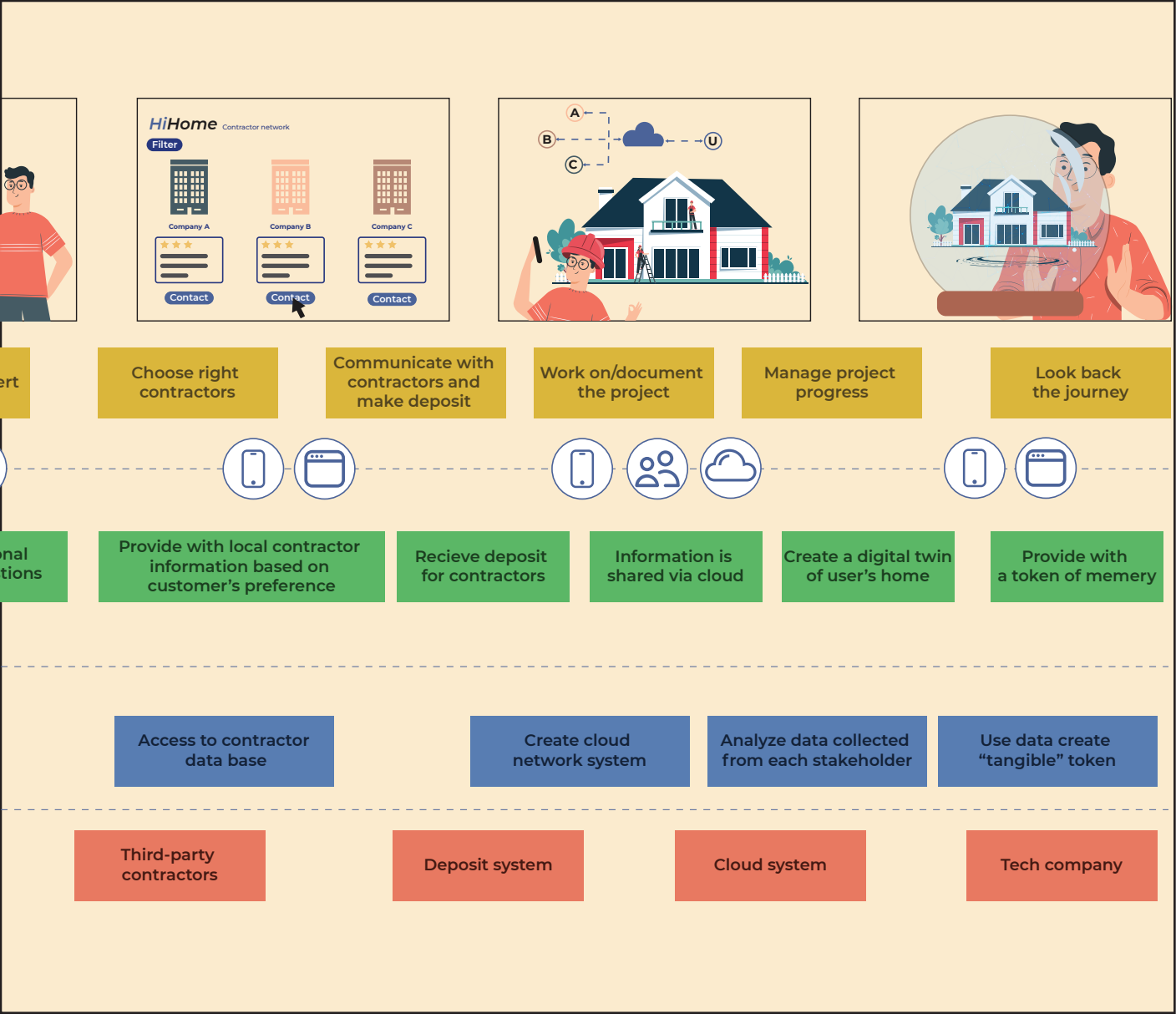


Figure 37-2

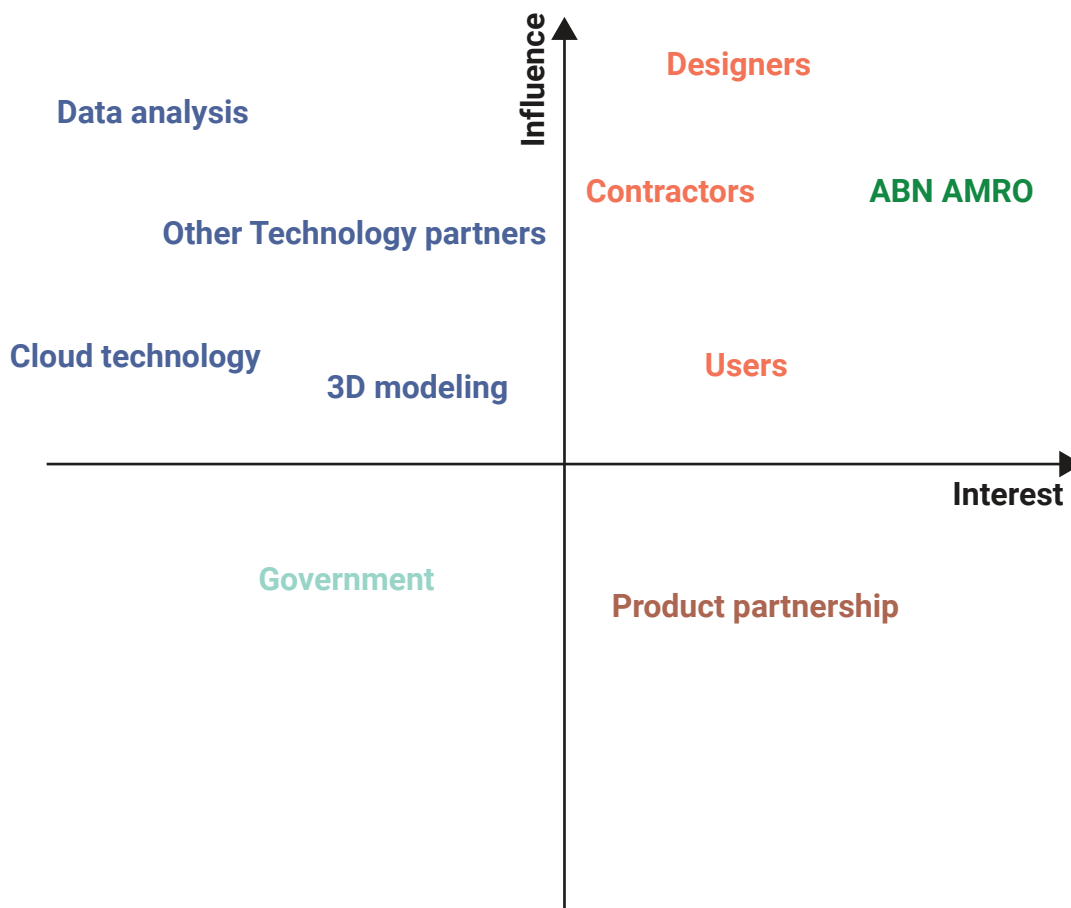


Figure 38

How does it support customer's financial well-being?

1. By using bank as a gate keeper, the risk of losing deposit will be reduced, it significantly improves the feeling of financial security.
2. By sharing information directly between involved parties, the burden of the house owner will be lifted and more transparent information helps to user acting and feeling in control of their situations.
3. By helping house recognize and document the progress of the renovation, user will not feel monotonous and enjoy the fact that they spend their money on things that worth it.

5. Conclusion

Coming to an end of this project, it is time to round up.

In this chapter, author will conclude all the findings and answer the research questions. Also, a short recommendation was provided along with a discussion on the limitation of the research and self-reflection on this whole project.



5.1 Discussion

Looking back at the process of this project, literature research was conducted to establish a definition of financial well-being for this project, and then the semi-structured interview with target group revealed insights on how money involved activity influence one's financial well-being. Afterwards, exploring how to identify opportunities and design new services was the goal of the design development phase. In the end, three service examples demonstrated the results of this design exploration. Now, it is time to conclude this project with the discussion on the findings.

First, regarding the three assignment of this research:

What is financial well-being?

Although there is no general agreed definition, one thing that can be agreed upon is that financial well-being has both objective and subjective sides. In common, most of the definition of financial well-being consists of 4 aspects: **Meet everyday expense; Being in control; Feeling financially secure; Being able to spend and enjoy financial outcomes.** It is important to be noted that all these 4 aspects have both objective and subjective components. What's more, we also need to acknowledge the role of time plays in financial well-being. Therefore in this project, the definition of financial well-being was formulated as:

A state of wherein people are comfortable and satisfied with their financial choices, can feel secure in their financial future, and are able to spend their money on things that truly contribute to the level of happiness.

How money involved activities influence one's financial well-being?

First, it is cleared that financial well-being is a life-long journey that can be different everyday. Some of the activities only can temperately impact one's financial well-being, but **some of the activities have continuous influence across the life course which will have**

significant impact on individual's financial well-being in a long run. Companies should pay more attention to those

And secondly, most money involved activities provided by companies(financial service) prioritize financial security. Although it is one of four aspect of financial well-being, other aspects should not be ignored. Sadly, **the subjective components of each aspect are more easily ignored by both service provider and users.**

As a service provider, what can ABN AMRO do to promote customer's financial well-being?

From product developing point of view, it is important to involved users(or target group) in early stage, using 4 aspects of financial well-being as guideline. It should be noted that objective and subjective components both can provide new but different insights and opportunities. **"Acting in control" is different from "feeling in control"**. Because it is easy to miss the subjective components of financial well-being, **it is suggested that designers should indulge participants share their feelings and reasons behind.**

This project solely focused on customer perspective, yet to merely dive into the role of bank. The roles of ABN AMRO in the design outcomes did not jump out of the traditional bank image. **I advise that in the future research, researcher who has a deep understanding about capability of bank should combine the strength of bank with the approach of this project.**

5.2 Limitation

It is important that this research should be viewed under the light of limitations and considered primarily only exploring some of the possibility for banks to take on in improving individual's subjective financial well-being.

Research limitation

This research was taken place during the global pandemic of Covid-19 which had a significant influence on research approaches. It needs to be taken into consideration that since all the interviews conducted during the research were all in on-line format, the observation that were made were purely from conversations between interviewer and interviewees. The situation that caused by Covid-19 also had influence on people as changing their perspectives of future, financial status, way of working and life styles. The findings of this project need to be reviewed in the context of an early post global pandemic.

Solution limitation

The proposed design outcome in the report was to showcase the possibility of what we can do to better customer's financial wellbeing as a bank and as inspirations for the further research and design. The three necessary elements of a success business are desirability, feasibility and viability. It is important to balance this three elements in order to increase the value of the design solutions. Due to the limitations of time and resources, it was not possible to go through a complete cycle of designing new service which is also not the purpose of this project. This project highly focused on the aspects of customers, which provides valuable insights on the desirability. Additionally, it is important to acknowledge that validation process was performed as asking feedback from end customers during the design phase. Therefore, this can only be considered as a starting point for the further research and design. A deep dive into feasibility and viability is recommended.

5.3 Personal reflection

As this report comes to an end, I would like to share some of my learnings looking back to this wonderful adventure.

“Do not lose sight in the pool of knowledge”

Financial well-being to me was a totally new territory to explore, and I enjoyed the fact that I was absorbing new knowledge every second, but it could also be very confusing. At the starting point, I was overwhelmed by too many definitions and findings and excited to include them in my research. And as the result, I lost my own thinking on the topic. It was necessary to explore widely and broadly but we need to always remember our own goals. “Do not lose sight in the pool of knowledge”

“Say yes first, no later”

For almost my whole life, I was trying to please my surroundings, also for this project, I was trying to please my imaginary client throughout the whole process unawarely. After my mentor kindly pointed that out, I realized that I’ve been doing it always. And it also impacted my ideation process. It was not wrong to always have our clients in mind but in order to innovate, we need to think outside of the box. It is hard to achieve when I shut down new ideas just because it sounds unconventional. As ridiculous as it sounds, I found it very helpful by just writing down every thing cross the mind no matter what. We can question ourselves as much as we want later to refine the ideas and make them possible, but we need to have a seed to start with.

“Confidence please, not blindly of course”

To write the report, I have read many graduation report as reference and guidance. However, the more I read, the more confuse I was. I thought I know what story I wanted to talk, but every report has it different sections, which made me doubt my own decisions. I started to add new sections or changed the structure, which resulting the whole report became a dress full of patches from different garments. With the help and advice from my dear friends, I finally decided to re-do the report from the scratch, however,

resulting a huge delay. Even though the decision was expensive and painful, the lesson I learned was also valuable—be confident and authentic. It is important to make one's own professional judgment in one's career. And that is ownership I was lack and am working on for my career.

“A good story needs to a teller”

One of the many valuable lessons I learned is how to communicate your stories. I enjoyed every bit of my journey and found it interesting and educational, but how to share these insightful stories with audiences needs a lot of thinking. During the project, I try to my communication skill in order to be able to let audiences also enjoy this wonderful project as much as I did.

Last but not least, this project was supposed to be six months and I failed to finish it on time. There were some uncontrollable situations happened but most importantly, I showed poorly in self-management. A clear plan was set in the beginnings, but after getting sick, I did not re-schedule which meant I did not have a structure helping me manage time. And it impacted this project in very negative way. I'm sincerely sorry and appreciate for my supervisor team that had to step-up when I couldn't. This is a lesson I would carry to my next phase of life.

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7. Appendix

Interview questions

Semi-structured format

Time: 40-50 min

Theme one: Financial well-being and money

1. Can you shortly introduce yourself? Like basic information, and your hobbies and interests.
2. How do describe your finances?
3. How do feel about your financial situation?
4. Have you heard about the term “financial well-being”? if so, what does it mean to you. If not, can you try to interpret it?
5. Why do you think that?

Theme two: Meet everyday expenses

(Use example topics first)

1. Do/did you have student loan?
2. Why did you take it?
3. What did it make your life?
4. How do you feel about it?
5. Why do you think it makes you feel that way?

Asking for Mortgage and payments, and indulging their own experiences.

Theme three: Being in control

(Use example topics first)

1. Do you use finance management tools?
2. If so, what are you using?
If not, why don't you use it?(and forward to next question)
3. Why do you try to manage your finance? And why do you choose this service?
4. How does it make you feel?
5. Why do you think it makes you feel that way?

Asking for financial goals, and indulging their own experiences.

Theme four: Feeling financially secure

(Use example topics first)

1. Do you do investment?

2. If so, what investment do you do?
If not, why don't you do it?
3. Why do you do investment? And why did you choose this product to invest into?
4. How does it make you feel?
5. Why do you think it makes you feel that way?

Asking for savings, and indulging their own experiences.

Theme five: Being able to spend and enjoy one's financial outcomes

(Indulging their own experiences)

1. Can you tell me one or two things or services that you spend money on and make you truly happy?
2. If not, can you try tell a negative one?
3. Why do you think it makes you feel that way?

Interview analysis

| | TOPICS | Insights | Fundamental needs | | | | |
|--|----------|---|-------------------|---|---|--|---|
| By the word "People" mentioned in this sheet, Designer is referring to the target group. | Mortgage | Getting a mortgage is a commitment for people who haven't decide their life goal yet, but having a place to live is necessary | Autonomy | it's a commitment that you commit to for, like, in my perception for infinity even though it's 30 years, but it's feels like infinity. | | | |
| | | For people who have been in a commitment life stage, Getting a house of their own improve their autonomy. | Autonomy | So that's a good feeling and and also you that you own that house that you can really make it you make the house yourself and if you rent the house you're just doing some small stuff but now it's really your your house and that's also nice to do the maintenance and to to arrange it as you want to live. So that ownership is something which satisfies me and therefore buying the house felt excited | my wife and I, girlfriend back then we rotated through different houses in Amsterdam, that we rent it through landlords either living together with others in a house or you know, feeling some sort of pressure for things that need to be arranged or the fear of being kicked out. | | |
| | | Having a house of their own gives people the need of security | Security | And so buying that house gave us that perspective of, Hey, this is really something of us. This is really that we can make ours is we can live it for coming however long we want. Five, six years, we thought. Yeah, sorry, a place to call your own. And I did not have this feeling before | | | |
| | | The process of getting the mortgage is stressful | Comfort | So that process of getting the mortgage was for me quite stressful, I must say, | So there was a lot of hassle around. Like I said, a lot of administrative bureaucratic vessel around it. | it was not like a fluid process and I was that we had also to have decided to do it with an advisor or advisor. Which also was a bad experience. | |
| | | Despite of the process, the experience of getting your own house is positive | FACT | It was quite stressful. At the same time, I think the information which is provided in that and the support we got was very good. So overall positive, positive process. Yeah. | we were happy that we get the house we wanted, and that our bid was accepted by us. | | |
| | Income | Income automatically becomes saving | FACT | the day I got the money on my account, it was more like, as expected, this amount goes to saving this amount goes there | I have it on automated, because it automatically goes after I received my salary, because a percentage to a bucket. And I have multiple savings accounts or for holiday for insurances for the for myself to buy, but also we have a savings account for the house, | It's predictable. But looking at the bank for so long that you know, I okay, payday will be either default. And then, okay, great. So I transfer a bit to my savings account, and that amount goes a little bit out. | what I do I structurally save a part of my salary to another account. |
| | | | | | | | |

| | | | | | | |
|------------|---|---------------------|---|--|--|---|
| Investment | People do not actively trade anymore, | Comfort | I have some, some different stocks that I that I trade, not very actively | it's more about kind of let go of the getting rich quick, because that would imply the really active trading. Yeah. And for that to be successful, then at least you need to be quite rational and festival of time research, which will be fact based and I didn't really have the appetite for | | |
| | People prefer long term investment rather than short term. | Security | sort of goal is still is in the financial independence. Not that not necessarily quickly. But in more, let's say, sustainable, predictable, yeah. not acting on emotion when trading | The financial upside. With investing, you can make a lot of money. Right? Yes, you're a little bit lucky. And you if you're interested in investing, then you can build a portfolio that in the long term generates much more return. | there that investments out from cash money on the long term, so it's for the long term. And so it's, it's, of course, not all my wealth, will deny that, but it's part of that I want to run faster if you can say it like that. And it's for for later, yeah, we are old, but also for a study of children. | If this goes to zero, then we got a much bigger problem worldwide. Yes, there will be some kind of meltdown in the world and war and see dry so. |
| | Investment requires a lot of resource, effort, energy, knowledge, time. People are hesitate to start | Comfort Competence | I have no idea how bonds stocks etc. How that works. So it's going to be a huge learning curve that I don't have time for it and I'm not interested in actually whereas I know what to do with a house. | So I would need some time to read in today's talk to be able to talk with me. Even though this could also be a topic that you're talking about over a night out with your friends they're coming over could be something in your your spare time to talk about. It doesn't really feel like spending time on this topic, | I also would like to increase my savings first Yeah. And when I reach a certain level that I can say, Okay, now I have enough space, I would say then I would like to reinvestigate the possibility for investing in | I only just started with the bank. And prior to this, I had a also stable income, but I after graduating you have your students, you know, your student loan and everything, you don't have so much to buy. And then once you start getting your salary, you can buy more. should put something aside, I do I save on my on my regular accounts |
| | People think investment has a lot of risk and uncertainty | Security | yes, I feel secure. I feel certain about this. Because I usually try to invest in domains that I know a little bit about. | Let's say confident in my in my choices. Try to adopt a longer horizon. | So I want to go more about it in detail, to be able to pick the right. Investments. | |
| | People who are confident with their research and choice feel comfortable while holding the investment | Security Competence | a sense of comfort knowing that it's a product that bears less risk and projects, what, what it would amount to in the 10 years | yes, I feel secure. I feel certain about this. Because I usually try to invest in domains that I know a little bit about. | | |
| | Political belief will influence investment choice but return rate is final determinant | Morality | which investments I go for the highest return? I will not invest in stuff I disapprove of, like a backhoe industry or something like that. Yeah. But other than that, I look for the highest return. | I think those regular investments are really to upgrade your money that you're having now. | | |

| | | | | | | | | | | | | |
|------------|--|-------------------------------------|--|---|---|---|--|---|--|--|--|--|
| Management | Some people do not need the exact number to feel control in their finance daily | Comfort | I think, once a year, I wish I did revise the spreadsheet if a quarter like that. And of course, I think once a month or something, I scroll to the App of the banking app. And look what's happening there | I think I have the luxury to earn enough money that I can do this, more or less on the goal on intuition. | | | | | | | | |
| | People feel sense of satisfaction and accomplishment when they reach their saving goals(figuratively). | Purpose | I'm satisfied because I like to see that my financial situation is becoming better and better | I think it's sort of accomplishment. | I think it would be nice if we if we can reach this threshold of income together | | | | | | | |
| | Saving provides financial security for the future but also financial autonomy for now | Security Autonomy | you know, the benefits always also there for holidays and for all kinds of other stuff and to buy gifts for people you know, I would never want to have no savings account that I cannot buy things I want to buy. | I don't I don't know why I need the buffer. And that's the whole point of having it | I know I will have a backup somewhere that I can flush money in because I've been saving that. | it gives me really a feeling of security. Like I just gave that example of the washing machine so if something happens that you're always able to buy a new thing, | I want to have more more more savings. So to have a more quality buffer, | if you have the money there you can investigate these possibilities but if you do not have it yeah it's it's useless to check it because then you can your route you're in a squeeze where you cannot do anything. So it's for me nice to give that to maintain that feeling of freedom and to see like what possibilities are there to | | | | |
| | People want to feel the control over their financial situation (To make good financial choice) | Competence | So we really tried to save for multiple goals from multiple locations, which is I think, really nice. Yeah, it gives me insights | For the household, I made a spreadsheet. So how much money we have to set aside for the fixed costs that to cut. For mortgage, and how much we can save and invest? To the depreciation of the cars. It's he drops, holidays. Yeah, so all kinds of kinda kind of virtual buckets. Yeah, that gives me a good control of my eyes, you can put like a financial well being | We're gonna be cheaper. If I see that. For example, I got two guards, a small one and a big one. Yeah. If the insurance of the small guard, which much older than a big car is to say that there's something's gone wrong. So it's gonna look again, our our energy companies, whatever. So it's also about being on top of things. | so I'm interested, hey, are there any patterns? And I find some devices that are consuming a lot of energy. How does the climate correlate to the gas consumption for heating, just out of interest as well. It's also an apartment that we rent out and I had the data for both. So then I would compare about apartments and see Okay, this one is energy level a, that one is energy level level. See? How do I see that in the, in the usage? | | | | | | |
| | | | | | | | | | | | | |
| Payment | Spending on the things that can enable experience with family and friends | Community Stimulations Impact | So two years ago, we did it. And it was, for my standards very high. Spent. Yeah. But we enjoyed it very much. And I think it's a real life experience. | last Sunday when the friends came over to watch the football and you can sit in the garden with them and have a drink and a barbecue etc that's that's that's really yeah, that really and really enjoyable. It's me gives me a good feeling | And we live as a family. So we bought the trailer tents for camping. Yeah, this year? was some money but but I did get I was happy that I spend it on that. | So two weeks ago, we were on holiday. But this was really a really nice experience | Not only for ourselves, but also for the family, my daughters and my wife. So I feel very grateful and pleased that I was in a position to actually do it. | it costs quite some money but I really like it to live with my girlfriend so we're very happy about the styling and how we how we design and so that's what I also I'm happy about Yeah, which I enjoy | I think what I love to do is, yeah, travel to explore new environments, but also new cultures, meet new people. Try new cuisine. So I love to explore new things I love with rails to go on an adventure to try to uncover new new things, new experiences. So by spending money on that | if it does give us extra hours or makes us happier. And, and it's not like, oh, let's do another iPad or do more of the same but more giving more experience | it's more I think, the social setting. So when you meet certain friends, then it's natural to go to the pub. And then it's natural to drink beers. | I always feel like spending it on experiences rather than on products because yeah, we'll stay longer. |
| | Spending on things that create more time | Comfort Autonomy | That was also I am so so happy that we bought that because now I don't have to have to clean my house anymore. So every time the thing goes on, I feel like okay, yeah, it's really was quite expensive, but really worth the money. | if it does give us extra hours or makes us happier. And, and it's not like, oh, let's do another iPad or do more of the same but more giving more experience | Because I think you get the foods then delivered at your home, it's not always as fresh. It's relatively expensive. Often it's not as nutritious. Yeah, then I think we should cook often ourselves. I feel a little bit guilty about it. | She says to me, Nah, I said sometime I do and sometimes we say okay, let's order and then got more. So it's also part laziness there. | | | | | | |
| | People feel bad during payment process | Autonomy | I was touching, like putting in my PIN code. I felt like it was literally industry say like, rip can rip rip out of her body. I don't know how you say like, you're really are putting something of your buddy there. | Yeah, there's a big chunk of money that you can't spend again, gone. So no, I never says fine feeling with that. I'm very happy with what I gained with it. But doing a payment is never a thumb fun thing to do. | | | | | | | | |
| | Fine is too expensive and people feel really annoyed to pay | FACT | Yeah, I think both both that you mentioned well you know, you're always were the one being upset about myself that I think oh, I was so stupid that I did not look at the reported design screen now. | I think it's too expensive for the if I was driving, like I think I could drive 80 or something there drove 85 if I I was driving 120 kilometers an hour, I think okay, I shouldn't be mad on myself. | A few months ago, I got one. I was 90 euros. I'm taking a lot of money for just driving five kilometers an hour too fast. And then I have to paint quickly and forget. | | | | | | | |

| | | | | | | |
|----------|--|-------------------------|--|---|---|--|
| Donation | People is willing to donate for bigger good. | Impact Purpose Morality | supports objectives, which I am in favor of. So I think that's good. I try to give a little bit back to the world right. to society | It used to do more but in the end, there was like four different donations and I was like, Okay, now now I think it's enough | | |
| | Worried my donation is in the wrong hands and not used in the good way | Security Recognition | If money goes to third world countries, that all of this money ended up in the wrong hands because of corruption or mis spending the money? Yeah. That gives me a very negative sentiment. | I am very skeptical about these about these organizations. So yeah, I do not do not much donate | we had a subscription on the an F. That's for natural for for animal, animal foundation. And we stopped that when I found out that the board member had some huge salary or something and they came into the news and I thought this person has such a good organization. | I don't know where that where it ended up. I also have heard sometimes |
| | People are not actively finding way to donate | FACT | . I must say now, at the moment, they are in critical acting in Amsterdam. So I think over the last half a year, I didn't donate anything. | I think after a commercial television I yeah, I want this for a long time and Yeah, let's do it. And these days if I entered and everything goes smooth and easy, so yeah, I think that yeah, I think that should be the trigger. | | |
| | Process of canceling donation is very difficult | Recognition Comfort | | | | |

Interview questions for identifying opportunities

Semi-structured format

Time: 20-25 min

Topic one: Buying a new house

1. Can you share your story of buying your house, from starting to have the idea to moving in. Walk me through it please.
Indulging them to share their feelings and reasons.

Topic two: Donation to charity (Participant A)

1. Can you share your story of donating your money to charity from starting to after donation. Walk me through it please.
2. Why did you stopped your previous donation subscription?

Indulging them to share their feelings and reasons.

Topic two: Donation to charity (Participant B)

1. Can you share your experience of working for red cross?
2. I wanted to know more about how donation works in the organization, can you share your knowledge with me?
3. Why does it work this way? Is there any specific reasons?

Topic three: Paying fine

1. Can you share your story of paying fine from acknowledge the incident/mistake to after paying the fine. Walk me through it please.
2. Have you started to pay more attention to the similar situation so the incident/mistake wouldn't happen again? And why?

Indulging them to share their feelings and reasons.

Interview questions for iteration session

Semi-structured format

Time: 10-15 min

Explain and show the concept to the participants

1. What do you think about this idea? Why?
2. How do you think this service can achieve its goal? If not, why?
3. What do you want to change about the concepts? Why?
4. What do you think is the most important element for you in this service, why?
5. If you are to design a service to achieve the same goal, what would you do?
6. Anything else that you want to add?

IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !



family name _____
initials _____ given name _____
student number _____
street & no. _____
zipcode & city _____
country _____
phone _____
email _____

Your master programme (only select the options that apply to you):

IDE master(s): ☐ IPD ☐ Dfl ☐ SPD

2nd non-IDE master: _____

individual programme: _____ - - _____ (give date of approval)

honours programme: ☐ _____

specialisation / annotation: ☐ _____

☐ _____

☐ _____

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair _____ dept. / section: _____

** mentor _____ dept. / section: _____

2nd mentor _____

organisation: _____

city: _____ country: _____

comments
(optional)

⋮

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v..



Second mentor only applies in case the assignment is hosted by an external organisation.



Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair _____ date ____ - ____ - ____ signature _____

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: _____ EC

Of which, taking the conditional requirements into account, can be part of the exam programme _____ EC

List of electives obtained before the third semester without approval of the BoE

☐ YES all 1st year master courses passed

☐ NO missing 1st year master courses are:

name _____ date ____ - ____ - ____ signature _____

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: ☐ APPROVED ☐ NOT APPROVED

Procedure: ☐ APPROVED ☐ NOT APPROVED

comments

name _____ date ____ - ____ - ____ signature _____

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date - - - - end date

space available for images / figures on next page

introduction (continued): space for images

image / figure 1:

image / figure 2:

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date - - - - end date