

How to support Gen-Y consumers to start investing sustainably

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I want to thank Peter Lloyd, Ruth Mugge and Michiel van Megen who has been my chair, mentor and coach from Rabobank. Without your great positive support and feedback, I wouldn't have learned so much during my graduation process. You helped me to use my skills to their fullest potential. I think we have made it a great project together.

A small thanks to the special people in my life

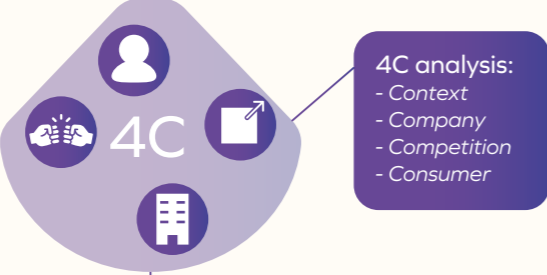
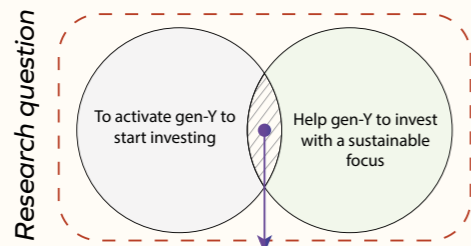
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Secondly, I want to thank my brother. He is always there for me as a great sparring partner to help me make the best decisions.

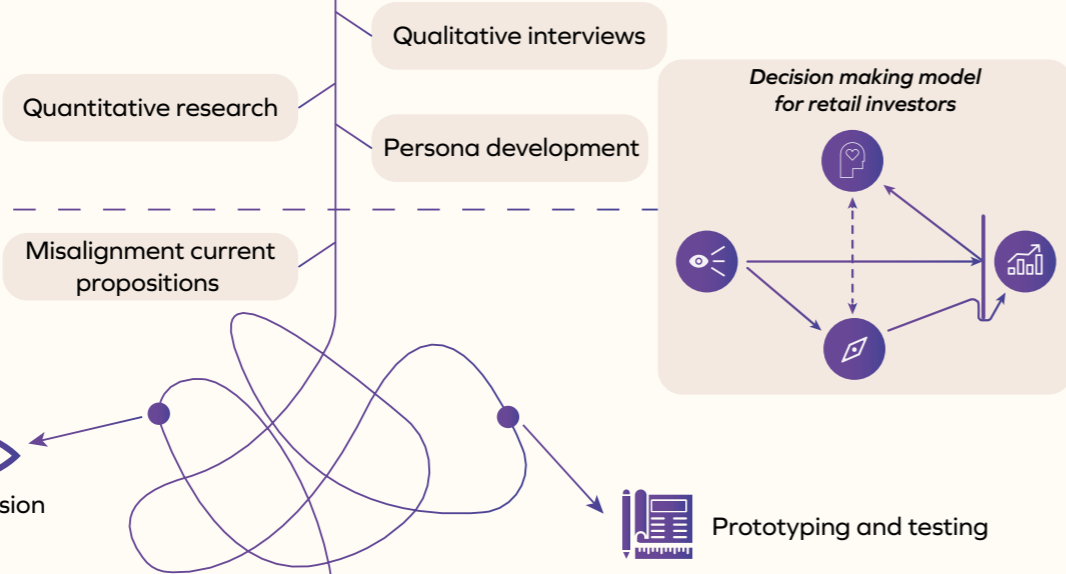
I would also like to thank my girlfriend Margot, who was the best emotional support throughout the whole project.

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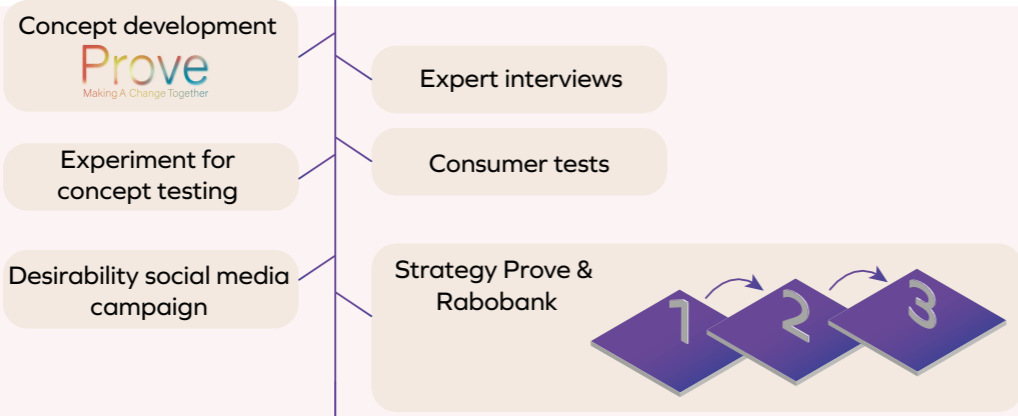
Problem fit



4C analysis:
 - Context
 - Company
 - Competition
 - Consumer



Solution Fit



Final proposition Prove

Market fit

Prove
Making A Change Together

A platform who focuses on the social element of investing which helps you find investments you believe in and matches your values. While at the same time when you invest using Prove you help the platform to make a positive impact trough reflecting your investors voice.

The community
Find companies with the most endorsements on:
 + Working on products for the future

Space X - spacelift company
9300 endorsements for working on products of the future

Rivian - electricpick-up trucs
8100 endorsements for working on products of the future

Values: Equality, Honesty, Climate
Impact: Technology, Mobility, Travel
Sectors to change: Meat industry, Mining, Fashion

Microsoft 85% Fit, Nike 75% Fit, Apple 73% Fit
Tesla 72% Fit, Mercedes 72% Fit, IBM 71% Fit

Please share the reasons you buy:
 + Good sustainability ambitions
 + Gender and women equality in the workforce
 + Working on products for the future
 + Low emission score
 + Profitability of the company

Our 11.000 users valued:
 Top most listed reasons our users bought a specific stock:
 60% + Working on products for the future
 50% + Low emission score
 47% + Gender and women equality in the workforce

Summary

Investing has become a hot topic among the younger generation since the Covid-19 crisis. However, much of its potential is still unused, as seen in a big group of the younger generation which is positive to start but procrastinates this decision. While this younger generation would like to make a positive impact with their money on the environment of the planet earth, the existing investing propositions aren't helping them with that sustainable mission. In this thesis, I researched how Rabobank can help this group of young non-investors start investing, but with a sustainable focus. Creating a win-win situation for the non-investor who gets motivated to start investing consciously while at the same time helping them to fulfil their sustainable ambitions.

Through qualitative interviews and a quantitative questionnaire, a behavioural model is drafted about the steps people take before they start investing. This model shows that a high-risk threshold prevents people from investing but that the right level of guidance can create a level of trust needed to bypass that risk threshold. Moreover, the needs of generation-Y and their sustainable investing behaviour were researched. I found that most of this group has an unspecified moral compass, and they seek guidance to make conscious investing decisions. But that is an element they currently can't find at competitors. They also prefer sustainable alternatives if they aren't more expensive or influence convenience in their lives.

Through the vision in product design (VIP) method, a vision is drafted for 2030 where the sustainable and social driver will grow to boundary reasons for people who invest. Profit and a sustainable impact on the world and society will become the main reasons why

people want to invest their money. Through an iterated design process, an opportunity is spotted in the field of social investing called Prove. Investing on Prove is not only about monetary profit, but it gives you the ability as an investor to make a difference with social and sustainable influences towards stock listed companies. Prove has a strong foundation as a social platform with an active forum where you share the reasons why you invest in specific companies. Through this social element, investors on Prove help new investors with the right level of guidance that is relatable and reduce the perceived risk threshold. Furthermore, Prove focuses to make an impact on lagging companies with these social elements on the platform, trying to show these lagging companies the desirability of investors on Prove of sustainable companies.

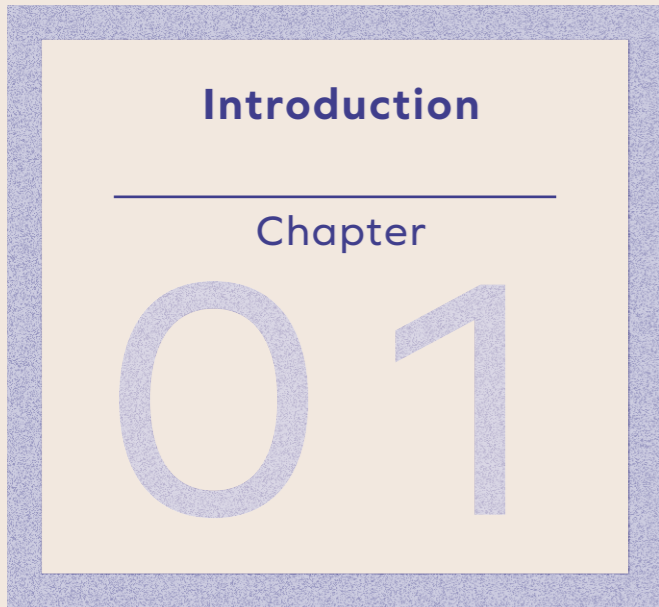
Also, Prove helps lower the strategic risk for Rabobank when the sustainable preferences of consumers indeed grow like envisioned. Through findings from expert interviews, the brand Rabobank is not suited to launch consumer propositions that have a sustainable core mission. Prove could grow as the brand for Rabobank, which has a genuinely sustainable mission and could expand as a versatile platform for new sustainable investing propositions in the future.

Table of Contents

Summary	
1 Introduction	
1.1 Introduction	9
1.2 Problem framing	10
1.3 Ethics	12
2 Context research	
2.1 The investment market	15
2.2 Context of Rabobank's investment products	19
2.3 Competitive market overview	24
2.4 Sustainable investing	32
2.5 Conclusion	34
2.6 Reflection	35
3 Consumer research	
3.1 Research methods	37
3.2 General Gen-Y behaviour	40
3.3 Gen-Y investment behaviour	43
3.4 Gen-Y sustainable behaviour	54
3.5 Development of persona	57
3.6 Conclusion	60
3.7 Reflection	62
4 Misalignment of current proposition	
4.1 Customer experience of Rabobank 'zelf beleggen'	65
4.2 Misalignment of current investment propositions	68
4.3 Validation with focus group	72
4.4 Conclusion	74
4.5 Reflection	75
5 From research to a future vision	
5.1 Introduction to Vip	77
5.2 Future context with Vip	79
5.3 Vip statement	81
5.4 New way of interaction	86
5.5 New product interaction qualities	90
5.6 Reflection	91

Table of Contents

6 Concept exploration	
6.1 Overview key insights	93
6.2 Conceptualisation	95
6.3 Ideation	98
6.4 Reflection	100
7 Concept proposal	
7.1 Introduction of Prove	103
7.2 How a sustainable angle is incorporated in Prove	108
7.3 How Prove generates attention among consumers	110
7.4 How Prove creates the right level of guidance	112
7.5 How Prove solves the risk threshold	114
7.6 How to make impact to change lagging companies	116
7.7 Business modelling	120
7.8 Conclusion on introduction of Prove	124
7.9 Reflection	126
8 Iterations through customer testing	
8.1 User tests with Prove	129
8.2 Gamification for retention	134
8.3 Reflection	137
9 Branding and launch strategy	
9.1 Strategic positioning	139
9.2 Brand DNA of Prove	141
9.3 How to activate gen-Y through marketing?	146
9.4 Strategic Roadmap	148
10 Conclusions and further research	
10.1 Conclusion	153
10.2 Further research advised	154
10.3 Overall reflection	156
Appendix	
Reference list	158
Appendix	159



In this chapter I will describe the company and the problem I'm going to solve. Furthermore I will discuss the ethics of this research.

1.1 Introduction

1.2 Problem framing

1.3 Ethical side of the project

Introduction

1.1 Introduction

Rabobank is one of the biggest banks in the Netherlands with a significant focus on innovation and is constantly looking for new propositions they can implement or launch. The bank originated from small banks focusing on farmer loans which became the cooperative Rabobank existing now for over more than 120 years.

But since a few years, the traditional earnings model of banks has changed. Banks don't profit anymore that much from the savings of their customers as they did in the past. Also, the savings of people at banks depreciate nowadays in value since the interest you get from the bank is lower than the inflation, meaning it loses value over time.

Since banks don't earn a lot from their customers' savings anymore, it is interesting to have those consumers using services of the bank, for example, when they invest a part of

their money. But Rabobank struggles to have people investing on its platform while at the same time the customer base who use the platform is relatively old. Rabobank wants to be attractive for the younger generation because they are essential for the continuity of the brand, but the bank struggles with this.

At the same time, these younger people must make important choices about how they want to save their money for the future. Their money on a savings account depreciates in value but starting to invest can be perceived as difficult or scary. But investing can be a smart way for them to save for their future goals because it can increase in value. Or, through responsible investments, it can be a way to help them achieve their own sustainable goals. They can make sustainable choices with their money but must choose how they want to do so.



1.2 Problem framing

The problem definition

For investing, there are a lot of different propositions on the market that focus on different types of consumers, for example, propositions showing you how much water or CO2 you saved with your sustainable stocks or propositions that enable you to buy stocks just from your spare money after every transaction. But despite all this attention and launched propositions, not many Dutch consumers are trading in stocks, around 16% (AFM research). A recent TU Delft graduation thesis showed that the main reasons people don't invest could be that they feel they lag the knowledge or find it too risky. There are plenty of solutions that could help you invest and inform you in all kinds of formats on Youtube and Google. But do these solutions really add to people knowledge and activate people to start investing? Or do other reasons withhold consumers to start investing? Is this also true for the younger investor, or do they have different struggles while investing? Rabobank is also active in this market but has difficulty attracting younger consumers to start investing. How can Rabobank help this younger consumer make responsible investment choices that help them earn money for their financial future and help the planet they live on become more sustainable?

The target group

This thesis focuses on Gen-Y who were born between the 1980s and early 2000. In this group, we focus on non-investors who are positive towards trading. The target group does not need to have a specific income since nowadays it already makes sense to invest with only a small amount of your money.

Assignment

The main focus of the assignment will be:

*I will research and find insights on the topic what good **motivators are to activate generation-Y to invest with a sustainable focus** and I will propose a **design solution for Rabobank that will activate and motivate gen-Y to start investing with this sustainable focus.***

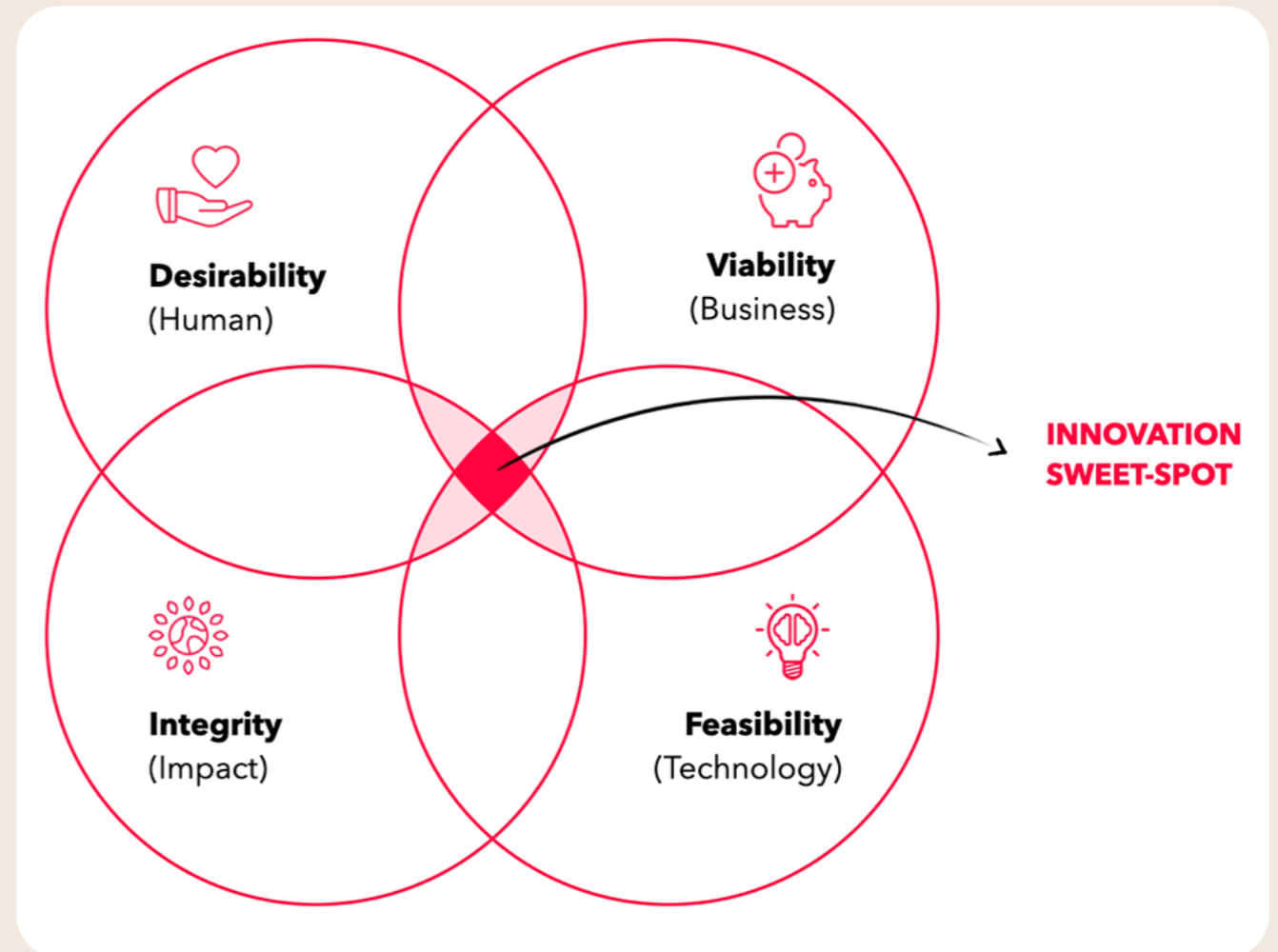
This assignment has several angles to the research question. First of all, Rabobank's challenge is to become more relevant for the younger generation with their investment propositions.

Sustainability focus

Then there is the challenge of finding out gen-Y's needs for their investment behaviour and finding ways to activate them to start investing. An important angle to incorporate is seeing how we can help gen-Y start trading sustainably. It will be researched what sustainable investing is, how it can be done, and how gen-Y could also be activated to start investing sustainably. This focus is important for Rabobank since they as a company would like to change towards a more sustainable profile, but also for a societal and personal point where I think it is necessary to incorporate such an angle in a proposed design solution in 2021.

Therefore in this thesis, we can no longer just value the designed solution on the themes of desirability, viability and feasibility, but also the theme of integrity should be solved in the final design, as can be seen in figure 1.

Innovation sweet spot by Board of innovation



1. Desirability

Are people waiting for this? Does it add value to the lives of your users and consumers?

2. Viability

Is your supporting business model sustainable and can it be scaled?

3. Feasibility

Will you be able to deliver on your concept, both technologically and operationally?

4. Integrity

On a broader level, how does your innovation impact society and the planet as a whole? With the massive ecological challenges ahead, this criterion can no longer be overlooked and should be at the heart of your innovation thinking.

Figure 1: The innovation sweet spot by Board of Innovation

1.2 Ethics

For me, it is essential to discuss the ethics of this project. I don't want to design a project that, in the end, will have a harmful impact on people or the planet.

It feels ethical to help people make conscious investments with their spare money. Why should only rich people or big corporates profit from the rising stock markets? A big group of gen-Y still underestimates the benefits of investing. Starting at a younger age will only help increase the compounded interest (term will be explained in chapter 2) and will make you more experienced when you maybe earn more money when you are older.

Another important part for me is that the solution somehow needs to help people make more conscious and sustainable decisions. Investing with a sustainable focus lowers the risk and normally has the same yield (as I will touch upon in chapter 3.4). But this is often not understood by the younger consumers who think sustainable solutions are more expensive.

But for me, not every solution that convinces people to invest is ethical. The solution must prevent people from making wrong decisions while using the solution.

You can compare it a bit when designing a car. All modern cars nowadays have technologies that prevent the car from crashing. And even when it crashes, it has all different kinds of safety measures to keep you safe.

When you crash a car, it is in this anecdote the same as making bad investment decisions and losing your money. For me, my designed solution is ethical when it behaves like a modern car, helping you to prevent crashing. But you can

never promise that it never can happen while the consumer still drives the car himself.

Context Research

Chapter

02

In this chapter, I will go more in-depth about the investment market in general. I will try to explain its basics, and how it evolved into the market it is now. I also define which investment products fit this project's scope and which products Rabobank offers.

Then I will discuss the current competitive landscape and how it is divided into different market segments.

Finally, I will discuss the rising popularity of sustainable investing and explain what it is and how that is being done.

2.1 The investment market

2.2 Context of Rabobank's investment products

2.3 Competitive market overview

2.4 Sustainable trading

2.5 Conclusion

2.6 Reflection

Context research

2.1 The investment market

A short history about stock trading

The history of the stock trading market dates back to the beginning of the 16th century. Today Wallstreet dominates most people thoughts about stock trading, but it originated from the Netherlands. In 1602 the Dutch East India Company became the first publicly traded company (Hur, 2016). Stocks and bonds were issued, and you were entitled to a fixed percentage of the company's profits when you bought a share.

This idea of buying a little part of the company in the format of a share became more popular over the years and was adopted by other countries.

If we look at the investment markets nowadays, the huge amounts of money involved are difficult to understand. For example, the biggest stock market in the world, the New York Stock Exchange (NYSE), is worth 25,87 trillion dollars (Statista, 2021).

The stock trading market has also evolved throughout the years to adopt new technologies. Before the rise of the internet, you had to call your bank to place an order on a stock or bond as a retail investor. This ensured banks had a crucial role in trading stocks. This intermediary role in translating a bid from you as a retail investor to buy a stock on the market is called a broker.

Later, with the internet's adoption in the late 1990s and early 2000, the banks lost their unique broking position, and the online brokers entered the market. Where in an article of 1999 by Jennifer Wu, it is already stated that:

"A new era of online trading dawned on the brokerage industry." Where sector grew from

12 business in America in 1995 to more than 100 firms in early 2000. These new discount brokers could offer way lower commissions on trading stocks than banks that still had their old expensive systems in place (Wu, 1999).

The same disruption with the rise of the internet also happened in the Netherlands, where the competitive landscape did not change a lot since early 2000. You have banks who still offer their broker service, usually for a high fee for retail investors, and you have online brokers who have no transaction cost or very low transaction costs. That is also why nowadays you can start trading with only €50, and the online services are more focused on young people.

How can you as a retail investor earn money on the stock market

There are many ways to earn money in the process of stock trading, but for this project we focus on retail investors and how they can earn money on the stock market.

The price of a stock you want to buy is determined by supply and demand, compared to what happens when buying or selling a house. When a stock is sold for a higher or lower price this price becomes the new market price; when a new share is sold this becomes the new market price etc. Stocks can be bought and sold a lot every day so the price can move quickly up and down (Investopedia, 2021).

But what people are prepared to pay for a stock and thus what the current price is of the stock is connected to the following:

**Price of a stock = expected value in the future
x risk this happens**

So, when it is expected for a company to have a high value in the future because it is expected that the products this company sells will be in demand. And if there is a low perceived risk of changing this forecast, then probably this company has a high stock price. And that is the trick of stock trading, to have better predictions than others what will happen in the future with a company.

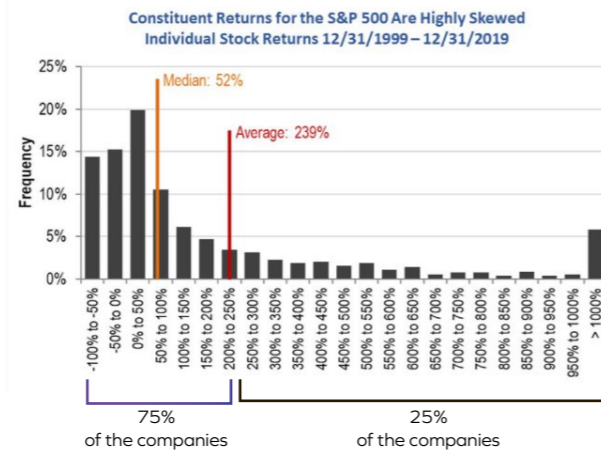
Institutional investors vs retail investors

But making better predictions with only the data and information freely accessible on the internet in just your spare time as a retail investor is hard. While at the same time, you have a highly unfair competitive advantage as a retail investor compared to institutional investors, who make extensive predictions with financial models of the expected values and risk models of companies to buy. They often use expensive data to analyse these companies that are not even accessible for retail investors.

In a white paper called: "The slings and arrows of passive fortune" from Lazzara at S&P, they explained why it is so difficult to outperform the average returns on the stock market as an investor.

In the paper, data from 1999 until 2019 was used, and the conclusion was that a few high-performing stocks pull up the average for the whole market, while most of the stocks underperform compared to the average. This can also be observed in graph 1. Thus owning a few companies yourself results in a more significant chance it is one of the 75% of the companies that underperform, and that is why outperforming the market is so difficult (Jennings, 2020).

Therefore, as a company that wants to activate consumers to start investing, it is essential to convey the need to spread your investments to come as close to the market average as possible with the highest potential returns.



Graph 1: stock performance of S&P500 companies from 1999-2010

Average yield when investing

Different types of investments also have different types of yield. Bonds with a low risk usually have a lower yield and are great for short term investing. When you invest for a scope of +5 years, the stock market is an interesting one. Why is the stock market suitable for a longer time span? This is due to the volatility of the different investments. Volatility is the degree of variation in price over a specific period. Stocks can differ significantly in price in a short period thus are volatile, where bonds are more constant over time and less volatile (see graph 2).



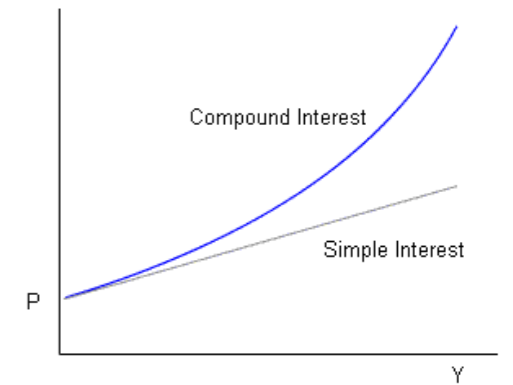
Graph 2: an example of volatility

Therefore, to have the least amount of risk when buying stocks it is essential to spread the moments you buy stocks, as can be seen in graph 2. This ensures you never buy your stocks on a peak and make you lose money. The safest way to invest is to have a monthly money transfer to your investments. This trick is also called Dollar-Cost-Averaging.

When following these principles of the stock market historically seeking, you can count on an annual return of 10% based on the S&P 500 stock exchange of the last 25 years (Nerdwallet, 2021).

But why is it important to motivate to start investing at a young age?

That is due to compounded interest. It is simple but also a bit abstract to understand. For example, you invest your money in the S&P 500 market and receive 10% interest (on average) in the past ten years and you started with €100. After one year, your €100 has been worth €110, and the following year your €110 has increased 10% in value, which is now worth €121, and so on. So in 2 years, you have not received 20% interest but 21%, which exponentially increases over the years, see graph 3. So the younger you start investing your money, the more benefit you have from this compounding effect. Einstein even related to this effect in a famous quote:



Graph 3: an example of compounded interest vs simple interest

"Compound interest is the 8th wonder of the world."

- Albert Einstein



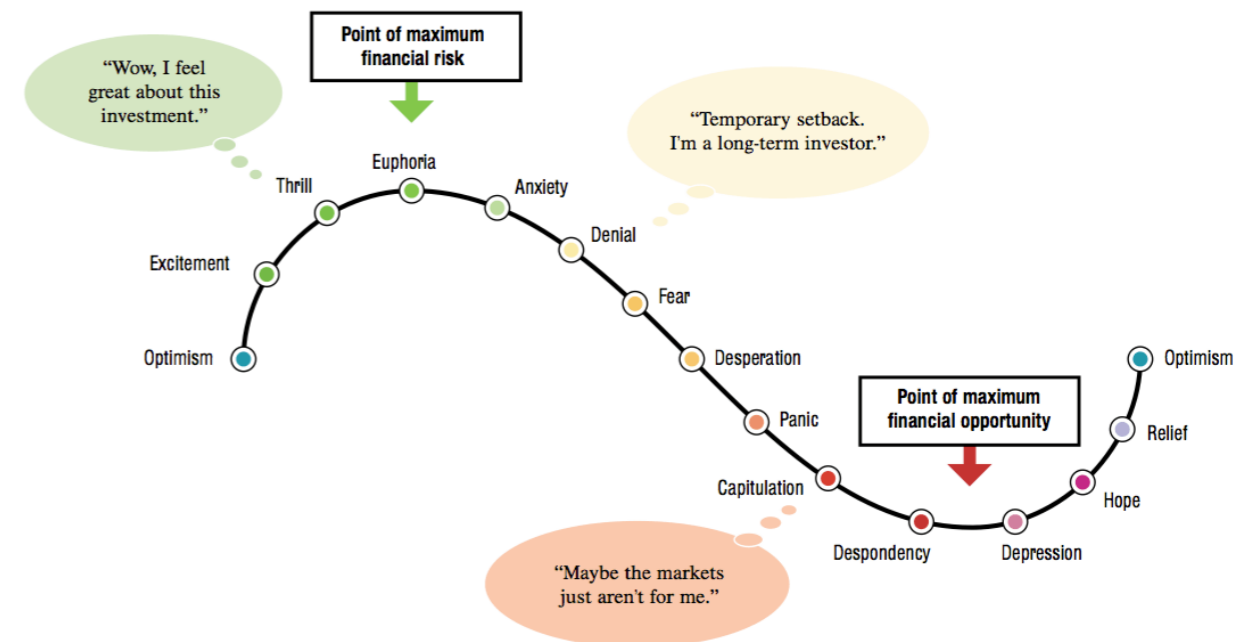
Emotional curve for retail investors

Another common problem while investing as a retail investor is that emotions badly influence your buying decision. Even the most trained investors are not prone to it, and the phenomenon is often called "greedy buying, fearful selling" (Monevator, 2019). It comes down to the basics that when you hear that the stock market is rising more than ever, you also want a piece of it, but when the stock market is

Stock market = greediness x perceived risk

diminishing in value you quickly want to sell your investments. When you do this as a retail investor, you are basically always buying investments when they are worth too much and selling when they are worth too little, this can be seen on graph 4.

Brokers and banks are warning their consumers of this phenomenon, and you have to be emotionally resilient on the aspect of money. Otherwise, investing is perhaps not a good way for your savings.



Graph 4: the greedy buying fearful selling graph from Monevator

Takeaways from the overview of the investment market

- It is important for a new consumer to be informed about the basic characteristics of the stock market, otherwise mistakes could be easily made.

The basic rules which are important to convey to new investing customers are:

- Spread your investments
- Invest for a longer period of time
- Take into account the compounding effect
- Be aware of your own emotional curve while investing.

Context research

2.2 Context of Rabobank's investment products

In this chapter, I will give an overview of the current investment product line of Rabobank and how they are built like they are. Chapter 4 will analyse these products to see where there is a mismatch with the needs of gen-Y based on the customer research in chapter 3.

To understand how the products of Rabobank are positioned, it is important to understand what Rabobank seeks to achieve with its client's.

Rabobank's mission is: growing a better world together, which is divided into several sub-themes. And one of those themes is a financially healthy life. From a bank point of view, this means low risk taking, build in security, and transparent pricing.

Rabobank has several propositions on how you can invest as a retail investor. The choices are divided by self-investing and managed investing, as shown on page 20.

Self-investing

If you open an account with self-investing you are met with a dashboard which can be seen on page 20. On this dashboard, you have to make your investment decisions yourself.

This dashboard looks goal focused and efficient but doesn't guide you in any way on how to start. This dashboard enables you to insert your order and helps you give an overview of it. A useful function on this dashboard is a graph displaying how your investments are spread. From a banks perspective, you prefer that your clients have a spread portfolio since that minimises the risk level.

Noticeable is that even in the self-investing dashboard, there is a big focus to steer you to managed investing. On the prominently

Growing a better world together

"Samen werken we aan een betere wereld. Doe je mee?"

- Mission Rabobank

A financially healthy life

"Gezien onze rol als coöperatieve retailbank in Nederland willen we het financiële welzijn van onze klanten en de gemeenschappen waarin we opereren stimuleren"

- Sub theme Rabobank

displayed graph with your profits also the profits are shown if you would have started with managed investing, even if you don't have a managed investing account.

Managed investing

Another way to invest at Rabobank is to open a managed investing account. For this, you have several propositions for which different inlays are necessary. With managed investing, an expert from Rabobank takes care of your investments. You usually pay a small annual fee for this of around 1%. The simplest option is managed investing basic which just follows the market.

Rabobank's opinion is that self-investing is not helping consumers that much to live a financially healthy life. They see that the average yield is lower from consumers with self-investing and that they're more at risk with their investments. Therefore Rabobank tries to push all of its consumers as much as possible towards managed investing since Rabobank believes that contributes to living a financially healthy life.

Possible ways of trading at Rabobank as a retail investor

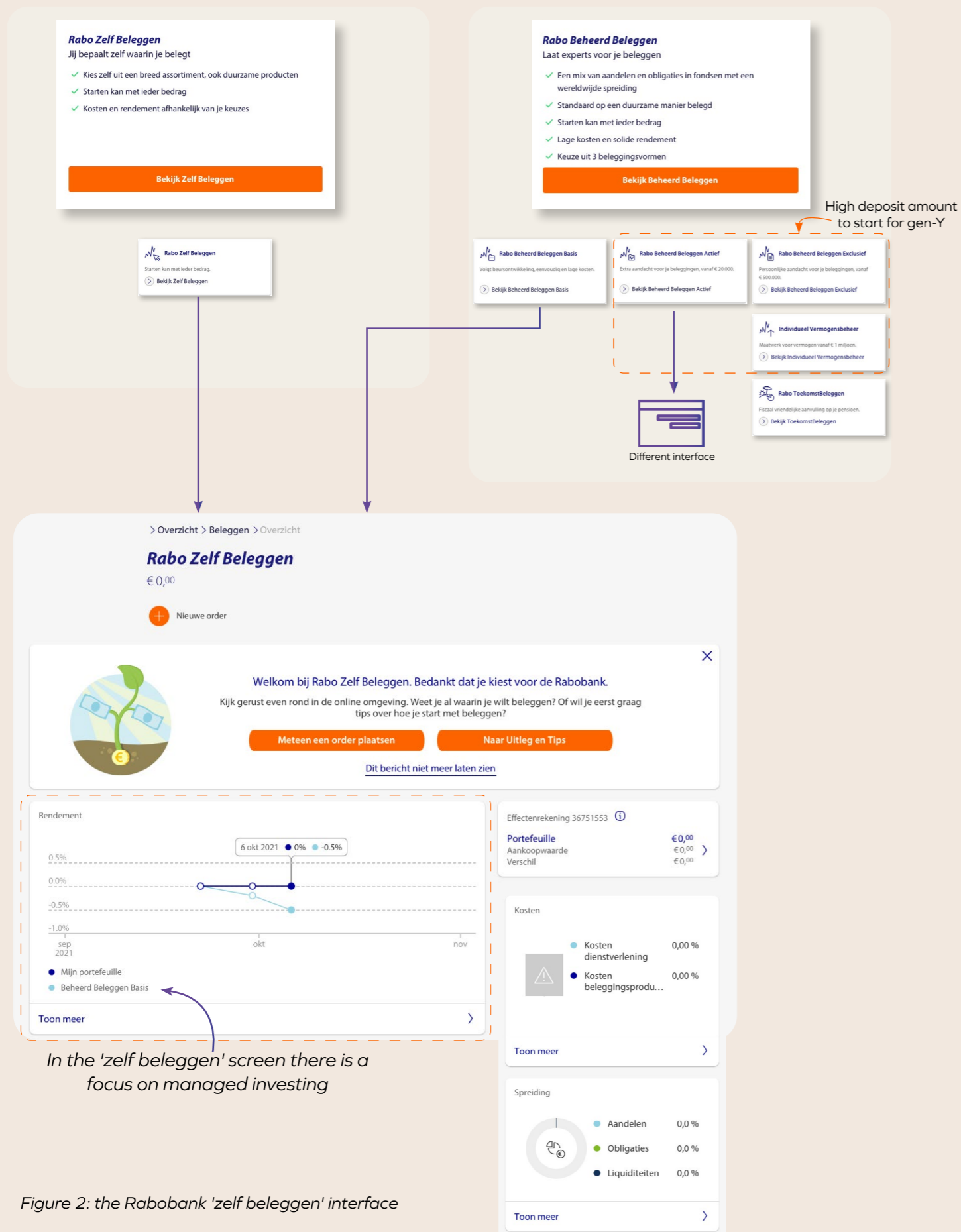


Figure 2: the Rabobank 'zelf beleggen' interface

Only investing as a Rabobank client

It is notable that it is easy to start investing at Rabobank when you also have a Rabobank payment account.

As you can see on figure 3 in your payment account, you have standard the 'beleggen' icon, this could lower the threshold to start investing when it's so easily accessible.

But when you're not a Rabobank client, it is quite a process to start using the Rabobank 'zelf beleggen' service. You must be a client at Rabobank to start investing, which means you have to open a payment account. For a student, it is free and otherwise you pay €1,90 per month (Rabobank, 2021)

Rabobank is very transparent about your costs when using the platform to invest. This is highlighted when doing a transaction, and it's also constantly shown on your dashboard. Competitors are not always transparent about the costs you make while investing on their platform.

To conclude, I see in the 'zelf beleggen' environment that there is a big focus on the goal Rabobank pursues for its customers: to live a financially healthy life. Both the graph that tries to lead you to managed investing, the transparency about costs, and the focus to spread your investments could help lower the risk threshold for new investors to start.

But despite focussing on good elements and providing a broker which gen-Y can use to invest, it isn't attracting them. Only a very small amount of young consumers from Rabobank are using this service, so clearly, the proposition is somewhere misaligned with the needs of gen-Y. This misalignment I will focus on in chapter 4.

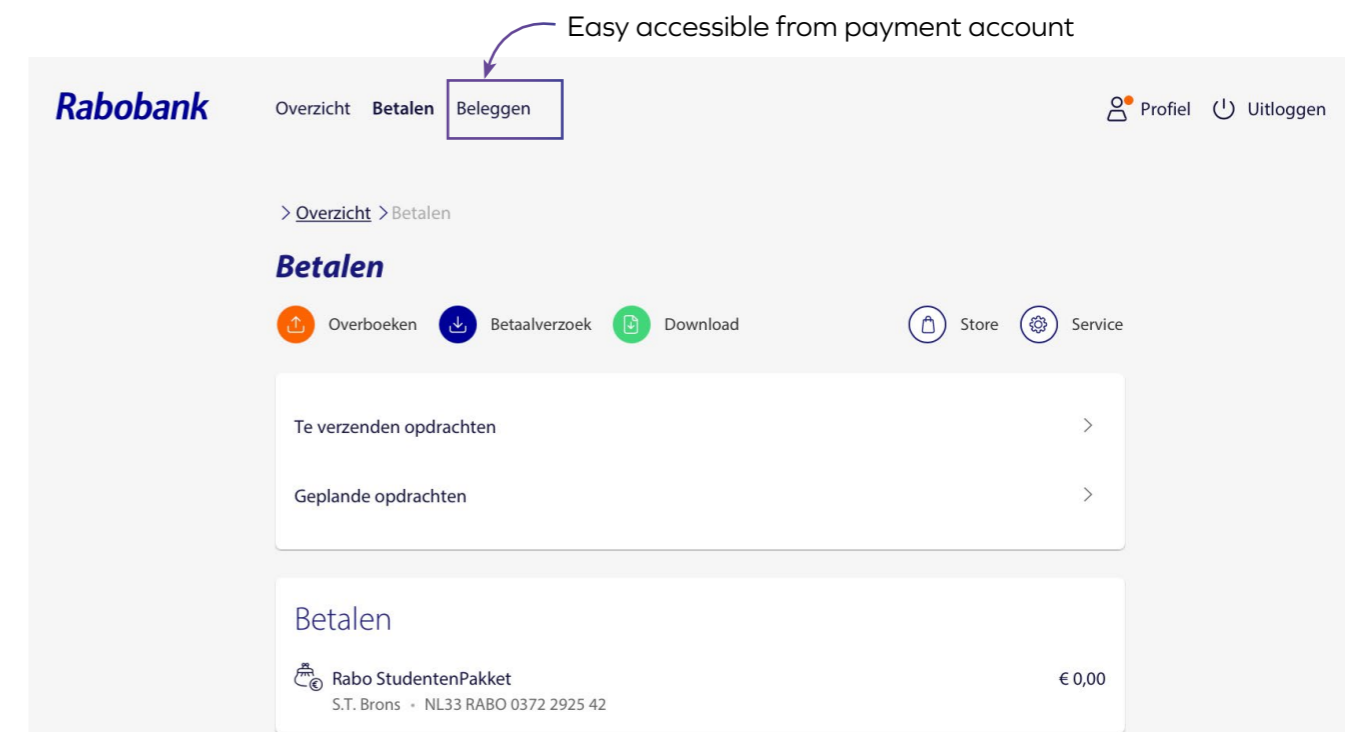


Figure 3: the online interface of a Rabobank payment account.

Activation tools of Rabobank

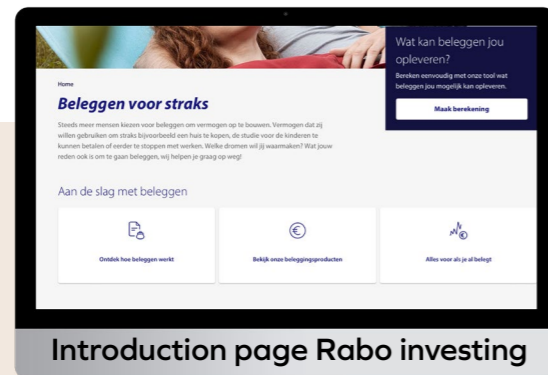
On its website Rabobank has several tools to inform people to start investing, which can also be seen at figure 4.

Compared to other brokers, the information provision of Rabobank is relatively passive. There is no clear flow of information for you as a new investor to start. They are all kind of loose elements on the website, where you as a new investor has to make sense of to combine the different pieces of information.

There are some basic tests you can go through as a new consumer which have five questions, but these tests don't give you insights, and they guide you towards a Rabobank investment product. It misses a personalised touch with attractive characteristics for gen-Y.

Conclusion and takeaways

- It could feel like the self-investing tool of Rabobank is more an add-on tool than a mature tool to use to make all your investment decisions. It feels very goal-oriented, enabling you to buy a specific stock while not offering a lot of distraction or other functions on the platform.
- The activation tools feel a bit conservative and passive. It focuses on informing you about investing and explaining all the topics Rabobank thinks you need to know as a new investor.
- All the different topics you can find on their website via various tools of webinars, video's, online tests. But these tool's feel passive, only sending information to the user and therefore missing an active level of engagement.
- The whole platform is focused on Rabobank's mission, to live a financially healthy life for all its consumers. The platform certainly doesn't guide you to make risky decisions without being adequately informed.



Information items provided by Rabobank

Figure 4: an self made overview of all informing items provided online by Rabobank

Context research

2.3 Competitive market overview

Different ways of trading

The market of investing is huge. To place it in perspective, the Amsterdam Exchange Index (better known as the AEX) is an index with the 25 biggest stock listed companies of the Netherlands that was worth 850 Billion at the beginning of March 2021 (AEX, 2021). And this is only the market value of the biggest Dutch companies on the stock exchange.

So a lot of money goes around in the stock market and that ensured that many new trading products were launched. To not lose the scope of this project, an infographic is made on page 25 about the trading products in the scope of this project: stocks, bonds, ETFs, and active mutual funds.

The reason these four products are included in the first analysis is that these are the common products widely available for retail investors. This is verified by the questionnaire (n=169) distributed among gen-Y consumers, where retail investors aged between 18-37 indicated the following:

- 63,1% notes they trade in stocks
- 27,4% states they have a (active/passive) fund
- 39,6% state they have ETF's
- 58,3% state they have some sort of cryptocurrency

(note that users could choose more than 1 investment type so overall is more than 100%)

More information about this questionnaire can be found in chapter 3.1.

Crowd funding

Crowd funding has increased a lot in popularity in the last few years. Crowd funding is a product that Rabobank tried to launch under Rabo Crowd, but is struggling with its performance. But I think crowdfunding can hold a powerful

potential. For example, through Kickstarter (a crowdfunding platform for new products), from November 2020 until July 2021, more than 500 million dollars was raised for new products (Statista, 2021). So I don't want this way of investing pushed out of scope.

Crypto currency

This new digital currency launched in 2009 and is difficult to understand, for me the following quote helped.

"A cryptocurrency (or "crypto") is a digital currency that can be used to buy goods and services, but uses an online ledger with strong cryptography to secure online transactions."

- Royal & Voigt 2021

Like stocks, there are around 10.000 different cryptocurrencies that you can buy and sell, but the one with the biggest market cap is Bitcoin, with a total worth of about 800 billion dollars (Frankenfield, 2021).

It is an incredibly volatile trading product, which means its value quickly changes. For example, 1 Bitcoin was worth \$20.000 in December 2017 and dropped in value to \$3200 one year later, a decrease in value of around 800%.

From the perspective of Rabobank, with the goal of its customers to "live a financially healthy life", such a risky, new to the market and volatile trading product does not seem to fit. But the attraction of this product towards gen-Y should not be underestimated where 58,3% of the gen-Y consumers who invests indicates they have some sort of crypto (questionnaire in chapter 3) compared to only 4% who has a kind of crypto of the total Dutch population (Jimmink, 2021).

Process of investing



Consumer

Choose type of investment



Let a broker fix the deal for you

Scope retail investors



Stocks

"If you buy a stock you own a small part of that company, equal to the percentage of stocks you own."

Cost	Risk	Average Yield
€	+++	+++



Bonds

"A Bond is a tradable debt instrument of a company or government that has borrowed money."

Cost	Risk	Average Yield
€€	+	+



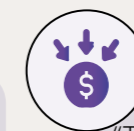
ETF's

"An ETF is a collection of stocks or bonds, like the AEX. It's performance depends on the companies the ETF represents."

Cost	Risk	Average Yield
€	++	++

Cost (€) = average transaction fee when buying such a product
 Risk (+) = average risk level of losing a part of your inlay
 Average Yield (+) = the average yield the kind of trading product gives

In market overview axes



Active Mutual Fund

"The fund actively trade your money in different trading products like bonds and stocks. Different funds have different risk levels."

Cost	Risk	Average Yield
€€€	++	++

Passive Mutual Fund

"The fund is composed like a active mutual fund except the division of different bonds and stocks the fund exists of doesn't change."

Cost	Risk	Average Yield
€€	++	++

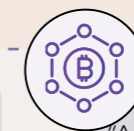


Crowd funding

"Via a online platform you sponsor a project or product. You can crowdfund via a debt, bond or buying of shares."

Cost	Risk	Average Yield
€€	++	+

Potential new products



Crypto currency

"A relative new to market digital/virtual currency which are based on decentralised networks based on blockchain technology."

Cost	Risk	Average Yield
€	+++	+++

Other specialist trading products

- Alternative investments
- Investment object
- Limited partnerships
- Turbo's
- Futures, Options, CFD's

Too complex products to use as standard retail investor

Source: AFM, 2020

Figure 5: an self made overview of different investment products available for retail investors

Understanding the attraction of Crypto currencies

There are many reasons why investing in crypto has a high attraction rate on gen-Y. A reason addressed on CNBC is the need of gen-Y that it is highly connected to the characteristics of gen-Y that they feel an urge to do it differently than their parents (Locke, 2021). Cryptocurrencies are seen as tools to build a decentralised financial society where banks are not needed. This feeling of independence and building a better society is a characteristic often heard about this generation. Also, not to forget that cryptocurrencies are a new digital innovation, something the tech-savvy gen-Y feels at home with.

Also, crypto has been often related to wealth and success for some years because of stories of people who earned millions due to its incredible price rise. It is a product often perceived as cool and future-minded among gen-Y. The last success factor addressed by Cooper Turley, a crypto strategist on Audius, is the accessibility of crypto. The crypto markets are always open, you just have to decide which 'coin' you want to buy and invest in.

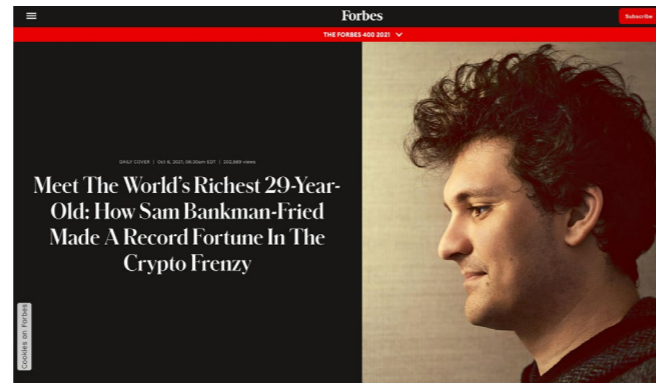


Image 5: display on Forbes of young people who became rich through crypto currencies

I think the success of crypto is that it gives gen-Y the feeling of fulfilling their needs among the whole spectrum. We can classify all these needs of crypto among the hierarchy of needs specified by Maslow, where I see that crypto fulfils needs on all three levels, as shown in figure 6.



Maslow's pyramid of the hierarchy of needs for crypto currencies

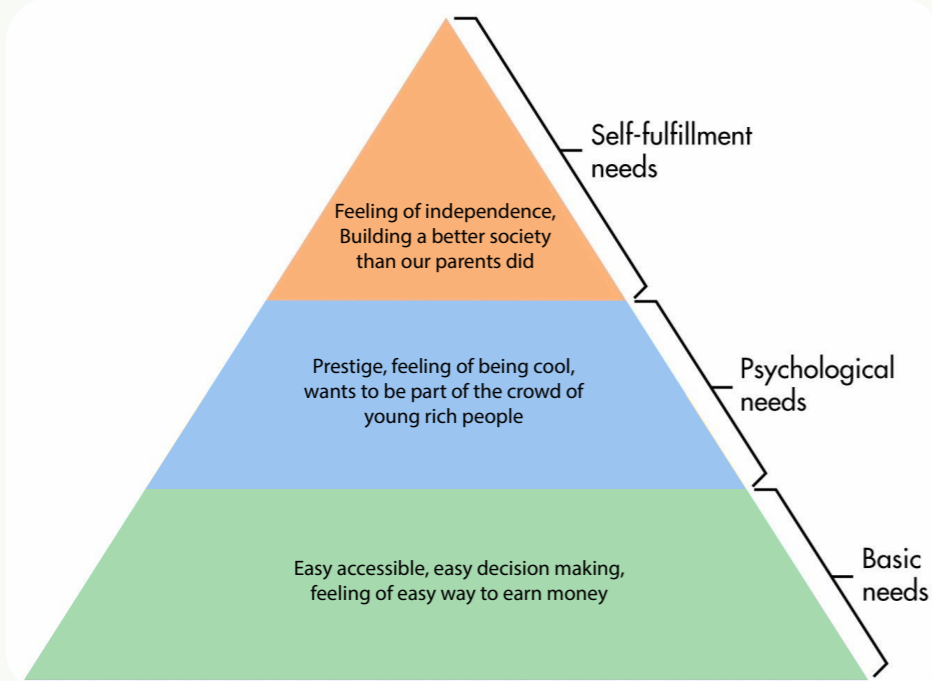


Figure 6: Self-made visual showing crypto solves all needs in one product according to the Maslow's hierarchy of needs.

In figure 9, there is an overview of the competitive landscape of companies that enable retail investors to buy one of the products on the infographic on page 25. The market is divided into two axes, rate of involvement and commission rate.

High/low involvement - This axis shows how involved the retail investor has to be during their choices when investing a part of their money.

An example with two outliers, when you have an account at DeGiro, you see a dashboard (see figure 7). This screen shows you many options and financial information, but does not guide how you should invest. You as the retail investor has complete freedom.

On the other side of this axis is for example ASN. They offer almost no choice for you as a retail investor and give you little trading freedom. You can only choose from 11 different sustainable funds, and there is nothing more to do, see figure 8.



Figure 7: the start dashboard of DeGiro



Figure 8: the possibilities of investing at ASN

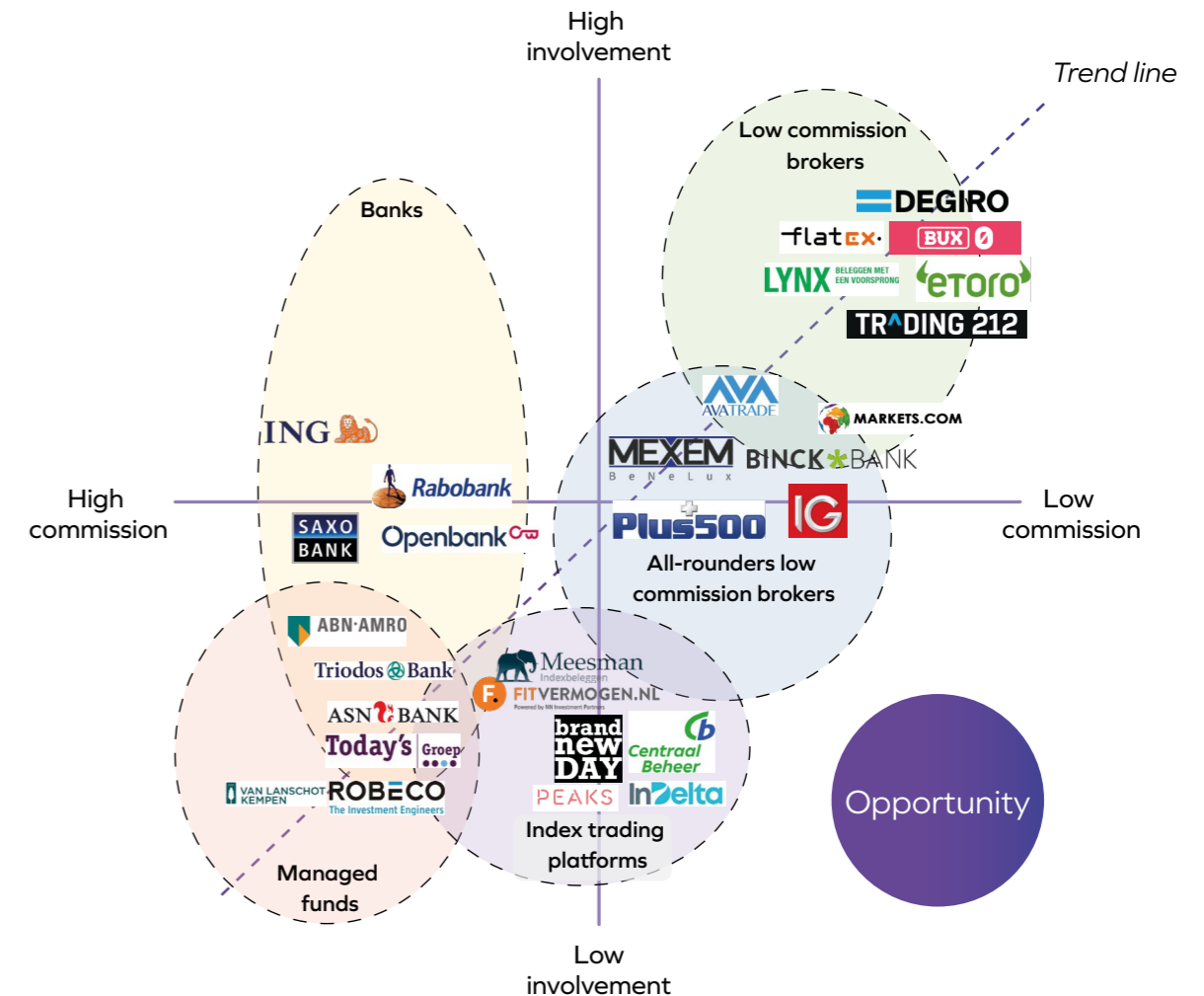
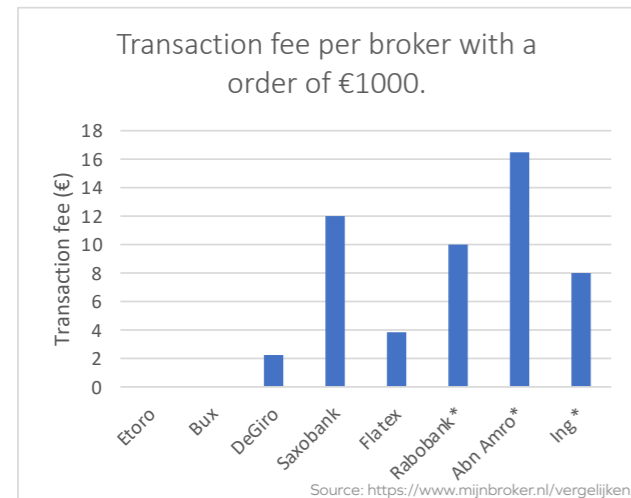


Figure 9: a self made overview of the different competitors in the market

High/low commission - This axis shows how high the commission is when using a product to invest with via this service.

Graph 5 shows a clear difference in transaction fee's between the low commission brokers and banks with more expensive fees.



Graph 5: self made graph of the transaction fee per broker. The names with * are Dutch banks

Banks (yellow)

The banks in the axes have a broad range in the Y-axis. This is because banks offer nowadays almost all sorts of trading products except cryptocurrencies. This means banks offer high involvement trading products like individual stock trading platforms and low involvement investments like managed funds.

But on the X-axes banks are all the way on the left high-commission side which graph 5 clearly shows.

Managed funds (red)

Managed funds do not require much involvement because such a fund actively manages in which types of investments your money is invested. The trading is basically being done for you. But this also comes with a fee of around 0,5%-1% over the total amount of money, which can cost quite a lot if you invest a significant amount of money over the years.

Index trading platforms

These are platforms that have their own combination of trading products only existing

of ETF's and bonds. At most of these platforms, you can select how much risk you want to take. This selection of risk is mainly influenced by the division between bonds/ETF's is. The more bonds in your profile, the less risk you take.

All-round low commission brokers (blue)

These are brokers who focus on an almost €0 transaction fee while at the same time they try to make almost every way of investing available to you. As you can see in figure 3, plus500 offers to invest in the crypto market as well as raw materials as ETF's. Later on, it is explained how brokers could have €0 transaction fees compared to the high transaction fees banks ask from consumers.

Low commission brokers (green)

Together with the all-around low commission brokers, are these the real market disruptors and competitors for Rabobank on the broker market.

In May 2020, DeGiro saw so many new customers opening an account that they couldn't handle the demand and they even installed a digital queue for new customers (BusinessInsider, 2020).

A reason these services are so popular could be because they offer the service for you to buy stocks, ETF's, bonds but at a significantly lower price than banks do nowadays but still offering a good service.

Opportunity direction competitor graph

Based on figure 1, I see an opportunity for the low commission low involvement sector. Based on the trend line of figure 2, companies ask for a higher commission rate when offering products that offer more guidance. This, of course makes sense because these are more labour intensive products.

It would be interesting to explore the possibility to create a low involvement - low commission product that isn't that labour intensive to maintain. In chapter 4 it will also be analysed if that is a solution direction gen-Y seeks.

How can €0 transaction fee exist?

That is possible because these companies have different business models. Chan, an investing expert on the platform Medium, explained that there are three ways in which brokers with €0,- commission fee make a profit (Chan, 2020) :

- **Cash sweep**, to buy stocks you need to have enough money on your trading account. When you transferred for example €700 to your account and you buy for €660 stocks you possibly leave the leftover €40 on this broking account. The broker profits from this money by earning interest over this amount.

- **Payment for order flow**, when your broker orders a transaction for you an algorithmic trading firm has to match your buy order to someone else who is selling. These firms have an advantage with this data and can make money with this data. Some zero-commission brokers have deals with such algorithmic firms which earns them a lot of money.

- **Bid/Ask spread**, this is the difference between the highest price someone is willing to pay for a stock and the lowest price the seller accepts. Some broker could influence this per share with €0.001. If you multiply this with all the shares traded through the platform brokers can earn quite a lot of money via this way.

A market where size matters

So for these low commission brokers, size matters. They make very little profit per transaction but when they become big enough, the business becomes profitable.

This is different for the well-known banks. Their broking eco-systems are currently not built for these very low transaction fees.

Why Rabobank isn't entering the €0 transaction fee market

It would make sense to ask yourself, why wouldn't Rabobank adopt this new business model for its trading platform? Since every user would like an €0,- transaction fee?

Formulated from its mission Rabobank wants to be transparent about its cost structure. And they believe this is not a transparent and honest business model. And with Rabobank also other companies as we can see in graph 5, otherwise, every bank would already have offered an €0 commission fee.

It also looks like the retail investors aren't entirely

convinced about this new underlying business model since popular brokers like DeGiro still ask for a small commission. Chapter 4.2 will elaborate on how important a low transaction fee is for gen-Y to choose their broker.

The services of brokers are widening

Brokers first mainly focussed on making it easy and cheap for their consumers to trade, but this competitive landscape is changing. For this landscape, we have identified three categories besides the core business of a broker: teaching centres about investing, online communities, news and information platforms.

The main insights based on the competitive market landscape from figure 10 (on the next page) were:

- Bux & Trading212 are the only brokers with an online community.
- Rabobank has no specific teaching centre, while all other Dutch banks do.
- There are a lot of online community websites that also post their own blogs and insights.

An interesting finding is that brokers are becoming more versatile platforms that suit all consumers' needs when investing. Some of them have whole teaching centres that are high-quality for free, or a forum for traders to discuss, or the broker shares their latest insights about the market. Through all these activities, it looks like these companies focus on an active level of engagement with their consumers.



Figure 10: self made graph of the competitive market landscape

The rise of active brokers

What I see happening in the broker market is the rise of active brokers. In figure 10, above, we already saw that brokers are offering more services to their consumers now. And what I saw in the market is that the low commission brokers are also focussing on being more active brokers. I identified three elements to identify active brokers:

- The amount of marketing they do
- The amount of different ways they have for engaging with their consumers
- The amount of different services they offer to consumers

of active and passive brokers of the current competitive landscape. In the previous chapter, 2.2 is explained that I characterise Rabobank more as a passive broker with more conservative ways of engaging with its consumers.

I noticed that the new digital brokers like Bux, DeGiro and Etoro search for active consumer engagement. Etoro has a forum where you can ask about expert opinions, you can see trade activities from friends and influencers, active online commercials, and there are different packages with online support and apps. Figure 11 shows that Etoro wants to become more than just a broker because they are issuing an Etoro debit card later this year.

Figure 12 gives an overview of the positioning

I see this as a threat to Rabobank if they leave the competition open for other brokers to acquire fast new users. A broker is already a financial service, and when they acquire the trust from its users, it is also easy to sell other financial services to them on a platform these users actively use.

SILVER Tier

Silver tier members receive exclusive access to in-depth market webcasts, data-based CopyPortfolios, and a dedicated Customer Success Agent to maximise Club membership offerings. Members residing in the UK and the EuroZone will be eligible for an eToro debit card later this year (2021).

Figure 11: Etoro issuing a debit card in 2021

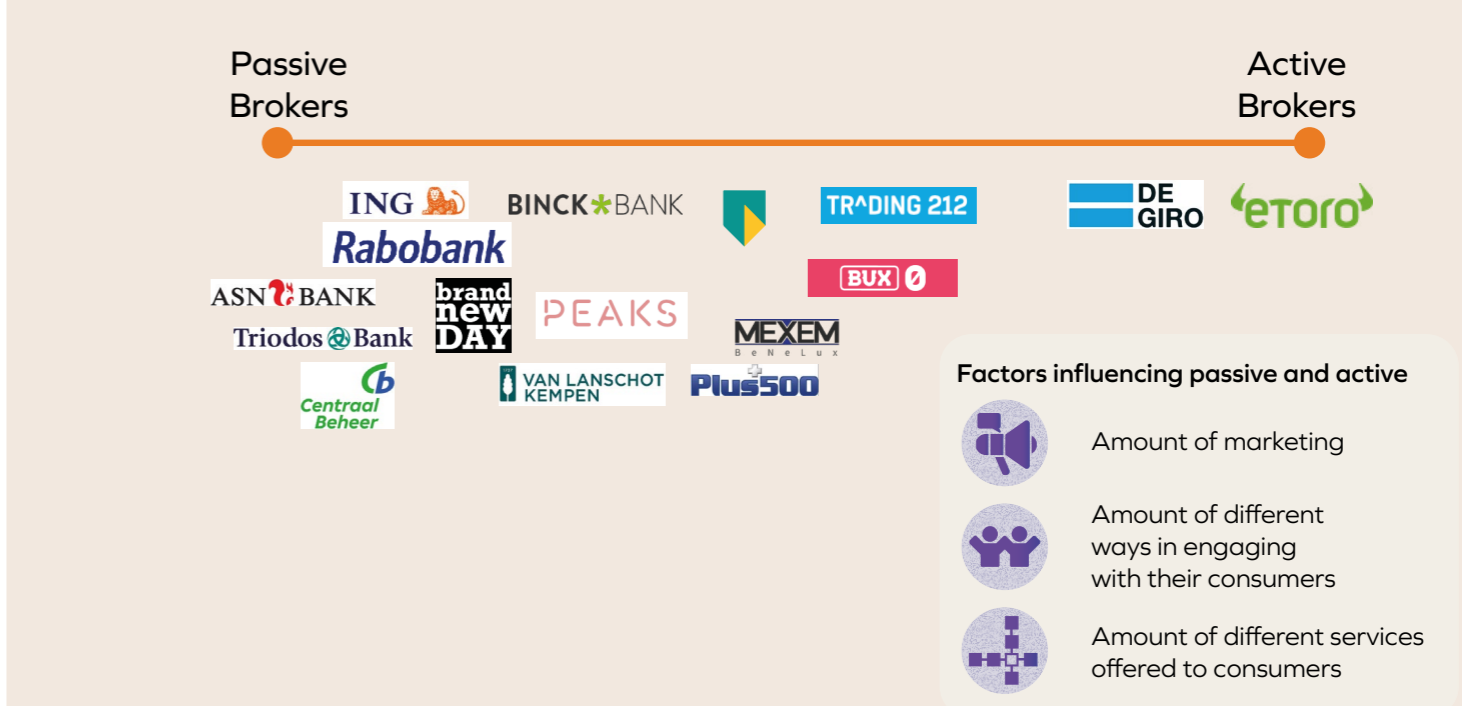


Figure 12: Self made overview of the positioning of active and passive brokers

Insights for competitive market overview

- The biggest part of the target group is actively self-investing in stocks and ETF's.
- Crypto currencies are attractive for gen-Y since they give self-fulfilment needs, psychological needs and basic needs.
- In the competitive market landscape there is an opportunity spotted from a market perspective on a high level of guidance combined with low commission fee.
- New digital brokers are focussing on different products than only enabling buying and selling stocks. These brokers also tend to have an active positioning.
- Some brokers like Etoro are already launching debit cards this year.

2.4 Sustainable investing

Climate change's impact on our lives will intensify in the coming decades (European union, 2021). The European Union stated that 4 out of 5 places where Europeans live now will be exposed to heatwaves, flooding or rising sea levels and are not yet adequately prepared. When something impacts our lives, it automatically impacts the companies surrounding us, which means it affects your investments or stocks.

Institutional investors also realise that the performance and value of a company not solely depend on its expected profit numbers but that other sustainable factors also play a role in the value of a company. In the corporate world, these sustainable factors are documented as ESG factors, see figure 13.



Figure 13: overview of ESG criteria from HSE

Reporting on these sustainable factors increased quickly in popularity, in 2020 90% of the companies listed on the S&P500 (an ETF of 500 stock listed companies in the US) published annual ESG reports.

And these new sustainable factors are becoming more important for institutional investors. In 2017, 78% of the institutional investors used this information. In 2018, 97% of them already used this information (EY, 2018).

In 2017 McKinsey wrote "sustainable investing as the new normal", and they have three reasons why:

- Enhancing returns
- Strengthening risk management
- Demand

In the same research, two thirds of the American retail investors agreed with the statement: "My investment decisions are a way to express my social, political, or environmental values." In chapter 3.3 I research the general opinion of gen-Y on sustainable investing.

But how to incorporate these sustainable factors in your investment decision

There are three common methods called:

- Negative screening
- Positive screening
- Proactive engagement

Figure 14 on page 33 explains how these three methods work.

But the strengths of ESG trading is in the outcomes of it. EY stated in their research that if ESG characteristics are considered with a negative screening approach, it lowers the risk (67% agrees) and brings a higher return (68% agrees). And when a positive screening approach is used 72% of the respondents agrees it lowers the risk and 69% agrees it reduces the risk relative to the market benchmark.

Expert view about sustainable investing

In a webinar from Financial Investigator on 30-09-2021, two experts, Eva Cairns head of climate change strategy from ABRDN and Jos Gijbers from A.S.R, gave their opinion about sustainable investing.

They point out that every region and sector is exposed to a sort of climate risk, so you must take it into account for your investment portfolio.

"It should be part of your investment process."
- Cairns, ABRDN

But also, that the energy transition and climate change creates opportunities.

"The trend is your friend, so make it your friend and invest more in the good guys who support the transition."
- Gijbers, A.S.R.

More companies are now publishing ESG data. Furthermore, richer ESG data and more tools become available. But it is a time consuming job to incorporate all these data and insights to your investing strategy.

Visit to financial ETF provider

The ETF you want to buy first has to be composed and then brought on the market before a retail investor can buy it. There are several financial offices that offer this service. I visited one and asked about their view on sustainability and the retail investment market. The main insights of this interview were:

- It's still difficult to determine trustworthy ESG scores nowadays since there are not yet clear measure rules about it.
- When sustainability will become the new standard it will fade away to the background.
- €0 transaction fee could change in the coming years due to stricter regulation.
- Their customers which they sell their ETF's to, is way younger than 20 years ago.
- ETF's about exciting topics are more attractive for the younger generation.
- They see the emotional investor curve happen regularly among their products.

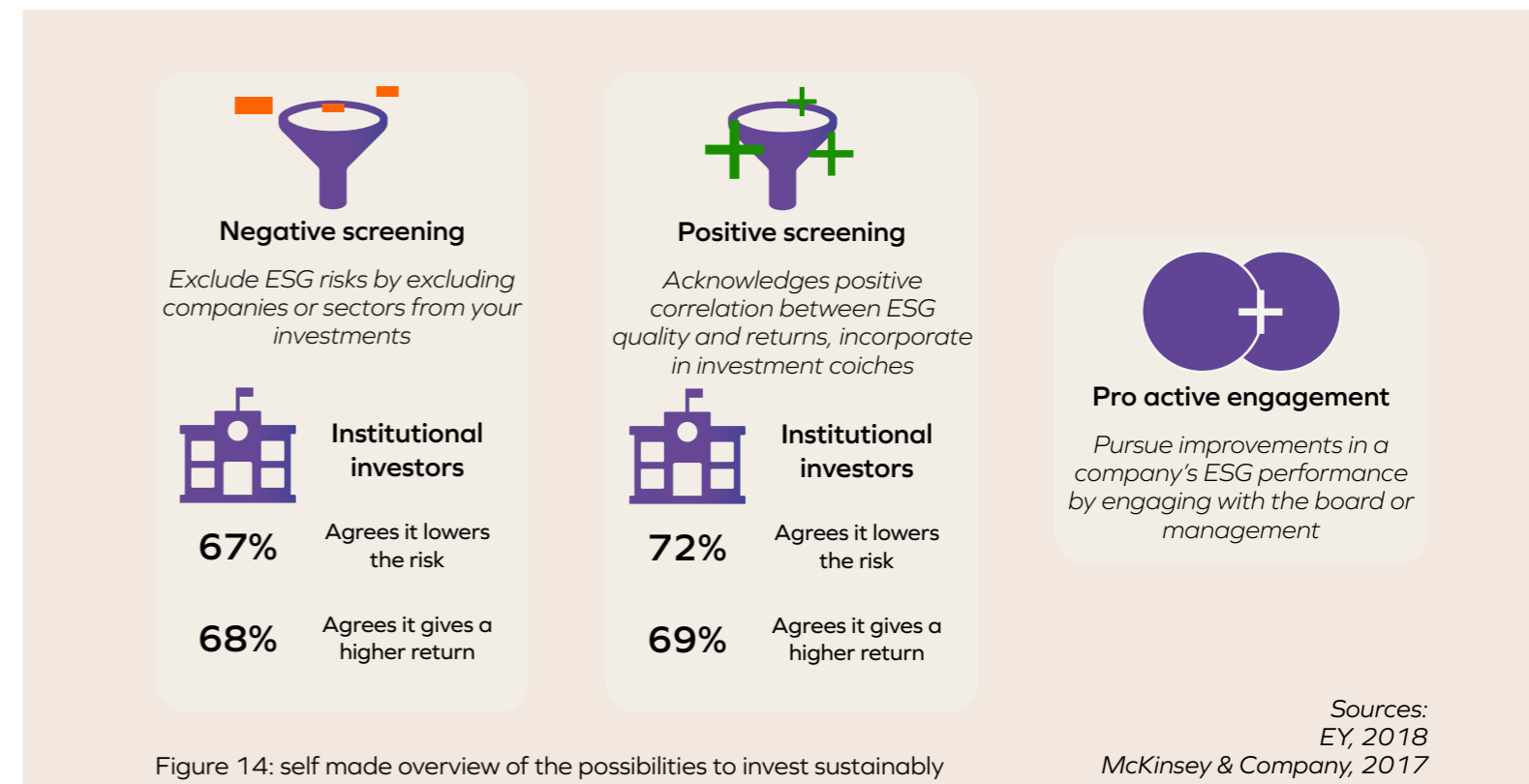


Figure 14: self made overview of the possibilities to invest sustainably

2.5 Conclusion

I see a crowded, competitive market for stock brokers who actively seek new consumers. Brokers nowadays seek for active engagement with their consumers and try to offer more than only enabling buying or selling stocks for their consumers. They are now also offering forums for people to discuss their stocks, courses that explain the basics of trading, or offer packages with insightful data to their consumers.

When we look at these brokers' different positioning, we see a difference in the level of involvement needed from its customers and the transaction fees companies ask their consumers. Generally, we see that banks ask the highest transaction fees compared to digital-only brokers. This is due to the economy of scale where banks handle fewer trades and have a transparent business model for their commission fee, causing them to charge the highest fees. An opportunity from a market perspective is spotted between the low commission and low involvement sector. In chapter 4.2 I will define if it's an angle gen-Y also likes, or if higher involvement is preferred.

Furthermore, I defined this project's scope in stocks, bonds, ETFs, and active/passive funds. There are a lot of other trading products, but most of them are too complex to offer the average retail investor to start investing with.

2.6 Reflection

I noticed in my project that a good understanding of the context you are designing in is essential to obtain before starting designing. I often returned to this chapter during my project to see how other companies approached the market. It also helped generate assumptions and spot new opportunities in the market, which can be a starting point for your customer research.

Talking with experts helped me to get familiar with the topic. I noticed I quickly got a lot of smaller ideas of things that I didn't see happening in the market. I used this to start discussions with the experienced innovators in my Rabobank team. These discussions had valuable insights since they referred to many propositions launched, which I could then check out and add to my context analysis.

I learned that context research is not only googling about your context but also asking for insights from experts around you to explore their insights and tips further.

What I found challenging for this topic is that investing is such a big topic that you can quickly lose the overview of all the products and companies launched in that context. I noticed that framing these companies into a graph or model helps generate insights and to define the market. To illustrate the market into models will be something I would like to keep doing in the future together with broad research not only existing of googling but also ask input from others experts.

Consumer research

Chapter

03

In this chapter I generated insights on consumer behaviour of gen-Y. General behaviour of this target group is addressed as well as their behaviour for investing and on sustainable levels. Also a target group is chosen to solve their issues and needs for investing in the next stages of the project.

3.1 Research methods

3.2 General Gen-Y behaviour

3.3 Gen-Y investment behaviour

3.4 Gen-Y sustainable behaviour

3.5 Development of persona

3.6 Conclusions

3.7 Reflection

Consumer research

3.1 Research methods

This research is focused on gen-Y because Rabobank wants to be more attractive to this younger consumer. For a bank to ensure its continuity, it is essential to have consumers of all ages.

First online papers have been used to establish a basic understanding of gen-Y behaviour, their sustainable behaviour and investing behaviour.

In-depth interviews

In a parallel process of reading papers and getting to know the basics of gen-Y behaviour, ten in-depth interviews have been conducted through Zoom with different consumers from this target group.

Five men and five women aged between 22 and 30 were interviewed. Five of them invested already, four were thinking about investing and one interviewee didn't like investing. Six of them were already full-time working, and four were in the master phase of their studies.

The main topics were:

- Your opinion about investing and stock trading
- Where do you get your information from when looking to start trading?
- Opinion about sustainability and sustainable trading

For the complete interview, guide see appendix A. The interviews were held online, and the participants were addressed that their answers will be used anonymously in this research.

User test

After the in-depth interviews, a user test was conducted to determine the main drivers for

gen-Y to choose their broker. 20 participants joined in this test.

During the test, people were asked if they invested or not.

The people who invested (n=11) were asked which broker they used, how they found it, and why they chose it.

The people who did not invest yet (n=9) got the challenge to find out within 15 minutes which broker they would use. Then the questions were asked how they found their broking platform and why they chose it.

Questionnaire

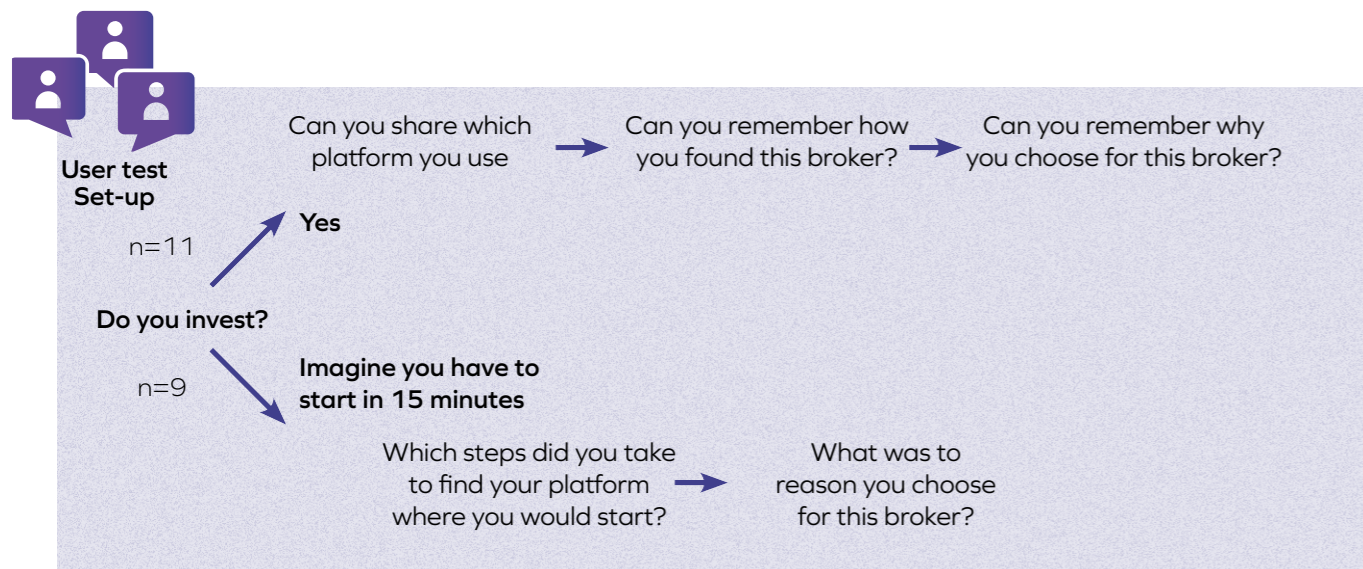
To verify some assumptions generated by the other research methods and to create new insights, a broadly distributed questionnaire was used. With n=169 participants, we can assume the questionnaire is representative for the broader target group.

The questionnaire starts with demographic questions where ages higher than 38+ were removed from the answers (N=18), because they didn't fit the gen-Y qualifications. This still left me with n=151 answers from the questionnaire.

For the questionnaire flow and demographic info about the respondents, see the infographic on page 38. The complete questionnaire and answers can be found in appendix B.

Most of the questions were stated with a 5 point Likert scale which is easy to analyse and easy to choose from for the respondents (University of St Andrews, 2017).

The following chapters will describe which insights and assumptions are generated and validated.



Demographics

For this research, we have to consider how the outcomes of this questionnaire could be biased.

First, the female/male ratio seems representative with a 47/53 ratio. From an age perspective, the respondents seem at the younger side of gen-Y with an average of 25,1 years old, but this is still representative for gen-Y.

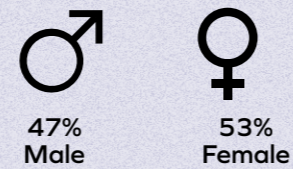
When we look at the education level, our respondents are generally high educated. Ten respondents have not followed any higher education, but 159 respondents have followed any form of higher education in the form of a bachelor, Hbo, master or PhD.

The questionnaire was widely shared in different Facebook groups and among friends. Based on the results, it was difficult to reach the lower education group from our university bubble or to activate people from this lower educated group to fill in the questionnaire.

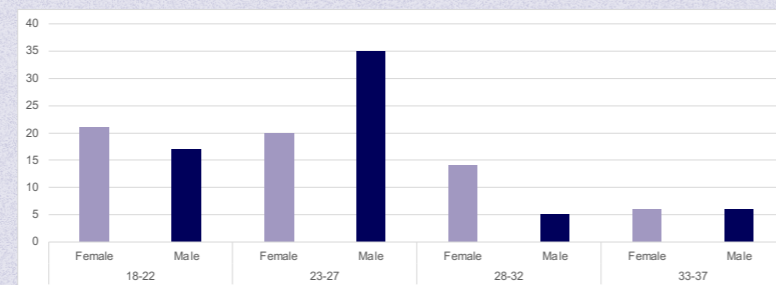
This doesn't seem like a problem for biased results were in my research I focus on the higher educated group as proposed in the persona chapter 3.5.



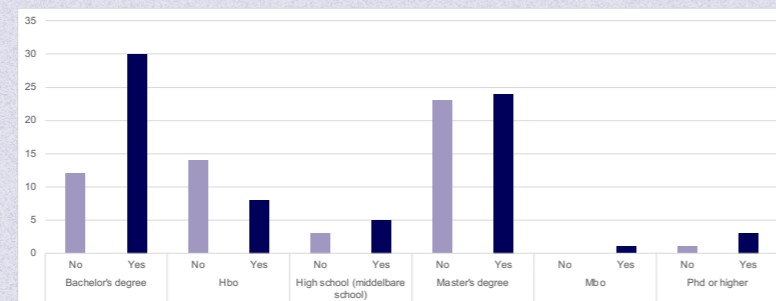
Questionnaire Set-up



What is your gender & age?



What is the highest level of degree you followed



Demographic questions

N=169

Which country do you currently live in?

What is your age?

What gender do you identify as?

What is the highest degree or level of education you have completed or are following right now?

6 Questions about their saving behavior

Do you invest some part of your money in any way?

Yes (58%)
N = 98

No (42%)
N = 72

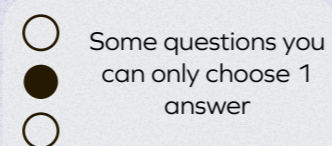
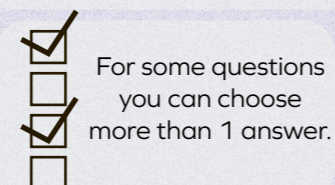
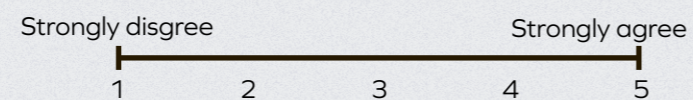
12 Questions About their investing behavior and their pains during investing.

9 Questions What they think about investing and what they need to start.

4 General questions about investing

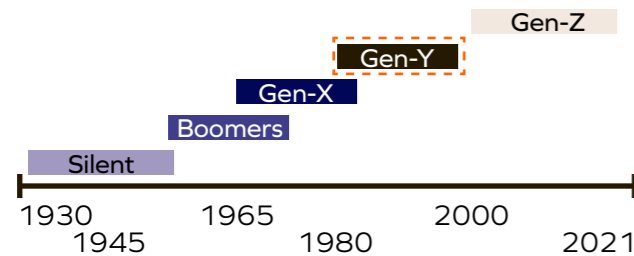
3 Questions focussed about sustainability

Some questions you have to decide on a 5 point Likert scale



3.2 General Gen-Y behaviour

First, who is gen-y? Based on a paper by Ordun (2015) this generation was born in 1980 and ranges until the late 1990s until this generation is taken over by the gen-Z. The gen-Y generation is also often called the millennials.



Graph 6: self made overview of different generations

From an international point of view and market perspective, gen-Y is three times bigger than gen-X and constitutes the largest market since the baby boomers (Belleau & Summers et al., 2007). It is a generation that is attractive for many companies because of their potential spending power, ability to be a trendsetter, and a high adoption rate for new products (Martin & Bush, 2000).

“I want it all and now”

An impactful characteristic of gen-Y is the “want it all” and “want it now” characteristic in terms of work, contribution to society and good pay (Ng, Schweitzer & Lyons, 2010). This could also be a reason why so much (58% based on the questionnaire) of the investors of gen-Y have a part of their money in crypto.

This also connects to the research of Ordun (2015) that social influences and friends have a high impact on purchase decisions for this generation. This is also what I heard from the interviews.

“First I talked with friends about starting to trade, then I listened to a podcast and I was confident to start”

- Male, 27 year

But they are not only focused on personal achievements, they also want to know what they are doing is valuable for the environment or the work they are doing. Since gen-Y had a more secure financial youth than other generations, they are less driven by money, but they thrive more by achievement (Hylar, J.N. 2013).

The emotional shift

A new shift for product positioning is that gen-Y has a more emotional way of evaluating new products than baby boomers. Ordun (2015) stated it as:

“Gen-Y buyers select and consume products that helps them to define who they are, what is important to them and what they value in life and also serve to express some aspect of their own personality or image.”

This shift from Gen-Y is not new, already in 2002 Morton wrote: “advertising that centres on lifestyle and fun will appeal more than features and specification. Gen-Y will get the factual information about products on their own.”

The demanding consumer

Gen-Y seems to be a demanding customer who has a lot of demands and moves quickly over to the competitor. If a company does something gen-Y doesn't like, they move over to the next, they grew up in an environment of choice and competition.

Based on a research of Pace University gen-Y have brand awareness but are not brand loyal (Hughes, 2008). In a study from Deloitte 2017, they also stated that only 5-10% of gen-Y have a single-channel preference and that this generation is not brand loyal. But that this group has powerful feelings about their own choices and habits. They give the example of a focus group where a person continuously checks their bank account on a computer and don't know why, but can't imagine doing it in a different way.

Not mobile-only but #omnichannel

In the same study by Deloitte in 2017, they did a survey among Gen-Y (18-37 years old) and interviewed over 120 people of this target group and asked across 55 different activities. They found that there is a wrong perception that this gen-Y uses their phones for everything. They claim that young people prefer using their mobile devices for the most straightforward and lowest value transactions. When complexity and value increase, this generation prefers using their computers. We also see this happening in graph 7, where 65% buys stocks via their computer.



An example of a new marketing commercial which connects perfectly to the ‘needs’ of Gen-Y is the launch of the new electric car brand Rivian. In their marketing material, they don't focus on their brand, it is even not on the poster. There are no specifications of the vehicle, they solely

focus on the **emotional feeling of adventure and travel, together** with your friends. Even the note that they produce this all-electric car is left out, the pure focus on adventure and travel. Based on the literature this is an **attractive focus for marketing for Gen-Y**.

But the term omnichannel must be understood, which is different from multichannel. A source of frustration for the target group of this research was that they often like to start a process on their phones and wants to finish it on their laptops; this must be a smooth process where the user can continue the process on another device.

"80% of Nordic millennials seek a single app that can do it all rather than multiple dedicated apps, and to this end they are ready to put up with lower user-friendliness and high complexity – although they still expect a smooth user experience."

- Deloitte 2017

It's all premiocre

The term premiocre was introduced in 2017 by Venkatesh Rao, a management consultant, and it is a term that describes really well the problems of the current gen-Y.

This segment is also in the Netherlands, growing since the economic crisis. Premiocre are products with an aura of luxury without being real luxury. They feel exclusive because of their design, or they look like status symbols but are affordable by almost everyone.

Products you could think about are glasses from Ace & Tate, bicycles by Veloretti or Swedish design furniture from Made.com (Kooyman, 2021). It is a result of difficult economic times for this group, which cannot buy a house, get a permanent contract, and see wages stabilise. This generation was just too young to participate in the economy just before this collapsed, leaving them in this trapped financial position. The result of this is the rise of premiocre products: **consumerism which conveys success.**

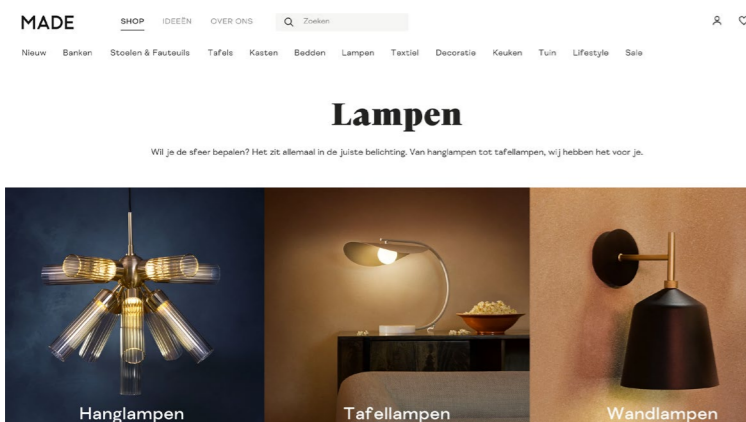


Figure 15: an example of a premiocre brand image from Made

	Smartphone (%)	Tablet (%)	Computer (%)
Bank deposit	32	0	29
Bank withdrawal	23	0	16
Balance	74	0	25
Set up investments	19	2	65
Find advisor	19	3	44
Deal with advisor	5	3	44
Buy/sell stocks	27	1	61

Graph 7: different uses of screens among Gen-Y from Deloitte, 2017

Insights on Gen-Y

- Has a high adoption rate for innovative new products
- They are impatient and want to see direct impact
- Products who strongly focus on a lifestyle or values attract this generation
- They want products or services to be fun
- This generation prefers using their computer for complex and value heavy tasks, like investing their money
- It is not easy to generalise this consumer group, they all have their unique omnichannel fingerprint
- Premium looking products or services which have an average price have a high attraction on Gen-Y

Consumer research

3.3 Gen-Y investment behaviour

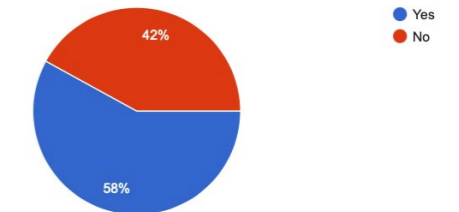
From the self-conducted research, it shows gen-Y is quite positive towards investing. From the in-depth interviews, 5 out of 10 invested and was optimistic about it, and the five people who did not invest were all positive towards investing; they said things like:

"No I don't trade but it is a thing on my to-do-list" or another person said: "investing is something I am not doing right now but something I would like to do."

Gen-Y positive towards investing their money

If we look at the questionnaire data, we see the same sort of division between investors and non-investors, where 58% say they invest. Of the 42% who are not investing 43,4% says they are thinking to start. In a recently published study in November 2021, among 1569 respondents done by NIBUD and Rabobank, it is concluded that 42% of the young adults aged 18-30 invests. In research of Deloitte in 2017, it's stated that of the Gen-Y group in the US, 35% have

Do you invest some part of your money in any way?
169 antwoorden



Graph 8: percentage of people investing in self conducted questionnaire

ownership of stocks, ETF's or mutual funds, in France only 10% and in the Nordic regions 65% invests. So it looks like our gen-Y target group in the Netherlands is after the Nordic region, the most active ones already on the investment market, more active than in the US.

So, we can conclude that the Dutch gen-Y is a more positive generation towards investing compared to the general public in the Netherlands. We can also conclude that my research attracted a bit more investors compared to the recently published research by NIBUD and Rabobank, 58% compared to 42%. But I think it doesn't lose credibility since the numbers are in the same order size.



Graph 9: results from self conducted questionnaire

Bigger group of females are thinking to start investing

If we look at the demographic differences of the data between males and females, I see a difference on graph 9 where we see that more males are trading than females. Deloitte found in 2017 the same deviation in their research in the differences of men and women in their investment behaviour.

And if we take a look at graph 10, the average of males and females who are thinking about starting to invest is around the same, 3,8 for females and 4,0 for males. So we see a bigger group of females who are not investing but who are positive to start.

Risk behaviour of Gen-Y

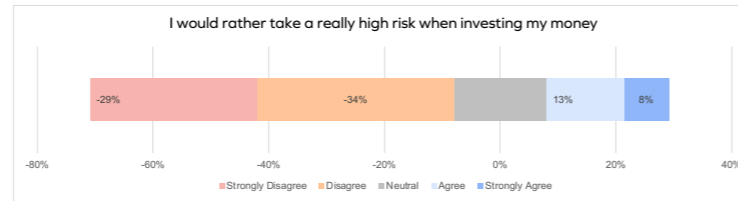
We already described the "I want it now" attitude from gen-Y, which also influences their investment behaviour. In a paper, 'Investment behaviour among generation Y' from 2014 they conclude that gen-Y lack of patience will result in a short term and low-risk product (Min, Gee & Kian, 2014).

We see an interesting thing happening within the questionnaire, we see on graph 10 that this generation indeed does not like to take a high risk with their investments with the majority of the votes strongly disagreeing with the statement, "I would rather take a high risk when investing my money."

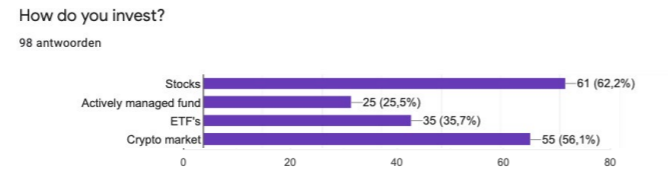
But when we look at graph 11 of the people who invested from gen-Y 56% has any sort of crypto investment. Banks rate crypto investment as a very risky product. So, we see a kind of special attraction for crypto despite the risk aversion from this generation. This could be explained due to an increase of I-FOMO (investment-FOMO). A behavioural finance expert Shari Reiches says: "watching others make a lot of money on a certain stock having a massive rally may make you feel obligated to join in, even if the logical part of your brain is telling you the biggest rewards have already been had" (CNBC, 2021).

This is also strongly connected to the greedy buying and fearful selling phenomenon explained in chapter 2.1.

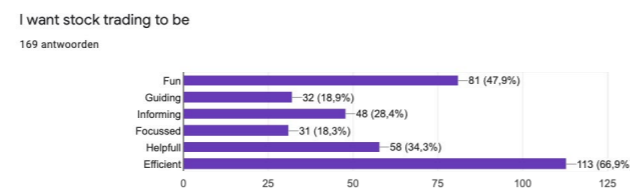
I see the trend of I-FOMO only increasing. Gen-Y is more connected than ever with their mobile phone's. The mobile phones of Gen-Y have a



Graph 10: results from self conducted questionnaire difference in risk behaviour for Gen-Y



Graph 11: how Gen-Y is currently investing



Graph 12: preferences what stock trading should be

constant stream of short messages everywhere. And that is precisely a trait that increases I-FOMO (Blankespoor et al., 2018).

Preference of the perceived experience of stock trading for gen-Y

In graph 12 it was asked what kind of experience gen-Y would like to have during stock trading. They were given a choice from a range of functional perceptions and emotional perceptions. An efficiency focussed platform was preferred, but they were also seeking for a fun experience.

The informing focus Rabobank currently has in its platform seems less preferred, with only 28% of the votes.

Why are they investing?

If we look at our data, the reason why people are investing differs. On graph 13, it is clear that most the people save for both short and long term goals.

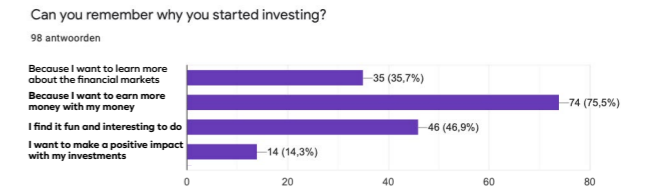
When we look at the same graph, it is pretty evenly distributed between people who don't invest for a specific goal and people who invest for a particular goal in mind.

Also, let's look at the reason why gen-Y started investing. It is not only because they want to earn more money (although it is still the biggest motivator with 77,4%), but also of intrinsic motivators like learning more about investing (36,6%), because it is fun and interesting (46,2%) and to make a positive impact with their money (15%).

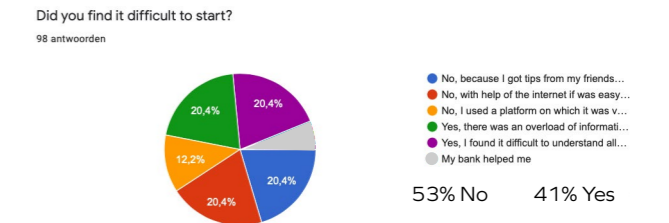
Also, from the interviews, it became clear that investing for gen-Y is not only about earning money:

"I invest because I find it fun, I can learn something from it and I can build some extra wealth."
- Male, 26

First of all quite a big group, 41,9% had difficulty to start trading we can see from graph 14 because of the overload of information or that



Graph 13: reasons why Gen-Y started investing



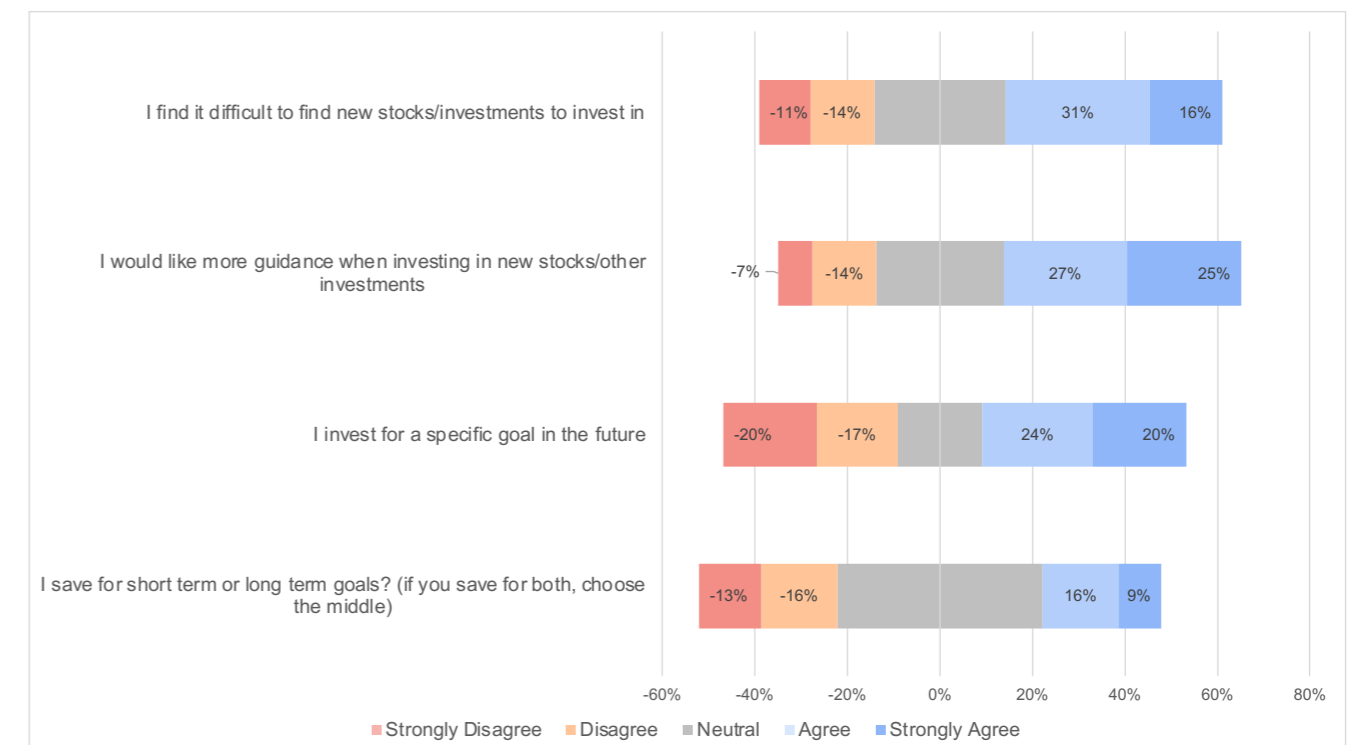
Graph 14: difficulty when starting to invest

they found the overload of information difficult to understand.

This connects to what graph 15 shows, where people say they would like more guidance in their investments.

They also generally agree that they find it challenging to find new investments. This could be due to the incredible amount of options you have to choose from when investing. Also, in the interview a person said:

"I wanted to buy a new ETF but there were so many options I just chose the most basic one."
- Female, 24



Graph 15: results from self conducted questionnaire

Why are they not investing?

Like explained at the beginning of the chapter, most of the target group invests, but 43% of the people who didn't invest were quite positive towards investing (43,4%).

When we asked about the reason why they were not investing it was the following:

- I first want to know more about the stock market (47,8%)
- I don't feel confident to start yet (39,1%)
- I haven't found the time and energy to start (34,8%)
- I'm afraid to lose all my money (33,3%)

So, in the top 3 reasons why people are not investing, they have a feeling why they don't want to start now but they are not negative towards investing.

Level of risk people experience

But we also see a level of risk people feel. A big group says they don't feel confident yet or are afraid to lose their money. This is of course true for investing your money because you can lose (a part of) your starting capital.

But based on literature, some elements influence the perceived risk a consumer feels (Kraus, 2016). These factors are also relevant for the risk felt for retail investors, which are:

- Tangibility
- Buyers involvement
- Novelty of purchase
- Risk threshold

Pains for people who are not investing

The non-investors have the feeling investing is difficult to get started. When we look at graph 16 almost no one of the non-investors would be confident to start.

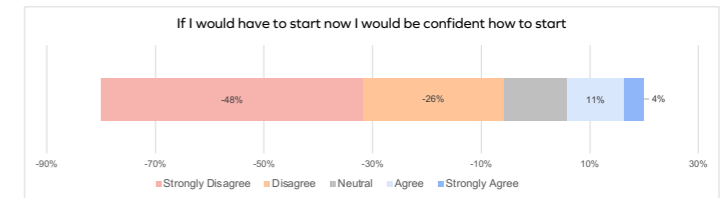
This was also reflected from the interviews in the following way:

"I have the feeling I know too little and invested not enough time in it, and I am too impatient."
- Male, 24

We see the same happening with the questions to these non-investors "what would motivate you to start" that people find it difficult to even make a start:

- **An easy and clear process** which helps me to start (68,1%)
- **To hear from friends the profits** they make with their investments (39,1%)
- A free environment to **try out stock trading** (31,9%)

I see an interesting thing happening here that people's main motivator is an easy and clear process to start. But there are many explaining



Graph 16: confidence level of people who are not investing

websites that are online, easy to find, and free to use, from companies of which I made the competitive overview in chapter 2. One example is the 'beleggersacademie' from DeGiro, which is free and high-quality.

The need for an easy and clear process can be better explained by what two non-investors addressed in the interviews. For them, the first phase to start investing feels too overwhelming. Looking for example at the first screen of the popular broker DeGiro on figure 17 I can understand that for a less financially focussed person it feels overwhelming and therefore creates the need for an easy and clear process. In the interview it was addressed by the quote:

"Once I tried to start and opened an account, but after seeing the first screen I postponed the decision to really start because it made me feel I first need to know more about it."
- Female 29



Tangibility

When a product or service isn't tangible a higher risk is experienced. This is for example the case when buying a stock from for example, Apple. It feels very unreal and intangible if you own a piece of the world's biggest company after a few clicks on your phone.



Buyers involvement

You perceive a higher risk factor when there is a low buyers involvement. If you want to buy for example a new kitchen and you go to the kitchen shop, here you talk a whole afternoon to an employee who helps you pick out your kitchen. Afterwards you step satisfied in your car knowing you have made a great purchase and no risk is felt. This is also different when investing and buying stocks, with only a few digital clicks you have made a purchase.



Novelty of purchase

Novelty of purchase, happens to consumers with no experience in the purchase. When you buy something for the first time, you experience way more risk than making the same purchase a second time.



Risk threshold

Risk threshold, refers to consumers who are prepared (or not) to take a risk with completely unknown services, for example a new broker on the market.

Figure 16: self made overview of the 4 elements influencing risk

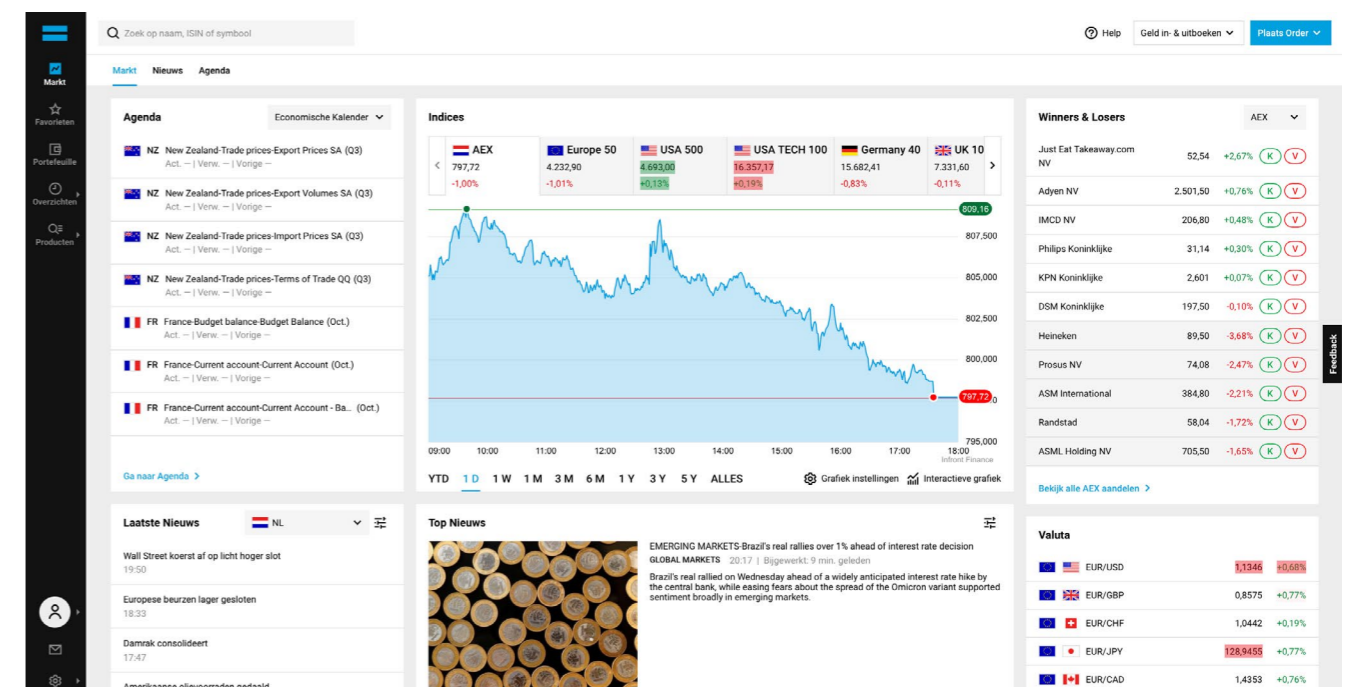


Figure 17: DeGiro standard first screen.

The Fogg Behavior Model (FBM)

A reason why consumers are still not triggered by simple solutions in the market or have other reasons they have not started yet could be explained by the Fogg Behavior Model developed by Dr. BJ Fogg from Stanford University.

The model in graph 17 explains when specific behaviour happens or not.

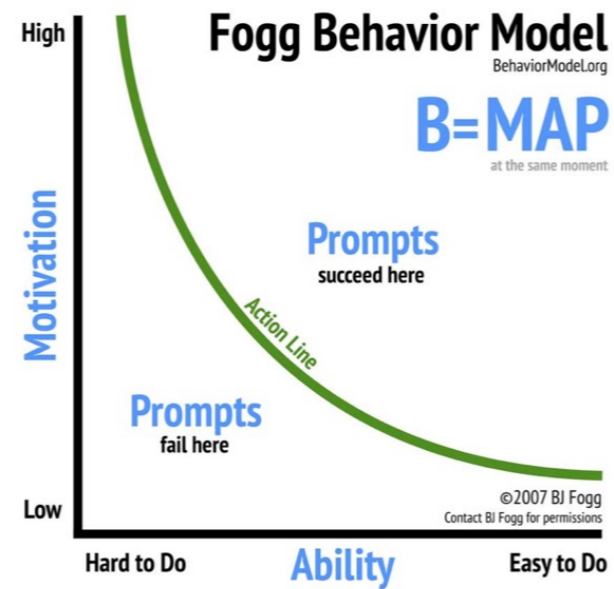
When we look at this model, I can easily explain why this non-investing group is not activated, or how people who invest are activated to start.

Fogg claims that people need motivation for an action, as well as the ability to do so. When they have a high motivation to do the action it may be hard to do, but when the motivation is low the ability has to be easy for you to start.

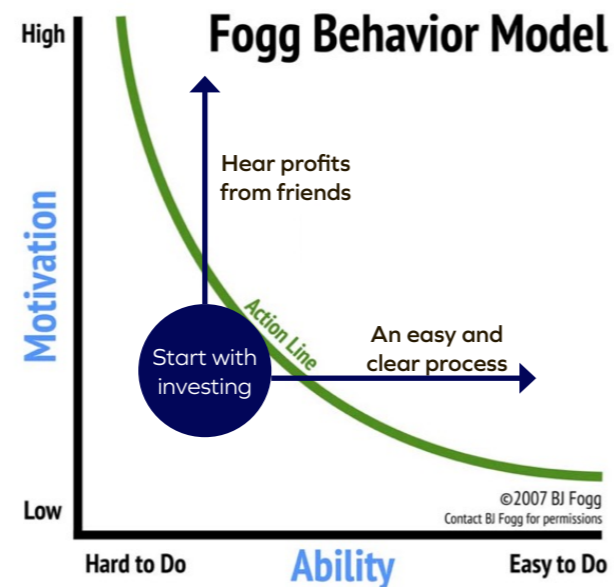
When something becomes easier to do, your action moves to the right of the X-axis, making it easier to come above the green action line in graph 18. People also asked for what would motivate them to start investing: an easy and clear process or a free environment to try out stock trading. This indicates their motivation is low to start investing, which makes sense because they also haven't started.

But also peoples motivation on the Y-axis helps to come above the green action line. With a higher motivation leading to doing the action. This is what people asked for in the interviews, to have insights into the profits friends make with their investments. This creates a higher motivation for yourself also to start trading.

It is important to keep in mind that the behaviour you want to provoke to your customer is above the green action line during the whole process to balance motivation and ability.



Graph 17: Fogg behaviour model



Graph 18: Why Gen-Y is not investing

Referral from friends has a big influence

An insight I got from the in-depth interviews is that many people heard about the potentials of investing or started investing due to their friends and families. A person said:

"I hear a lot of stories from friends how they invest and the profits they make, that makes it also interested to start for me."
- Male, 24

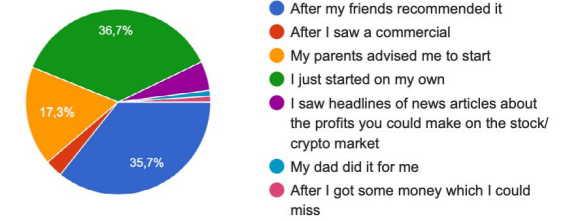
We also see this phenomenon back in the questionnaire answers in graph 19, where 56,5% said they started investing because friends or family recommended it. It looks like this support from friends and family to start, increases people motivation to start but it also seems to lower a certain risk threshold.

During my research, I interviewed and spoke to a lot of different people about this topic. Recently someone whom I interviewed for my topic came to me saying:

"Hey, because of your interview I now started investing with buying an ETF and I now have a plan what I am going to do"
- Female 23

This verified that referral from friends and family is essential to start investing. That it creates a level of trust to overcome a certain risk threshold.

Can you remember when you started investing?
98 antwoorden



Graph 19: When did Gen-Y started investing

Decision making model for retail investors

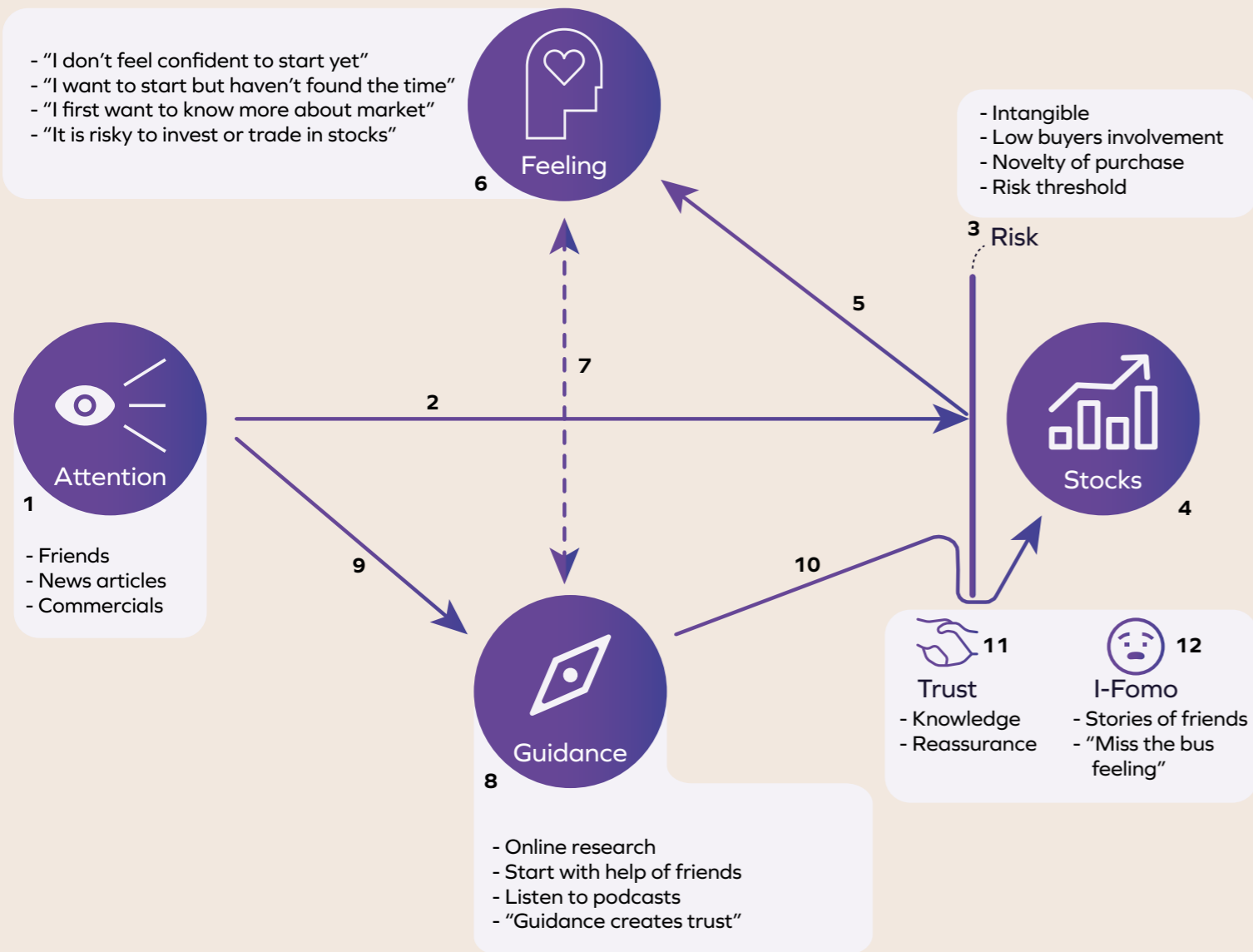


Figure 18: a self made model of the decision making stages for retail investors

The model of the different stages of investing for gen-Y

Based on the insights of the questionnaire, interviews and literature, a model of the different stages for retail investors is drafted. This model explains which stages people go through when they start investing and why people stay in a certain stage, or what pushes and motivates them to start (see figure 18).

(1) We saw that a person got attention about investing and stock trading. This often happens via friends, news articles or commercials. (2) They were activated and looked at investing but felt a certain risk threshold. (3 & 4) This risk threshold is high for investing since it is an intangible product with low buyers involvement, and you are doing it for the first time. (5 & 6) So this risk threshold bounces you off and puts you in a certain state of mind, it creates a feeling people carry with them. The people who don't start trading stay in this state of mind. (7 & 8) When the motivation is big enough, people always search for certain guidance, they search online how to start trading or ask for help from friends. (10 & 11) This guidance creates a trust that bypasses the risk threshold, leading people to start investing. (12) Another phenomenon and strong effect is I-Fomo which could bypass the risk threshold. I-Fomo is created by stories of friends and news articles of really high yields on their investments. A great example is cryptocurrencies where there are many stories of people earning incredible amounts of money, and you think I have to start now or I'll be too late.

(9) I also saw people who went from the attention to the guidance phase. People could still drop off from this phase and go to the feeling stage or succeed and bypass the risk threshold.

What I didn't see happening in the research is that people got a certain attention from stock trading and started investing directly without any guidance. Because it is complex to start, people always search for a sort of guidance. But the length of the guidance process depends, from the questionnaire 18% of the people who invested needed only 1 hour and 11% needed more than several weeks for this process.

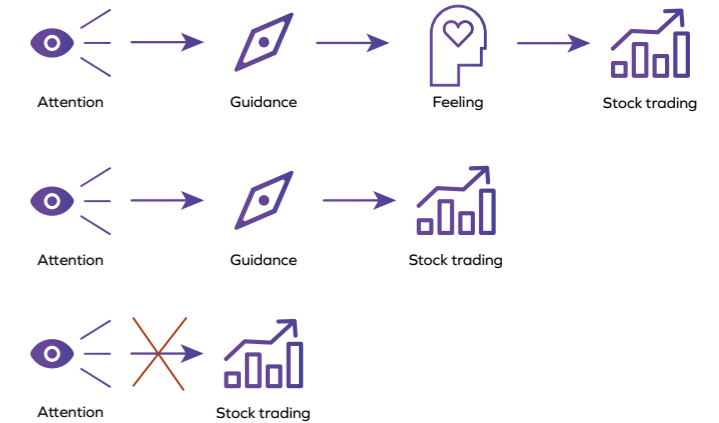
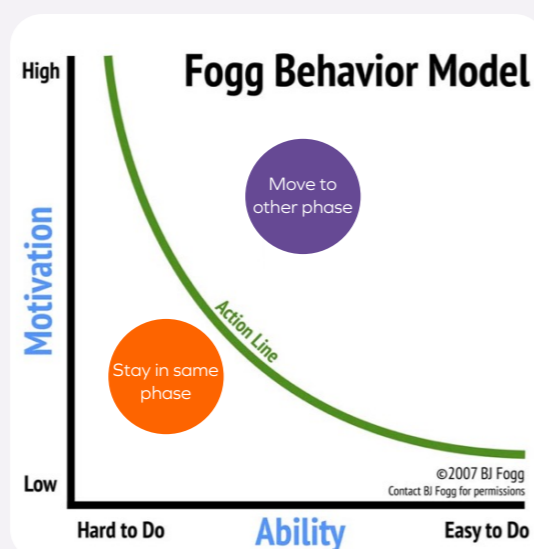


Figure 19: the stages people go through when investing

Fogg model

What the Fogg model perfectly explains is how someone is going from one stage to another stage. For this, the motivation and ability must be higher than the action line. For example, a great motivator to go from the attention stage to the guidance stage is to hear from friends how they perform with their investments, this creates a high motivation for others also to start.

From one stage to another



Which broker to choose

So when people are going through all these phases when investing, which broker will they eventually choose? And what are important factors for people to choose their broker?

I did an experiment described in chapter 3.1 where I asked people who traded, how they found and chose their broker. And I asked the people who didn't trade which one they chose and how they came to that decision.

Interestingly in this small research, there is no clear winner yet between the current brokers on graph 20. Most people use only DeGiro, but this generation uses a wide variety of apps, and some people also use more than one broking platform.

And when I asked how they found this broker, it was mostly by referral from friends. In this chapter, we also saw that it has a big influence in activating people to start trading. This referral from friends probably creates the trust needed to start using a service from an unknown company.

When I asked why they chose this broker the biggest reason was the low costs. Also an easy to use interface was preferred.

We saw the same outcomes for people who didn't invest and had to choose a broker within 15 minutes. Based on graph 23, the opinions were divided which broker they would use to start investing, and we can conclude there is still no clear winner for this consumer group on the market right now.

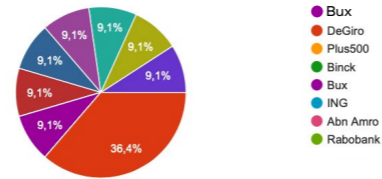
Also, when I asked which steps they would take to choose a platform, almost all of them asked friends and some just actively googled to find their preferred broker.

One respondent had an interesting quote in this research when looking for his broker:

"I do not trust any trading platform that advertises on TV/youtube, I was looking for a more sustainable bank and learned that ASN also had sustainable funds. So that seemed like a good low-risk investment solution for me."
- Male, 24

Cool that you have stocks, can you share which broker (platform) you use to buy your stocks?

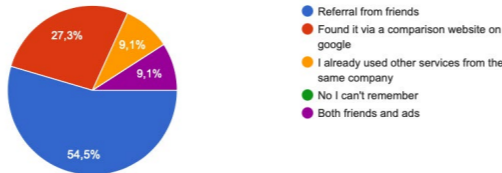
11 antwoorden



Graph 20: which broker Gen-Y uses

Can you remember how you found this broker? (a broker is the platform on which you can buy and sell stocks)

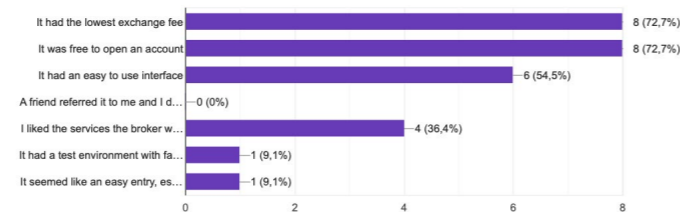
11 antwoorden



Graph 21: how the broker was found

Can you remember why you choose for this broker?

11 antwoorden

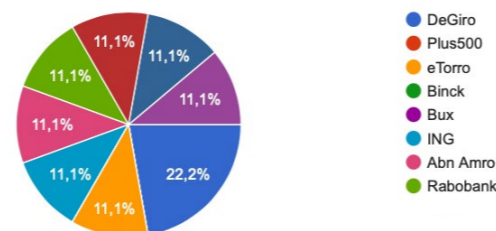


Graph 22: why the broker is chosen

Imagine you have to start in 15 min to start stock trading.

For which platform did you eventually choose?

9 antwoorden



Graph 23: which platform was chosen after the test

So the broker service of Rabobank doesn't seem to be high on the list of the gen-Y. Based on the importance of referrals to choose your broker and to have a competitive price it also doesn't seem like the Rabobank broker service will have a chance to become suddenly attractive.

Insights chapter 3.3

- In the Netherlands a big group of Gen-Y is investing (42% based on Nibud research), and generally speaking the group is positive towards investing.
 - Self-trading is popular among this group where only 25% of the people who trade have an actively managed fund.
 - A large group of females are positive to start investing but still haven't started because of a too low motivation and ability to start.
 - The risk behaviour of Gen-Y is sometimes contradictory, they state themselves that they prefer low-risk short term products, but also have high risk investments like crypto.
 - Their reasons to invest are various, they save for both short and long term goals, specific and not yet specific goals.
 - Most people want to have a basic understanding of the investment market before starting themselves.
 - More guidance is preferred when starting to invest. A group of Gen-Y feels overwhelmed by all the available information to make decisions, which will cause them to postpone the decision since the Fogg model is not in balance.
 - Gen-Y who are not investing have a feeling that it is really difficult to start and therefore are not motivated enough to start.
 - For people to do an action their motivation and ability to do so has to be positively in balance.
 - To bypass the risk threshold and start investing people need trust or I-FOMO.
 - Referral from friends is important, it creates a lot of trust which is important for the activation to start investing and when choosing your broker.
- There is still no clear market leader among Gen-Y which broker they would use, the market is scattered. So opportunities are still there for newcomers.
 - People often find their broker via referral of friends.
 - The biggest reasons people use a broker are the low costs, free to open an account, and an easy-to-use interface.
 - TV and Youtube commercials from brokers could lower their trustworthiness.

3.4 Gen-Y sustainable behaviour

Gen-Y sustainable behaviour

In chapter 2.4 we read that institutional investors see the benefit of a more sustainable approach, but how is the opinion from retail investors about sustainability. We see a little bit of a difference in sustainable consumer behaviour. Seretny researched with respondents aged between 20-25 years and stated that 48% of the people were ready to pay more for products of companies operating responsibly. And that this group realised their buying power has a global impact. (Seretny, 2019)

When I spoke to people about their sustainable behaviour, I saw different consumer groups coming into existence.

A group of people who agrees the world should be more sustainable but act themselves only sustainable if they benefit from it:

"Sustainability is not influencing my purchase decisions except if I benefit from it, for example lowering the heater for lower heating bills"
- Male, 28

But also a group for which sustainability is one of the main purchase drivers:

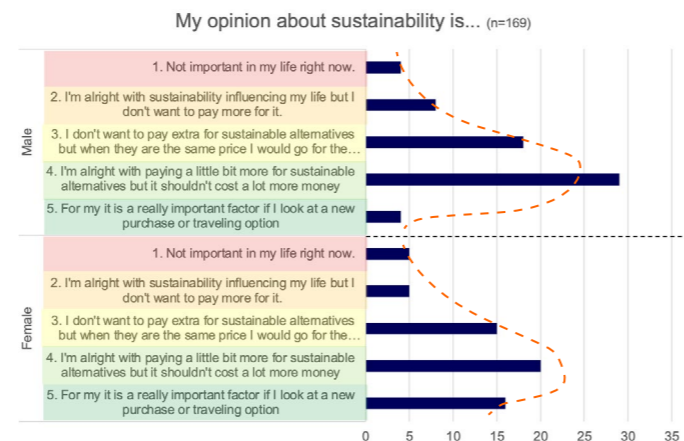
"I'm constantly thinking about sustainability, I have green electricity in my house and recently bought recycled towels, they were more expensive, but it is something we have to do."
- Female, 29

When I asked about their change in their sustainable behaviour compared to 10 years ago I saw a big positive change by all the interviewees.

"10 years ago my choices were mainly influenced by price, but now I only try to win sustainable projects and am constantly thinking about it."
- Female, 29

Looking at graph 24 from the questionnaire, people's opinion about sustainability looks a bit like a normal distribution. On the graph, not many people aren't valuing sustainability right now, but it is also not their most important purchase decision.

Although we see a slight difference in demographics where females seem to be a little more on the extreme side of sustainability, saying that sustainability is the most important factor for purchase decisions. We also see this in the total average of male = 3,3 and females average = 3,6.



Graph 24: gen-Y opinion about sustainability with data from own questionnaire

The expected change of gen-Y sustainability mindset

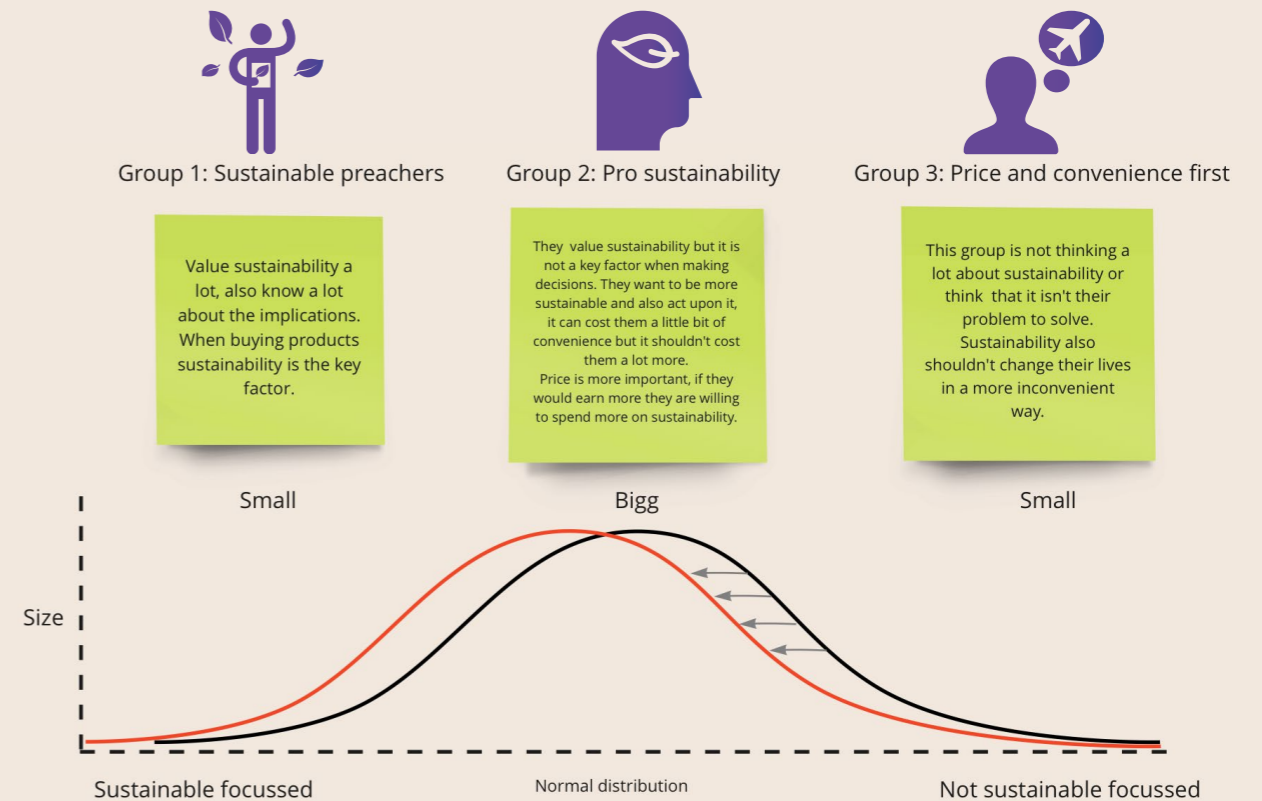


Figure 19: a self made model about the expected change of sustainable behaviour

Sustainability graph

I tried to model the sustainability opinions of Gen-Y in a sustainability axes, where we see a sort of normal distribution. There is a small percentage of people where sustainability is top priority for everything in their lives. The biggest group that values sustainability wants to pay more for it and give up a little bit of convenience for it. And another small group on the other side thinks the sustainable problem has to be solved, but it isn't their responsibility or role to act upon it.

Gen-Y sustainable investment behaviour

When I asked Gen-Y about their sustainable behaviour for their investments five people in the interviews said in their own words:

"I have thought about the sustainable impact of my investments, that is why I would never buy Shell"
- Male, 22

Gen-Y finds it difficult to reason why they exclude company A and not company B. They miss guidance on making these ethical choices, and the current investing platforms aren't helping them make these social choices.

"I don't use extra time to check if a company is sustainable or not, I use the information what I hear on the news."
- Female, 24

A group of the retail investors in my interviews felt that a sustainable focus gives a lower yield or is a higher risk, whereas the research and opinions from institutional investors in chapter 2.4 argue the opposite.

"For me my investments is purely to earn more money but maybe in 10 years time I would be more interested in the sustainable performance."
- Male, 28

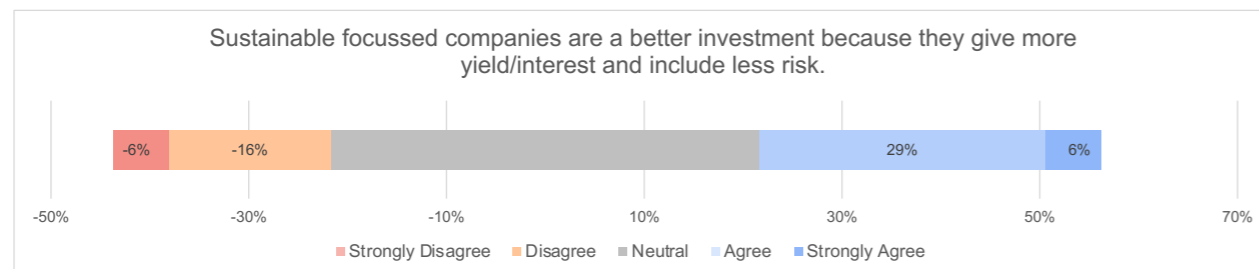
When we look at the questionnaire result on graph 25 we see a group of 22% not convinced of sustainable investments. Only 6% strongly agrees that a sustainably focused company generally gives a better yield.

So how can we explain that our Gen-Y is not convinced of sustainable investments yet, when the experts believe different. An explanation could be that unless sustainability is a top priority, which is not often the case, this may be ignored entirely if the decision maker only considers a few other attributes that are deemed more important (Hafner et al., 2017). And from our respondents, 77% invested because they wanted to earn more money, as we can see from graph 13 in chapter 3.3.

It must be taken into account that this Gen-Y retail investor already prefers more guidance when investing and already finds it difficult to find new investments. When they also have to consider the sustainable performance of their invested companies, this process can become more and more complex. At the same time, institutional investors have a whole team who make scans and strategies based on the ESG performances of companies.

Insights chapter 3.4

- Females seem to be a bit more sustainable focussed than males.
- The overall perception is positively increasing towards a more sustainable perception, where more people are prepared to pay more for sustainable solutions.
- The biggest group of people is not prepared to pay more or change their lifestyles for sustainable reasons.
- People have no specified moral boundaries for their investments.
- The retail investors from Gen-Y are not yet convinced about an ESG compliant portfolio. But in the institutional investor scene it is already broadly accepted that ESG aspects has to be taken into account when investing.



Graph 25: opinion of Gen-Y about sustainable focussed companies

Consumer research

3.5 Development of persona

Based on the interviews with the target group three different sub-groups were identified within the Gen-Y group if we focus on their investment behaviour.

The first group are the skilled and motivated people. They heard about investing and became intrigued with it. They are actively searching for knowledge, but they have differences in their motivations. Some weeks they read all kinds of investment articles, listen to a podcast or read books and the other weeks they don't do anything about it.

The second group are people who don't dislike the topic of money and investing, it is a subordinate topic in their leisure time. They think they would like to start investing and learn more about the topic, but they can't find the motivation to start.

The third group are called the 'lagers'. For them investing is not relevant right now and they have other preferences and goals with their money.

Chosen persona

For this project the second group is chosen as persona displayed on page 58. Based on the research, there is a big group of especially females in gen-Y who are positive towards investing but don't decide to really start.

I see much potential in helping this group to start investing, because when their problems are solved through design they are eager and optimistic to start investing.

1 **The motivated skilled person**



These people have an aptitude towards trading and learning new skills. They are highly motivated to keep on learning about investing and spend a lot of time on it.

2 **The "I want to start, don't dislike investing, but have better things to do" person**



These people think investing is difficult to do and procrastinate this decision. But they are aware of the advantages of investing.

chosen target group

3 **The lagers**



These people have strong believes why they shouldn't invest right now. For them investing is a big hustle and they don't want to start with it.

Figure 20: a self made overview about different persona's

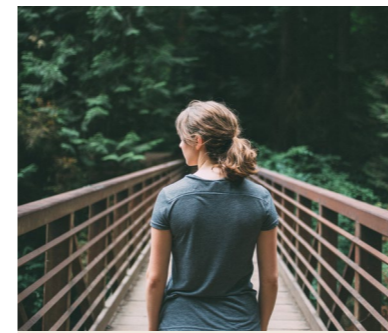
Personality colours of Persona

I drafted three different persona's with a 'green' personality based on the colour personality theory from MudaMasters (2018), in figure 21. In my in-depth interviews with the people who invested I would assign a decisive and determined trait to them, which places them more in the top right corner of red and purple. Of the people who are positive about investing but not yet invests, I find them generally speaking more the feeling type of people. This places them at the bottom of the Y-axis. Also, the questionnaire showed that non-investor lack confidence, which tends towards a 'green' profile.

It is important to have a basic understanding of how our persona's make decisions. MudaMasters describes that feelers make decisions based on values and what it means for other people instead of just facts. For this group is being tactful more important than the hard truth and they sometimes even ignore the truth. Basic characteristics of green people is that they are introvert feelers, they strive in an informal setting, like good relationships between colleagues, and want to do things with care. When a green person is stressed or confused, they seek interpersonal trust and personal contact.



Figure 21: self adjusted figure of personality area of persona's



Julia

Rotterdam

Job: Sustainable Engineering Consultant
Study: Engineering, Eindhoven

GPA: 8/10

Lives: together in Utrecht



About Julia

Julia loves to incorporate here values into her work. She would describe herself as a little bit shy but also enthusiastic and energetic. She is very **influential by her friends** and often buys new products after her friends have bought it. **Money is not the most important factor** in her life and therefore **often postpones important decisions**.

Hobbies and interests



Trying new food



Concerts of artists



Exploring new cultures

Values



Always help friends or family when they ask for help

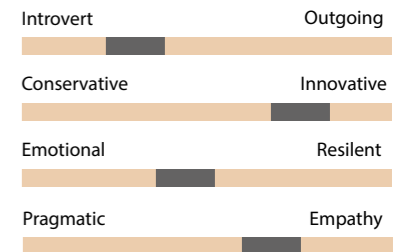


Sustainability - is vegetarian because of sustainability impact



Working hard will lead to desired result

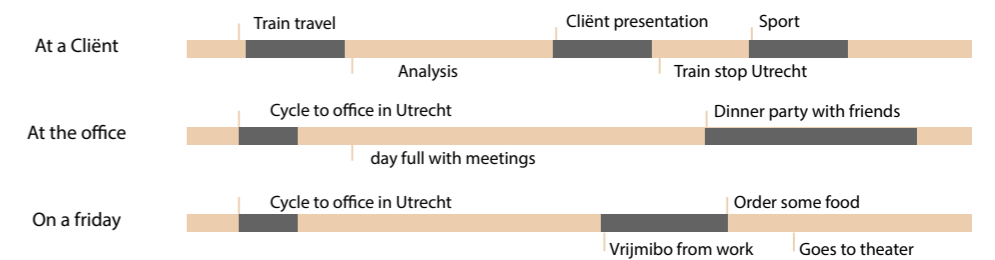
Skills



Goals

- Visit all continents
- Buy her own house with a garden
- Don't let contact vanish between friends and family
- Keep on learning new skills and techniques

The different days of Julia



Tom

Amsterdam

Job: Marketeer
Study: Marketing

GPA: 7.5/10

Lives: with his girlfriend in the Pijp in Amsterdam



About Tom

Tom is a hard worker at the office who is not very noticeable. He does his work quietly when asked to and finds it difficult to step into the foreground. He has a lot of goals in life but finds it difficult to start pursuing them and to start with new activities.

Hobbies and interests



Race cycling



Scrolling on social media



Drinking different beers

Values



Don't be rude to others

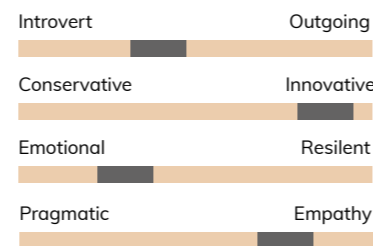


Always help others when they need your help



Life is not only about work

Skills



Goals

- Perform well at work
- Write a book about purpose in life
- Work at least 1 year in a foreign country, probably Amerika
- Always help family when needed

Channels



Motivators

Safety and security

Affiliation

Autonomy



Esmee

Haarlem

Job: Business analyst
Study: Marketing

GPA: 8.2/10

Lives: together with her girlfriend in Haarlem



About Esmee

Esmee grew up in Amsterdam but now enjoys the beaches near Haarlem. She has a 4 day job near Amsterdam and loves the free time besides work. She is an emotional person who loves to spend time on her hobbies.

Hobbies and interests



Surfing



Cruising round in her car



Reading books

Values

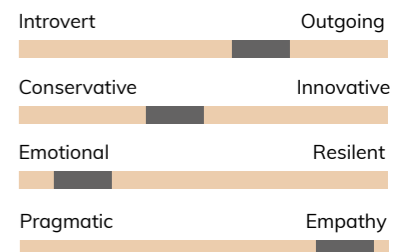


Have fun in life



Try to live a social life

Skills



Goals

- Visit all continents
- Don't have children until he has a good position at work
- Work at least 1 year in a foreign country, probably Amerika
- Don't let contact vanish between friends and family

Frustrations



Talking about money



Spending too much time on finding information



Too busy workdays

Pull factors

Financial freedom

Power - showcase new products

Purpose

3.6 Conclusion

The type of consumer I focus on

In this chapter we learned a lot about the customer behaviour profile of investing and we made a choice on which consumer I continue to design for. I saw that more than half of the gen-Y group already invests and are positive towards investing. I also saw that a big group is positive towards investing but procrastinates the decision to start. In this group there are more females than males.

This group is aware of the advantages and disadvantages of investing but doesn't know where to start. They are aware of easy ways to start investing via index funds but still wants to be in charge of their own investment decisions. But when they want to start they are overwhelmed by all the choices out there and their financial agenda is not their top priority. This results often in the phrase said by this group:

"I know I should start but haven't found the right moment for it."

For the characteristics of this group, we see that they prefer brands that have a strong expressed value. They also need products that define who they are, or at least who helps define them whom they want to be.

Also important for this group is that they want to feel empowered in their choices and feel in control. This is probably why self investing is so popular for this group because they feel in control over their investments.

Investment behaviour of this gen-Y consumers

For their investment behaviour, I found that referral from friends has a big influence on them to start. They prefer to have a fun and efficient tool with low prices when they start. They don't find it difficult to find online a broker to start,

where they ask friends which service they use and compare the prices via a comparison website. But they struggle to actually get started, where they feel insecure by all the investment options they can choose from.

When we look at the process for this generation to get started I saw they need to go through certain stages. First, they need to get attention about trading. Then they look at stock trading and experience a certain risk threshold, and are pushed back to a certain feeling. From this feeling they search for guidance which creates trust from which there is less risk experienced and cause them to start investing. But also a feeling of I-Fomo can pass by this feeling of risk. The guidance step is important for new people to start, with a non fitting guidance approach they may be pushed back to a certain feeling and stay there.

The Fogg model explains that going from one step to another there has to be a high enough motivation with a fitting ability to do so. This is also important for the steps of investing and has to be taken into account.

A congruence with sustainable investing for retail investors

Our target group is not yet convinced about sustainable investing. They don't think it will give them a higher yield or less risk. This is different from the institutional investors, who almost all include ESG factors and analyses for their investments.

Although I see an upward trend for sustainable investing for retail investing. But the retail investor still struggles with taking the sustainable performances into account for their investments. They are already struggling to judge all the things they have to bear in mind for choosing an investment to buy.

But this upward trend of a more sustainable focus is also seen in their overall sustainable behaviour in the past years. Here I identified three different groups in sustainable behaviour. The largest consumer group wants to give in a little bit of convenience and sometimes wants to pay a little bit more for sustainable alternatives. But these sustainable alternatives shouldn't have a big influence on the life of these people. I also identified a correlation between the income of people and their willingness to pay more for sustainable alternatives.

To conclude, I see an opportunity for our non-investing gen-Y consumers where they feel insecure about their investments. They miss a feeling of empowerment and support in finding ESG focussed investments.

Key insights of main target group



Problems of chosen persona to solve

- A big group of Gen-Y wants to **feel empowered** in their trading decisions. They **don't want a preselected trading choice** of only 3 options, but they want to make their own investment decisions.
- But they **don't know where to start**, when they want to start trading. There is **too much input** process for a lot of first time users.
- They don't know what stock/ETF's/funds to buy, or to **evaluate which one a good buy** is.
- They seek for **trustworthy integrated guidance** within their broker.
- **Friends investment activity and guidance** helped a lot in creating the trust they need.
- They are **not aware that ESG based investing lowers the risk** and gives a better yield.
- Most of them do **not know how to take ESG criteria into account** when investing while it will become **more important in their daily lives**.



The "I want to start, don't dislike investing, but have better things to do" group

3.7 Reflection

For the customer research I have three main learnings I wanted to address.

- Insights are generated over time, where they need time to evolve.
- Try to already have assumptions in mind before starting with consumer research.
- Be immersed in the topic.

Insights are generated over time

In this consumer research part, I noticed that it is important to work structured, which helps to let your insights evolve over time. You cannot force generating consumer insights on a specific day. For example, I first started with the interviews and didn't know their opinions and struggles towards investing. I got some basic insights, but the real insights came later when I worked longer with this target group. People I interviewed asked me questions later on, which revealed other problems and exposed other thoughts of them. But also, testing assumptions I created through interviewing with a questionnaire helped me to give insights.

But what I noticed after all these design methods to uncover consumer needs and generate insights on their behaviour I got all sorts of small insights and things they said but didn't know how to bring it together.

For me, the process of trying to make a model of all these insights worked well. But it was a timely process of coming up with this model. I first didn't know how to connect the dots or to make a model from it, but I just started sketching. Sometimes I got stuck and asked friends to discuss it with me, which brought me further and generated new angles to approach. Then it began to come together in something I believed in, and it started to make more sense to me. The model helped me bring all separate insights together into a structured model. I learned from this that

consumer insights need to develop over time, where modelling your insights help to make it more structured and bring the insights together. Let it evolve and start sketching, the model will definitely not be perfect in the first days.

Start with basic assumptions in mind helps to scope your customer research

What I noticed during research is that I found it difficult to find a specific direction of what I wanted to know from the consumers. I missed a general assumption of what I thought they needed or missed. For me, reflecting on this part of my thesis made me believe that when you have a specific assumption then you know what to ask for to validate it. Especially with a topic so broad like investing. I now started in the approach where I thought the in-depth interviews would generate a specific scope, but this came only later when connecting the dots of the questionnaire, interview and literature together.

I think for the next time when working on such a broad topic I already need a general assumption direction before starting on it. Otherwise, I could get lost in all the broad insights that will be generated.

Get immersed into the topic and let your friends know

My last learning for the customer research is that you need to get immersed into the topic. Talk with your friends about what you are researching and what you are doing and discuss your latest insights with them. A lot of valuable material was addressed to me by other people who shared it with me and thought that it could be valuable for my project. For example friends of my parents notified me on an episode of a documentary of Tegenlicht, which generated

some interesting insights on a new way of data gathering in the investment world.

Or another friend who said she wanted to start invested because of the interview I conducted with her. She messaged me later with the note that now she has an account, she doesn't know what to do. All these kinds of small things helped me a lot in generating insights. So let your friends know what you are working on and maybe they will give you an insight on moments when you are not expecting it.

Misalignment of current proposition

Chapter

04

Because we now know more about the behaviour of consumers while investing and which products Rabobank offers. In this chapter, we will look at how those two interact if there is a misalignment in the current product offering. I will conclude this chapter with an overview of important aspects to solve through design.

4.1 Customer experience of 'zelf beleggen'

4.3 Validation with focus group

4.5 Reflection

4.2 Misalignment of current investment propositions

4.4 Conclusion

Misalignment

4.1 Customer experience of Rabobank 'zelf beleggen'

We know Rabobank struggles to attract gen-Y to start investing with their services. In this chapter we will find out what that reason could be. First we take a look at the current onboarding process of Rabobank. After that I will compare the current propositions of Rabobank with the identified needs of gen-Y in chapter 3 to see if there is a misalignment.

Customer Journey onboarding investing Rabobank

A customer journey on page 66 is made for the onboarding of a new person who wants to start investing at Rabobank. I chose for the customer journey of the Rabo 'zelf beleggen' proposition for Rabobank which is the option to buy and sell stocks, ETF's and funds. From our target group 'zelf beleggen' is the most popular way of investing based on graph 11 on page 44.

The customer journey was made with the help of interviews and by experiencing it myself where I opened an investment account at Rabobank.

Insights on the process

What I noticed from the onboarding process is that you need to make many choices before you can start investing, and that it is quite a long process to get started.

When you choose to invest at Rabobank, you first have to choose which form of investing you like. In an interview with a male from 24 who had an account at Rabobank said:

"When I knew I wanted to start buying my first stocks I just started at Rabobank because I had already an account so it was easy to start"

- Male 24

When your account is activated, you directly have to choose between thousands of different investing products.

For example, when the account is activated and you open your account dashboard, you must choose which stocks or investments to buy. This can cause the user to feel that it is very hard to do and the motivation can fade away. Based on the Fogg model this explains why users would drop off at this stage.

And when you invest it takes time to get a profit, so it feels easy to stop during this process when a bad result is shown on your investment. Where you as a user already feel many uncertainties.

Context of investing

What also became clear from the customer journey is that people often start alone at home. The idea to start investing exists when they are outside with friends or advertisements. But when the user decides he/she is going to start investing, it will usually be at home because it feels like a safe place to start investing. They will set it up outside of their work hours for example in the weekend or evening and will be in a relaxed state of mind. This feels also relaxed for the consumer since they will start on something new, and they have the feeling he/she has the time to search for some extra information online when necessary.

Emotion curve

I see that during the process of starting to invest, people go through a lot of different emotions. It is a financial topic that causes a lot of emotions and the consumers have to make many choices for the first time which can cause uncertainties. Also, the outcome of the performance of the investments can cause different emotions. For example, when their investments thrive or they see a negative return.

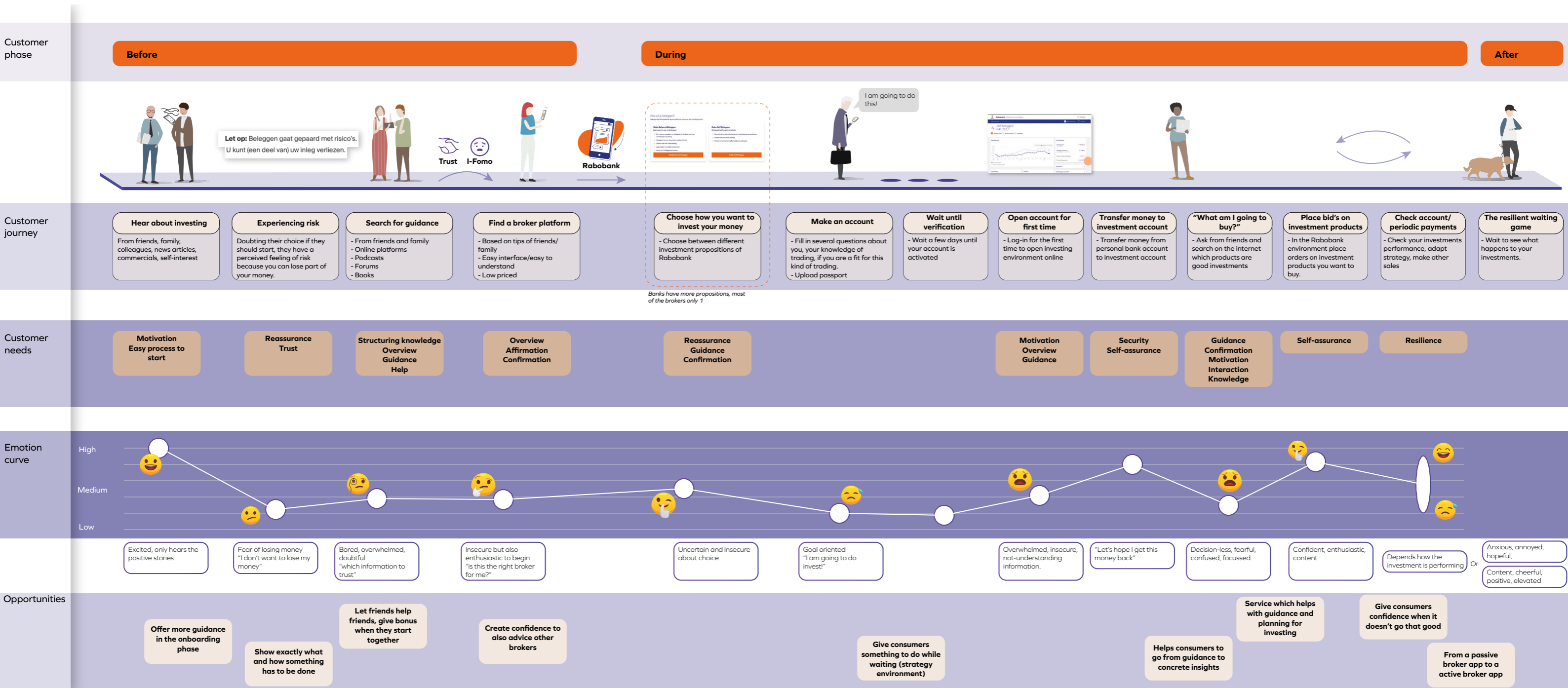


Figure 22: self made customer journey based on interview insights

Designing for the different emotional stages

When designing a proposition for the user, from the customer journey it seems that investing is a very emotional process that can range from positive to negative emotions.

Also, the different stages and different emotions attached to the stage has to be taken into account. During the onboarding there are a lot of uncertain emotions but there is also a lot of support during this stage from friends or online.

In the 'setting up the account' stage, there is a hassle experienced for activating your account

with uploading paperwork and your passport.

And then, when the account is activated the user goes through a roller-coaster of emotions where there is first an overload of information experienced. When you log in to your account and never have invested before, you are insecure about what to do, and there is also an overload of information available online. But when a person bought their first investment, they are satisfied they succeeded and are looking forward to what is going to happen in the future.

Misalignment

4.2 Misalignment of current investment propositions

In chapter 3.3 we saw that the majority of gen-Y is activated towards investing. Almost 50% already invests some part of their money and from the non-investors is also the majority positive to start.

So how could it be that Rabobank struggles to reach this target group with their proposition. Rabobank offers its payment services to almost 9 million clients in the Netherlands and is also a widely used bank among 18-25 years old customers. Rabobank has great outreach to these customers who see every time they log in on their bank account the possibility to access the self investment tab. Nevertheless, only a few percent of this customer base use the Rabobank 'zelf beleggen' possibility (Rabobank, 2021). Compared to the data in chapter 3, where we see that almost half of this group is investing, we can conclude that they mainly use other brokers and that Rabobank underperforms on the topic of self investing among the younger generation.

So I conclude that the attention is not the part Rabobank should struggle with, because of their huge client base of gen-Y who uses other brokers now. In this chapter, I will continue if there is a misalignment with the current proposition of Rabobank 'zelf beleggen' and the needs of gen-Y identified in chapter 3.

Identified needs and what gen-Y misses in the Rabobank broker

So based on the insights of the customer and competitor research I see that the product characteristics of Rabobank self investing does not align with the needs of Gen-Y which are listed in figure 23. This explains of course the lagging results of the current proposition.

The most significant drop-off reason this target group addresses themselves in chapter 3.3 is the high transaction fee Rabobank asks compared to other competitors. It seems that Rabobank does not offer extra features that are wanted by gen-Y that justify their higher prices, which results in this target group looking to competitors with lower prices and the same service.

This is also addressed by the same interviewee of chapter 4.1 who started investing at Rabobank:

"After a while I switched from Rabobank to DeGiro because they offered me the same service for way lower transaction fee's."
- Male 24

But Gen-Y has more needs than only a basic system that enables you to buy/sell stocks. They also prefer a fun and efficient tool, feel empowered during their choices, offer guidance and freedom in their sustainable choices and it has to be motivational, as shown in figure 24.

And when I look at the big competitive landscape in chapter 2.2, we see many other brokers prevail to fulfil these consumer needs. I also see this happening in the consumer experiment when we asked people which broker they preferred, but Rabobank was not high on that list.

But it was also concluded that among gen-Y there is still no clear winner which broker they would use, they all preferred something different, which shows that there are still opportunities for new brokers in this market.

Needs from consumers met?

- | | | |
|--|---|---|
| • Low transaction fee's | → | <input checked="" type="checkbox"/> No, Rabobank, like other banks has high transaction fee's for buying stocks |
| • Gives you freedom and makes you feel empowered with your choices | → | <input checked="" type="checkbox"/> No, the trading dashboard does not make you feel empowered |
| • A fun and efficient tool | | <input type="checkbox"/> Their investing dashboard is efficient, but misses a level of engagement for Gen-Y |
| • Guidance but also freedom in their sustainable choices | | <input checked="" type="checkbox"/> No, there is no sustainable focus in the dashboard |
| • Motivates you to keep going | | <input checked="" type="checkbox"/> No, only a graph of your performance is displayed |

Figure 23: self made overview of consumers needs that are met

Feeling of empowerment

I want to explain why the feeling of empowerment is important for gen-Y. In chapter 3.3, it is addressed that around 50% of the people who aren't investing are thinking to get started. For them, the current trading platforms don't give them the feeling of empowerment they need to get started. Empowerment creates a feeling of reassurance and confidence which they need to break through the risk threshold. It is also a fun feeling that people belong for when investing shown in graph 12.

These non-investors also address this in chapter 3, where their confidence level is extremely low and therefore they belong to an easy and clear process to start shown on graph 16. Based on what the target group addressed in the research phase I think a process that makes you feel empowered is exactly what the non-investors (who are positive to start investing but constantly postpone this decision) need to feel confident to start investing.

"Empowerment is more than simply feeling powerful or confident. True empowerment is pure validation, a state of being in which we recognize and celebrate our own wild potential."

- Wonder Forest Blog

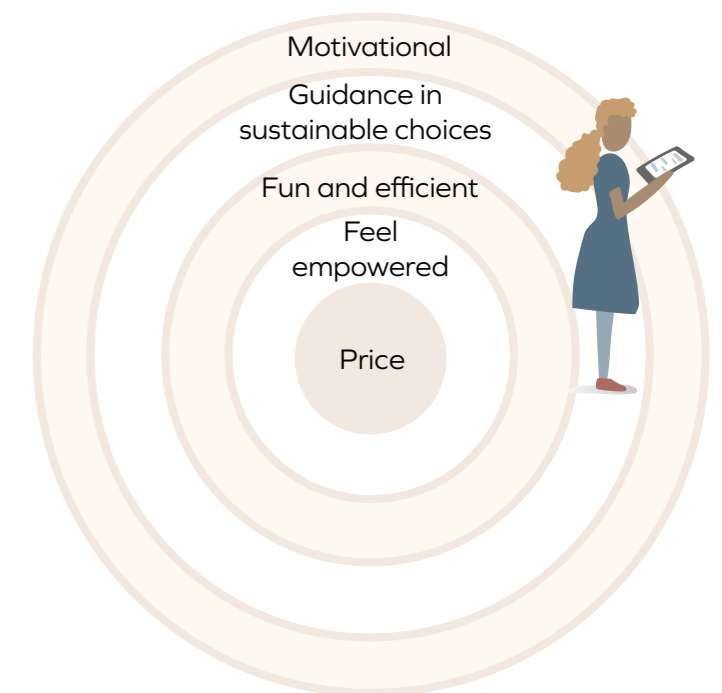


Figure 24: Self developed the needs matrix for investing preferences of gen-Y

Misalignment between Rabobank managed investing and Gen-Y

Besides self investing Rabobank also offers managed investing, a proposition Rabobank prefer to sell to its consumers because it includes less risk.

The research from graph 11 shows that only 25% of the people who invested from gen-Y invested in a managed fund. It looks like investing via a managed fund is not that interested for them for the following reasons:

- Managed investing has high commission rates compared to self investing and this gen-Y is a cost-conscious generation.
- This generation wants to feel empowered in their choices and make independent choices. Managed investing doesn't give you the freedom of making independent choices since someone else is doing it for you.
- Managed investing generates fewer referrals among friends, since it gives an average yield that slowly increases or decreases. Different from investing in several stocks or crypto where you can generate a yield of over 100% on specific stocks or your whole portfolio which will people talk about to each other. This generates a high level of attention.

Strategic decision why a good broking service by Rabobank is needed for it's customers

From my designer viewpoint, I think Rabobank should strongly focus on the stock broking market. Now Rabobank's broking service is not popular.

From a market perspective in chapter 2, other brokers are actively trying to win market share. And they don't stop at just being a broker, where Etoro is now also launching their debit card at the end of this year. And their users use their apps a lot, for example, to check the performance of their investments weekly or daily. These users have a verified financial account with their passports. So these brokers could also easily sell other financial services to their consumers.

And the potential of this younger generation investment power should not be underestimated. Maybe now they only have a few hundred euro left to invest, in 10 years, it will be their savings, where big service profit margins can be made as a broker.

It can be viewed in figure 25, that gen-Y holds great potential in selling a service to them that helps them investing. 42% already invests and from the not yet investors around 50% is positive to start (stated in chapter 3), making around three-quarters of the whole gen-Y a potential new customer for a service that helps them invest. But the current broking service of Rabobank doesn't yet fit with the needs of this group.

And Rabobank is still quite well presented as the central bank account for gen-Y (Rabobank, 2021). So this outreach should be used to its potential to offer a product fitted to this target group. Rabobank has the experience to do so, where they provide a reliable broker service for a long time. This experience shouldn't be wasted.

An complete overview of the stance towards investing from gen-Y

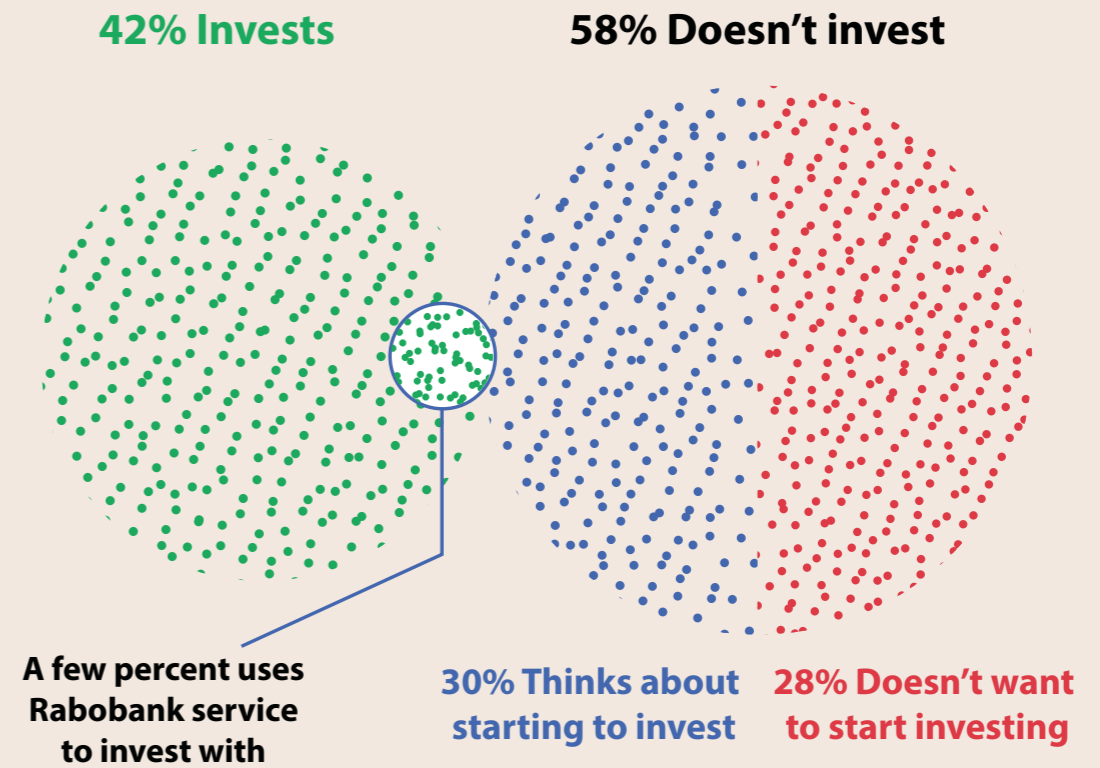


Figure 25: self made overview of percentages of gen-Y who invest

The decision for a stand alone proposition

In chapter 2.2 I identified some constraints Rabobank has to comply with while developing its products. To have more design freedom to solve the research question, it is chosen to focus on a proposition launched separately from Rabobank. It is a tactic Rabobank chose more often in the past with products like Datakeeper and Loupy. Also, other benefits could arise from a stand-alone proposition, but this will be explored in chapter 6 together with the proposed concept.

Misalignment

4.3 Validation with focus group

Why a focus group experiment

In this chapter I connected the insights in the research of chapter 3 to find reasons why the current propositions of Rabobank aren't popular among gen-Y because this is quite a qualitative process and could be biased by my own opinions.

I want to validate the assumptions of the reasons why Rabobank's proposition isn't that popular among Gen-Y from chapter 4.2.

I chose for a focus group because it could also help to inspire me and find new opportunities before going into ideation.

What should be validated

I wanted to validate the assumptions listed in chapter 4.2 what gen-Y currently seeks in a broker to start investing. In the focus group, the following topics were discussed:

- Activation of investing
- Difficulties when starting to invest
- What do you need to start
- Current trading platforms and their fee's
- Experience of a broker
- Sustainable investing

Group composition: 5 people total, 2 who don't invest, 1 who invested but stopped and 2 people who invests. My role was the facilitator. I chose for a diverse group which led to rich discussions about the topics.

Setting: A closed room with drinks and snacks, with a prepared Miro board that served as guidance for the topics and sparked lively discussions through digital materials which were presented. Every topic had a short introduction by the facilitator, then the group had some minutes to write down their thoughts on the Miro board, then a brief discussion was led. All the screen's of the focus group can be seen in Appendix C.

I chose a hybrid work format with Miro combined with active discussions, triggering many insightful discussions.

Conclusion Focus Group

As shown in figure 26 almost all assumptions were validated. Only when the group was asked about their opinion what kind of focus they seek in a broker, there was a bit of discussion.

Because they saw investing in stocks as something serious, they didn't like a too gamified fun focus. There should be a balance between serious with a financial focus but also engaging in its usage.

It was a focus they didn't find in the current Rabobank broker interface which they had to discuss at a certain stage. Their comments we can see in figure 27. When they discussed this interface, the group agreed that they missed a lot of directly accessible information on this screen and that a lot was hidden in graphs or behind buttons. The group thought because there was a too big focus on making it easy it resulted in missing some functionalities.

✓ = true ○ = unvalidated ✗ = not validated

Validated

Questionnaire Interviews Focus group

Topics

- What activated you to start investing?
- What did you find difficult when you started investing?
- What helped the most when you started investing?
- What sort of trading environment is preferred?
- Sharing personal data (like values) with a broker
- Trading based on your values and sustainable goals

Assumptions to test

- Friends and family
- It's difficult to make sense out of the overload of information and what to trust
- Friends and information helped when starting to invest
- A fun and efficient process of investing is preferred
- Sharing personal data with a broker is no problem
- Insights and support on values and sustainability preferred in a broker

	Questionnaire	Interviews	Focus group
Friends and family	✓	✓	✓
It's difficult to make sense out of the overload of information and what to trust	✓	○	✓
Friends and information helped when starting to invest	✓	✓	✓
A fun and efficient process of investing is preferred	✓	○	○
Sharing personal data with a broker is no problem	-	-	✓
Insights and support on values and sustainability preferred in a broker	○	○	✓

Figure 26: a self made overview of the validated assumptions

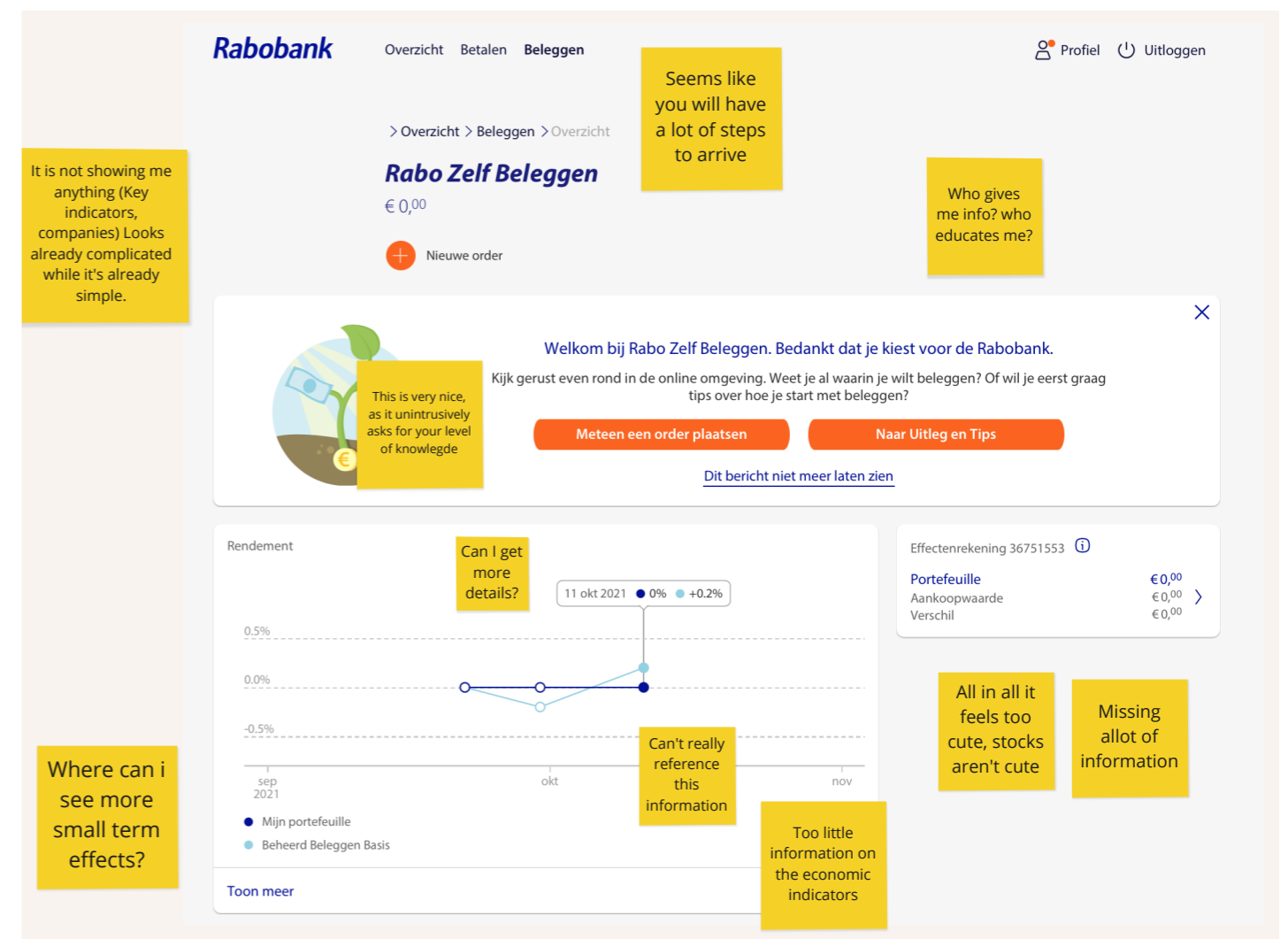


Figure 27: screenshot from focus group where the participants shared their opinion about the look and feel of the current Rabobank broker

4.4 Conclusion

In this chapter, I wanted to find out if there is a misalignment in the current proposition of Rabobank self investing to help gen-Y to start trading sustainably.

Based on data from Rabobank, they have few consumers from gen-Y using their investment services. Despite having their self investing platform easily accessible for this target group integrated into their digital bank account. I conclude that the Rabobank investment proposition isn't meeting the needs of what gen-Y is currently seeking in a product they would like to use to start trading.

Misalignments of what gen-Y needs and Rabobank currently offers

There is a misalignment in the fee Rabobank is now asking. Which is not justified compared to the benefit they offer in return, which is more or less the same as low commission brokers.

When using the service users also miss a feeling of empowerment, were especially the more uncertain investors of our persona is looking for.

Furthermore, the platform lacks engagement, and there is no focus in helping or supporting people to make sustainable choices in their investments or help companies operate greener or more socially conscious.

It is concluded that the old self investing service should stay like it is because it fulfils a strategic need for elderly consumers who use it besides managed investing. It is concluded to explore the direction to design a stand-alone proposition, but it still makes sense to be connected to Rabobank. Because Rabobank could make the proposition launch stronger, and the proposition could offer other benefits to Rabobank.

Launching a separate proposition gives more

design freedom and the possibility to break free from Rabobank's constraining thoughts for its products.

4.5 Reflection

I noticed this chapter helped a lot in reasoning why a new design solution is needed. Later in the process, I realised that I was maybe too eager to directly start designing a solution at the beginning of the project. I think a mistake student designers often make.

It helped me take a step back and structure the thoughts and findings in this chapter on why a new design proposition was needed for Rabobank before actually designing.

First, I didn't take the Rabobank perspective that much into account because I thought if I designed a solution that would solve the needs for investing for the target group, I would also solve the problem for Rabobank. But later, I noticed that this wouldn't form the basis needed for a good design.

I noticed that taking a step back and first analysing the current proposition of Rabobank with the insights of the customer research, helped me to get clear what would be needed in the design.

I also experienced that the next step isn't always to come up directly with a proposition that directly solves all the problems identified in this chapter. Because this is a big and challenging problem that many companies try to solve in the market, I experienced that it is not as easy as just following the regular innovation funnel.

Later on, I experienced it helped first to see the problem in the bigger picture where I shouldn't try to solve the insights stated in this chapter 1:1 with a design. But more through the open innovation model with a broader perspective.

I experienced later on designing with a broader perspective it helped me develop a design solution, which in the end solved the problems stated in this chapter. While reflecting on the process, I think I would never have come up with

my concept presented in chapter 7 if I only kept reasoning straight away from the problems it needed to solve like it is addressed in this chapter.

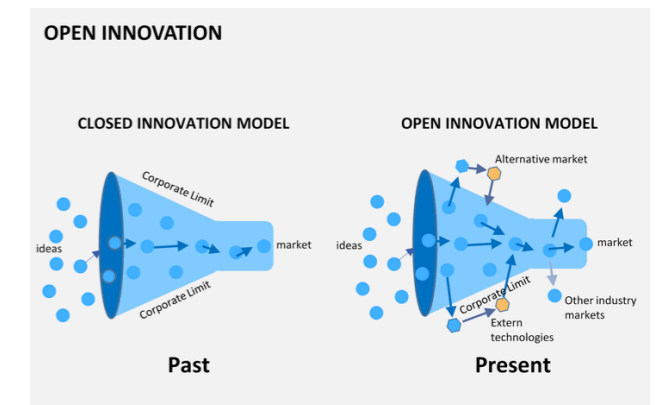


Figure 28: open innovation model fom SketchBubble

From research to a future vision

Chapter

05

In this chapter I used the vision in product design method to formulate the future vision. From the future vision new product interaction qualities were derived. These qualities are the building blocks for the concept which is being build in chapter 6.

5.1 Introduction to Vip

5.2 Future context with Vip

5.3 Vip statement

5.4 New way of interaction

5.5 New product interaction qualities

5.6 Reflection

Future vision

5.1 Introduction to Vip

Vip for conceptualisation

During the conceptualisation phase, it was experienced that designing a meaningful design in the context of this research was challenging. This had two reasons.

First, because of the outcomes of the consumer and context research. The research exposed many problems of the current users who are or are not yet investing. This steered into small concrete solutions, but it didn't help develop meaningful designs.

The second reason was that designing in the current context of sustainable investing and stock trading is difficult. As explained in chapter 2, the market for retail investors is a big market with many competitors that have launched several solutions. I noticed that this crowded competitor landscape also makes it challenging to develop a meaningful design that solves the problem for gen-Y and Rabobank.

To overcome these problems, I used the Vip method developed by Matthijs van Dijk and Paul Hekkert. It is a method that helps you draft a vision that forms the basis of your design, it helps you create a reason 'why'. The process relies on a deconstruction phase where the current product-user interaction and the context is questioned. This consists of three sub-phases: 'old product' the 'old interaction' and the 'past context'. In this chapter, I will not go into depth about these three phases since these are described in chapters 2,3 and 4.

The second stage, called 'designing of the Vip process' is covered in this chapter, it helps design a new future context and vision.

In this chapter, I build a future context by keeping the steps of Vip in mind. This led to the discovery of new product interactions and qualities which

were incorporated into a new meaningful design.

Figure 29 on the next page gives a good overview of how the topics of Vip were used throughout the different stages of this thesis. It is important to note that not all steps of the Vip process were precisely followed.

A noticeable difference in the process I followed compared to the Vip method is that from the future context and interactions, a future vision is formed instead of a design for the future. I used this future vision as an inspiration for a feasible design direction. In this stage of the project, with the problem to solve in mind, it wasn't necessary to finish all the precise Vip steps. After the future vision, I noticed that I had enough building blocks and inspiration to start conceptualising.

8 steps of the process embedded in the VIP model. After Hekkert and van Dijk, 2011.

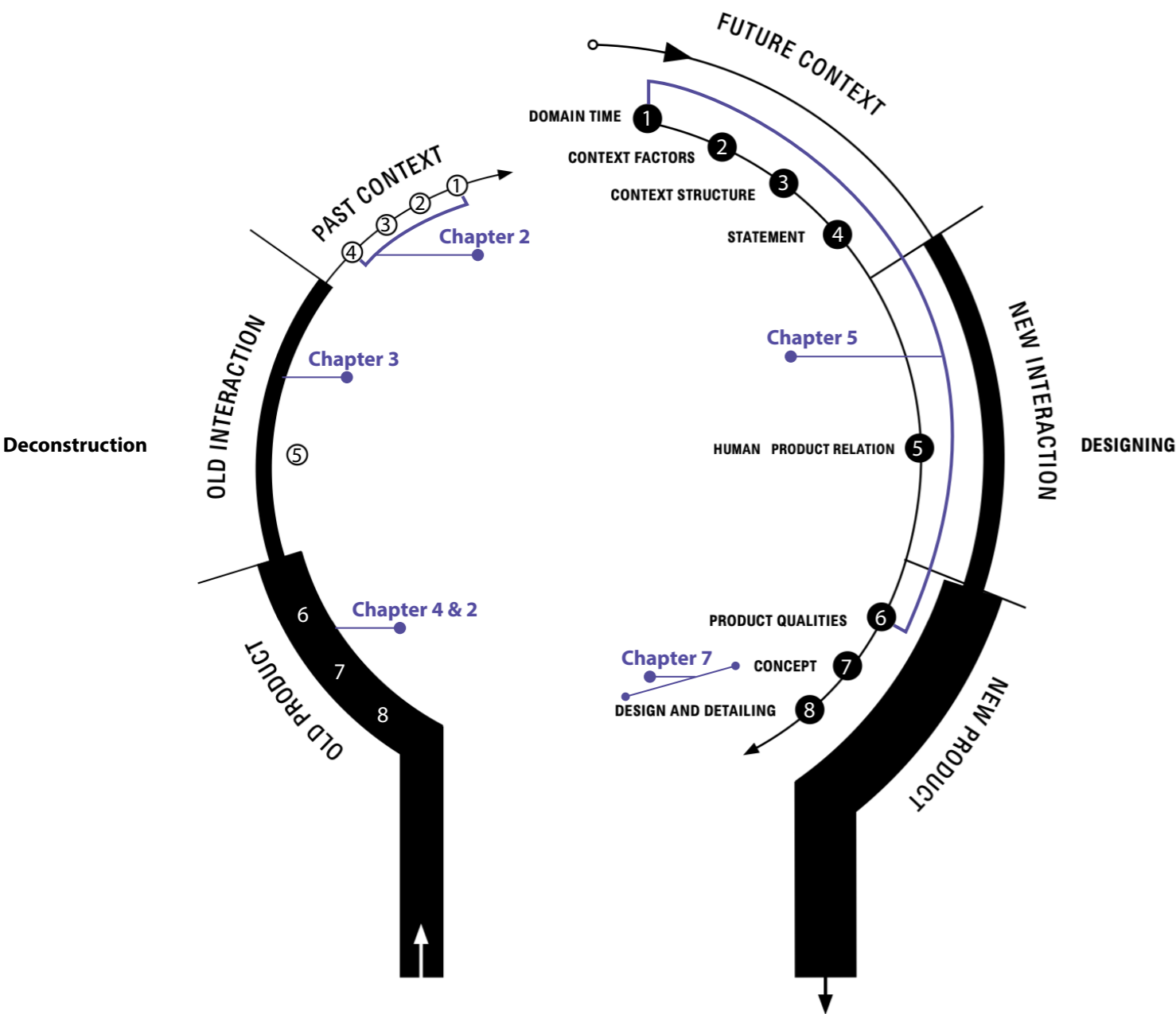


Figure 29: Process of the VIP model and corresponding chapter

Future vision

5.2 Future context with Vip

Domain time

The time frame for the future context design is set for 2030. This is purposely chosen because it is not that far in the future and will give the most valuable interaction qualities. These qualities are envisioned to become important in the near future or are already crucial for early adopters or specific target groups.

Context factors

To define the context factors, trends were found that were expected to influence the context of sustainable investing for gen-Y. Five trend clusters were formed based on trends that could have an impact together. On pages 82 and 83, a visualisation of all the trends and clusters can be seen. I will now explain the five trend clusters that I see forming and will impact the interaction and future of sustainable investing in the coming ten years.

1 Climate change will become visible for everyone throughout their daily life

Climate change is a trend that we have been aware of for some time, but it always felt like something that will happen in the future. But this will change in the coming years. Current findings in the UN Emissions report stated that the goal set in 2015 in the Paris Agreement to limit the rising temperature to 2 degrees Celsius is already challenging. The goal actually should have been even more ambitious to 1,5 degrees. But it seems that already the most manageable short term goals of 2030 aren't going to be met by most countries and that the world is on a pathway to reach temperatures 3 to 4 degrees higher at the end of the century (Leahy, 2020). Experts of the IPCC report expect that in 2030 we will already have hit the 1.5 degrees warming worldwide and that this causes effects everyone will notice.

"Climate change is not something of the future and we will see a lot of negative effects like extreme rain, drought and a rising sea level."

- Rob van Dorland, KNMI

In August 2021, the first effects were felt in Limburg with extreme rainfalls, which caused the rivers to grow immensely. Especially in Germany and Belgium, the devastations were massive, people even died. Experts appointed this severe rainfall as a cause of climate change, and even Mark Rutte, the Dutch prime minister, pointed out the link of these effects of climate change.

Of course, it is impossible to predict which disasters will strike Europe and the Netherlands, but it will be a certainty that everyone will notice the effects of climate change in the coming years. Also, if we look at the customer research in chapter 3.4 I already saw the customer behaviour changing towards a more sustainable focus in the past years. If we combine this with the effect of climate change that we will all notice, it is expected that the customer behaviour towards a more sustainable focus will grow.

2 The activist and social consciousness in society will grow and will create impact

In society, there is an increasing awareness that sustainability is not only about CO2 emissions, but that sustainability is broader. This is often phrased as the carbon tunnel vision effect. Sustainability is also equality, overconsumption, air pollutants, biodiversity loss, health, poverty, all terms that are covered in the ESG criteria. These criteria will now become more widely adopted where more and more companies are reporting on these criteria. McKinsey and EY

also expected these criteria to develop in a more structured way in the coming years. But besides the increased focus on sustainability, I also see a trend of people in the society becoming more activist triggered by several events.

First, the housing crisis in the Netherlands. Currently, there is a need for 300.000 extra houses in the Netherlands reports the CBS, but it is not expected that this problem will be solved quickly in the coming years (CBS, 2021).

Recently, there has been growing social support for these causes, resulting in big demonstrations. We see these demonstrations happening more nowadays in the Netherlands, for example, for race equality, the housing crisis, and sustainability issues.

3 The biggest amount of retail investors active on the market

Currently, there are the biggest amount of retail investors active on the market ever. Many, especially young people entered the investing market because they were bored at home, couldn't spend their money on other things, and saw high returns on the stock market (Nibud, 2021). But market regulators fear for the risk these new retail investors take. They usually invest with big parts of their savings with only little savings in their bank account left if something goes wrong. But if the stock market keeps growing as it does in the past years, we could expect a bigger number of new investors.

4 Stock trading is changing to an open and social activity

Never has stock trading been such a social activity. Channels as Wallstreetbets on the forum Reddit have already proven their strength on the stock market. Last year that channel did a call to action to buy stocks of specific companies where the whole world was amazed by the buying power all the people in the channel had together. For example, a stock they targeted called Gamestop caused their stock to grow with 850% in price in 2021.

But also new investment platforms and companies recently launched functionalities focussed on the more social aspect of trading. For example, Stock Republic helps launch functions for stock trading platforms where you can see the investment activities from friends.

Also, Etoro, an investment platform for retail investors, focuses a lot on their functionality that you can track others investment behaviour and copy it.

5 The ownership of stocks will change towards a more activist type of ownership

With the world becoming more transparent and socially conscious, retail investors belong more than ever to make a positive change. An example of this behaviour is the rise of the company Follow-This started in 2015. They criticise big oil companies for not helping to fight climate change, and they unite shareholders from big oil companies to get a vote at the shareholder meetings and thus try to push those companies to go green.

But also other platforms seek towards a more activist type of stock ownership. For example, Openinvest is a company recently acquired by the big investment bank J.P. Morgan. This company focuses on translating your investment portfolio to tangible impact numbers like the number of trees planted, or CO2 kept out of the atmosphere.

I think the trends that led to these five context factors will hugely influence how the context of sustainable investing for Gen-Y will look in 2030. An overview of how these trend clusters are formed using the context factors can be found on pages 81 and 82.

Future vision

5.3 Vip statement

Statement

A statement is formed which shows a strong image of what I think will be important to solve through the design solution. The mission statement holds aspects from the five context factors: social trading, rising amounts of retail investors, more activist focus in society, a rise of a sustainable focus and willingness to help for a positive change.

Analogy with interaction qualities

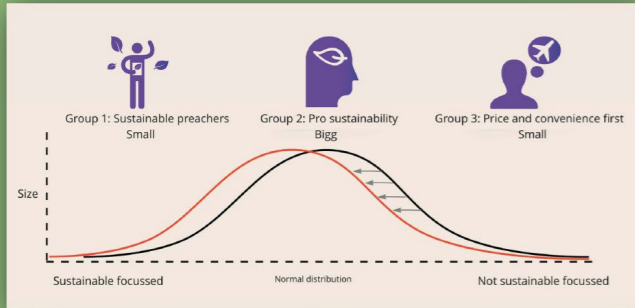
On pages 84 and 85 is an analogy shown with the interaction qualities. The new concept should make stock trading like doing a fun assignment with friends.

Problem Statement

The **not yet investing** gen-Y consumer **wants to start investing** but has a **lack of knowledge and decisiveness** to generate this knowledge. At the same time they **want to make the best investment decisions** that fits their mission which they are now **unable to find themselves** which leads to procrastination.

Mission Statement

I believe you **don't have to be analytical** or well informed through 10 different books before you can start investing. The power of the **investment crowd should help you** find investments that fits your investment goals while at the same time the crowd can help **fulfil your sustainable goals**. The process should make you feel **empowered and happy** instead of insecure.



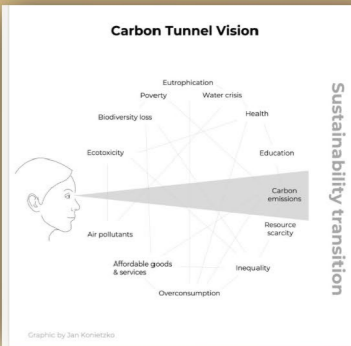
Klimaatexperts: IPCC-rapport alarmerend voor Nederland
 Deze laatste getallen zijn nog niet 'hard', zegt hij. "Het zijn alarmerende, maar zachte conclusies, omdat er nog zoveel onzekerheid over is. Maar ook Nederland heeft gevraagd om toch juist dit soort conclusies in de samenvatting te zetten, omdat ze zo ..."

Wat is de rol van klimaatverandering bij de overstromingen in Limburg
 De afgelopen jaren hebben we in Nederland te maken gehad met extreem warme zomerdagen en ... De overstromingen in Limburg, deden daar nog een schep boven op. Zijn deze overstromingen een gevolg van klimaatverandering en wat kunnen we in de toekomst nog mee...

Millennials are Investing With a Purpose, and It's Changing Wealth Management
 In 2020, the global economy experienced one of the worst declines since the Great Depression. Yet, while the ripple effects of COVID-19 have thrown many businesses into disarray, some companies have not only managed to stay afloat amidst the chaos-they'...

How personalizing sustainable investments can shape the future of finance
 This site uses cookies to deliver website functionality and analytics. If you would like to know more about the types of cookies we serve and how to change your cookie settings, please read our Cookie Notice. By clicking the "I accept" button you consent...

Shareholders Are Getting Serious About Sustainability
 Idea in Brief The Problem For years, environmental, social, and governance (ESG) issues were a secondary concern for investors. Today institutional investors and pension funds have grown too large to diversify away from systemic risks, so they must care...



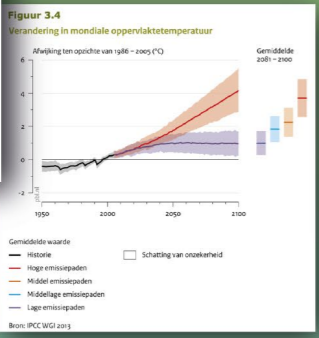
1 Climate change will become visible for everyone throughout their daily life

2 The activist and social consciousness in society will grow and will create impact

The world is still falling short of meeting its climate goals
 On the cusp of an international meeting beginning Sunday that could well determine whether the world can bring climate change under control, it can be revealing to assess how the largest emitters of global emissions are doing at curtailing them.

IPCC: ongeëvenaarde klimaatverandering leidt tot fors meer weersuipen
 De IPCC WG1 rapporteert dat de laatste decennia de meest extreme weersuipen zijn geweest.

"Premier Rutte gaf bij zijn bezoek aan het watersnoodgebied in Limburg aan een link te zien met klimaatverandering"



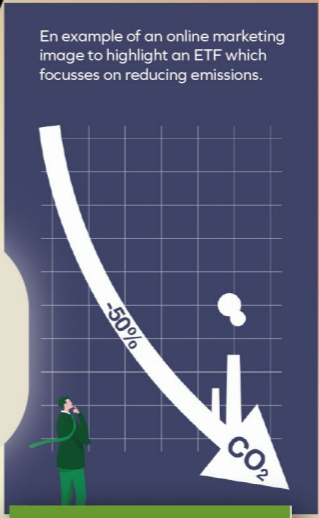
ACHTERGRONDEN BIJ WERELDWIJDE KLIMAATEFFECTEN RISICO'S EN KANSSEN VOOR NEDERLAND
 Achtergrondrapport
 Marijke Venk, Arno Bouwman, Rob van Dorland, Hans Eeren
 21 april 2015

Most countries aren't hitting Paris climate goals, and everyone will pay the price
 The majority of the carbon emission reduction pledges for 2030 that 184 countries made under the Paris Agreement aren't nearly enough to keep global warming well below 3.6 degrees Fahrenheit (2 degrees Celsius). Some countries won't achieve their pledge...

Klimaatverandering en grondstoffenschaarste
 Met de groei van de wereldbevolking en de mondiale welvaart neemt ook de vraag naar natuurlijke grondstoffen zoals water, energie, mineralen/metalen en voedsel toe. Er is echter een beperkte hoeveelheid grondstoffen beschikbaar. Daarnaast vormt de uitst...

Overview how the trend clusters are developed from societal trends

OpenInvest Is Now a J.P. Morgan Company
 Tangible Impact Reporting
 Our digestible and proprietary reports highlight the impact of a portfolio, like number of trees planted or CO₂ kept out of the atmosphere.

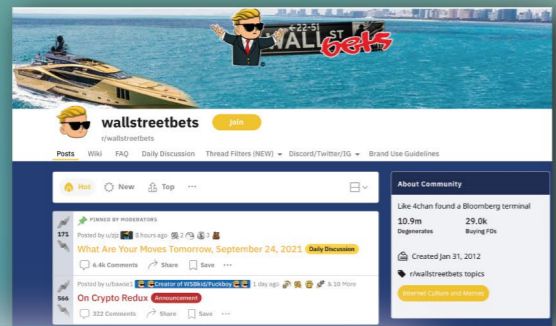


3 There are more retail investors active on the market then ever

According to Bloomberg Intelligence, individual stock trading is at a 10-year high, with retail trades currently estimated at 19.5 percent of all US order flow (through June 2020), up from 10.1 percent in 2010 and 14.9 percent in 2019. Similarly,

4 Stock trading is changing to a more open and social activity

What is Social Trading & How to Get Started with ZuluTrade
 Like, comment, rate and request update from your Traders Open Real Account Open Demo Account Stocks, also known as equities or publicly traded companies, represent ownership interests in businesses that choose to have their shares available to public in...



StockRepublic
The social trading platform for innovative banks
 Engage and include your customers to share success, benchmark and guidance.
 Yes, tell me more!

The Popular Investor Program
 Get Copied. Get Paid.

Green shareholders change the world
 The oil industry can make or break the Paris climate agreement. But we have the power to change oil companies from within - as shareholders. Follow This unites responsible shareholders to push Big Oil to go green. Business as usual is over.
 BUY A GREEN SHARE | DONATE
 From 9 euro
 Join with your own shares
 Gift green shares

Green shareholders change the world
 The oil industry can make or break the Paris climate agreement. But we have the power to change oil companies from within - as shareholders. Follow This unites activist shareholders and pushes Big Oil to go green. Business as usual is over.

Jonge beleggers nemen steeds meer risico's
 De Britse toezichthouder Financial Conduct Authority waarschuwde afgelopen week dat jonge beleggers te makkelijk hoge risico's nemen in hun zoektocht naar de hoogste rendementen. Maar volgens een columnist van de Financial Times is het juist goed dat jo...

Jongvolwassenen en beleggen 2021 - Nibud - Nationaal Instituut voor Budgetvoorlichting
 42 procent van de jongvolwassenen tussen de 18 en 30 jaar belegt. De voornaamste reden daarvoor is om vermogen op te bouwen. Hoewel deze beleggers zelf aangeven dat je het alleen moet doen als je voldoende kennis hebt, lijken zij zelf niet allemaal vold...

Note: all links are click-able

5.4 New way of interaction

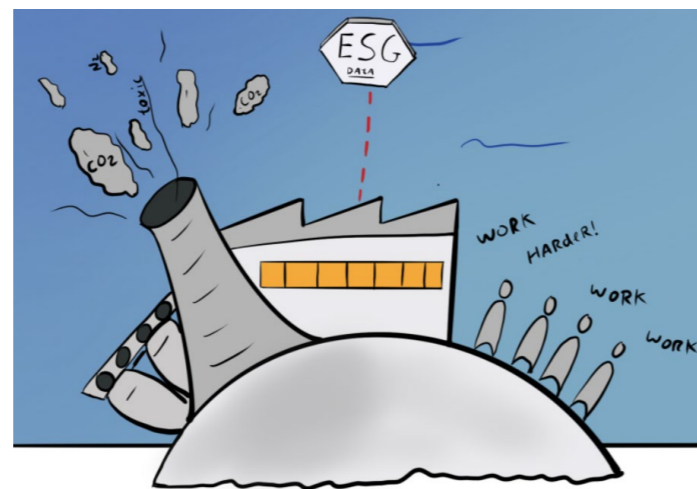
A future vision of how the investing environment could look like in 2030

Climate change will lead to changes in human behaviour which will have a big influence on our life in 2030. In 2021 a consumer group was already aware of the consequences of their actions on the climate, but not a big group of consumers acted towards a more sustainable lifestyle. This behaviour has gradually changed because climate change is now more tangible than ever, with a loss in biodiversity, floodings and extreme temperatures which now has a visible effect on human health.

Besides the climate impact, we also became more conscious about the social side of business. Companies need to meet more regulations from governments and shareholders to report on aspects like gender equality, diversity scores and controversies. Because metrics are now available about these 'soft' aspects they will become more important among young investors who value sustainability and equality more than others. Now they can make choices on these 'soft' aspects which they value but were first concealed by these companies if they had bad scores.

Because climate change is being felt in a greater measure and consumers have data about the 'soft' metrics of companies, it has triggered these young consumers to act more conscious about their investments and their impact on society. First, small initiatives were launched, for example, Follow-This, which buys stocks from Shell to push them to operate in a more sustainable manner. The feeling that as a group of consumers we want to make a difference on companies who aren't helping society will grow.

In the meantime, there is the biggest group of retail investors active in 2030. COVID, low-



interest rates, unaffordable housing prices for starters, high returns on shares and new user-friendly online services caused many young people to start investing in stocks and cryptocurrencies. But a shift has happened on the stock market. Because data on environmental and 'soft' aspects are available, companies could finally show last decennium that when they contributed to a more social and sustainable planet, they also generated a healthier revenue and are less prone to external risks.

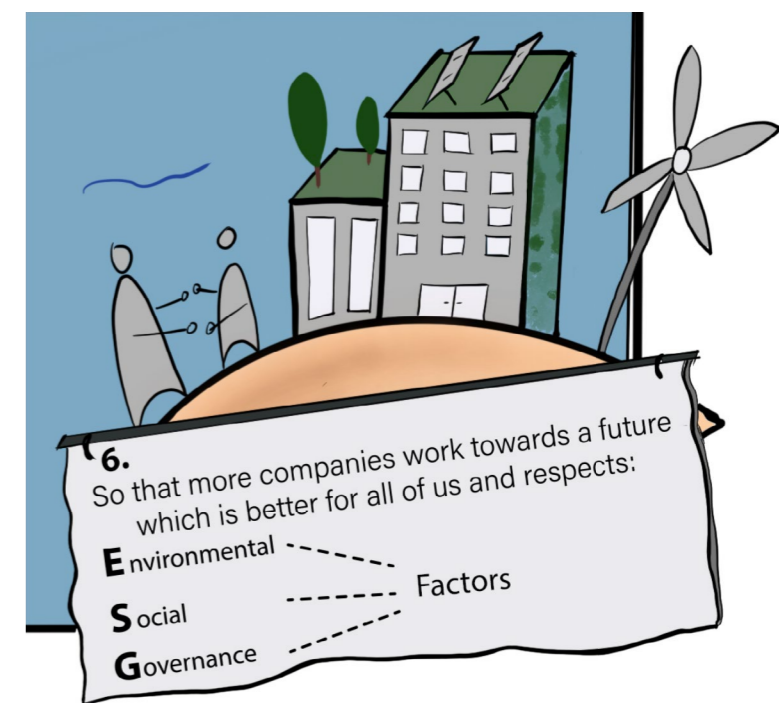
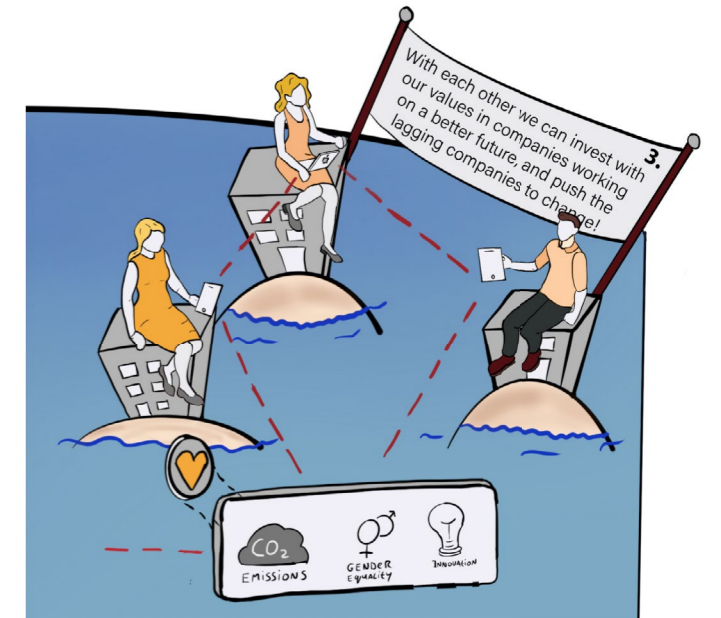
All these developments will cause in 2030 that social awareness has evolved in society. For a growing group of consumers, profit is no longer the most important metric, but a positive impact on the planet and society is. But also, with the use of these 'soft' metrics, companies have proven that when they focus on a positive impact, it also means economic profit in the long run.

But this new image grows with small steps, and consumers feel that big corporates and companies aren't changing with the pace they like. This leads to a more active shareholder attitude, like what happened with Follow-This but on a larger scale. Now in 2030, you are no longer the passive shareholder behind a digital wall who owns a share and wait until the stock is worth more. But you want to actively participate in the ownership and have influence in the strategies of big companies to help create the positive impact that you would like the company should focus upon.

New digital channels will enable this active ownership, rewarding corporates who contribute to a better world because investors will buy their stock. Your way of investing has an influence on creating your world of tomorrow. Where we now can unite our voices as small retail investors to form one large voice that can force lagging companies to operate more sustainably and socially.

These digital channels where the voices of consumers are united will become the new social influencers for big companies in the near future. They will have a lot of force through the power of the crowd and will exercise pressure to create a positive change on future investments of specific companies.

'Making a change together'



MAKING A CHANGE together

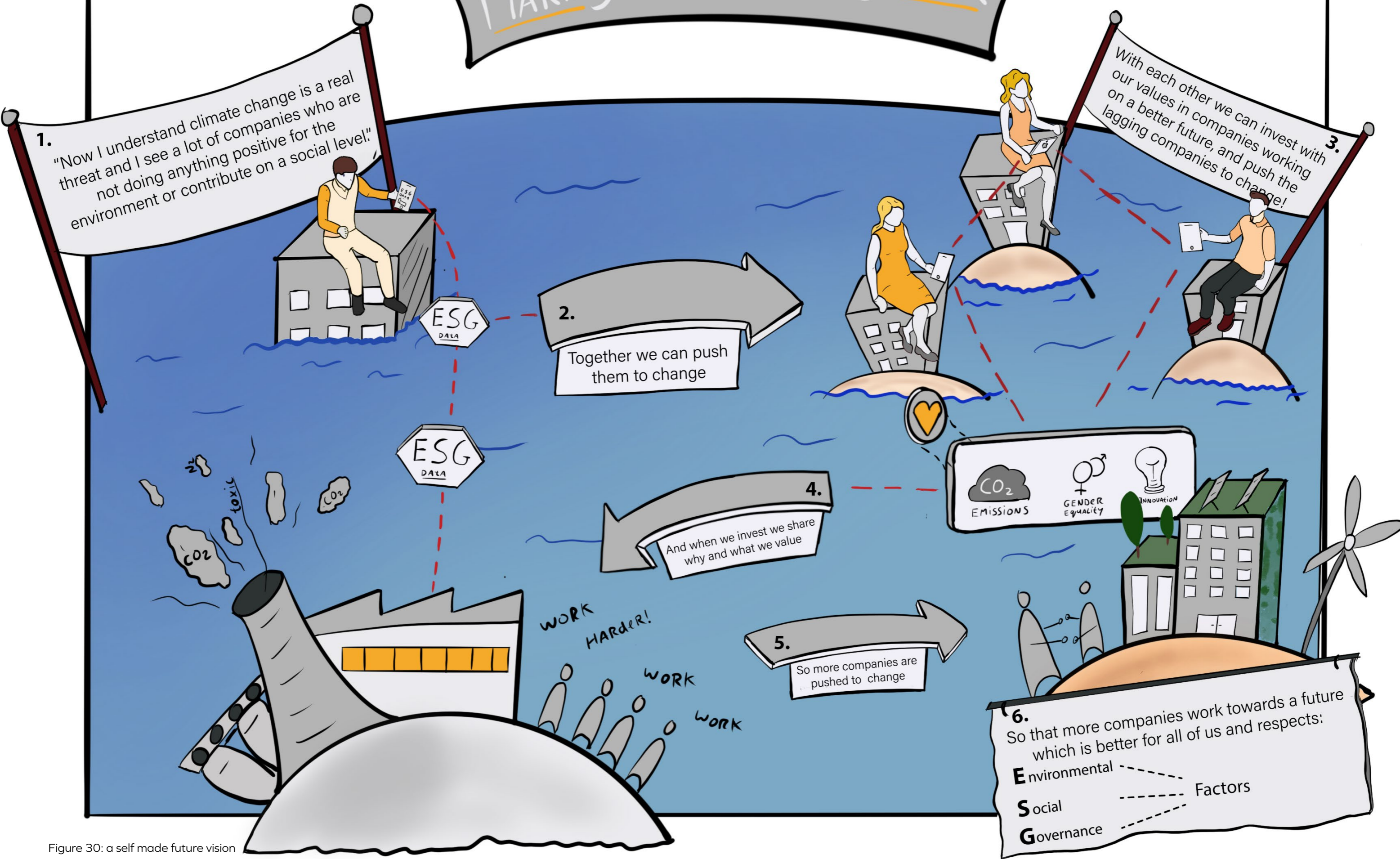


Figure 30: a self made future vision

5.5 New product interaction qualities

In this chapter, I derived key components from this vision, forming the basis for further conceptualisation.



- **People will become more aware of the social impact of their investments.** This is because they will feel the impact of climate change physically in the coming years and also because there is more data on the 'soft' elements of a company. Reporting on these 'soft' elements will improve and become more tangible in the coming years for almost all stock listed companies.



- **Use the social aspect of the growing power of the crowd for retail investors.** This crowd will notice they have quite the strength to make an impact, and they are willing to use this even more.



- **Have a focus on the 'soft' aspects when investing.** For investing in stocks, there is a change going on with less focus on a company's financial performance but an increased focus on these 'soft' elements. Because it will become more apparent that companies will provide more long-term growth if they focus on these 'soft' elements.



- **Enable people to help make a positive impact because the urge to do so will only grow.** First among the early adopters in this target group but later on this will grow broader to all sorts of different consumers groups in society.

5.6 Reflection

This chapter was really valuable to come up with inspiring elements for the solution direction. I noticed and experienced once more that coming up with a fitting solution in your project is a process you have to go through. For me, it was a process of trial and error.

In chapter 4, I immediately went into depth with a concept I believed in and I found it challenging to step away from that concept in my head. After a Kill & Thrill session on November 9th from the innovation department of Rabobank, I knew I was not yet there with my solution direction. After that, the coach session confirmed it, and I followed the advice to take a step back in the form of creating a future vision.

Looking back, I noticed that formulating a future vision helped me look into different solution directions instead of getting stuck in one direction. I also noticed that coming up with a future vision was quite easy since I knew already a lot about the topic, so I had a good overview of the context. Looking back at the Vip approach, I unconsciously already covered the first deconstruction phase in my first part of the research before knowing I would use this method. Having a good understanding of the context of your assignment before starting at the future vision helped me come up with a meaningful direction.

For the following projects, I wouldn't incorporate a future vision all the time. This time it worked well to break loose from one solution direction. Also, in the context of this project, I think it was perfect to use design as a future vision for a context in which many companies are actively seeking to reach consumers in all sorts of different ways. If you are only reasoning from your perspective, it makes it challenging to develop a strategic design direction.

But for projects with a short time period, or if your context is suited to start ideation right from your research, I would not incorporate a future vision in my project.

Concept exploration

Chapter

06

During the design process, different designs were made and tested. In this chapter I will explain which extra knowledge is generated. This extra knowledge is used in order to generate a concept which is expected to solve the research question.

6.1 Overview key insights

6.2 Conceptualisation

6.3 Concept exploration

6.4 Reflection

Concept exploration

6.1 Overview key insights

In all the previous chapters, I gathered insights that formed the basis of the ideation started in this chapter. The insights are also explained in the previous chapters separately. Still, I start this chapter with a short overview of the main insights that helped formulate the strategic design direction.

The first concept was developed and tested from this design direction, which is explained in chapter 6.3.

Chapter 2 - Key insights market overview

- New digital brokers are focussing on different products than only enabling buying and selling stocks. These brokers also tend to have an active positioning.

Chapter 3 - Key insights customer behaviour of Gen-Y

- A big group of gen-Y who are not investing feel that it is difficult to start and think that investing is about making the best decisions. This leads to procrastination to start for this group.
- Referral from friends is important, it creates a lot of trust which is important for the activation to start investing and when choosing your broker.
- To bypass the risk threshold and start investing, people need trust or I-FOMO.
- The overall perceptions of gen-Y towards sustainability are positively increasing towards a more sustainable one, where more people are prepared to pay more for sustainable solutions.

Chapter 4 - Key insights misalignment current Rabobank investment product




- The current Rabobank trading platform does not give you any support in making sustainable investment solutions.
- The platform doesn't motivate you or make you feel empowered as a user.

Chapter 5 - Interaction qualities from future vision

- People will become more aware of the social impact of their investments.
- Investing will evolve into a more social activity.

A concept that follows from all these insights should form into a process where there is a positive balance between motivation and ability, as explained in chapter 3.3 (graph 17).

Also, a concept should solve three main tasks for the consumer, which are derived from figure 6 in chapter 3:

-  - Activation to start (also called attention)
-  - A method to bypass the risk threshold
-  - The right level of support when investing (also called guidance)

In figure 16, an overview is presented of how these elements play a role in a new concept. These insights are also formed into a value proposition canvas found in appendix H.

Main components to overcome in concept

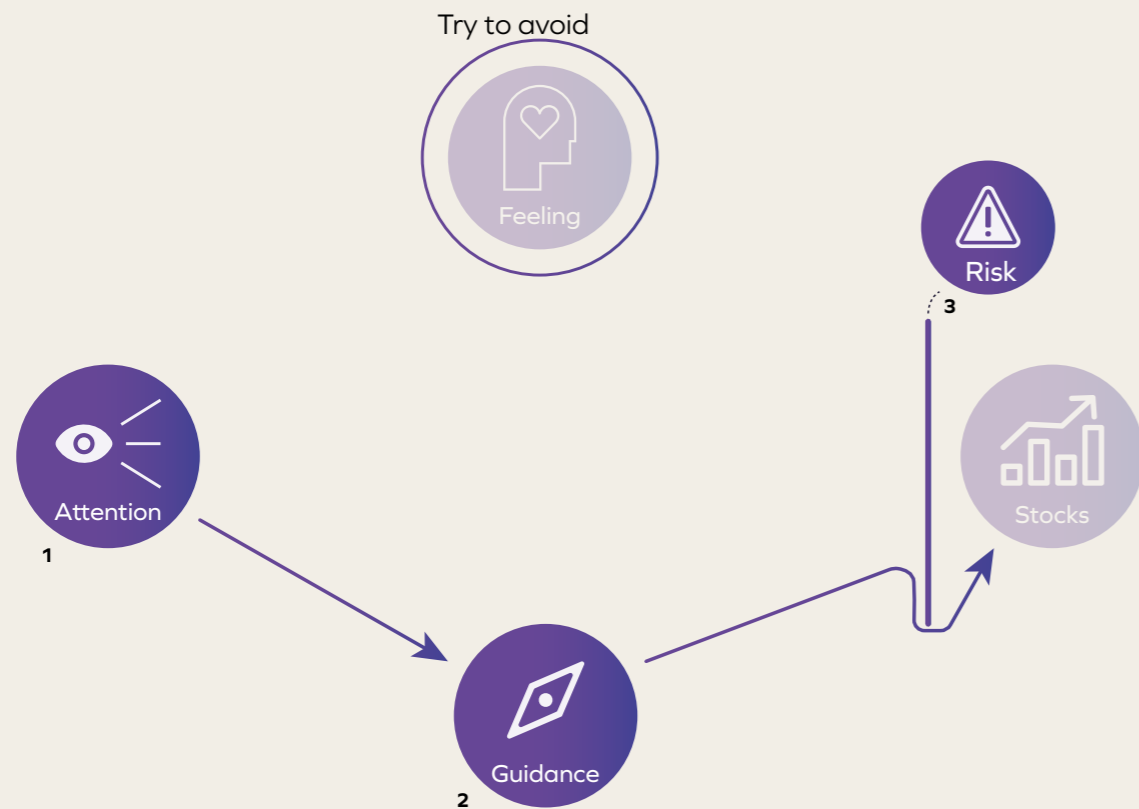


Figure 31: simplification of components from the decision making model for retail investors of chapter 3

Summary reactions Kill & Thrill

Kill

- How is it the solution different from competition?
- Rabobank is not the party this target group will look at, so they won't use this solution
- Costs is almost everything that counts and there are free solutions for this already
- What is the real problem of the consumer it's solving?

Thrill

- Be present with first activity for client to sell later more products.
- Looks like cheap to implement if you use existing back-end
- Build with a visual language the customer understands

Figure 32: highlighted reactions from Kill & Thrill session

Concept exploration

6.2 Conceptualisation

In this chapter I want to address a concept I designed that didn't make it because it missed key components. This concept and the tests I did with it clarified which elements a good design should include to help gen-Y start investing sustainably.

The Rabobank Beleg In-boarder concept focused on the process of starting to invest and making this as easy as possible for the user. During the onboarding, the concept tried to inform the user and asked for input from the user to help them create a balanced portfolio. A schematic overview can be found in figure 34 on the next page, where also an interactive prototype is accessible.

Kill & Thrill to test concept

I organised a so-called kill & thrill for this concept within the Rabobank innovation department. A kill & thrill is versatile and can be organised at different stages of the design funnel.

It usually takes around 30 to 45 minutes. First, the organiser pitches the concept or topic he/she would like feedback on in the first 10 to 15 minutes. Usually, two topics are covered where participants first write down critical thoughts to 'kill' about a topic, which are things from the concept they think don't work. Then participants have time to write down comments they 'thrill' upon for the topic, which they believe are exciting to look into. When both are covered, the organiser can ask for elaboration on comments they find interesting from which the participants can react.

I organised it online to gather feedback on the desirability and viability of the In-boarder. All the kill & thrill comments can be found in figure 32 or in appendix D.

Conclusion concept In-Boarder

The kill & thrill helped me to find that the In-boarder solution wasn't solving all the problems gen-Y was experiencing in starting to invest sustainably. Afterwards, I noticed that during ideation, I became trapped in my own 'conceptualisation tunnel vision' in figure 33. I tried to solve the guidance problem with the concept since that is the most apparent problem gen-Y consumers addressed during interviews and user tests. But like explained in chapter 3, the steps to start investing are more complex and not solved through a great process of only guidance.

This process helped me understand that the concept should solve the three main issues of attention, risk and guidance, addressed at the beginning of this chapter to succeed in helping gen-Y to start investing with a sustainable focus.

The conceptualisation tunnel vision

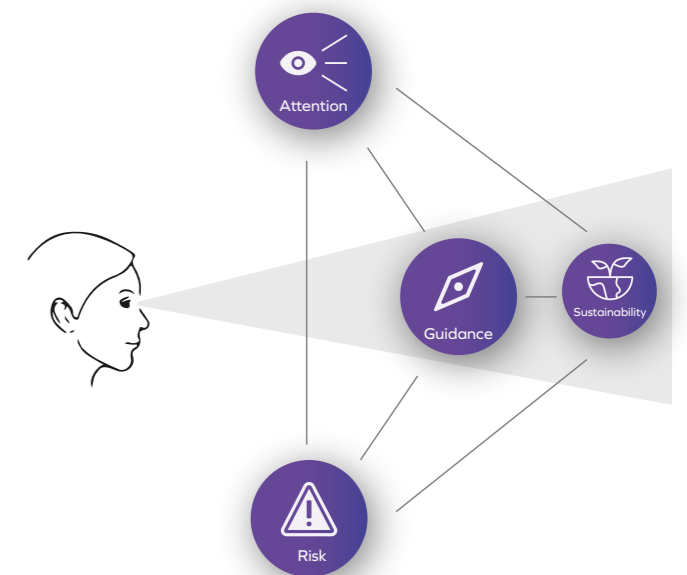


Figure 33: self made visualisation of my perceived conceptualisation tunnel vision

Rabobank Beleg In-Boarder concept

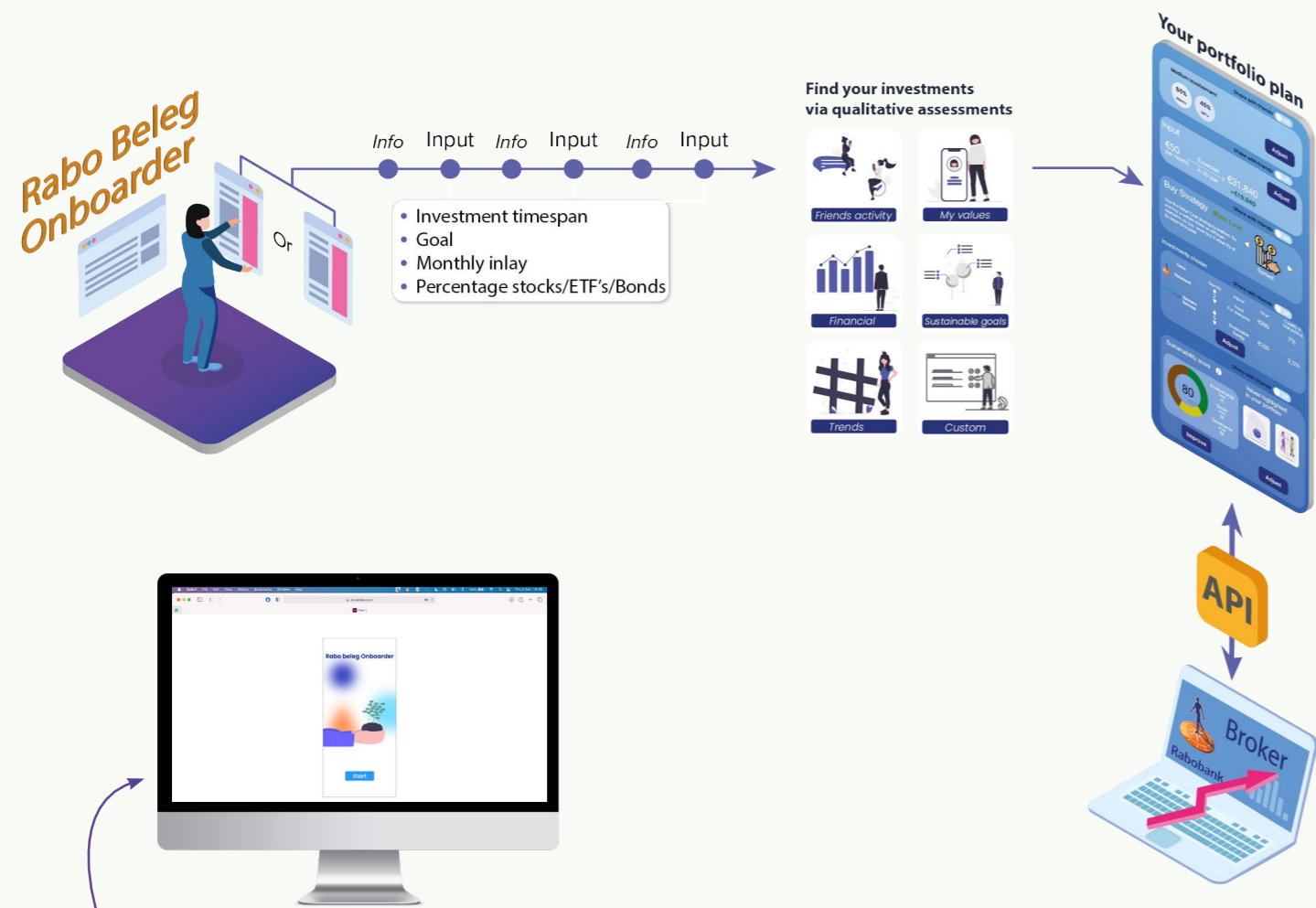


Figure 34: self made visualization early concept



Press on computer image to access the low fidelity prototype or via:

<https://xd.adobe.com/view/807ff72d-cc12-4b5b-97b5-c555b0fcabdd-d52c/?fullscreen>

Elements consumers highlighted

Besides the Kill en Thrill, I did four in-depth consumer interviews where I showed them the In-Boarder concept and asked about their thoughts and opinions during every stage. The interviews were conducted with three males and one female between 20 and 25, 3 of them didn't invest but were positive to start, and one already invested. In these interviews, there were some elements liked about the concept that should be taken into mind for further exploration:




1. A clear process from start to end with a clear form of guidance during the start.
2. A process that doesn't leave you in the dark when setting up an account; it keeps helping you until you have a well-balanced portfolio.
3. The "fit for you score" was perceived as preferable. The users liked a clear score that gave you a clear indicator if a stock would match you or not. It saves time to know if a stock is worth your time to investigate further or not.

Conclusion about concept exploration Beleg In-Boarder

It was experienced through trial and error that the research question is a complex problem to design a solution for. When designing a proper strategic solution, it should not be solving only one specific issue from the customer needs. I saw that a true strategic design solution for this problem should be balanced in solving the challenge to gather attention, help people overcome the risk level, and give the right level of guidance to help people start investing with a sustainable focus.

Also, some elements were discovered that consumers perceived as helpful during the guidance phase. For example, the fit for you score indicating if a stock matches your profile.

With these insights, I started a new and broader ideation session in the next chapter.

-  - Activation to start (also called attention)
-  - A method to bypass the risk threshold
-  - The right level of support when investing (also called guidance)

Concept exploration

6.3 Ideation

After the lessons learned of the first dive-in from the conceptualisation of the In-Boarder, a new round of conceptualisation was started. In figure 35, ten ideas are structured who have three different solution approaches:

- Focus on guidance
- Sustainable focussed solutions
- Holistic approach

To help the decision-making process, the concepts are rated by seven different categories, as seen in figure 36. The categories are learned on earlier lessons learnt during the design process:

- Attention
 - Guidance
 - Risk
- The three important elements learned via the beleg In-Boarder*
- Sustainability motivator -> part of RQ
 - Feasible -> important for launch
 - Match vision -> future proof

Viability and desirability are tested later when a concept is chosen. These elements are easier to test when a higher fidelity prototype is present.

It became clear from rating the ideas that the social sustainable focussed solutions are the most promising ones. Figure 36 shows the three highest-scoring ideas, and the whole rating sheet can be found in appendix G.

Idea 4 seems from the ideation the most promising one to work out and one that could also tackle the lessons learned from the In-Boarder.

It was also a solution direction that was still quite broad and offered much freedom when designing this concept when making it more tangible.

Also, opportunities with this idea were envisioned where it could be a solid basis for a broader and more holistic solution that could also implement

elements from other promising ideas. The strategic roadmap in chapter 9 shows how ideas 6 and 7 play a role in the strategic planning of idea 4.

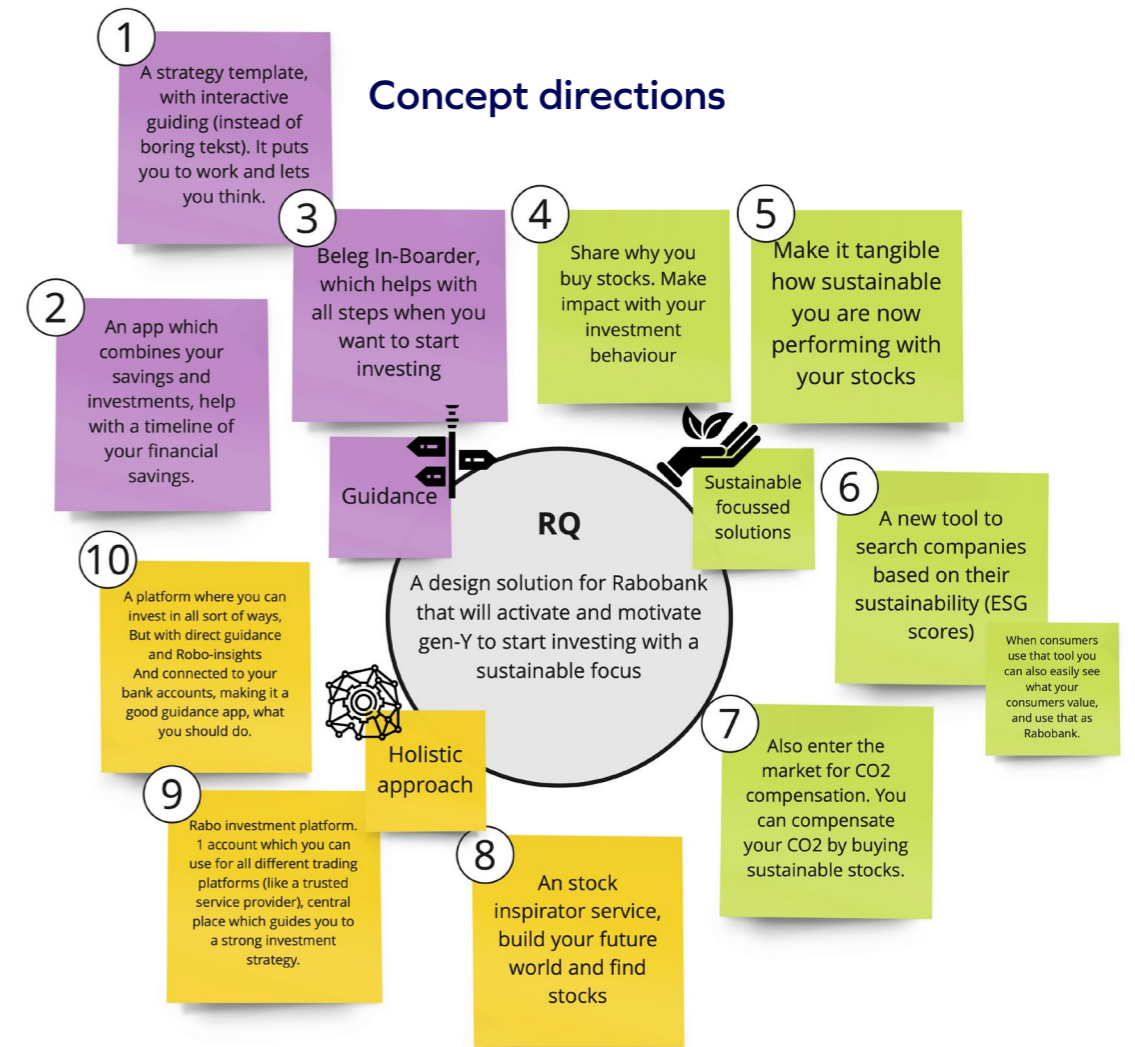


Figure 35: Preliminary concept directions

	Top rated concepts					
	Attention	Risk	Guidance	Sustainability motivator	Feasible	Match vision
4 Share why you buy stocks. Make impact with your investment behaviour	○	✓	✓	✓	✓	✓
6 A new tool to search companies based on their sustainability (ESG scores)	○	○	○	✓	○	○
7 Compensate your CO2 by buying sustainable stocks.	○	○	✗	✓	○	✓

✗ Low chance of succes ○ Potential succes ✓ Expected succes

Viability and desirability are tested later for the concept chosen

Figure 36: A structured overview of the 3 best rated preliminary concepts

6.4 Reflection

In this chapter, during conceptualisation, there were many learnings for me. The first one is experiencing in an earlier stage that I got trapped into my conceptualisation tunnel vision.

Asking a lot of feedback helped me see that I was focussing too much on one component. It reminded me of the importance of continuously asking for feedback, testing and presenting your ideas. What could have prevented this trap was to have the problem framing clearer before going into depth in one concept. Maybe framing for myself which components should all be solved in a concept could have helped me stay away from going to work out a concept that wasn't solving the whole problem.

Also, another learning on this spectrum is that the consumer interviews I did made me even more biased. I tested the concept on four gen-Y consumers who were not yet investing but were positive to start. When explaining my concept they were all positive that it would help them in a way to get started with investing. But unintentionally, I skipped in my interviews verifying if such a concept would be attractive for them to start using such a service. It is also genuinely known as the basic mistake of the Mom test. I only noticed this later, where these interviews were only pushing me further into the bias of my concept solution.

So in new projects, I will continue to organise activities to gather feedback in my conceptualisation stage, especially in the early stages when not too much time is spent on working out a concept.

Also, before diving into conceptualisation, I should remember that making a good overview of the elements a concept should solve could save me a lot of time later in the process.

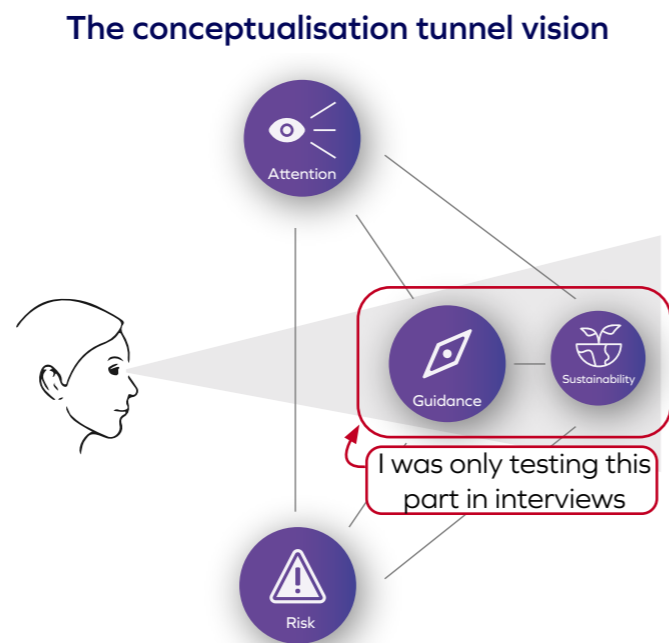


Figure 37: the perceived conceptualisation tunnel vision and bias that happened through interviews

Concept Proposal

Chapter 07

In this chapter, I will introduce the concept of Prove. It is explained why it is expected to solve the elements of attention, guidance and the risk threshold. Interviews with experts were conducted to validate the disruptive idea to change companies towards a more sustainable profile by the presented concept.

7.1 Concept proposal

7.3 How Prove generates attention among consumers

7.5 How Prove solves the risk threshold

7.7 Business modelling

7.9 Reflection

7.2 How a sustainable angle is incorporated in Prove

7.4 How Prove creates the right level of guidance

7.6 How to make impact to change lagging companies

7.8 Conclusion on the introduction of Prove

Concept proposal

7.1 Introduction of Prove

Prove is an investment platform (broker) that focuses on making a positive, sustainable impact while using the power of the crowd. This crowd should also support in making the decision-making process of investing tangible and easier for young people who now struggle to make choices in the starting phase of investing.

Make stock trading transparent

So Prove focuses on the idea to make stock trading more transparent. Every investor has their motivations for why they bought a specific stock. We saw in chapter 3 that most people bought stocks because they wanted their money to be worth more. But there is a reason behind it why you think the stock will be worth more. Or maybe you buy a stock because of the positive ambitious goals the company has for the planet. Nowadays, 14% of gen-Y investors stated in chapter 3 that they invested because of the positive impact they want to make with their investments.

Share the reason why you buy

Now with Prove, you can share anonymously why you buy your stocks, which holds a powerful benefit. Because the platform Prove will collect all these opinions. First, with these opinions of others Prove will help you find your investments in an easy, more engaging way than only comparing numbers of different stocks. But secondly, by collecting all the opinions of our Prove users on why they invested in specific companies, we can send a message and push lagging companies to change. With Prove, we can show quantitatively why people don't buy their stock, or the other way around, why they buy the stocks of sustainable-focused companies. This will push the topic of sustainability to be more apparent for all companies who want to be attractive for the investors on Prove.

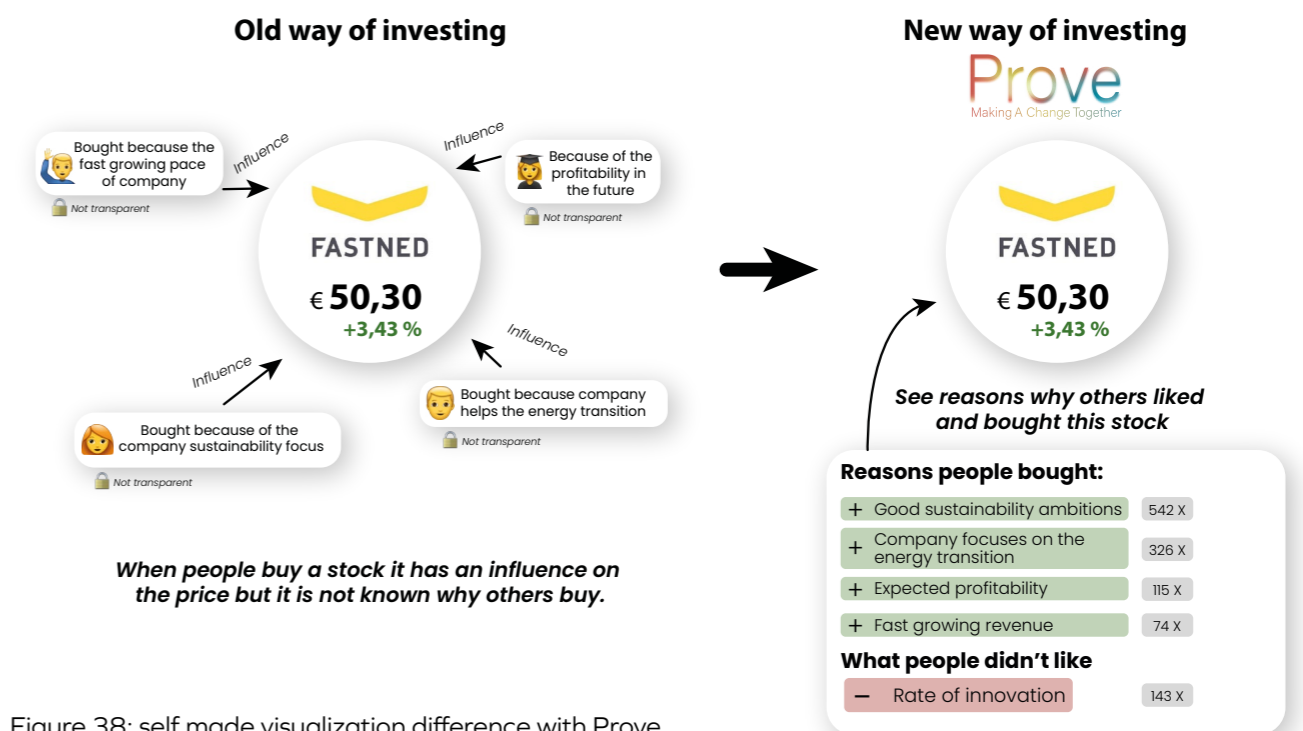


Figure 38: self made visualization difference with Prove

Step - by - step explanation

On pages 103 until 105, the concept will be explained step-by-step. Via figure 39, the landing page could also be accessed online. Figure 40 is shown the 'why' page of the landing page. These describe the key features of the concept. In the next chapter, I will discuss why these are the important features to solve through the design.

Web and mobile

As explained in chapter 3.2 gen-Y is omnichannel, where the biggest group prefers to do serious banking tasks on their laptop. In the following chapters, Prove is mainly explained through a phone interface since this easily displays the core elements of Prove. But Prove will be an omnichannel proposition where tasks can be done in a web browser and could be continued on their phone.

Access landing page



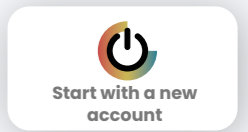
Scan the QR code to access the low fidelity prototype or via: <https://xd.adobe.com/view/1adcd6dd-4439-42e3-99e2-acc30bcbe44-4f8f/?fullscreen>

Figure 39: self made landing page of Prove

1

Sign-up and choose how you want to invest

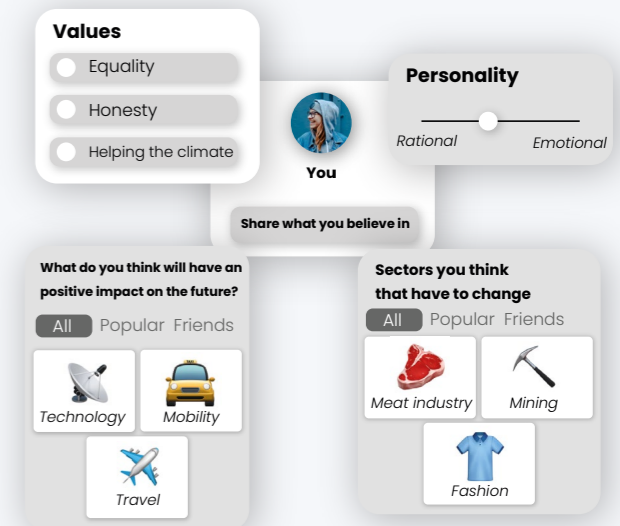
You can use Prove in several ways. If you already have investments, you can transfer them to Prove and join our effort to change lagging companies. If you are a new investor or don't want to transfer your investments, you can open your own account on Prove and start making your first investments for a good cause.



2

We get to know each other, so we understand how you want to make an impact

Everyone has different values they find important or invests in companies with different reasons. We want to get to know you better to propose investments that fit you best.



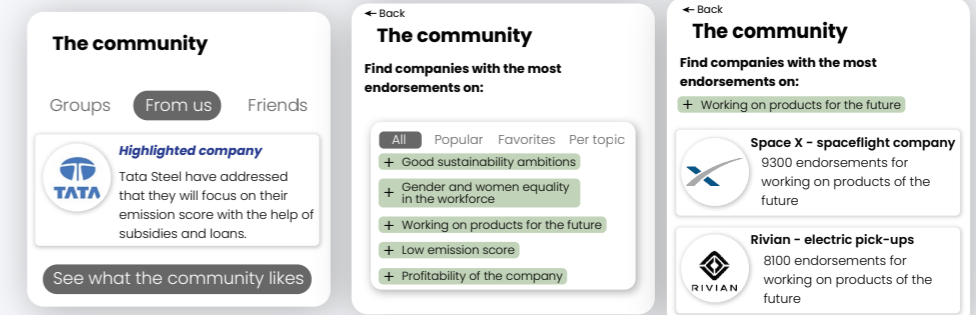
3

Get inspired on our forum or from friend's activity about companies that match your values and help building a better future

You can easily share companies you endorse with your friends. Just choose the reasons and inspire your friends. We hope to inspire you here to find companies you think are making a positive contribution to the world. In step 5, we will also help you to find these.

Our community communicates with us which factors they like of specific companies. So we create a database with 'soft' elements people like about companies.

We also communicate the feedback from the Prove community back to the users. This helps guide our users to find investments they were eager to find.



Help shaping your future world

Your investments make an (small) impact on a company. So with your investments you can make a difference how your preferred future will look like. We help you to find investments that focus to create a better future world.



See what we think is a better world



Powered by the ideals of a cooperation, Prove works cooperative

Rabobank is as only Dutch bank a cooperation. That means no shareholders and not driven purely to make a profit, but to help society further. Rabobank helped Prove to come into existence where we also work as a cooperation to help change society.



Our new approach makes it easy to find investments that you believe in

Finding an investment you believe in is more difficult than ever with so much data available nowadays. With our focus on positive impact and with our impact score we try to make it easier than ever to make decisions.



Your investments are less exposed towards risk

Based on the past, investments which focus on the environment, on social factors and if the company has a decent government structure shows they are less exposed to risk. On the other hand, the revenues are equally good.



Join forces and send a collective message to lagging companies

Changing the world alone is hard but together we can create quite an impact. We bundle your voices to let the companies know what you value in a company in order to push them to positive change.



For the big and small investor

No matter how much money you would like to invest, if you invest with Prove you help make an impact and push more companies to contribute positively for our planet.

Figure 40: 'why' page of Prove

4

Find the investments you think will be important in the future and suits your preferences

Based on your profile, we introduce the Fit For You Score. Here we match the performance of a company how they fit with your values and goals. Based on your values in step 2, we show you stocks supporting that cause. The Fit For You Score makes it also easier for you to find new companies because we understand that finding an investment you believe in can be difficult.

6

Keep improving your impact score

Buying 1 stock of a company alone isn't going to change a lot. Therefore, we encourage you to grow, keep on growing your own investments on our platform, and invite others so we can form a louder voice together to create the positive change we long towards.

5

We share how companies are changing and contributing to a better planet. And what other Prove users think about the companies.

When evaluating different companies, we show what others on our platform thought about it and Prove shows their main reasons for buying it. We also show the reasons what people did not yet like about the company.

When you are confident this company matches your preferences, we ask you to share your main reasons why you bought this company.

This forms the basis of your voice, which we combine with others to one large voice to push lagging companies to operate greener for a better future.

7

We hope your investments will keep making an impact for our world of tomorrow, while we will tell your story to other companies why and how they should change.

We believe that companies who operate from a good environmental, social perspective and honest government structure will generate better revenues in the future.

At the same time, you strengthen our voice which we can now use to tell the lagging companies why they should change. Instead of not investing in them, we tell them how they could change to become appealing again for our investors.

And that is the concept of:

Prove
Making A Change Together

Powered by
Rabobank



Scan to view the introduction video of Prove

Or access via:
<https://youtu.be/wcs4WJdtBk8>



Concept proposal

7.2 How a sustainable angle is incorporated in Prove

Chapter 3.4 showed that sustainable solutions are preferred among the majority of gen-Y as long as they don't have to pay extra for it. But there is also a growing group of consumers for whom sustainability is even more critical and even likes to pay extra for it. A group that is expected to grow, as shown in the future vision of chapter 5.

But now, gen-Y is still a cost-conscious generation where the price is an important factor for choosing their broker. Next to that, sustainable investing is often seen as something which lowers the yield. This is not true, as explained in chapter 2.4, but how gen-Y thinks about this topic has to be considered. But it is expected that the rising stance of gen-Y towards sustainability is only increasing in the coming years, which Prove hopes to make use of.

The concept of Prove tries to find a balance in this fast-changing behaviour of sustainability from gen-Y.

First, it gives people the ability to take a more activist stance towards their stock trading behaviour by focussing on the social aspects of the platform. On the one hand, by selecting criteria why you bought a specific stock. On the other hand, by inspiring each other on the forum to find sustainable stocks. In the future vision, it is expected that this new type of ownership will be even more preferred when climate change becomes more apparent.

Secondly, I wanted to focus on enabling sustainable investing behaviour without providing a service that can make it 'sustainable' by paying extra for it. I noticed in the interviews from chapter 3 that even the sustainable focussed consumer is not activated by paying for such a service in, for example flying, where you can buy CO2 reduction for the amount you emit in your flight. There you directly connect

sustainability to a price where people often choose for a lower price.

I wanted to design a proposition that helps society act more sustainably. But without making it more expensive so that it feels like 'you're just buying off your CO2 consumption.' In chapter 7.6, I will explain how this positive effect of Prove is created.

As a user of Prove, you don't feel powerless in helping the planet in order to push companies to operate more sustainably and socially. But you are happy to share your thoughts to help the world become more sustainable through your investment behaviour.

At Prove, supporting sustainable behaviour isn't directly connected to a price you have to pay, you are still in control of your trading behaviour. Which should help in that feeling of empowerment I'm trying to create through the concept.

Consumer test to validate insights and assumptions on Prove

Also, the sustainability aspect of Prove plays a significant role in solving the three issues: creating attention, providing the right level of guidance and lowering the feeling of risk, as shown in figure 41.

On the bottom of page 109, you can find the demographics of the questionnaire participants. In this group, I validated the assumptions about the concept of Prove.

When I asked, in other words, about the basic concept of Prove the results were very positive.

84% was very positive towards the phrase:
"I would like that if I own stocks of a company it will help them to operate more conscious."

Main components to overcome in concept

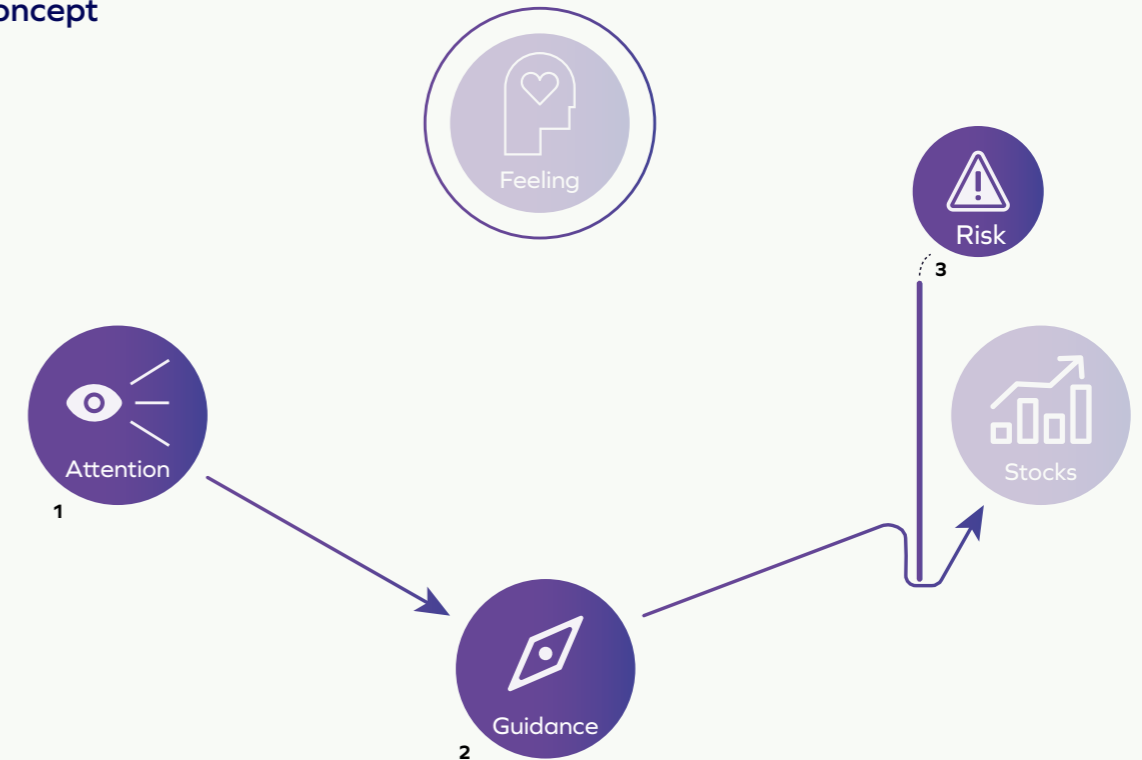


Figure 41: simplification of components from the decision making model for retail investors of chapter 3

Also, it seems like people prefer to invest in companies highlighted about sustainability performance.

72% was very positive towards the phrase:
"I would be more interested to buy stocks of a company who addresses to change towards a more sustainable profile."

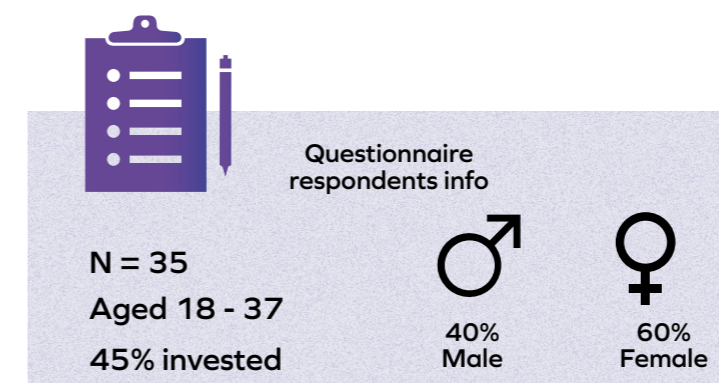
To conclude from these results, it looks like my assumption that people like to contribute to companies' more social and sustainable attitude through their investment behaviour but that it shouldn't directly cost them money is true.

In the following three chapters, I will explain how the concept solves these issues where some main assumptions surrounding these elements were validated through this new questionnaire.

Analysis of the questionnaire

The questions were asked with a 5 point Likert scale, and the answers were divided into two nominal categories agree/accept and disagree/reject. From these categories, the mode of the most frequent responses was analysed. The overview of the results can be found on Appendix F.

For the answers, the social desirability bias should be considered for this test. Since some questions ask about sustainability and the social behaviour of people, which is easy to skew into a more social desired answer through an anonymous questionnaire.



Concept proposal

7.3 How Prove generates attention among consumers



Attention

The impact that the concept of Prove can make on companies to operate in a more social and sustainable matter increases if more people use the platform. This creates a more valid argument to show companies how important sustainability is for our investors and how it will cause them to be more popular among our investors.

The motivation to attract others to use Prove is comparable with a protest march. A small demonstration usually doesn't create a lot of traction and change in society, but a big march could make quite the impact and could even be newsworthy. Also, when there is a march going on, it is more attractive to join, which is also addressed in the research of D. Sivers called Leadership lessons from a dancing guy.

A social component to activate others is essential to incorporate in a new investing service for gen-Y. In chapter 3, I saw that more than half of the people started investing because of social interactions with friends and family. When a new service like Prove uses this aspect to motivate you to tell others about it, it will generate attention at a much higher pace. Chapter 7.5 will elaborate more on this subject and how it could create a positive FOMO effect. Furthermore in chapter 9.4, I will elaborate on the launch strategy on creating that first level of attraction needed for the social effect to work.

Assumption validated if people would like to share their reason of buying a stock

An important aspect that needs to be validated is: do people even like to share why they buy stocks? And what do they all want to share from their investment behaviour?

First, gen-Y didn't like to share which investments they have anonymously or by name based on the questionnaire.

Around 70% disagrees with the statement:

"I would like to share online with my name with others which investments I have, without sharing the value of those investments."

But when we ask if people would like to share the reason why they bought a stock people. Only with friends instead of all the users on the platform, they are more optimistic about that.

Around 70% agrees with the statement:

"When I buy a new stock I would like to share with friends the reason why I bought that share."

And people are even more curious to see the reasons of others, around 80% would like to see the companies their friends bought and about 80% would like to see the reason why.

When the goal of the concept of Prove is explained, gen-Y is even more enthusiastic about sharing their reason why they invest.

Around 94% agrees with the statement:

"If the investment platform wants to create a positive change with my 'investment voice' I would like to share it (can be anonymous)."

Assumption validated of raised attention when pursuing positive change

It also looked like gen-Y is positive in motivating others, establishing a positive change through Prove.

When they are asked in the questionnaire if it would motivate them to start investing through a platform like Prove 97% agreed on the statement:

Around 97% agreed to:

"It would motivate me to start trading with a platform who tries to enable positive change towards lagging companies"

And it also seems that the concept of Prove also motivates to activate others to start to invest via the platform.

Almost 80% agreed to the statement:

"It would motivate me to also encourage others to invest via such a platform because that will increase the power the platform has on other polluting companies".

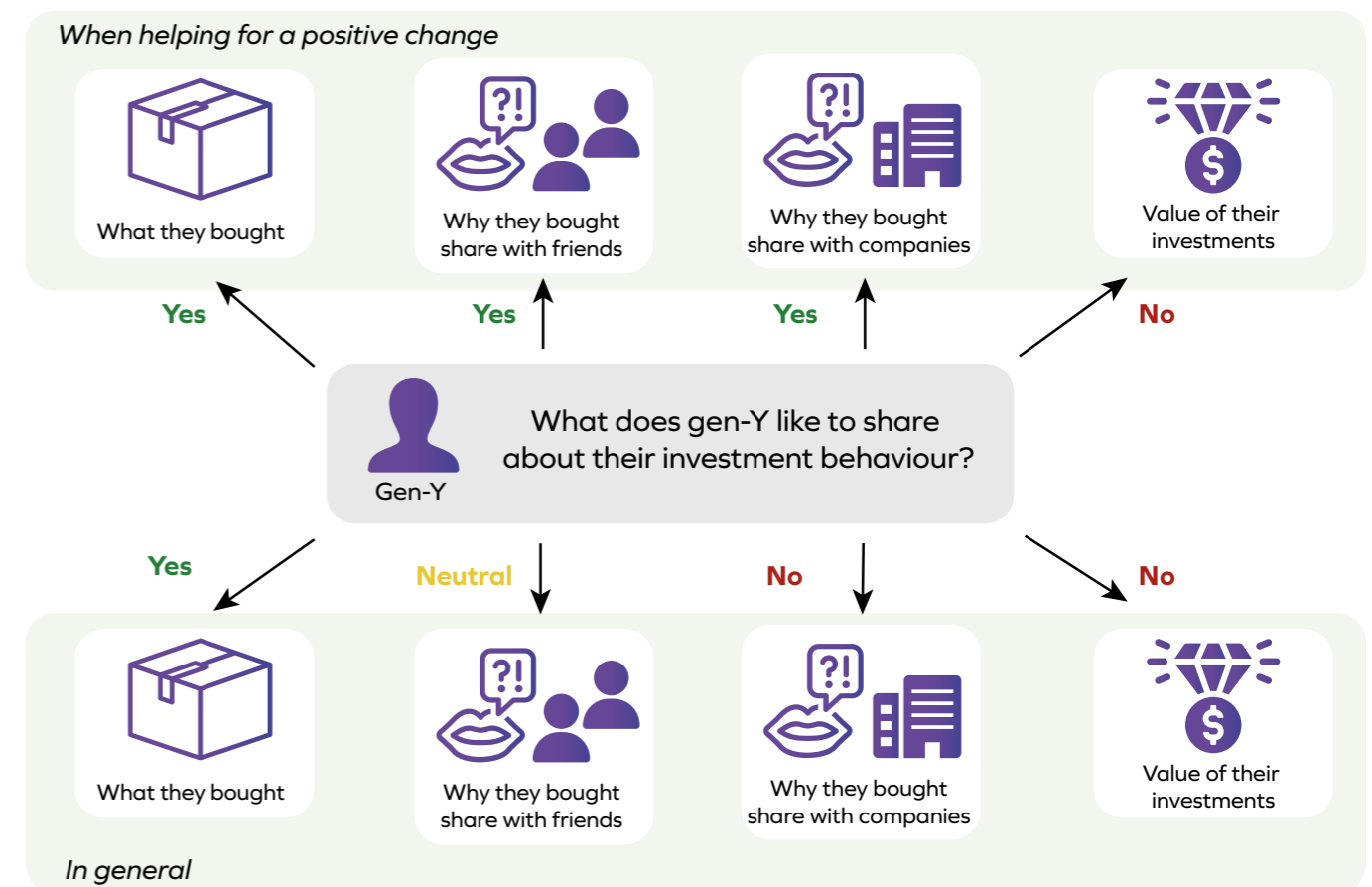


Figure 42: self made overview with information from questionnaire what gen-Y would like to share about their investment behaviour

Concept proposal

7.4 How Prove creates the right level of guidance



Guidance

The right level of guidance is needed to make sure a new user doesn't drop out and keep stuck in the 'feeling state' and doesn't start investing using the service of Prove.

When designing how the looks and feel of Prove should look, I kept the persona's of chapter 3.6 in mind. Investing and finding your investment should feel intuitive and shouldn't feel like a scary challenge with numbers and graphs that feel overwhelming.

Seeing the reasons other people bought a stock should help give you this safe feeling of confirmation. Showing reasons why others bought a specific stock should help you think, 'you see, I am making the right decision now'. A feeling they can't find in existing brokers. There is no need to scan graphs and numbers and try to forecast the profitability of a company because that isn't helping in providing the feeling of empowerment our target group searches for.

Furthermore, this whole community aspect of Prove also helps you find new companies on elements everyone understands. Prove holds a huge database with opinions and reasons about what people like and dislike about particular companies. These opinions of others should help you find companies that match your preferences. Chapter 8 tests how this new level of guidance is experienced for consumers.

Furthermore, to stay away from hard numbers and graphs, Prove focuses on the 'soft aspects' of investing, for example if a company matches your thoughts and values.

To give this level of guidance we start with every new user of Prove to ask if they want to share more about themselves. We ask about their personality, their values, which sectors they want

to exclude from their investments and which sectors they preferably want to include. The output of this information is linked to a variable that will be used to make a 'fit for you score' for all the stock listed companies, which can be seen in figure 43.

The last element of Prove that helps guide the user, is the focus on the positive impact of your investments. To know if a stock is going to be worth more in the future is something difficult to speculate upon. It can take you a lot of time to try with graphs and numbers to make a forecast for yourself to predict if it is going to be a good investment.

It is easier to see if a company helps the planet in a sustainable and social way or if their ambitious goals are relatable to you. We do this by giving the ESG performance of companies a prominent place, as shown in figure 44. This is different from our competitors where most of them hide these numbers behind different menu's.

Would people like to make choices based on the opinions of others?

First, I saw that people would like guidance in finding investments that match their values and personality.

Around 93% agreed with the statement:

"My investments should reflect my personal norms and values."

Secondly, I saw that gen-Y is also positive to see reasons why others bought specific stocks.

Around 73% agreed with the statement:

"I would like to see why my friends buy specific stocks."

Fit for you score is the main indicator initially shown together with stocks

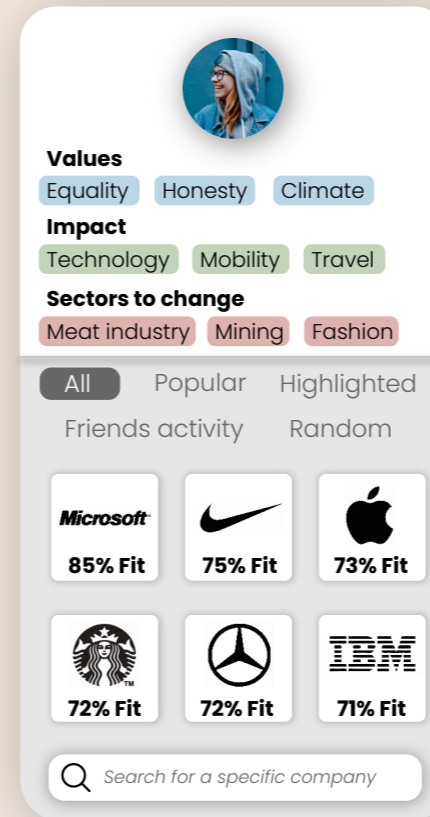


Figure 43: self made screen for Prove how stocks are displayed for users

Elements to make you feel empowered when searching for a stock

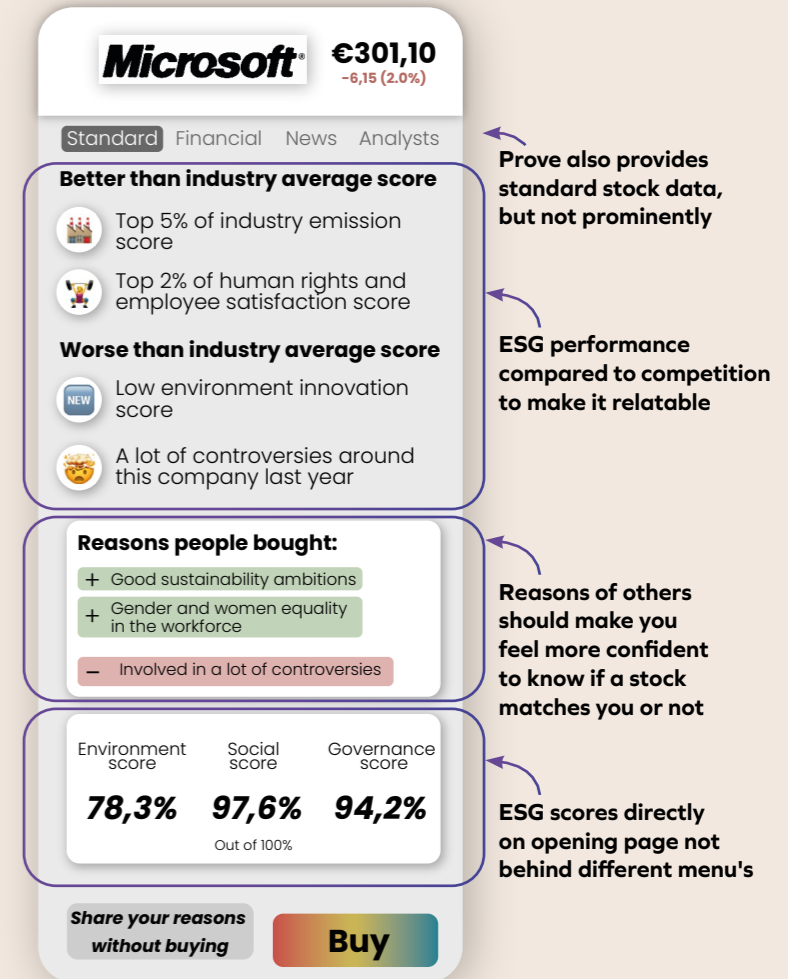
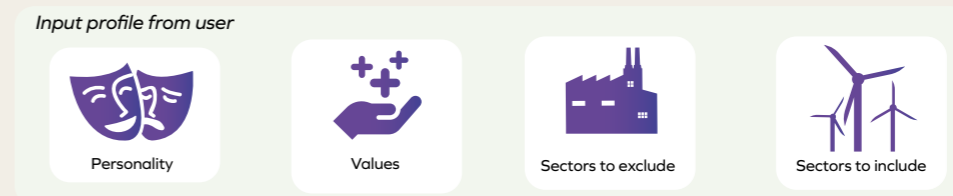
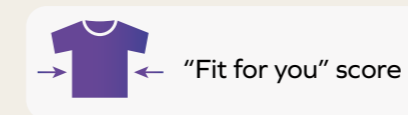


Figure 44: self made screen for Prove how it is displayed for users when checking a company profile

How a fit-for-you score is calculated



Variable score



Creates

The bigger the congruence the lower the "fit for you" score

Variable score

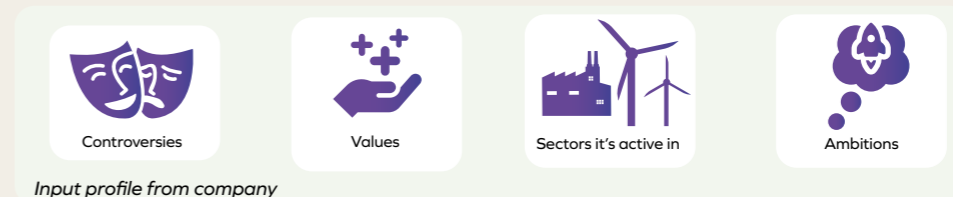


Figure 45: self made schematic overview how a "fit for you" score could be calculated

Concept proposal

7.5 How Prove solves the risk threshold

Risk

As I stated in chapter 3 to bypass the risk threshold, the user needs a feeling of knowledge, trust or I-Fomo as shown in figure 47.

With Prove I try to focus on two elements: reassurance and positive I-Fomo.

Reassurance will be created through the community and social element of the platform where you share why you buy a stock or what you don't like from it, which can be seen in figure 46. Seeing what the crowd thinks about a certain stock will help create this feeling of reassurance when buying a stock. This is different from buying stocks now at any broker where you cannot see reasons why people bought the stock recently, which doesn't help you in giving you this feeling of reassurance.

Secondly, Prove tries to lower the risk element by creating a positive I-Fomo effect. This positive I-Fomo effect is created by the social element where the impact of Prove grows when more people join the platform. When the customer base is big enough, this effect will grow and hopefully create the feeling of I-Fomo also to start investing through Prove. Because why invest at an old fashioned broker while all your friends help for a positive change when investing at Prove.

But pursuing to create a Fomo effect with your product could be unethical since it can cause quite a lot of mental health issues by your consumers. But specialists like Kellie Zeigler and Lauren Cook of the mental health platform Psycom agree that Fomo can also cause positive effects. This is the type of Fomo I want to create through Prove. I want to focus on the positive I-Fomo effect around the idea of helping to establish a positive change.

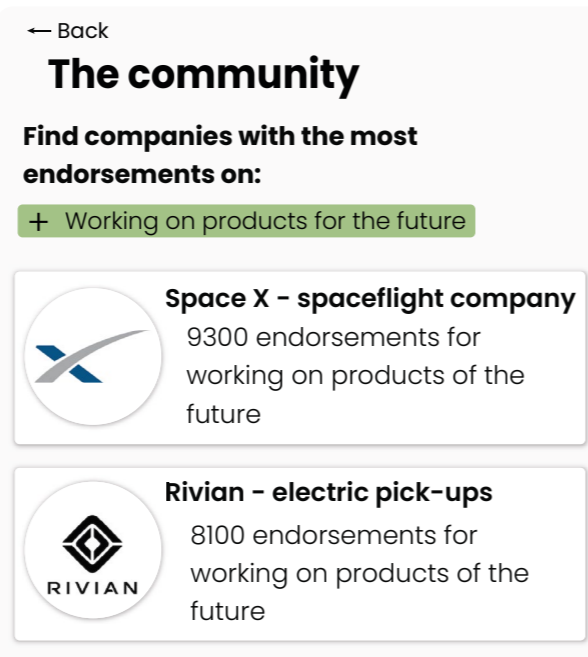


Figure 46: self made image, seeing why others bought a stock create reassurance and a positive feeling of I-Fomo

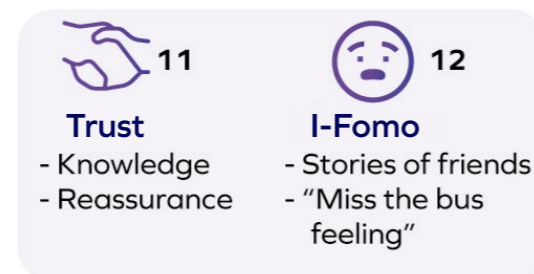


Figure 47: methods to bypass the risk threshold from the model of chapter 3.3

"I've seen FOMO motivate people to step out of their comfort zone"

- Kellie Zeigler

one of just 1,500 Certified Applied Positive

Psychology Practitioners in the world

Validated if sustainable focussed companies help in causing the I-Fomo effect

From the questionnaire, I see that the effect of recommendations of friends is expected to grow when a product has a sustainable focus.

The opinion about the following quote is completely average where only **27% agrees with the quote:**

*"I often purchase something if my friends also recommend to buy the product of a company even if I knew it is **not a company with a sustainable focus**"*

Where gen-Y is way more positive and **75% agrees with the same quote but if the company has a good sustainable focus:**

"I often purchase something if my friends also recommend to buy the product of a company with a good sustainable focus"

This validates the assumption that there is an increased possibility that gen-Y would be more positive to share their achievements on Prove, which will help in creating the I-Fomo feeling and reassurance.

"when we see someone else living their #bestlife, it can give us hope that we can do the same. Watching others excel, can be a way to encourage us to reach for more."

- Lauren Cook,

Doctoral Candidate of Clinical Psychology at

Pepperdine University

Concept proposal

7.6 How to make impact to change lagging companies

To assess the possible power of Prove in helping companies to change, I arranged several interviews with parties who have experience in this field. I interviewed green lobby organisations: Follow-This, SOMO and Urgenda, which all operate differently to establish a positive change.

I also interviewed someone who worked several years in the supervisory board at a stock listed company in the Netherlands to ask him about the possible impact of Prove on his company.

Impact is key for consumers

How enthusiastic gen-Y will be about Prove is highly connected to the impact Prove is possible to make. The main selling point of using Prove compared to other brokers is the possibility to help create a change through your investment voice.

Also gen-Y addressed this in the questionnaire where 75% agrees with the statement:

"When using a platform like Prove I would like a transparent structure, which companies they helped to change with our investment voice."

Conclusion from interviews

The advisory board member highlighted the interest in a platform that displayed retail investors' opinions. He said it would be great for consumer-focused companies to monitor and take retail investors opinions into account for their strategy. But he expected it would take time to truly impact a company's sustainability performance as a platform.

This was also highlighted by Follow-This, who said they had to work for several years before they had the credibility before oil companies took them seriously. Follow-This also addressed

the challenge of measuring their sustainable impact. While measuring this impact and showing the results to our users of Prove will be a challenge.

Another aspect to consider is the sensitivity for fraud in the system addressed by SOMO since Prove is built upon the opinions of its users. SOMO addressed companies will go to great lengths to 'greenwash' their name in any way possible. In chapter 8.2, a solution is presented that should prevent this 'fraud' in lowering the credibility of Prove

An overall thought of the expert interviews was that such a social investing platform could definitely help create a positive change for companies. It could provide an extra motivation factor for those companies to change. But especially in the launch phase of Prove, there should be awareness of possible unintended consequences that could be created through the platform's social element, which holds a great uncertainty of how the social element will work out in practice.



Interview with employee (communication and engagement) from Follow-This

Mark van Baal the founder of Follow-This believes that oil companies make or break the climate resolution of Paris. Via Follow-This he wants to push those oil companies to go green in a faster rate. His thinking was, when you buy enough shares to submit a resolution (a proposal how the company should operate) to the shareholders meeting, he only had to convince the shareholders. This is how Follow-This currently operates. In figure 48, the past results of Follow-This and the votes of the shareholders on the shareholder-meetings are shown.

Setting: 1 hour, 1 to 1 digital over Zoom

Topics: are other parties happy with your presence, how do you operate, do you notice you can establish change with your size (7000 followers now), how do you see the future of investing, pitch concept and your thoughts.

Insights:

- It's difficult to measure the direct impact that Follow-This has on Shell and other oil companies. They see change happening, but the oil companies aren't dedicating this to Follow-This.

- The first years were very difficult as can be seen on figure 31 where almost no one saw them as a serious party.

- Shell always advises the shareholders to vote against the resolution of Follow-This showing they are not happy with their interference.

- The major shareholders are more positive towards Follow-This and they are easy to convince when shown how many people follow Follow-This. They often act upon the opinion of the society and their constituency.

- The major shareholders are all organized differently, sometimes only one person has to be convinced another time they have a whole board and analysts considering the choice.

Implications for Prove:

- An opportunity is spotted in sharing the customer opinions not only directly to the companies but also to their major shareholders in order to achieve more impact with Prove.

- Rabobank could help in giving endorsement to Prove to be seen as a serious party already from the start.

- Measuring impact will be difficult as most of the companies won't provide direct feedback on your actions.

		Climate Resolutions										
		Shell			Equinor	BP	Equinor	Shell	Total	Equinor	BP	Shell
Investor	Total Assets	2016	2017	2018	2019	2020		2021				
AEGON	€ 898,7 billion	✗	○	✓	✓	✓	✓	✓	✓	✓	✓	✓
apg	€ 573 billion	✗	✗	○	✗	✗	○	○	✗	○	○	○
NN investment partners	€ 293 billion	✗	○	✓	✓	✓	✓	✓	✓	✓	✓	✓
PGGM	€ 266 billion	✗	○	○	—	○	—	○	○	—	✓	✓
achmea	€ 211 billion	✗	✓	○	✓	✓	✓	○	✓	✓	—	✓
ROBECO	€ 176 billion	✗	✗	○	—	○	✓	○	○	✓	✓	○
MN	€ 153 billion	○	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
VAN LANSCHOT KEMPEN	€ 102 billion	✗	✓	✓	✓	✓	✓	○	—	—	✓	○
actiam	€ 57 billion	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—
Blue Sky Group	€ 24 billion	✗	✓	✓	○	○	—	✓	—	✓	✓	✓

Figure 48: an overview from Follow-This how major shareholders voted against their climate resolutions



Interview with employee from Urgenda

"Urgenda is an organisation who focusses on innovation and sustainability. Their mission is to make companies, government and consumers go for sustainable solutions at a faster pace than we are doing now.

Setting: 1 hour, call

Topics: their view on the role for retail investors to help the Netherlands to be more sustainable, reaction of companies on their presence, pitch concept and ask view on the expected sustainable impact.

Insights:

- For companies to adapt new sustainable alternatives it should be in balance with financial incentives.
- Rabobank not a party Urgenda would like to collaborate due to low sustainable perception

- Their preferred way of investing would be to invest in local sustainable energy sources
- Isn't expecting that Prove would change the course of big stock listed companies, due to too small invested amount of money
- Expect concept of Prove could make positive impact on smaller more local companies
- When you are able to have your insights included in review reports used by C-suite level that would make impact

Implications for Prove:

- By only using the name Rabobank it seems green lobby organisations are not eager to endorse this concept.
- Expect to take a long time for Prove to be able to make an impact of the course of big companies. But to start at the smaller companies could be a good starting point.



Interview with advisory board member stock listed company

I could interview someone who has been active in several advisory boards of several stock listed companies in Europe.

Setting: 1 hour, call

Topics: How does the board of a stock listed company makes decisions, is the influence on their stock price an important decision maker, do retail investors have an influence on the decision making of the board, pitch concept and ask opinion of the predicted impact on decision making.

Insights:

- Boards of companies don't let their goals that much be influenced by the price of the share.
- It is really important to keep your major shareholders happy and to have good relations with them.

- Sustainable focussed companies and companies who need a good image towards it's consumers would probably embrace the idea of Prove.
- Stock listed companies already value the opinions of their employee's via a work council, but currently there is no platform that reflects the opinion of the retail investor.

- Everyone is just as green as their own wallet, so try to make it a financial benefit for companies to comply with Prove.

Implications for Prove:

- There is a big opportunity spotted in helping to reflect the opinions of the retail investors, there is not a clear platform for decision makers available already.
- It is expected that Prove wouldn't make direct impact on the course of companies because it takes time. But data from Prove definitely could influence decision making in stock listed companies.

Schematic structure of data sharing

Based on the expert interviews, I made a strategy for sharing the customer data of Prove, which can be seen in figure 49. Prove will share its quarterly user data. To make the impact of Prove as measurable as possible, we ask the companies and major shareholders to fill in a questionnaire in return for the data. In this questionnaire, we ask them the probability that they will act upon the data of Prove and how they are going to act upon it.

It is important always to share all the data of Prove to stay transparent and trustworthy to our users.

So two weeks after we have sent the data directly to the stock listed companies and shareholders we make the data public. We don't make the data public directly since the chance is missed to ask for feedback from companies on our data and that would make it difficult to measure the impact of Prove.

Schematic structure of data sharing

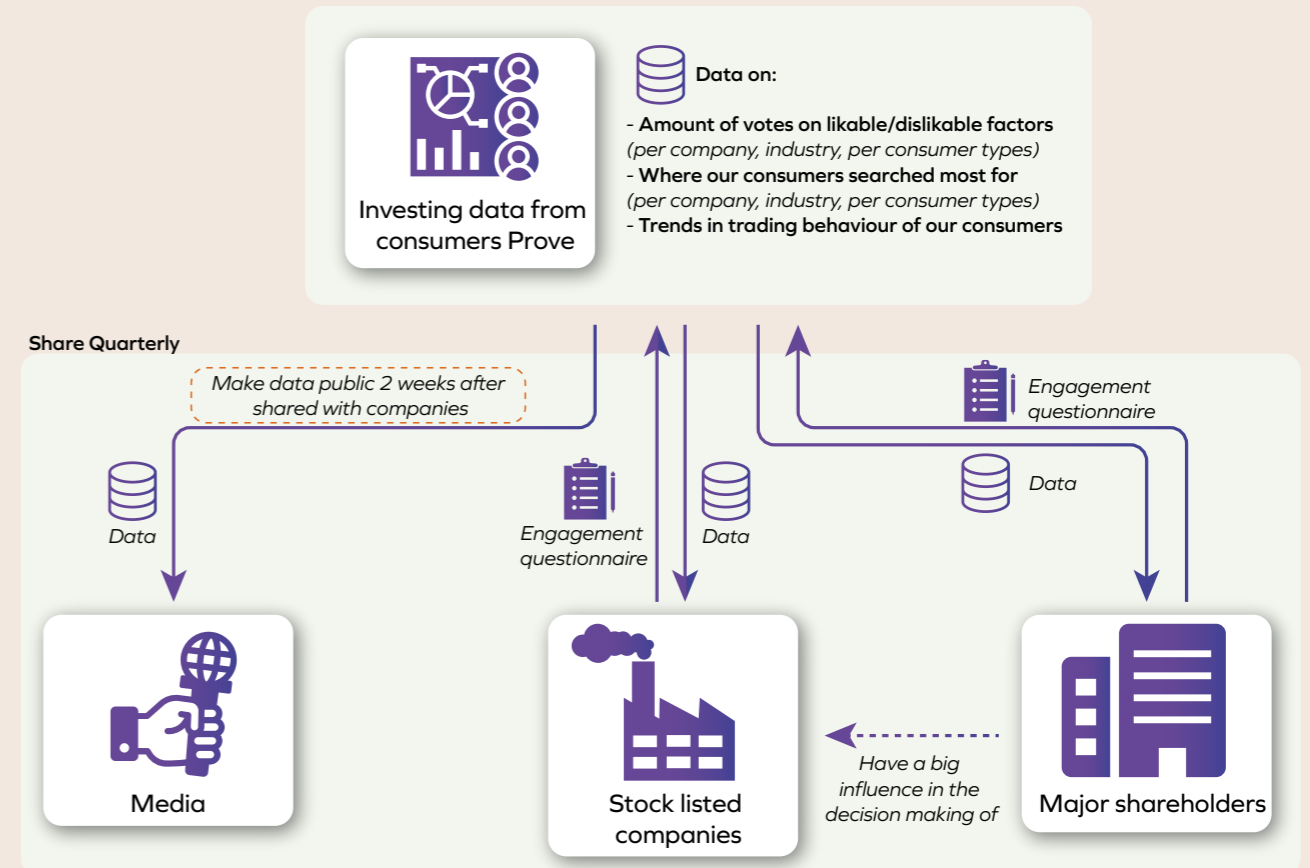


Figure 49: a self made schematic overview how the data of the users of Prove will be shared

Concept proposal

7.7 Business modelling

Prove will be launched as a separate entity from Rabobank. In chapter 9, I will elaborate on the strategic decisions of that choice, but here I will explain the business model of Prove.

Income per transaction fee

Prove needs a transparent business model to keep its trustworthiness high. As explained in chapter 2, there are a lot of untransparent business models possible for a broker.

Prove's primary source of income is a transaction fee per stock transaction. To enable this system, Prove will use the existing back-end solution of Rabobank to enable stock purchases and will also pay a commission for this use to Rabobank.

A fee per stock purchase is also a typical and well-known cost structure among gen-Y. As we've seen in chapter 4.2, consumers nowadays expect a low transaction fee. It is important Prove also offers a transaction fee in the low range to its users. As displayed in figure 50, I propose to charge a fee of around €5 per stock transaction of up to €1000. It is not the lowest transaction, but it's still in the lower range compared to other brokers.

When you ask for a higher price, you provoke the problem addressed in chapter 4.2 that people could get a feeling they are paying more to use a sustainable alternative for the product they want to buy. That is something I want to prevent with Prove. The concept should be inclusive and you shouldn't have to pay more to buy your stocks and share your opinion.

Because Prove will ask for a low transaction fee, margins will be lower for Prove. It is expected that Prove can keep itself alive with the transaction fees, but this flow of money won't become a cash cow. The real value of Prove is making a real impact on a more sustainable and social world. Also, Prove provides much potential in cross-

selling when the platform becomes popular.

Income generated from cross-selling

With Prove I hope to push companies to change towards a more social and sustainable profile. The name of Rabobank as an endorsed partner will be connected to the collective message and data that is shared with the companies and major stakeholders. In order to improve the trustworthiness of Prove right from the start.

It could create exposure and improve cross-selling for Rabobank to eventually provide these loans to help companies operate more sustainably. It helps Rabobank in providing sustainability focussed loans as it will provide revenue.

When Prove is more powerful, an extra business model could be explored by helping to give stock listed companies positive exposure about sustainability on our platform. But the key is keeping the trustworthiness of Prove high because one conflicting news headline could make the strength of Prove collapse.

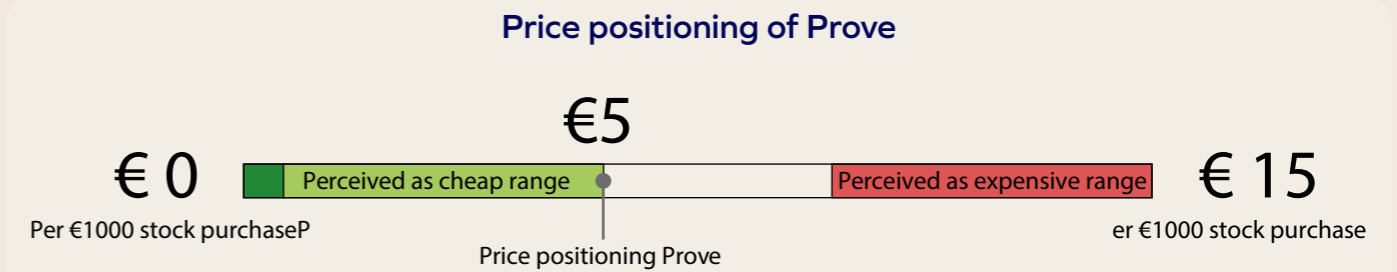


Figure 50: self made schematic model of the decision making for the pricing of Prove

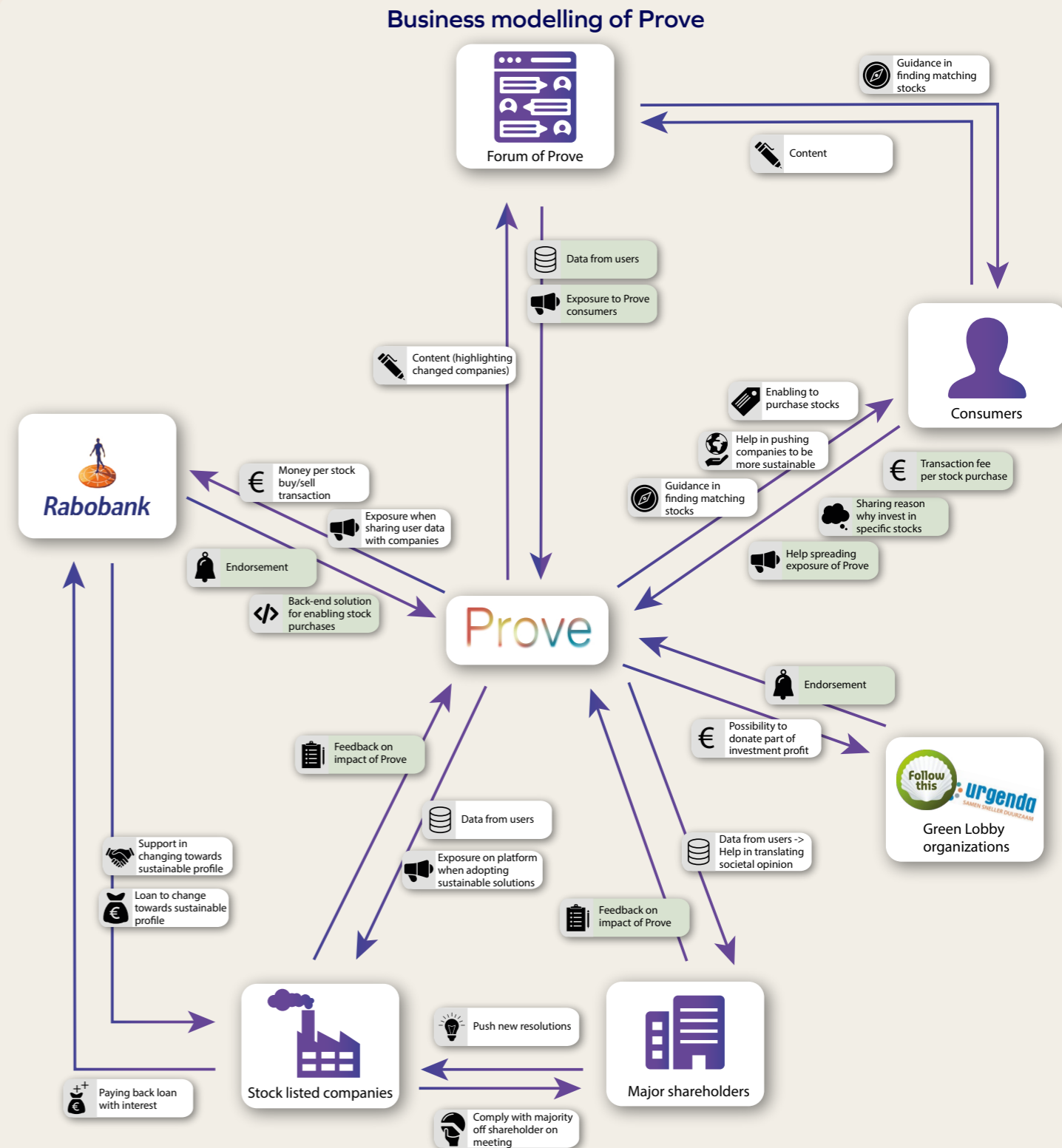


Figure 51: self made overview of the business model lines of Prove

Needed user base for the social element of Prove to work optimal

A simplified guestimate is performed to see how many users Prove should have in order to have the feedback system of the users working properly.

Robinhood, one of the most popular brokers in the US, and offers the possibility to buy 5000 different stocks. I assume that 20% of the total amount will be stocks popular among retail investors, so $5000 \times 0,2 = 1000$ popular stocks

Retail investors have an average of 15-20 different stocks (Investopedia, 2020). But I continue with a smaller average of 10 different stocks since gen-Y will have a lower start capital.

When we only focus on consumers in the Netherlands, there are around 2 million people of gen-Y. When we expect to have a market share of 1% we have 20.000 users.

So, these 20.000 users will buy 10 times a stock of 10 different companies, resulting in 2.000.000 purchases. When we assume the 1000 popular stocks are equally popular, we have an average of $2.000.000/1000 = 2000$ purchases per popular company.

In reality this will differ because companies will vary in popularity among investors.

But I can conclude with a rough guess of an average of 2000 transactions from our users per stock listed company it is enough to form a database of reasons why the retail investors bought a company.

With a market share of 1% among gen-Y consumers there is still an average of 2000 stock purchases per popular companies.

So I can conclude even if Prove is still a small platform the crowd on the platform is big enough to help form a database of reasons to help you find stocks matching your profile.

Concept proposal

7.8 Conclusion on introduction of Prove

Main problem solved for consumers

Prove seems to be a concept that solves the problems of attention, guidance and risk into one overarching concept that was searched for. The possibility of sharing why you buy specific stocks could result in a real revolution on the stock trading market for retail investors. On the one hand, it gives the possibility to participate in helping the world to operate more sustainably and social without costing you a lot of money. On the other hand, it could be a tool that helps people to find investments that reflect their norms and values, something that seems to be the new norm among gen-Y. This could attract a huge potential target group of gen-Y who is now procrastinating this decision as described in chapters 3 and 4. But Prove also provides a reason to switch for people who already invest since they can contribute to that positive impact Prove is part of.

Validated if Prove could help make an impact

Based on interviews with both experts from stock listed companies and green lobby organisations, it is expected that Prove will help establish the positive change. However, it is likely that making the impact measurable will be difficult, which could lead to a challenge in the long term to keep a high level of trustworthiness.

Profitability of Prove

The business model of Prove is not focused on profitability in the first years. A transparent pricing strategy is proposed, but Prove holds a lot of potential for cross-selling when it grows as a platform.

In figure 52, the relative performance of Prove is compared where it is expected Prove will solve

most of the needs identified in chapter 4 and outperform competitors.

In the next chapter, I will focus on in-depth consumer testing instead of validating assumptions about Prove solely through a questionnaire. It will also be examined how the service of Prove should evolve to retain its customers.

Important assumptions validated in this chapter

- It's key for gen-Y that their investments reflect their norms and value
- Gen-Y is positive in switching towards sustainable alternatives that aren't more expensive
- Gen-Y is positive in helping to create a positive change through their investment behaviour
- Major shareholders try often in their voting behaviour to reflect the social public opinion
- Gen-Y would like to see their ownership in stocks also has a effect on the company they own stocks from.
- Prove only needs to have a small market share among gen-Y to have the social supportive effect on the platform working properly

Expected performance of Prove based on the customer needs matrix of chapter 4

	Prove Making A Change Together	Rabobank 'zelf-beleggen'	Low commission brokers
Low transaction fee's	○	×	✓
The investment process makes you feel empowered (guidance in portfolio reflecting their norms and vlues)	✓	×	○
A Fun and efficient tool	✓	○	○
Consumers feel engaged to make an impact through their investments	✓	×	×
It motivates to keep you going	○	×	○

✓ = true ○ = a little bit true × = not true

Figure 52: self made overview how Prove scores on the identified customer needs for the target group

How the features of Prove solves together the 3 main tasks of attention, guidance, risk

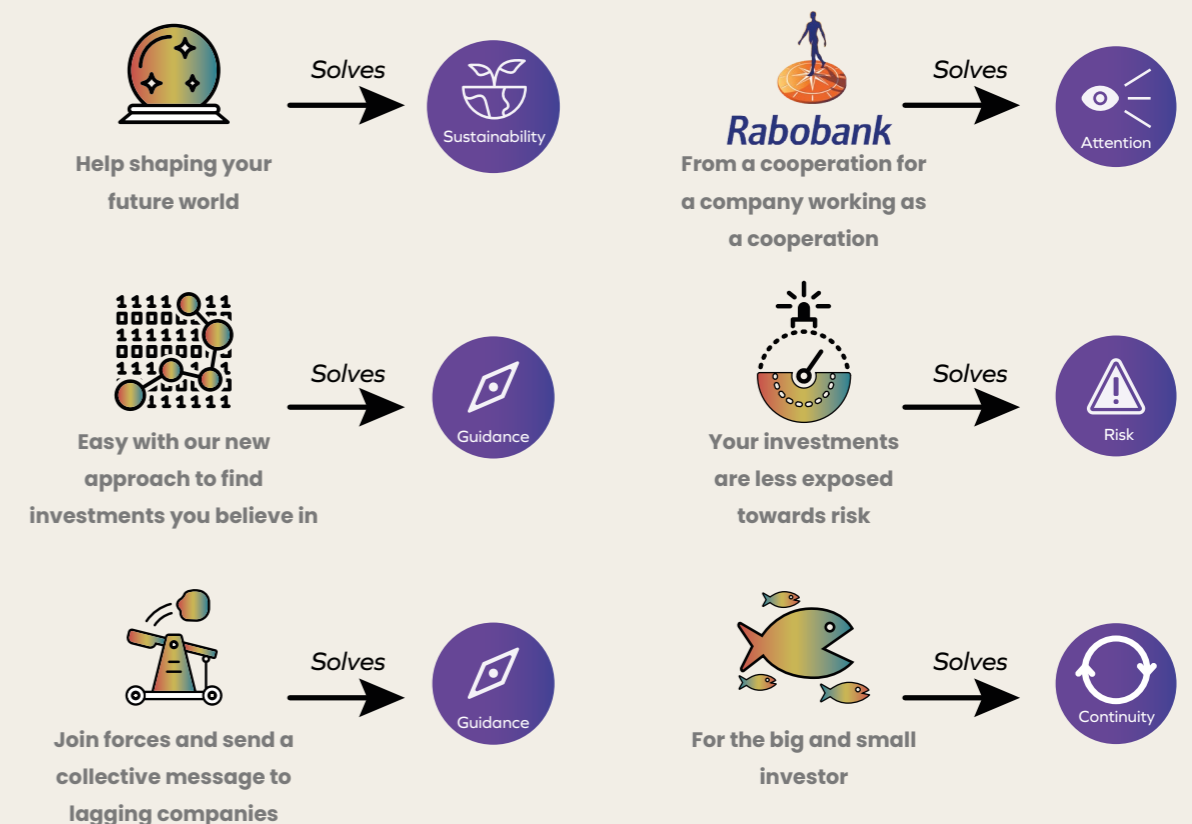


Figure 53: self made overview how the features of Prove solves the elements needed for a good investment proposition

7.9 Reflection

This was a chapter I enjoyed making within the whole design process. I noticed that from the future vision, a new concept started evolving. And I saw that this concept gave opportunities to solve the problems identified in the research.

I found out that I really like to network and to connect and talk to interesting people about the concept. The enthusiasm of others gives me a lot of energy. I also liked to think of creative ways to connect with the different experts and ask for their opinions.

I think I should stay aware of the 'kill your darlings' principle. It was something I already found difficult when developing the concept of chapter 6, and if I had to kill this concept, I would find it even more difficult.

But sometimes you also have to follow your designer's instincts. So far, I have talked to quite a lot of different experts from different professions and users about this concept, and still everyone sees the potential of the concept. Which was different compared to the first concept.

This concludes me in the learning also addressed in earlier chapters. Throw your idea out in the world and test it, what do others understand about it and what not.

Sometimes a concept makes total sense in your head but when pitching it to others, they don't understand it. Then you know to adopt the story and to polish it. It's something I did quite a lot in this whole design process to quite a lot of different professionals, which led me to a design direction I feel confident about and is supported by other people. And for me that is one of the most important elements your concept should achieve.

Iterations through consumer testing

Chapter

08

Besides asking experts about their opinions on Prove, user tests have also been performed. Next, iterations have been proposed to improve the lagging elements of Prove.

8.1 User tests with Prove

8.2 Gamification for retention

8.3 Reflection

Iterations for Prove

8.1 User tests with Prove

Besides testing the underlying assumptions of Prove with the second questionnaire in chapter 7, the concept was also tested on other assumptions with two tests.

- 1 Consumer interviews about the concept of Prove
- 2 An experiment which elements of companies people would choose when buying a stock



Goal of the user interviews

The goal is to test assumptions about the concept in five directions:

- Were consumers activated to start evaluating the concept?
- When seeing the landing page and other communication material, are consumers positive towards the concept?
- How do they like this new way of guidance? What feeling does it give? Are there features missing?
- Would it lower their risk threshold?
- Would they be activated to sign-up and start investing through Prove?

Set-up of interviews

The interviews were held face to face. The interviewees were evenly divided between males and females aged between 23 and 27. It was chosen to interview three people who already invested in assessing if they would like to swap from broker to Prove to determine its competitive advantage. And three people who were thinking about to start investing but were procrastinating the decision.

On pages 130 and 131 are the results shown of the interviews.



Goal of the experiment

The goal of the experiment is simple. It is focused on the following assumption:

- When people buy different stocks, they will select various reasons on the platform of Prove.

It has to be tested that if people can select from different reasons, not all people would choose the same reason when buying a stock. Then a key element of Prove wouldn't work because it isn't helping you to find stocks through the reasons of others when all stocks show the same reasons.

Set-up of the experiment

I've asked five friends who recently bought a stock to participate in my experiment. I asked them to choose 3 to 6 criteria out of 45 pre-selected criteria I drafted, about the reasons why they bought their recent stock. The stocks they bought were all different stocks which was essential for the experiment to check if other companies had different outcomes. Then I compared the results to see if different stocks created different reasons people bought them.

Outcomes of the in-depth consumer interviews

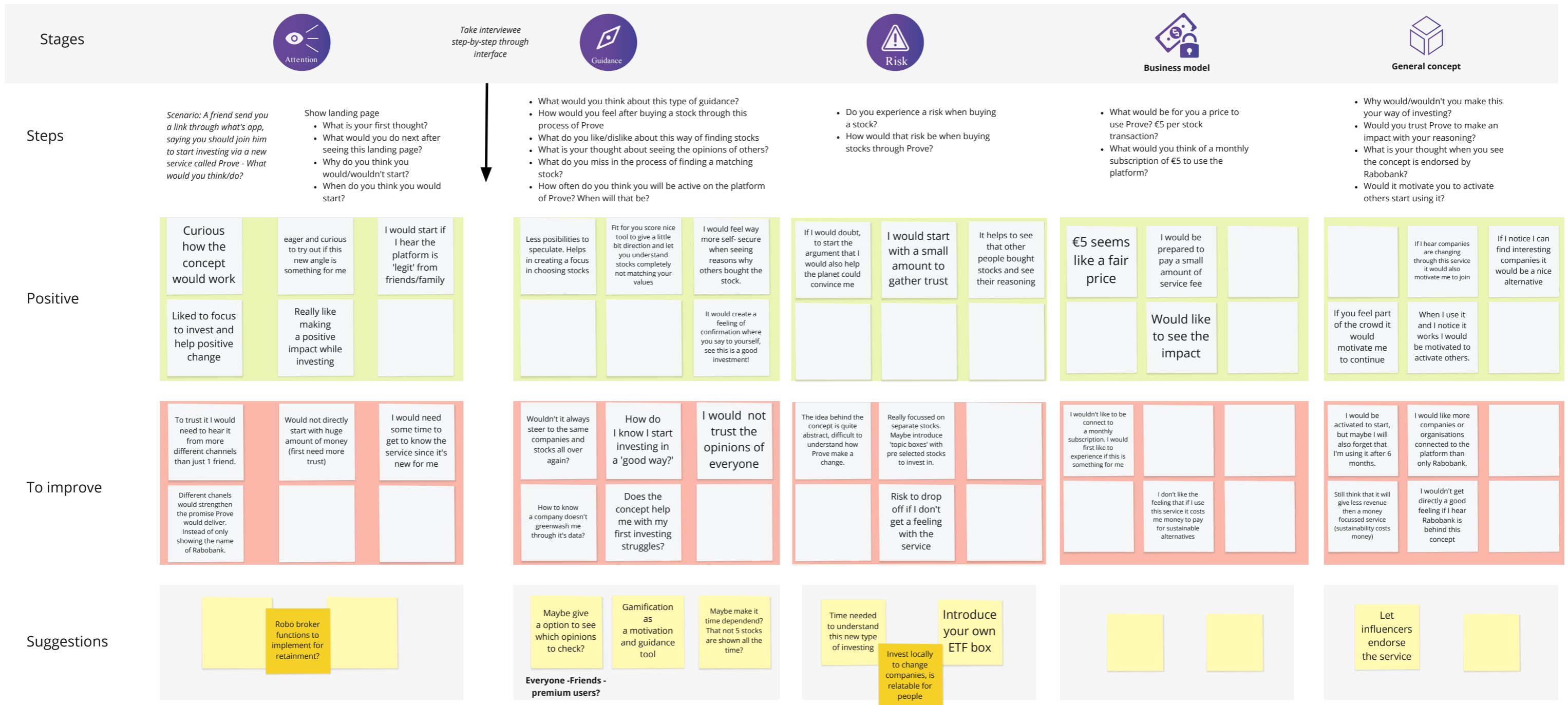


Figure 54: results of consumer interviews about the concept of Prove

Results user interviews

- Were consumers activated to start evaluating the concept?

Positive, I noticed the sustainable element make people curious about the concept and how that impact is realised.

- When seeing the landing page and other communication material, is the consumers positive towards the concept?

Neutral to positive, consumers are curious to try out the concept which is positive. The quality and outcome of the interaction decide if the user will continue using Prove. Therefore it's crucial to think about the retention strategy in an early consumer stage.

- How do they like this new way of guidance? What feeling does it give? Are there features missing?

To improve the guidance, some good iterations were proposed. The main struggle was that people wouldn't trust the opinion of everyone on Prove. So, a solution should be implemented to solve this issue.

- Would it lower their risk threshold?

Positive, it seems Prove creates a basic level of trust needed to overcome the risk threshold. Especially the social element is addressed to improve a feeling of trustworthiness.

- Would they be activated to sign-up and start investing through Prove?

Positive people say they are curious to start investing with a small amount. Over time Prove needs to Prove itself to grow this level of trust which convinces people to invest with a larger amount of money.

Issues to solve after consumer interviews

- Implement a solution for retention keeping new users in the loop of Prove already from the first time use.
- The promises of Prove need to be true to increase the level of trust of its consumers. That will motivate them to invest more on the platform.

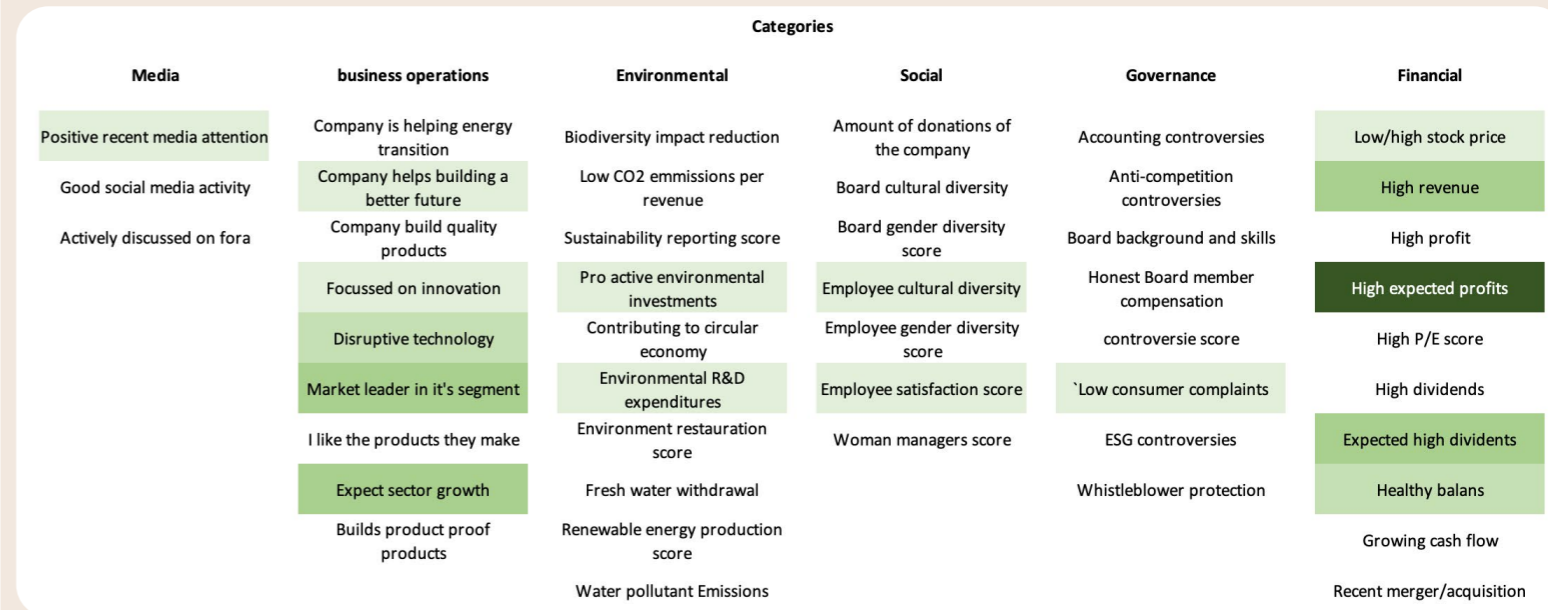


Figure 55: outcome of experiment about social element of Prove

Result experiment

In figure 55 the results can be seen of the experiment what reasons people choose why they bought a stock.

Based on this small test, I conclude that the first signs tend to validate the following assumption:

- When people buy different stocks, they will select different reasons on the platform of Prove.

We see on figure 55 that people with different stocks chose different reasons why they bought that stock. Some categories were chosen more often, like 'market leader in its segment' and 'expect sector growth'. Also, the category 'high expected profits' is chosen by everyone, which makes sense when you buy a stock of that company.

Overall based on this small test, which is not significant, I conclude that the first signs are positive that the social element of Prove will give varied outcomes why people buy stocks. This is essential in providing confidence to show at every stock why other people bought it, that the results feel specific for that stock and do not feel general and the same for all companies.

Recommendations

Categories that are obvious and chosen by everyone could be removed from the possibilities to choose from. So people have to give more specific reasons why they bought that stock, and thus the platform of Prove grows in authenticity in the social feedback people give about companies.

Chose at least 3 categories (max 6) why you bought a recent stock	Legend
	Chosen 1 time
Person 1, bought KLM	Chosen 2 times
Person 2, bought Just Eat takeaway	Chosen 3 times
Person 3, bought Unilever	Chosen 4 times
Person 4, bought ASML	Chosen 5 times
Person 5, bought Heineken	

Conclusion both tests

Based on the consumer interviews, it looks like the assumptions from chapter 8,1 which are important for Prove's concept, seem to be true. The social element appears to be working well to increase trust and lower the risk threshold. People are curious to try out the concept and look forward to contributing to make a positive impact with their investor's voice.

Although in the next chapter, the problem of retaining consumers and making them come back on the platform has to be solved. It is an element also already addressed in chapter 7.8.

Gamified road from first time user to empowered user on Prove

Iterations for Prove

8.2 Gamification for retention

In chapter 7.8, I already stated that Prove still lags elements that keep the user using the service over a longer period of time. Also, in the user interviews about Prove problems were addressed that:

- The Prove makes sustainable impact could be difficult to understand at once, since its the result of the complete eco-system of Prove
- There is not a focus on informing a new user with minimal investor knowledge to build a balanced portfolio

Prove still misses a level of engagement for the user. I want to give this level of engagement through 'gamification'.

What is gamification

The term gamification exists now already 20 years and was introduced by an American programmer N.Pelling in 2002 (Orlova, Titova, 2015). Gamification can be described as adding game elements to non-game activities (Gamify, 2022). Gamification is common among several sectors, especially education, while in banking gamification is still in its early stage (Chelyabinsk, 2020). Also, literature on gamification in banking is stated in the same article by Chelyabinsk as 'terra incognita' in 2020, meaning unknown land.

Why add gamification

I am designing for generation Y, but soon, generation Z will be an attractive group to motivate to start investing. A significant part of this generation lives in its internet reality and are a huge fan of computer games, which is even more catalysed by Covid. Also, most of the banking products are complex, which is also the case for the concept of Prove, while younger

generations have more struggles concentrating on one subject for a longer period of time. Also, generation Y and Z do not want to leave the internet reality due to a number of psychological factors (Voiskunsky, 2015; Denisov, 2014). Chelyabinsk claims gamification could provide in these new needs for banking activities and could lead to a fundamental basis for gamification in banking activities.

Elements to solve through gamification

In a research about the adoption of gamification in banking activities by Rodrigues, Cost and Oliveira by 2013, a model was drafted (see figure 55). They concluded that the intention to use a gamified e-banking broking application is influenced by the ease of use and perceived socialness. This also matches the problems addressed from the interviews where Prove now misses elements helping with the ease of use. Through gamification, it will also be important to have an element of socialness in there since that also has a positive effect on intention.

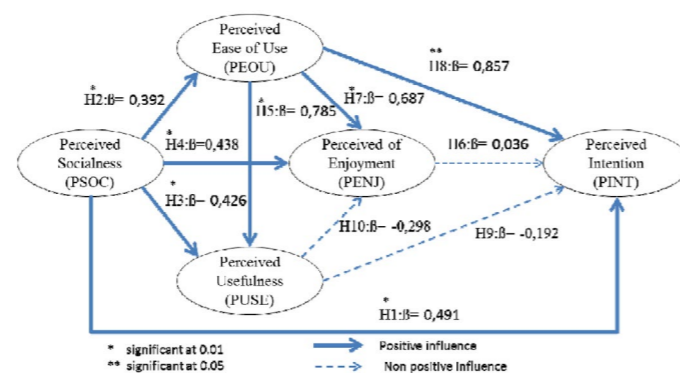


Figure 55: Effect of elements of Gamification on intended user intention, from research of Rodrigues, Cost and Oliveira 2013



Motivational elements of Gamification

Based on literature from Affinity by B. Ward people have seven key motivators, seen on figure 57. In the gamification model of Prove, I focussed on two of these elements: power and relatedness.

1 The feeling of more power and relatedness is achieved by becoming a higher rank on Prove. To become a higher rank, you have to do certain actions on Prove that are beneficial for your investment behaviour, the platform, and Prove's sustainability ambitions. On page 135 the following actions are shown which you can obtain Xp to level up:

2 *Set (and achieve) an investment goal*

A defined and visualised goal keeps users motivated. It can also give users a positive 'cookie' when opening the app, which shows positively how you work on your goal.

3 *Finish learning courses*

Informing is essential for the users of Prove to make good investment decisions, but it is boring. By rewarding them with Xp you create a moment of instant gratification afterwards.

4 *Share the reason why you buy*

This is the core principle of Prove. But you can only share your reasons why you buy after you become a certain level. This has two benefits.

1 - it becomes belonged to achieve that certain level

2 - it increases the trustworthiness of Prove, so companies could manipulate these social reasons easily because you first need a certain level on your user account.

5 *Help with a balanced portfolio*

Prove should also help inexperienced new investors make a good and balanced portfolio.

It analyses with your permission in which sectors you now have stocks in and gives you a recommendation of sectors to search in, in order to balance your portfolio.

6 *Participate on the forum*

It is essential to keep the forum lively for the social element of Prove. Therefore Xp is rewarded when being active on the forum. The forum should make you eager to achieve for a higher level since you can show there your 'status'.

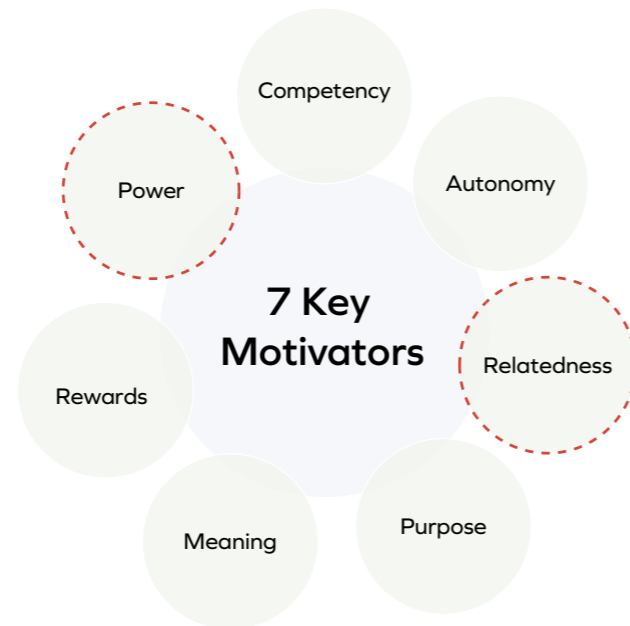


Figure 57: the 7 key motivators for people from Affinity

7 *Buy super green stocks*

To help achieve this optimal sustainable impact also more Xp is rewarded if you buy verified sustainable stocks.

8 *Invite others to join the platform*

The social element of advising your friends to use a specific broker platform is key to attracting new people to the platform, therefore it is also rewarded with Xp.

To conclude

The element of gamification gives people a reason to keep active on the platform of Prove. It helps them obtain more knowledge, participate in the forum, optimise their portfolio, and achieve more sustainable impact.

People are motivated to become a higher rank on Prove because it provides them more power and relatedness on the platform. With a higher level, your opinions are worth more to others on the platform, it gives you status on the forum and gives you extra tools to use as a Prove user.

Introduction

8.3 Reflection

This was a challenging chapter; it is always difficult to test your designed concept thoroughly. It helped me to first start writing down which assumptions there are within the concept. Secondly I start thinking of tests how it could be validated. It is an MVP way of testing where you do small tests to verify only that specific assumption.

I think this also led to the great experiment, which was easy to execute to test the redundancy of the social element, which had luckily the outcome I expected.

Next time what I would do different, is to think earlier in the project to have a group of testers ready, which you can use to interview and do tests with when you designed your concept. At the end of the project, I noticed my connections 'dried up' which I could ask to do an experiment with me because I already asked a lot of their time in the earlier stage of the project.

Branding and launch strategy

Chapter

09

This chapter describes Prove's visual brand identity and launch strategy. I will explain why the name Prove is suitable for the concept and why such a colourful brand identity fits the mission and goal of Prove.

9.1 Strategic positioning

9.3 How to activate gen-Y through marketing

9.2 Brand DNA of Prove

9.4 Strategic Roadmap

Branding & launch

9.1 Strategic positioning

I propose to launch Prove as a stand alone proposition but with the powered by Rabobank emblem.

Why leave the Rabobank 'zelf-beleggen' platform alone?

As addressed in chapter 2.2, the zelf-beleggen platform is important for people who do managed investing at Rabobank and would like to buy several stocks themselves. These people don't care for the higher trading fee and choose convenience. Therefore the zelf-beleggen platform is well suited, it's easy in use, goal focussed and well-integrated into your Rabobank payment account. This is an important feature to offer these users besides managed investing.

Why to launch Prove as an endorsed company?



1. Trustworthiness of Prove

As addressed in chapter 7, it is key to maintain high trustworthiness and stay true to the mission of creating a positive change with Prove. Based on interviews with experts and consumers, Rabobank doesn't have the trustworthiness (yet) to launch such a

disruptive concept.

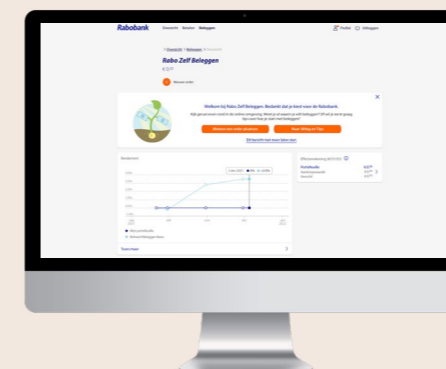
For example, Jasper Fleers from 'De Groene Lobby' reacted in an email conversation with me:

"If Rabobank would really become a sustainable bank that would already make much more impact than lure 1000 clients into a sustainable concept"

Jasper Fleers - De Groene Lobby

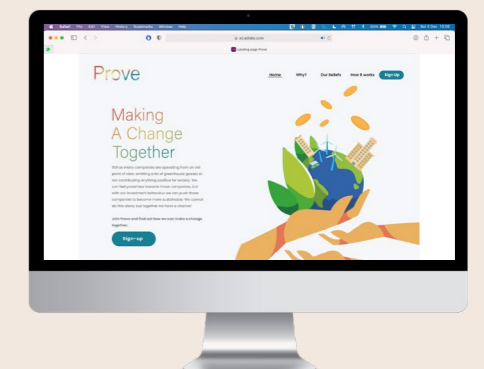
The same reactions I got from other parties I interviewed. It looks like Rabobank doesn't have the trustworthiness to launch a genuinely sustainable focussed proposition and be trusted by consumers that highly value sustainability. But Rabobank is a bank that would like to get this trustworthiness. Therefore from a Rabobank perspective, their name must be connected to the concept to show their focus for new sustainable concepts.

And the launch of Prove would fit within the history of Rabobank. Rabobank is the only bank in the Netherlands organised as a cooperation, where they are proud of. And Prove works a lot like a cooperation where the consumers work together to reach a shared goal.



Rabobank 'zelf-beleggen' platform

Both keep existing



Concept of Prove





2. Why the power of the concept also grows through endorsement by Rabobank.

Prove also benefits from the Rabobank endorsement since Rabobank is key in increasing the effect of Prove on companies.

As addressed from the interviews in chapter 7.6, Follow-This struggled in the beginning phase through a lack of trustworthiness and weren't taken seriously by other companies.

When Prove sends their reports to these stock listed companies and is endorsed by Rabobank, there is a much higher probability that Prove is being taken seriously much faster.

The second reason which could help Prove is that Rabobank could also be the party that allows companies who indicate they want to change, because of our attention. As we saw in figure 51 from chapter 7, if companies would like to operate greener and have good reasoning (where hopefully one reason is the feedback of the users of Prove), they need money for it to execute. Rabobank could be the perfect party to execute this loan because there are already short lines of communication between Rabobank and this company due to the shared reports of Prove.

Prove
Making A Change Together

Powered by
Rabobank

Prove and endorsed by Rabo could help by showing the stock listed companies Prove should be taken seriously

3. Rabobank needed as sales funnel to attract gen-Y

As stated in chapter 4.2, Rabobank holds a big consumer base among gen-Y but they don't use the services of Rabobank to invest. Via existing Rabobank channels, this consumer group could easily be reached through marketing channels to attract them to Prove.

Quickly Prove could have a customer base to deliver the social input needed to make the platform work at its best. A win-win for the collaboration between Rabobank and Prove.

Branding & launch

9.2 Brand DNA of Prove

Coherency of the name and DNA

The goal of the brand DNA of Prove is to motivate in participating to create a positive change. Critical here is creating trustworthiness of our sustainable impact.

Therefore, I chose the name Prove, it touches upon our user and the brand itself. We will prove with the concept PROVE that we can change companies to operate more sustainably. Our customers have to prove they will invest with a sustainable focus to help our mission, this matches our honesty trait, Prove yourself.

And that we can only do together, therefore teamwork and a feeling of doing it together, like a cooperation, is important.

Relevance of the DNA

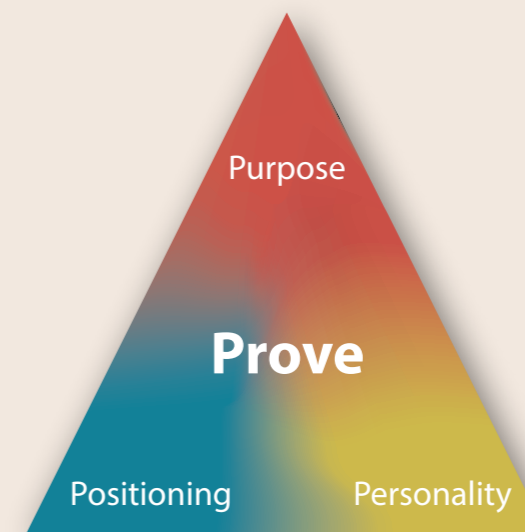
The customer demands a transparent and honest company who helps them with their sustainability ambitions. But it also must be actionable, the name and brand Prove has to convey an honest feeling where we will build a better future world together.

Together is the second element that has to help create the feeling of empowerment. Working together on a cause, you feel stronger and more confident, which is exactly the feeling Prove wants to convey.



Figure 58: example of endorsement poster focussed on sustainable advantage of Prove

Making a Change together



For the future minded people, who want to help building a better future world

- Honest
- Teamplayer
- Energetic
- Supportive

Making A Change Together




Figure 59: branding triangle of Prove

Brand DNA of Prove as a broker service

As seen in chapter 3, almost half of the non-investors of gen-Y is lost in the data focus of the current mainstream brokers. Prove wants to convey a more soft feeling, focusing more on the norms, values, and feelings you would have with a company you like to invest in. Usually, people would characterise finance and investing with numbers and math. But Prove wants to differentiate itself from this stigma of investing and brands itself with a different positioning from its competitors. This positioning of being different from the competitors is formulated using the theory of contrarian branding of Roland van der Vorst.

Distinctive colour guide for the brand

A gradient of 3 colours forms the basis of Prove. The colours are chosen with reason.

-  Red accentuates the active part of Prove, it conveys: doing, action, now! It stands for **Making**
-  Yellow accentuates the goal of achieving a positive change through Prove. It conveys: transition, transparency. It stands for **A Change**
-  Blue accentuates the thought that we have to do it together. It conveys: warmth, friendly, safety. It stands for **Together**

These three colours are the basis of the brand identity of Prove. But the real strength of Prove is that these three elements, Making A Change Together, are seamlessly incorporated in the concept and are not unconsolidated entities. This is shown through the blur effect when these three colours are combined.

This blur effect also makes the new service look modern and inclusive through the rainbow effect of colours combined.



Figure 60: self made blur effect which creates an inclusive and modern brand feeling

Logo

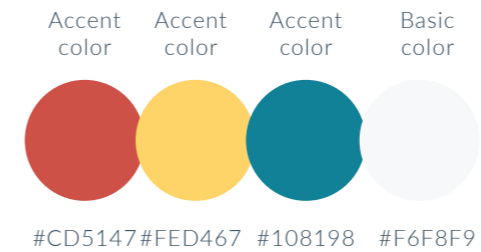


App icon: a playful, positive, inclusive (due to the mixing colors) looking app. Shadows link to fin-tech/financial type of app.

Brand logo: the mixed colors stand for the purpose of Prove, making a change together. These mixed colors stand for our core of inclusivity and teamwork.

Visual Elements

Color



MAKING A CHANGE TOGETHER

Font

Graphie
Graphie italic

Graphie light



Mixed colors key for brand design

Keywords

Honest
Teampayer
Energetic
Inclusive

Visual Brand Display



9.3 How to activate gen-Y through marketing?

Goal of the test

To validate the desirability of Prove, an A/B social media test is performed. Ads were run with a social and financial focus to validating if a more social direction is preferred. A test through social media is also a suitable testing method to rule out the Say-Do dilemma. When testing Prove through interviews in chapter 8, there is a big risk of bias when people say they prefer a social solution.

Test set-up

Four different ads for Prove were made, which can be seen on page 147. Two ads are focused on the social impact, and two are more focused on financial impact. When people click on the ads, they get directed towards a landing page on which they can sign up to hear more about the concept. For the test, the name Ticker is used which Rabobank uses to test all propositions about investing, so the tests are comparable.

Social Media Ad Campaign

When: 24-12-2021 until 28-12-2021

Target group: Gen-Y (23-35 years old)

Where: Facebook and Instagram

Ad Spend: €400

Reach: 62.814

Visitors to landing page: 634

Conclusion

The test is analysed with an expert from Rabobank who also helped put the ads online. The conclusions were the following:

- The click-through rate (CTR) for both categories is good and above average (1,1% is average for Facebook ads and 0,5% is average for financial services, Kazlauskas 2021)
- The CTA of 5% from the social focus is way higher than the financial focus, only 2.8%. But 5% is still an average score, around 10% is preferred.

It was concluded that the social focus had more traction than the financial focus. It had the lowest CPM (Cost per thousand views), a way higher CTA and already made 2 conversions. However, the CTA is not as high as preferred, but that could also be due to the small size of this test. Bigger tests with more budgets usually perform better because the algorithm of Facebook has more time to optimise the ad.

Follow up

A follow-up experiment is planned end of January but is out of the scope of this research. This new test is optimised by:

- A video ad (usually creates better results)
- Revised landing page with more call to actions
- Bigger marketing budget

	See social media ad	Go to landing page (CTR)	Click to sign-up page (CTA)	Sign-up (Conversion)
Social focus	33.831	312 (0,9%)	16 (5.13%)	2 (12.5%)
Financial focus	28.983	322 (1,1%)	9 (2.8%)	0 (0%)

Best performer

Ads with Social focus

Ad 1 Social, CPM*: €2.93

Ticker

Investeer in de duurzame toekomst

Ad 2 Social, CPM*: €4.31

Ads with Financial focus

Ad 1 Financial, CPM*: €3.99

Ticker

Ontdek mooie bedrijven en ga voor een duurzaam rendement

Ad 2 Financial, CPM*: €4.58

* CPM = Cost per thousand views

9.4 Strategic Roadmap

So Rabobank has not got a credible name yet to launch sustainable propositions, and for such a big company, it's challenging to acquire such a name without drastic measurements. And banks are not well-known for their flexibility and ability to rapidly change. But I saw sustainable solutions for investing will become more in demand. Based on the future vision of chapter 5, this field of sustainable finance solutions will grow in the coming years.

Therefore, I propose to evolve Prove towards the central sustainability platform for Rabobank where offer and demand for sustainable solutions come together. Prove will gather the trustworthiness to offer more radical sustainable products in the coming ten years. Products that would be impossible to offer to consumers from the old Rabobank brand.

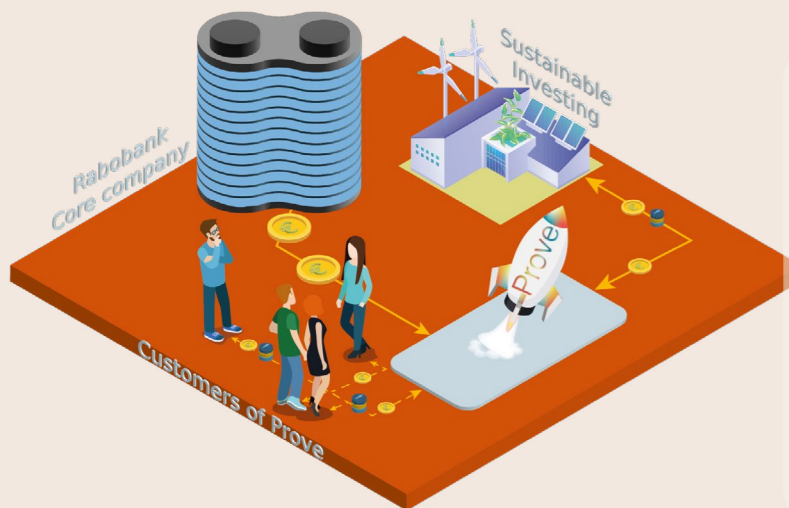


Horizon 2 - The Broadening

Now it's time to make the promises of Prove come true and create a solid credibility of the positive effect of Prove. Because broker platforms have such a strong word of mouth effect, it is expected that when Prove has a solid customer base, it will steadily grow because of making true its promises of making a positive impact.

Because of the established credibility, it is also time to launch other sustainable investing products. A managed investing fund focusing on sustainable impact will be launched. This will be an important product to keep gen-Y engaged, because it is expected when their lives change when they get children; they lose energy to work on their financial future.

Also, other sustainable financial investment products will be added to the platform, like crowd investing in sustainable energy. This will make the platform more versatile and attractive for investors who have a sustainable drive.



Horizon 1 - The Launch

The launch is focused on attracting a solid customer base. Since the idea is new to the market and could sometimes be difficult to understand at once, as we have seen in the previous chapter. So an intense launch strategy is advised where in a month time heavy digital and physical campaigns will be active so the whole target group has noticed the launch of this new concept. The core brand Rabobank would also play an essential role in promoting Prove.



Horizon 3 - The Sustainability Platform

Investing is more than only buying stocks, and a sustainable lifestyle is more than only buying sustainable stocks. Therefore Prove has to evolve towards the sustainability platform which offers various sustainable investment solutions. If Prove becomes a trustworthy sustainability platform, it will also be a strategic proposition for Rabobank to own when consumers prefer sustainable-focused companies with a mission.

For Prove to play a central role in everyone's lives, a new key feature could be launched to compensate for the CO2 you emit automatically. This could be done by planting tree's or investing in companies with a negative CO2 emission.

Also, other sustainable solutions could be implemented on the platform. Maybe isolating your home is a better investment than buying stocks. Prove grows from an investor platform towards a platform with various offers to invest your money wisely.

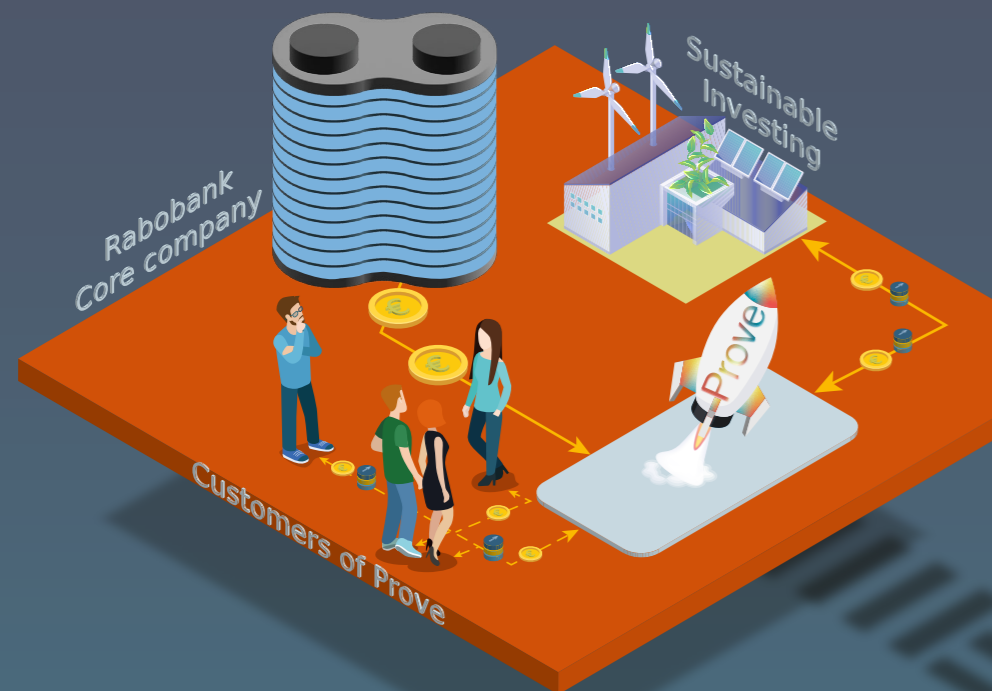
The forum, which is an essential element of Prove, will still be active in this stage. The consumers of Prove should feel part of the brand so they will become brand builders. Therefore in this stage there should be a lot of room for co-creation and proposals from the consumers of Prove.

Strategic Roadmap

In 10 years time Prove will become the well-known financial sustainability platform where investing and a sustainable lifestyle thrive in harmony.

Horizon 1 'The launch' 2022 - 2025

Launching Prove and gather input from the users while guiding them to sustainable investments.



Horizon 2 'Broadening' 2025 - 2027

Start with making the platform of Prove more versatile by offering other sustainable investment products from Rabobank and third parties.



Horizon 3 'The sustainability platform' 2027 - 2030

Prove will become the central platform helping you to make a positive sustainable impact. It offers a variety of (financial) products helping you to live a social and sustainable life.



Innovations

Invest and share why
Self investment platform focussed on sustainable impact

Prove as platform for sustainable and financial impact

Emission tracker
Compensate emissions trough investments

Values

Earning money

Guidance in sustainable choices

Feeling supported & sense of community

Diversify and have a choice

Feel in control with new sorts of data

Sustainable impact grows in importance

A positive sustainable impact is Key

Financial performance

Safe investments also preferred

Complete sustainable lifestyle

Hardware

Prove platform, Collecting trading data

Service of Prove

Forum, Gamification, Social aspect to see why others bought stocks

Collaborations

Highlight companies who addressed to change on the forum, Sustainabilitytics

Connect new third parties to Prove who offer sustainable investments

A sustainable managed investing fund, New data to help investments decisions

QuiverQuant

Prove as central platform

A sustainable managed investing fund, New data to help investments decisions

Project Acorn, Just dig it, Rabobank initiatives

Conclusions and further research

Chapter

10

10.1 Conclusion

10.3 Overall reflection

10.2 Further research advised

Conclusions

10.1 Conclusion

*I will research and find insights on the topic what good **motivators** are to activate generation-Y to invest with a **sustainable focus** and I will propose a **design solution** for Rabobank that will **activate and motivate gen-Y to start investing with this sustainable focus**.*

In my experience, the initial research question was a complex design question to solve. It consisted of two questions, while a solution also needed to meet the feasibility, viability, desirability and integrity requirements to be a successful design, as shown in figure 6.1.

The market of brokers for retail investors is more crowded than ever. New brokers are still entering the market while other brokers try to achieve a more significant market share. But Rabobank seems to take a reluctant stance in this battle and is limited in its innovation possibilities because of its promises towards its current client base. Therefore, the choice was made to develop a stand-alone proposition that could be launched besides Rabobank's current investment propositions.

But despite the attention from companies on this market, not all problems for all consumer groups are solved. There is an opportunity spotted in the gen-Y consumer type who is positive towards trading and wants to start but procrastinates on this decision. This is due to brokers' financial look and feel from which this group can't find the self-assurance they need to start investing the way they like it. Almost 50% of the non-investors of gen-Y find themselves in this group. Furthermore, it is found that sustainable incentives alone are not an activator for gen-Y to start investing. Unfortunately, gen-Y still lives under the wrong assumption that sustainable focussed investments still generate lower revenue than if this factor was neglected. But luckily, this generation has sustainable

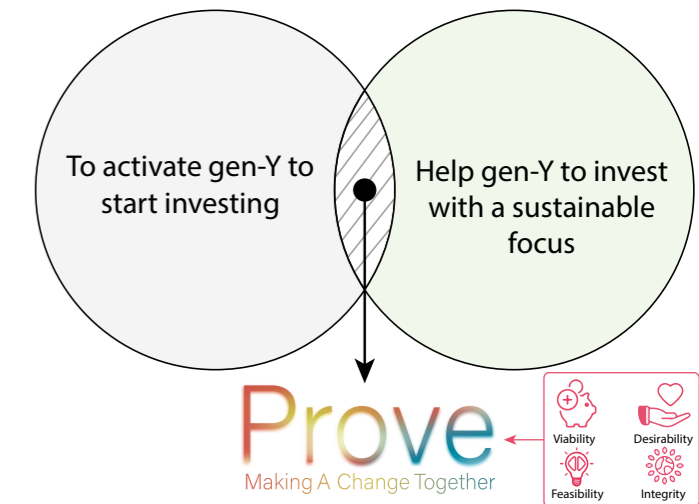


Figure 6.1: schematic overview of the solution space of Prove

goals that influence their behaviour. It is found that the vast majority of Gen-Y would prefer sustainable alternatives if it doesn't affect their lifestyle or cost them significantly extra money. It is expected that this will change towards a more activist stance as the effects of climate change will be noticed as a negative impact on our daily lives

Based on these insights, the new proposition Prove is designed. It is a disruptive broker proposition that changes the old way of investing to a new one where it requires your participation. On Prove, you must choose a reason why you think this stock is going to perform in the future and what you like from it. All these reasons from all the users of Prove form a database which is helpful in several ways:

1. First, it helps the not so self-assured gen-Y group to find stocks through a process that makes them feel self-assured to start.
2. Secondly, it provides a possibility of how retail investors can help create a sustainable change among companies through their participation in investing.

Based on the first consumer tests, Prove seems to solve the problems of the chosen target group and could perhaps also hold the potential to convince existing investors to switch platforms. But just like gen-Y needs decisiveness to start investing, there is decisiveness needed to launch a disruptive new trading platform like Prove.

Conclusions

10.2 Further research advised

The concept of Prove still finds itself in an early stage where together with MVP's, parts of the concept has been tested.

The difficulty with the concept of Prove is that the strength and competitive advantage of the platform grows when the social interaction and the amount of users on the platform grows.

So I expect that if you launch Prove following the lean start-up method, it will probably fail since it will get too little traction in its early stages. Therefore, if you want to launch Prove you have to go big or go home (e.g. don't invest money in it).

So I advise taking more time than usual to validate the solution fit stage of Prove to have better forecasts about the overall desirability of the concept. This could lead to the possibility to acquire more funds for a bigger launch.

In this solution fit stage, I would advise looking into the following topics and questions:

Desirability

- Will such a social focussed concept also work with other generations?
- What will an element of gamification in the service do to the overall image and likeness of the concept?
- Explore designs of how the forum of Prove could look and how it could stay objective and easy to understand to new investors?
- Explore which other/alternative data could be shown to users of Prove, to make the platform more disruptive and versatile.

Feasibility

- Test the social ecosystem of Prove on a bigger scale.
- Do more interviews with C-Suite level of stock-listed companies to predict their willingness

to change based on retail investors opinions and thought.

Viability

- Make a business case how much money is needed to develop Prove, and the expectations for the return on investment.
- Research which back-end systems are needed to develop Prove, and try to use as many existing systems of Rabobank.
- Research if the concept is AFM compliance, or how changes should be made.
- Track the investing market for new radical and social innovations (America has already many start-ups with this focus on the market, Europe less).

Integrity

- I would also advise investigating the possibilities of launching such a radical innovation interbankair. All the banks have the same struggle to attract young people to invest, and launching Prove together would create the level of attention and trustworthiness needed to succeed.
- At a later stage of the project, I heard more negative stories about ESG reporting, and it may not be the perfect tool yet to guide people in making sustainable choices. It should be researched which data set to use in guiding people to make conscious choices.
- It should be researched how fraud could be prevented from Prove. There is a risk pointed out by SOMO that stocks listed companies often go to great lengths to display themselves more positively.

Steps to do before launching the Prove rocket

Desirability

"Do people want to enter the rocket?"

- Other generations interest
- What will people think of gamification
- How can the forum stay objective
- Which other data to show the users when investing?

Feasibility

"Can we launch the rocket?"

- Does the social eco-system work on a larger scale?
- Test willingness to change from stock listed companies

Viability

"Is it profitable if we launch the rocket?"

- Business case
- Which back-end systems needed?
- AFM compliance
- Track market for propositions for investing with a social angle

Integrity

"Is it ethical to launch a rocket?"

- Possibility to launch interbankair
- Is showing ESG data users helping to make more conscious choices?
- How could fraud be prevented?



Conclusions

Overall reflection

With this final reflection, I looked at my goals and ambitions I wrote down in my personal project brief at the beginning of the project. Rating the results of my goals, I think I have achieved almost all of my goals which can be seen on the next page.

I want to highlight the results of two ambitions; the first one is to make an impact with my project for Rabobank. Since the beginning of my graduation it was my goal to make an impact with my project, to deliver a project that would give Rabobank new perspectives and hopefully show them the value of sustainable propositions. My project definitely opened perspectives about the viability of social and sustainable-focused solutions for investing. But I also experienced that bottom-up innovation is hard in a big corporate. There is a mentality that everything needs to be validated and approved before continuing to the next step. Therefore, it will be tough for radical innovations to succeed at a big corporation because you sometimes need a just-do-it mentality.

The next ambition which was more challenging for me, which I wanted to address, was making fun in this project. Especially in the last months I missed working in a team and noticed how much energy I got in earlier projects in my master from group work. Also, in the last three months it wasn't possible to work at the office of Rabobank, which makes it more difficult to be in a work/study rhythm with others. This is also something I would do differently next time in a graduation project during Covid, to find other people who are also graduating in the early stages of the graduation project. To agree on specific working hours where you work on your project together. I think this would definitely help

make working on the project more fun.

Lastly, reflecting on the overall process I would in a next project take more time to analyse the current context and environment before diving into a solution direction. Especially when it's such a big topic like investing, I noticed the importance of understanding the context well before deep diving into a concept.

And when you want to dive into a concept, take in mind the time frame you have, and when you still have a long time frame ahead don't build a too high fidelity prototype. It will cost you a lot of time and make you less flexible to change the complete concept. This was also a lesson learned for me.

But overall, I am proud of the result. I have achieved all my ambitions and goals set in the beginning, only two were partially met due to Covid. I wouldn't have expected to learn so much in a graduation project, I had more the feeling before the start that it was a project to display your skills. But for me now, it is a project where you have to learn a lot, really quickly and directly use those newly learned skills. And I think that is exactly where I succeeded in this project and which is a skill I hope to use in many other projects.

Ambitions & Goals

Achieved?

Why?

Increase my knowledge about consumer behaviour and bring it into practise



Yes

From consumer research I build the 'decision making model for retail investors' which played a big role in concept development.

Gather experience in stakeholder management



Yes

Received various complements about how smoothly and well organised the process went.

Achieve an impact with my project for Rabobank



Yes

Currently project running with a focus on social investing which spun-off my project. Also inspired employees from various departments to build a platform focussed on sustainable impact.

Experience how its like to work at a big corporate and if I would like to work there after graduation



Neutral

The weekly stand-ups I attended of the innovation team helped me a lot to generate a understanding how such a team operates. But in the end I worked a total of 5 days at the Rabobank office, due to Covid measurements. This was too little to create a bonding with the team and would isolate me sometimes on my project.

Don't stress out too much and have a lot of fun



Neutral

Only before my green light I experienced some stress, since a delay would have a huge influence on my planning in the second semester. So stress wise it went alright during the whole project. At terms of fun I definitely missed a team around me which you could work closely together with and which could motivate each other.

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Appendix A

Interview guide

Do you trade in stocks or other ways?	What is your opinion about stock trading? And do you trade in stocks?
	Do you remember the specific moment you started? What was the situation?
	Why do/don't you trade in stocks?
	How did you searched how to start?
	Was it difficult to choose from all the options out there?
Information	Why did you choose for your option? (managed fund, separate stocks, tracker/bonds?)
	Are you happy with your way of investing? Why/why not? Do you have a financial planning for your future goals? When do you think this will become relevant for you?
	From who or where does your current knowledge come from for the stock market?
Sustainability	Do you use platforms to get information about stock trading?
	Do you participate in forums on the internet in general?
	What is for you sustainability? What do you value most? How is sustainability influencing your purchase decisions? If so how? Is it different for products or services? Can you remember your view about sustainability 10 years ago? How has it changed and do you think it will change more in the future?
Sustainability & Investing	Have you ever compensated your CO2? How did you do this?
	How is sustainability a factor for you to choose specific banking products?
	Did you ever thought about the impact, positive and negative you make on the planet with your investments? Is the sustainable impact of a company (or bond) something you take into account when investing in stocks? If so, for which factors do you look? Would you like to be updated on the sustainable impact of your portfolio? And have insights on how you could improve this?

Appendix B

Questionnaire and outcomes used in chapter 3

Vragen Antwoorden 182 Instellingen

Sectie 1 van 4

How to get extra money with your savings?

Hello and thanks for helping me with my study! 🙏 With this questionnaire I hopefully inspire you to think differently about your savings, because if you invest your money you could get higher interest in return 📈. As a reward for you to help me with my study I will give 1 bol.com bon of €20 🎁 away to a lucky person who filled in this questionnaire. It only takes around 5 minutes and will help me enormously. Thnx!

Which country do you currently live in?

Netherlands
 Germany
 Belgium
 Great-Britain
 France
 Anders...

What is your

18-22
 23-27
 28-32
 33-37
 38-42
 42+

What gender do you identify

Male
 Female
 Prefer not to say
 Anders...

What is the highest degree or level of education you have completed or are following * right now?

High school (middelbare school)
 Mbo
 Hbo
 Bachelor's degree
 Master's degree
 Phd or higher
 Prefer not to say
 Anders...

What is your living

I live at my parents
 Live together with roommates/friends
 I live on my own
 I live together with my boyfriend/girlfriend

Saving money every month is important *

1 2 3 4 5
 Strongly disagree Strongly agree

I save for short term or long term goals? (if you save for both, choose the *)

1 2 3 4 5
 Short term goals (1 year into the future) Long term goals (more than 10 year into the future)

I am aware of the low interesting rate I got on my savings, and what that means over * a longer period of time.

1 2 3 4 5
 Strongly disagree Strongly agree

I often think about other ways how I can earn more money with my *

1 2 3 4 5

Strongly disagree Strongly agree

I would rather take a really high risk when investing my *

1 2 3 4 5

Strongly disagree Strongly agree

It doesn't make sense to invest a small amount of money in a safe way, because your possible return will be too low. *

1 2 3 4 5

Strongly disagree Strongly agree

Do you invest some part of your money in any *

Yes

No

Na sectie 1 Verder naar de volgende sectie

Sectie 2 van 4

We have a couple of extra questions.

Beschrijving (optioneel)

Are you thinking about to start investing/stock *

1 2 3 4 5

Strongly disagree Strongly agree

Do you think investing could be a good way for you to save extra money for the *

1 2 3 4 5

Strongly disagree Strongly agree

What is the main reason you are not investing your spare *

I don't have enough spare money to invest in something

I haven't found the time and energy to start

I don't feel confident to start yet

I'm afraid to lose all my money I have invested

I'm afraid I'll lose some of the money I invested

I first want to know more about the stock market before I put my money in it

I don't feel confident about the stock market

Trading in stocks is something only professionals can do

I want to spend my money on other things right now

Anders...

Trading in stocks/investing is really difficult to do in order to make a profit *

1 2 3 4 5

Strongly disagree Strongly agree

What would you need if you would like to start *

A person (who I don't know) who helps me to start

More knowledge about the stock market

A good friend or family member who helps me to start

More money

Trust in the stock market

A clear step-by-step guide

Na sectie 2 Ga naar sectie 4 (Last questions)

Sectie 3 van 4

Oke, let's talk a little bit more about your investments.

Beschrijving (optioneel)

I invest for a specific goal in the *

1 2 3 4 5

No, just to make more money. Yeah, I have a goal which I want to save for with investing

How do you

Stocks

Actively managed fund

ETF's

Crypto market

I don't know

Anders...

Can you remember when you started *

After my friends recommended it

After I saw a commercial

My parents advised me to start

I just started on my own

I saw headlines of news articles about the profits you could make on the stock/cry...

Anders...

Can you remember why you started *

Because I wanted to learn more about the financial markets

Because I wanted to earn more money with my money

I find it fun and interesting to do

I wanted to make a positive impact on the world with my investments

Anders...

Did you find it difficult to *

No, because I got tips from my friends how to start

No, with help of the internet it was easy to start

No, I used a platform on which it was very easy to invest

Yes, there was an overload of information and I didn't know what to trust

Yes, I found it difficult to understand all the possibilities and information and didn't...

Anders...

Can you recall how you felt when you bought your first *

Excitement

Nervous

Joy

Confusion

Fear

Satisfaction

Triumph

Anders...

What did you find helpful when you started *

Help of my friends

Information found online

A forum

A teaching channel online for investing

Information on the trading/broker website themselves

Youtube

Newspapers

a podcast

Anders...

What motivated you to keep on *

To perform better then my friends with investing

To keep learning more and more about investing

To do something which makes impact with my money

To see my money make more money for me

Nothing, I stopped after a little while

Anders...

How much time did you invested to gather information about the stock market/investment market before you started investing? *

1 hour

1 afternoon

several days

several weeks

more

Im thinking about the social and sustainable impact of my *

1 2 3 4 5

Strongly disagree Strongly agree

I would like more guidance when investing in new stocks/other *

1 2 3 4 5

Strongly disagree Strongly agree

I find it difficult to find new stocks/investments to *

1 2 3 4 5

Strongly disagree Strongly agree

Sectie 4 van 4

Last questions

We are almost done, and then you have a chance to win €20! 🤖🤖

The transaction fee should be close to €0 when buying and selling stocks or other investments. *

1 2 3 4 5

Strongly disagree Strongly agree

Cryptocurrencies (like Bitcoin) are a good *

1 2 3 4 5

Strongly disagree Strongly agree

It is easy to find good free advice on investing and the stock market *

1 2 3 4 5

Strongly disagree Strongly agree

My opinion about sustainability is... (please select which one is most applicable for you right now) *

For my it is a really important factor if I look at a new purchase or traveling option

I'm alright with paying a little bit more for sustainable alternatives but it shouldn't c...

I don't want to pay extra for sustainable alternatives but when they are the same pr...

I'm alright with sustainability influencing my life but I don't want to pay more for it.

Not important in my life right now.

Sustainable focussed companies are a better investment because they give more yield/interest and include less risk. *

1 2 3 4 5

Strongly disagree Strongly agree

I would like to have insights in the sustainability performance of my *

1 2 3 4 5

Strongly disagree Strongly agree

I want stock trading to *

Fun

Guiding

Informing

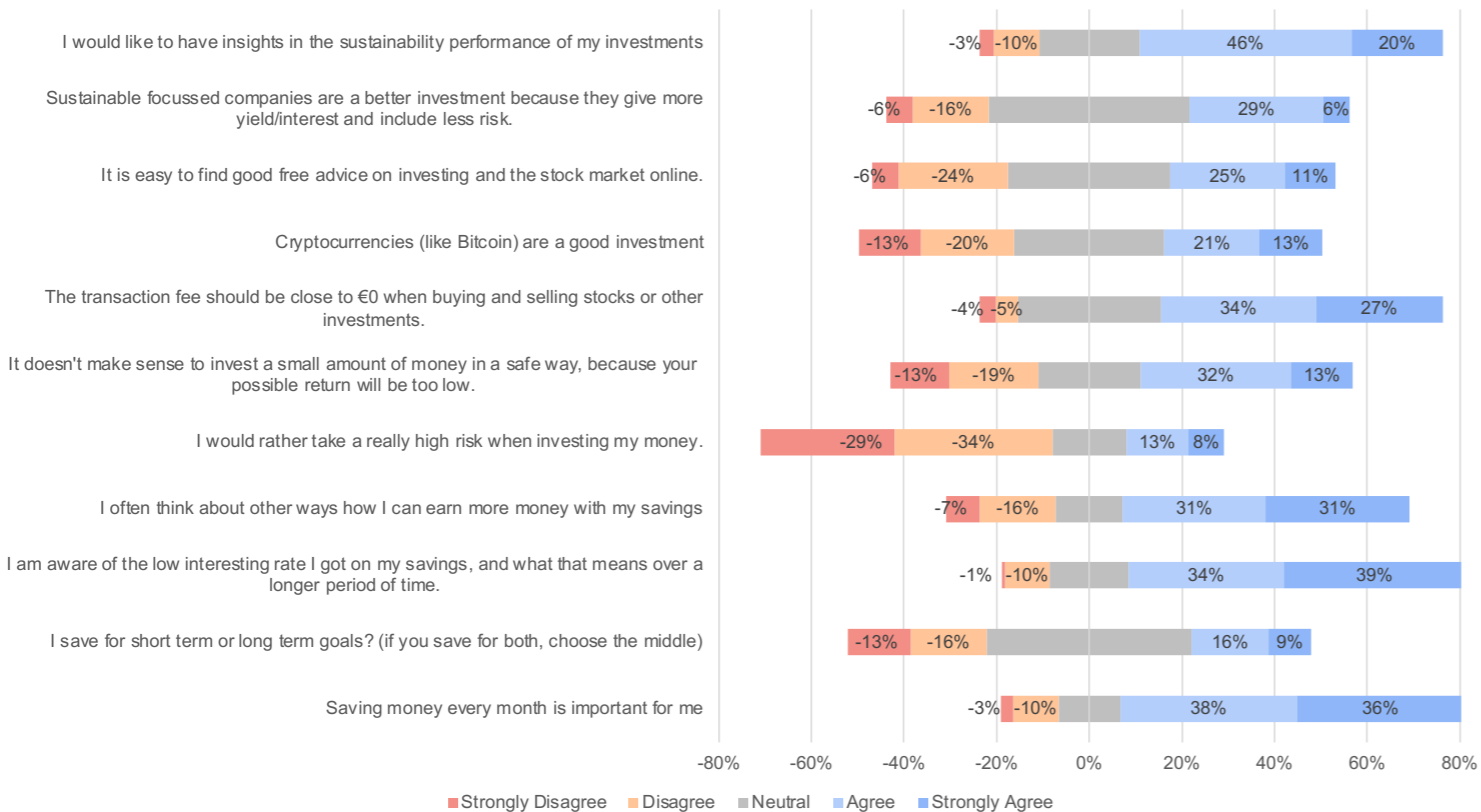
Focussed

Helpfull

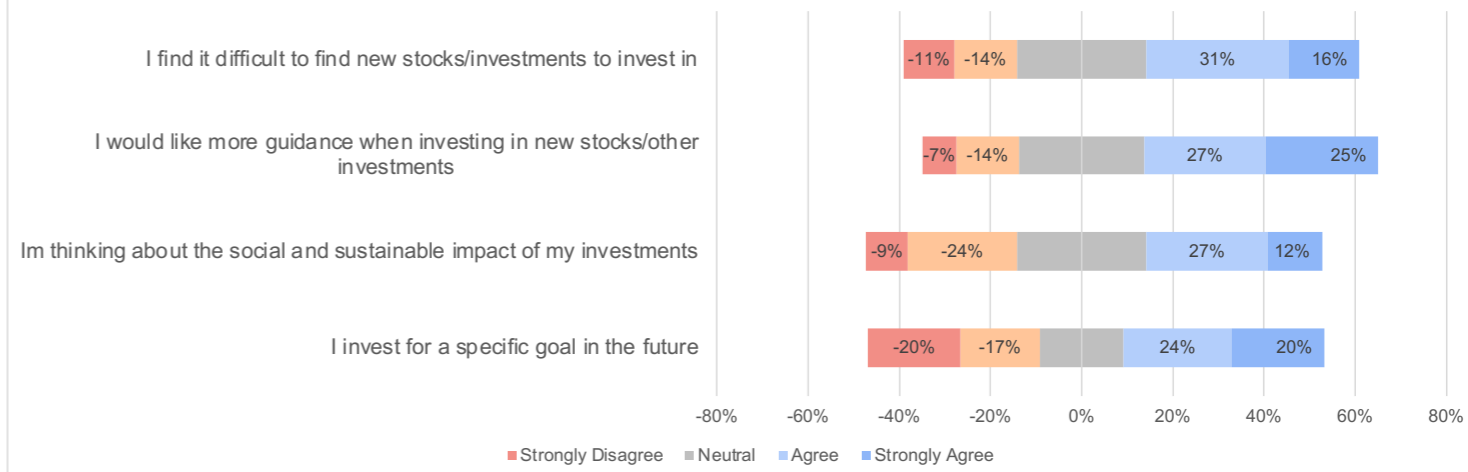
Efficient

Anders...

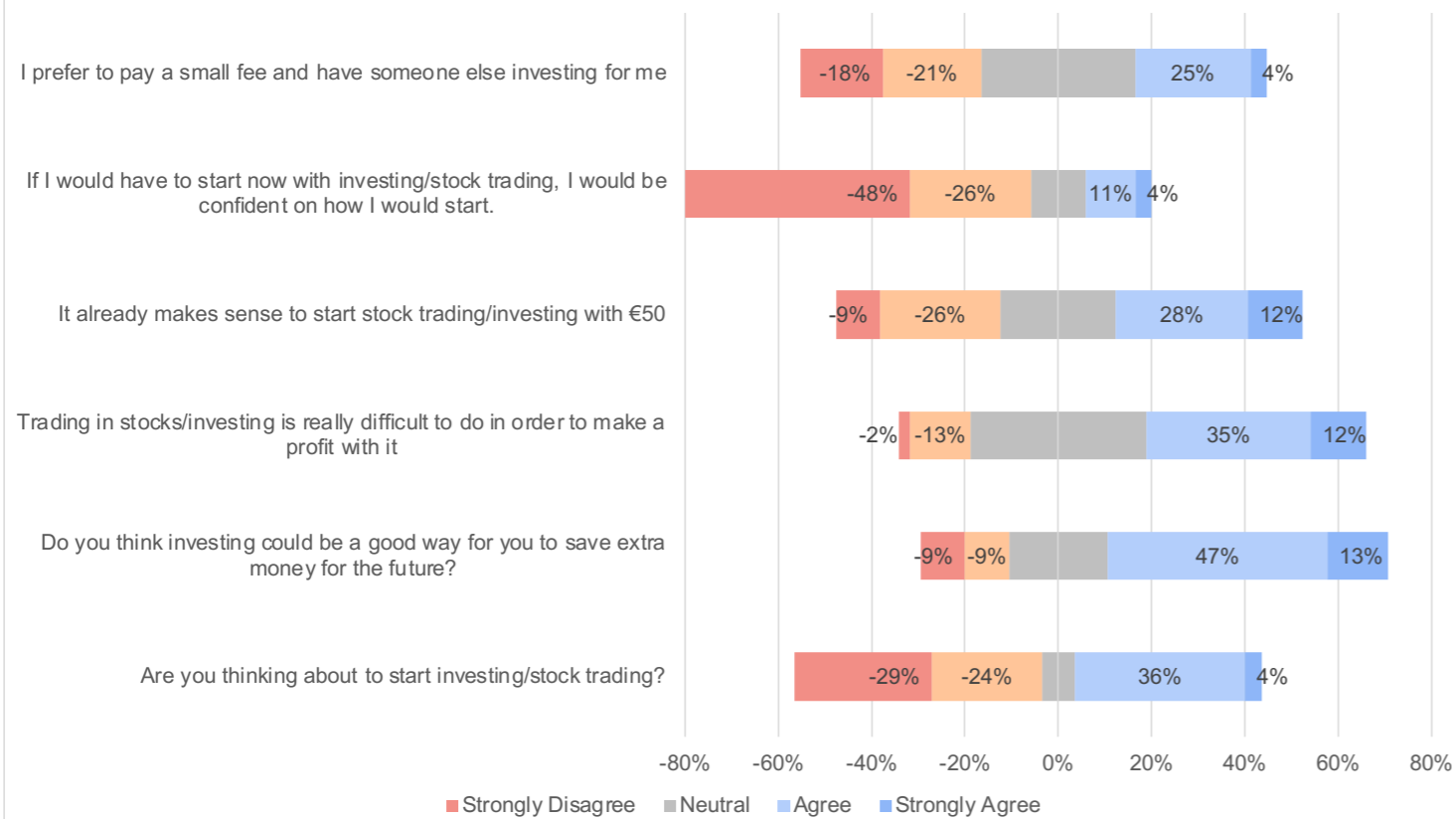
5 point Likert scale questions filled in by everyone (n=196)



5 point Likert scale questions filled by people who invest (n=196)

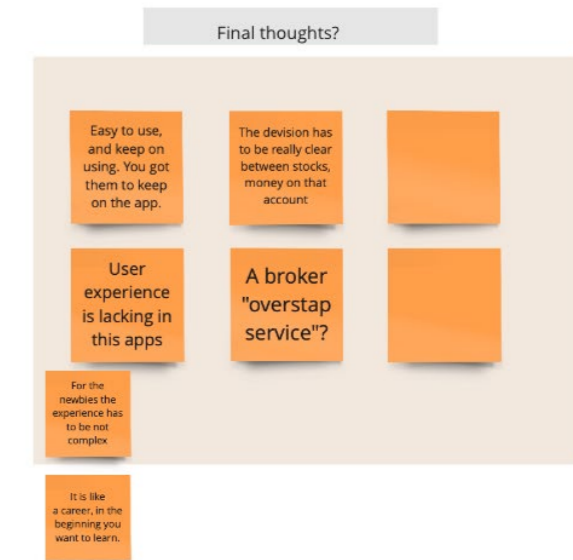
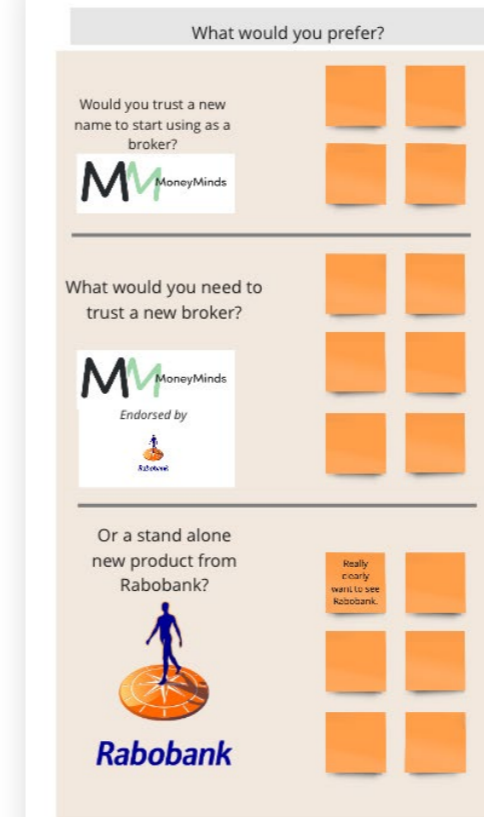
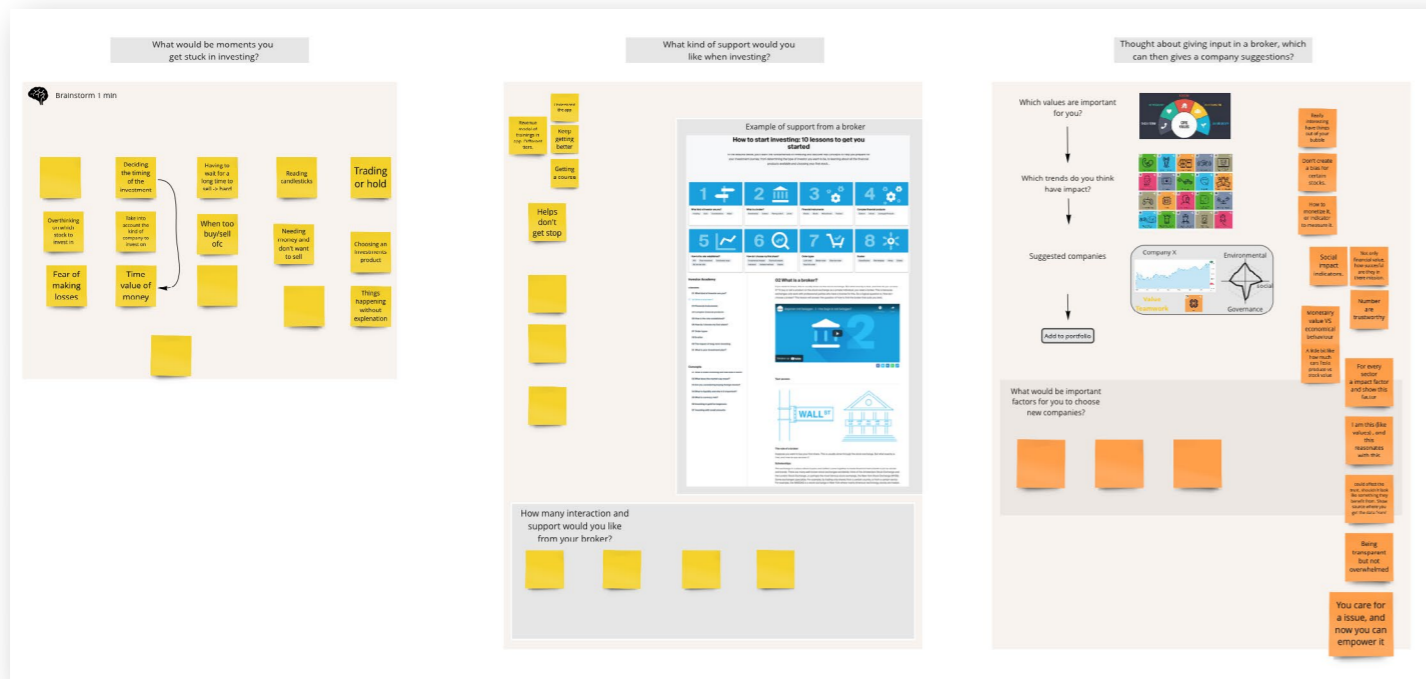
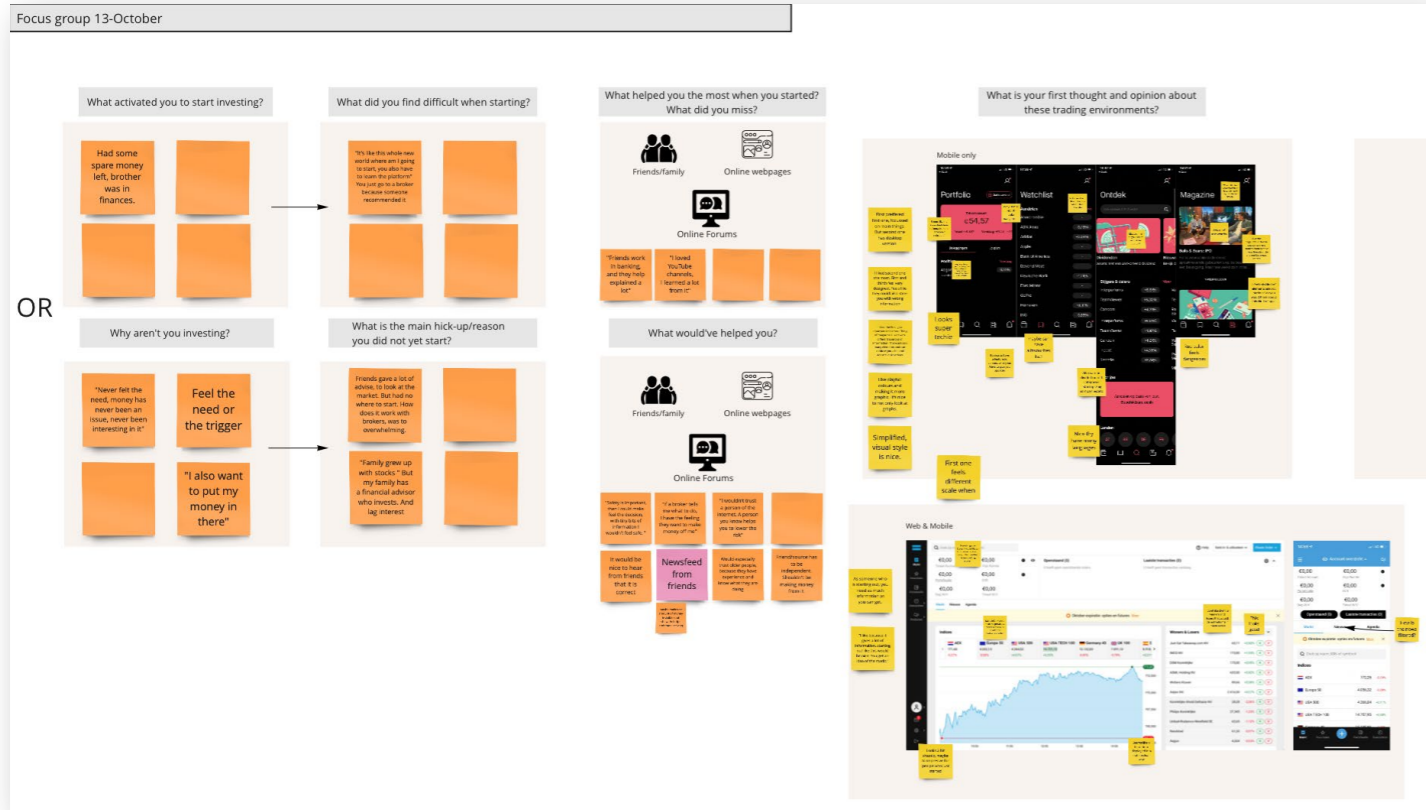


5 point Likert scale questions filled in by people who are not yet investing (n=196)



Appendix C

Miro flow of focus group organised for chapter 4



Concluding points

- A broker may show quite a lot of data, makes it look serious and ready for the heavy work.
- Have functions in the broker that it's relevant when you use it for the first time, but also when you use it for a longer period of time
- Function who help you find stocks in a different way based on your values/ESG data was really well perceived, helped you get out of your investment bubble
- The service has to feel credible, advised to strongly connect Rabobank with the product
- Friends are really important during the onboarding process, you want to verify with a friend if it's right what you do.
- Incorporate friends functions/activities in the app.
- Don't give recommendations in the broker, makes it feel like a function they want to make money off, just show data.

Appendix D

Results Kill & Thrill - Concept chapter 6

Kill: Desirability	Thrill: Desirability	Kill: Viability-Business Model	Thrill: Viability-Business Model	General questions/remarks
SL: We hebben steeds minder jonge klanten. Om hiermee te acquireren lijkt me ingewikkeld. Hebben we dit segment voldoende in de boeken/ is er al voldoende klantbinding mee? Anonymous	SL: goed idee als we ook crypto meenemen Anonymous	SL: Is het leren/begeleiden van jonge klanten een Rabo sterkte? Anonymous	SL: hou je de klanten bij Rabo om te beleggen of moet het begeleiden an sich rendabel zijn. Dan beleggen begeleiden white label? Anonymous	LK: Generatiedenken is erg old school. De huidige marketeers oid zijn inmiddels bewust dat levenscyclus en gedrag de kernsights bepalen voor het ontwikkelen van proposities Anonymous
SL: als veel jongeren al elders beleggen: hoe kan Rabo dat outperformen. Hebben wij wel het juiste portfolio? MAW weet je zeker dat het om begeleiden gaat dat dat DE activatie is? Anonymous	MW: eenvoudig, duidelijk en passend bij de doelgroep. Anonymous	MWap: Kijk uit met verschil leren/begeleiden en advies geven (wat niet mag) Anonymous	MvM: Je hebt deze stap nodig om in contact te komen met beleggers. Misschien is dit deel los niet rendabel, maar het is een onderdeel van de levenscyclus van de klant. Michiel	LK: De oplossing om mensen aan het beleggen te zetten is zo ongeloflijk klantspecifiek en moet zo gedreven worden door klantbehoefte en gedrag. Michiel heeft eerder sessie gedaan over dit onderwerp waarbij een van de conclusies ook al was dat je ongeloflijk scherp moet positioneren op een variëteit aan klantbehoefte; je komt gewoon niet weg met één oplossing Anonymous
MW: in het verleden hebben we jongeren willen verleiden naar beleggen, waarom is dit niet eerder gelukt? Anonymous	MvM: Meer maatwerk. De behoefte en wensen van de klant worden veel meer vertaald in de oplossing. Michiel	MvM: Deze groep klanten belegt met kleine vermogens. Kunnen we niets aan verdienen. JH: Belegd vermogen is laag. Jongeren hebben geld nodig voor huis, uit eten etc JH: Alleen voldoende schaal als je dit op Europees niveau doet Michiel	MvM: Kan een aantrekkelijke feature zijn voor doe hetzelveers Michiel	
SL: Geen klant is hetzelfde ook niet op generatie. dus hoe onderscheid je per type klant (en niet per se per leeftijd) Anonymous	MvM: Duurzaamheid krijgt concrete invulling. Michiel	MvM: Nog een extra propositie. Geen capaciteit beschikbaar. Michiel	MvM: De duurzaamheidscalculator is schaalbaar naar andere partijen. Michiel	
RL: Wat is het werkelijke probleem dat je oplost? Zelf doen of overload info? Anonymous	RL: Journey geeft het gevoel van controle hebben over.... Anonymous	JH: Klant ziet dit als extra kosten tov de Giro. Daar zit het bij het pakket in Anonymous	JH: Lage instap tarieven Anonymous	
RK: ik vraag mij af of dit is wat jongeren willen. Crypto is hip en spannend. Dit is alles behalve spannend. MWap: wat zegt gen Y zelf? Wat willen zij? dan pas zou ik naar MVP/oplossing gaan JH: Jongeren willen mix van beleggen & crypto. Hun doelen passen vaak niet binnen ons beleid Anonymous	JH: Het moment om een beleggingsklant te onboarden. Wees erbij met de eerste stapjes om later uit te bouwen Anonymous	JH: klant moet dus 2 dingen uitzoeken? de broker + de front end? Ingewikkeld Anonymous		
RL: Wat is vernieuwend aan deze aanpak? Bij RBB kun je namelijk ook aangeven in welke sectoren, duurzaamheid, mensen rechten, etc.... wil beleggen Anonymous	JH: Lijkt me goedkope oplossing door alleen front te bouwen en bestaande back-end te gebruiken Anonymous	MvM: Kosten zijn het enige wat telt. Er zijn al nagenoeg gratis oplossingen daar kun je niet onder. Michiel		
JH: Risico door geen of weinig zorgplicht op wat ze doen, is dat ze veeld geld verliezen. Kijken ze toch anders naar de rabo dan naar de giro Anonymous	RK: voor de idealistische belegger is het interessant. Links georiënteerde doelgroep? Anonymous	JH: Verschil freeium / premium is lastig te snappen. Dus straks 'mio klanten op free. Ga je dan failliet? Anonymous		
MvM: Rabobank is niet de partij waar deze doelgroep kijkt. Michiel	JH: Verschillende front end voor verschillende doelgroepen lijkt mij meer aanspreken Anonymous	RL: Je zal verschillende betaal/service level opties moeten bieden (gold, silver en brons). Anonymous		
MWap: mijn aannames is dat ze losse app wensen a la Bux en niet van een saale traditionele bank als Rabo Anonymous	RL: 'Job to be Done' wellicht een nieuw startpunt om op de segmenteren Anonymous	MWap: ik vind het te vroeg om hier iets over te zeggen. eerst kijken of we de problemen van de startende belegger oplossen en daarna kijken wat ze er voor over hebben Anonymous		
Wat is nou echt onderscheiden tov de concurrentie, zoals de Giro, Saxo etc? Anonymous	MWapp: vanuit zorgplicht vind ik het wel weer bij rabo passen. Opleiden Anonymous			
MvM: Deze aanpak sluit niet aan bij visie Rabobank. Michiel	MvM: Niet doen is geen optie. Michiel			
RK: ik wil rendement maken. En dus de beste beleggingen in mijn portefeuille hebben en niet perse wat bij mijn intresses ligt. Anonymous				
MW: Hoe past dit binnen de huidige richtlijnen van Rabo rondom beleggen (kennis, ervaring, doel, zorgplicht)? Zelf doen of advies? Anonymous				
MvM: Dit soort oplossingen werken niet. Hebben niet voor niets PEAKS verkocht. Michiel				
MvM: Tarief is het enige waar mensen naar kijken. Michiel				

Appendix E

Questionnaire used for chapter 7

Sectie 1 van 3

Questionnaire about your (investing) behaviour

Formulierbeschrijving

What gender do you identify as?

Male

Female

Prefer not to say

Anders...

What is your

18-22

23-27

28-32

33-37

38+

Na sectie 1 Verder naar de volgende sectie

Sectie 2 van 3

Sectietitel (optioneel)

If you don't invest, please answer the questions what you would choose if you invest.

I would like to share online with my name with others which investments I have, without sharing the value of those investments.

1 2 3 4 5

Strongly disagree Strongly agree

I would like to share anonymous (!) online with others which investments I have, without sharing the value of those investments.

1 2 3 4 5

Strongly disagree Strongly agree

I would like to share with others what the total value of my

1 2 3 4 5

Strongly disagree Strongly agree

I would like to share with others if I buy a new

1 2 3 4 5

Strongly disagree Strongly agree

When I buy a new stock I would like to share with friends the reason why I bought

1 2 3 4 5

Strongly disagree Strongly agree

When I buy a new stock I would like to share with that company the reason why I bought their share

1 2 3 4 5

Strongly disagree Strongly agree

When I buy a new stock I would like to share anonymous with that company the reason why I bought their share

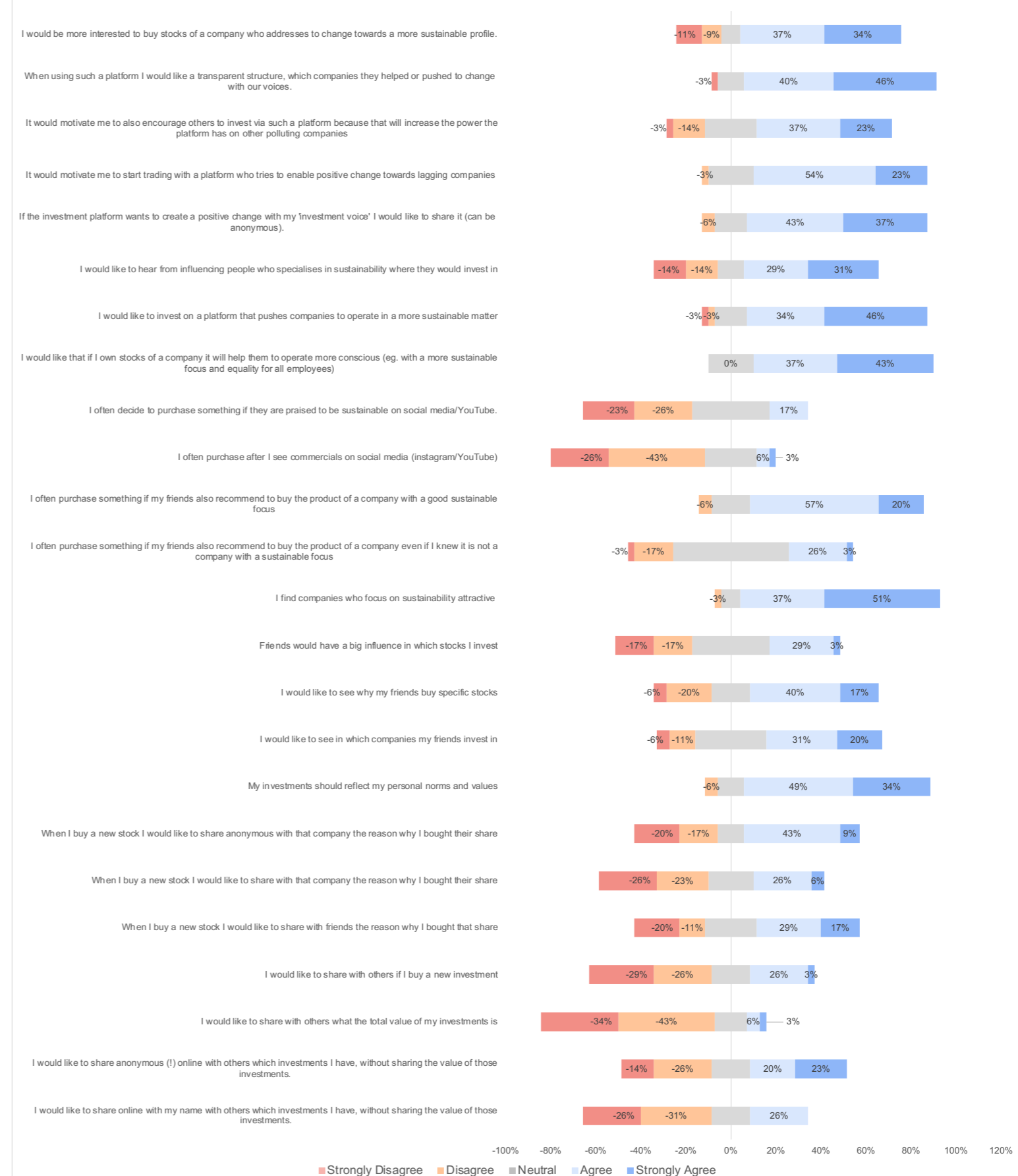
1 2 3 4 5

Strongly disagree Strongly agree

Appendix F

Outcomes questionnaire for chapter 7

Overview of 5 Likert scale answers - Questionnaire 2



My investments should reflect my personal norms and *

1 2 3 4 5

Strongly disagree Strongly agree

I would like to see in which companies my friends *

1 2 3 4 5

Strongly disagree Strongly agree

I would like to see why my friends buy specific *

1 2 3 4 5

Strongly disagree Strongly agree

Friends would have a big influence in which stocks I *

1 2 3 4 5

Strongly disagree Strongly agree

This part is not about investments, but about purchasing products in Beschrijving (optioneel)

I find companies who focus on sustainability *

1 2 3 4 5

Strongly disagree Strongly agree

I often purchase something if my friends also recommend to buy the product of a company even if I knew it is not a company with a sustainable focus *

1 2 3 4 5

Strongly disagree Strongly agree

I often purchase something if my friends also recommend to buy the product of a company with a good sustainable focus *

1 2 3 4 5

Strongly disagree Strongly agree

I often purchase after I see commercials on social media *

1 2 3 4 5

Strongly disagree Strongly agree

I often decide to purchase something if they are praised to be sustainable on social media/YouTube. *

1 2 3 4 5

Strongly disagree Strongly agree

I intentionally don't buy something of a sustainable focussed company if they advertise (on social media or physical) *

1 2 3 4 5

Strongly disagree Strongly agree

I would like that if I own stocks of a company it will help them to operate more conscious (eg. with a more sustainable focus and equality for all employees) *

1 2 3 4 5

Strongly disagree Strongly agree

I would like to invest on a platform that pushes companies to operate in a more sustainable matter *

No, I like an incentive free investment platform Yes I would like to invest via a platform that helps

I would like to hear from influencing people who specialises in sustainability where they would invest in *

1 2 3 4 5

Strongly disagree Strongly agree

Na sectie 2 Verder naar de volgende sectie

Sectie 3 van 3

Short explanation

Imagine you invest on a platform where you have to say why you buy your stocks. Per company you can address what you like about them, do you think they have a great focus on innovation, produce the products of the future and also have great sustainability ambitions, have ambitious carbon goals, help the energy transition, you name it.

If we gather these opinions from all our investors on our platform we hope we can guide others to make better investments, but also to show your opinions with the outside world. Because one voice from you towards a company wouldn't change much, but if we gather all your opinions we can make it a strong one with our platform which in the end might form an extra push to lagging companies to operate more sustainable or incorporate other values we value on our platform.

If the investment platform wants to create a positive change with my 'investment voice' I would like to share it (can be anonymous). *

1 2 3 4 5

Strongly disagree Strongly agree

It would motivate me to start trading with a platform who tries to enable positive change towards lagging companies *

1 2 3 4 5

Strongly disagree Strongly agree

It would motivate me to also encourage others to invest via such a platform because that will increase the power the platform has on other polluting companies *

1 2 3 4 5

Strongly disagree Strongly agree

When using such a platform I would like a transparent structure, which companies they helped or pushed to change with our voices. *

1 2 3 4 5

Strongly disagree Strongly agree

I would be more interested to buy stocks of a company who addresses to change towards a more sustainable profile. *

1 2 3 4 5

Strongly disagree Strongly agree

Do you have general remarks you would like to share? Please let me know. For more information you can also check my landing page (please do not share): <https://xd.adobe.com/view/04253dd8-d845-470d-9fa6-d91340557cdf-5176/?fullscreen>

Tekst lang antwoord

Appendix G

Rated concepts of chapter 6

Concept rated for important categories

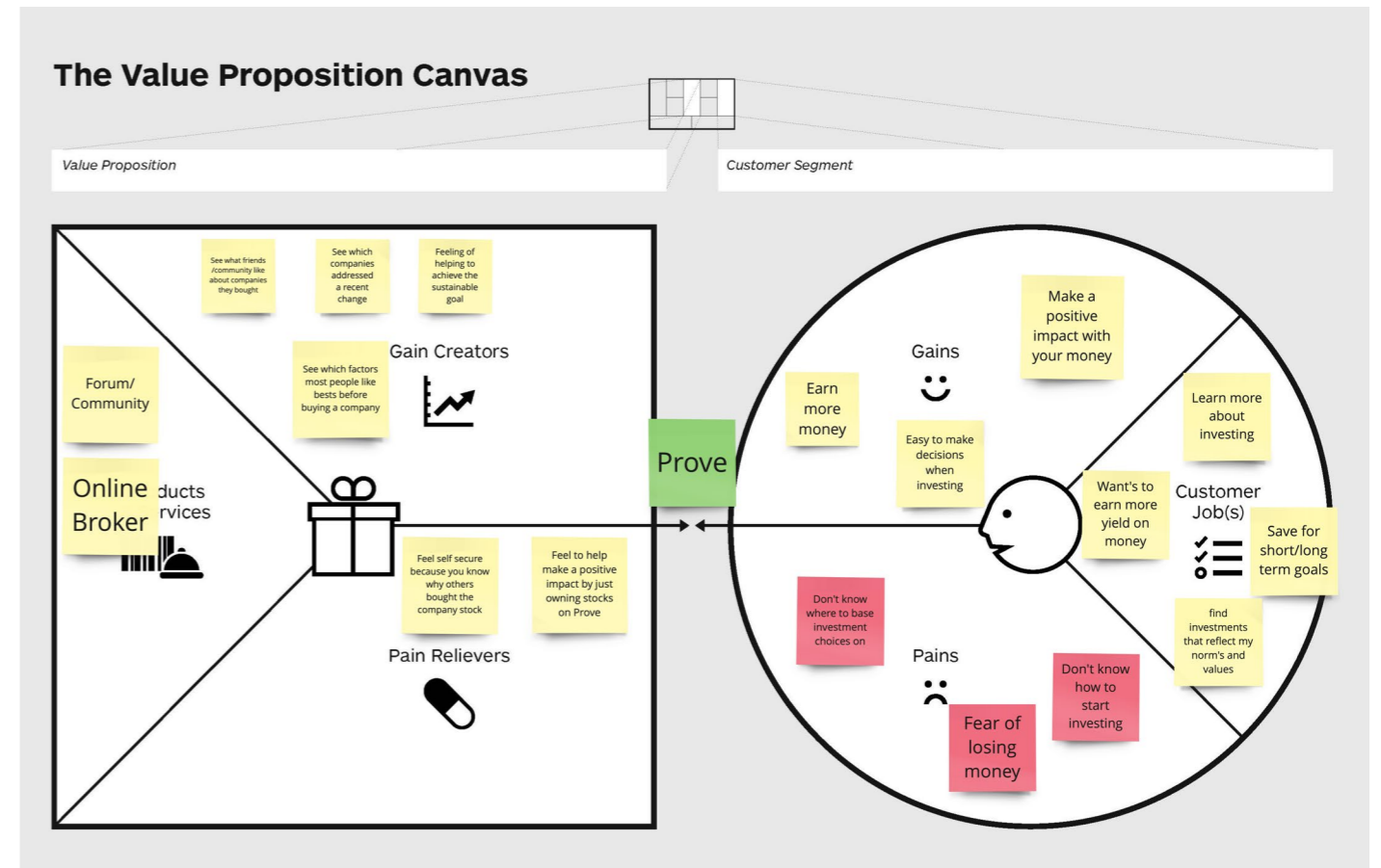
	Attention	Risk	Guidance	Sustainability motivator	Feasible	Match vision
1 Strategy onboarding template	✗	✓	✓	○	✓	✗
2 Overall guidance in saving and investing	✗	○	✓	○	○	✗
3 Beleg In-Boarder	✗	✗	✓	○	○	✗
4 Share why you buy stocks. Make impact with your investment behaviour	○	✓	✓	✓	✓	✓
5 Make it tangible how sustainable you are now performing with your stocks	✗	✗	○	✓	○	○
6 A new tool to search companies based on their sustainability (ESG scores)	○	○	○	✓	○	○
7 Compensate your CO2 by buying sustainable stocks.	○	○	✗	✓	○	✓
8 An stock inspirator service, build your future world and find stocks	✗	○	○	○	✗	○
9 1 Rabo account for all investing accounts	✗	✗	✗	✗	✗	✗
10 Robo advice for your complete financial situation for investing	✗	○	○	✗	○	✗

✗ Low chance of succes ○ Potential succes ✓ Expected succes

Viability and desirability are tested later for the concept chosen

Appendix H

Value Proposition Canvas concept Prove chapter 7



Appendix I

Graduation Project Brief

DESIGN
FOR OUR
future

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 to 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 !

<p>family name <u>Brons</u></p> <p>initials <u>S.T.</u> given name <u>Segher</u></p> <p>student number _____</p> <p>street & no. _____</p> <p>zipcode & city _____</p> <p>country _____</p> <p>phone _____</p> <p>email _____</p>	<p>Your master programme (only select the options that apply to you):</p> <p>IDE master(s): <input type="checkbox"/> IPD <input type="checkbox"/> Dfl <input checked="" type="checkbox"/> SPD</p> <p>2nd non-IDE master: _____</p> <p>individual programme: _____ (give date of approval)</p> <p>honours programme: <input type="checkbox"/> Honours Programme Master</p> <p>specialisation / annotation: <input type="checkbox"/> Medisign</p> <p><input type="checkbox"/> Tech. in Sustainable Design</p> <p><input type="checkbox"/> Entrepreneurship</p>
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SUPERVISORY TEAM **

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

<p>** chair <u>Peter Lloyd</u> dept. / section: <u>MOD</u></p> <p>** mentor <u>Ruth Mugges</u> dept. / section: <u>MCR</u></p> <p>2nd mentor <u>Michiel van Megen (innovation manager)</u></p> <p>organisation: <u>Rabobank</u></p> <p>city: <u>Utrecht</u> country: <u>Netherlands</u></p>	<p>! Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.</p> <p>! Second mentor only applies in case the assignment is hosted by an external organisation.</p>
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comments (optional) _____

! 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 Peter Lloyd date 06 - 09 - 2021 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.

<ul style="list-style-type: none"> • 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 ? 	<p>Content: <input checked="" type="radio"/> APPROVED <input type="radio"/> NOT APPROVED</p> <p>Procedure: <input checked="" type="radio"/> APPROVED <input type="radio"/> NOT APPROVED</p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div> <p style="text-align: right;">comments</p>
--	--

name _____ date _____ signature _____

How can Generation Y be activated to invest in their sustainable future? project title

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 30 - 08 - 2021 end date 28 - 01 - 2022

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

Rabobank is one of the biggest banks in the Netherlands with a big innovation focus and is constantly looking for new propositions they can implement or launch. It is a bank originated from small banks focusing on farmer loans who became the cooperative Rabobank existing now for over more than 120 years.

But since a few years time the traditional earnings model of banks has changed. Banks don't profit anymore that much from savings of their customers as they did in the past. Also, the savings of people at banks depreciate nowadays in value since the interest you get from the bank is lower than the inflation, meaning it loses value over time.

Since banks don't earn a lot from the savings of their consumers anymore it is interesting to have those consumers investing using services of the bank. But Rabobank struggles to have people investing on its platform while at the same time the customer base who use these platforms is relatively old. Rabobank wants to be attractive for the younger generation because they are important for the continuity of the brand but struggles with this.

At the same time these younger people must make important choices how they want to save their money for the future. Their money on a savings account depreciates in value but on the other hand to start investing their money can be perceived as difficult or scary. But investing can be a smart way for them to save for their future goals because it can increase in value or with responsible investments it can be a way to help them achieve their own sustainable goals. They can make sustainable choices with their money but must choose how they want to do so.

The main stakeholders in this project are Rabobank and the people from this younger generation, Generation Y to be more specific. Rabobank wants to attract these younger customers to its services and to help them live a financially healthy life.

The other stakeholder are the people from Generation Y which are between 25-40 years old who are not yet investing. Their savings are decreasing in value on a savings account and they can make more impact with their money for their future world or for their own financial future with investing.

For the main stakeholder Rabobank, the opportunity in this project is to help them to increase and younger their customer base making them more resilient for the future. For the consumers the opportunity here is to think smart about their savings and to do something more beneficial with their savings account for their own future and the planet they are living on.

A challenge to design within the context of responsible retail investments is that it is a crowded market with a lot of propositions already existing, so the designed solution shouldn't already exist in a too similar way. Another challenge could be that the consumers who are not investing could be difficult to activate with internal fear and abomination against stock trading.

space available for images / figures on next page

introduction (continued): space for images

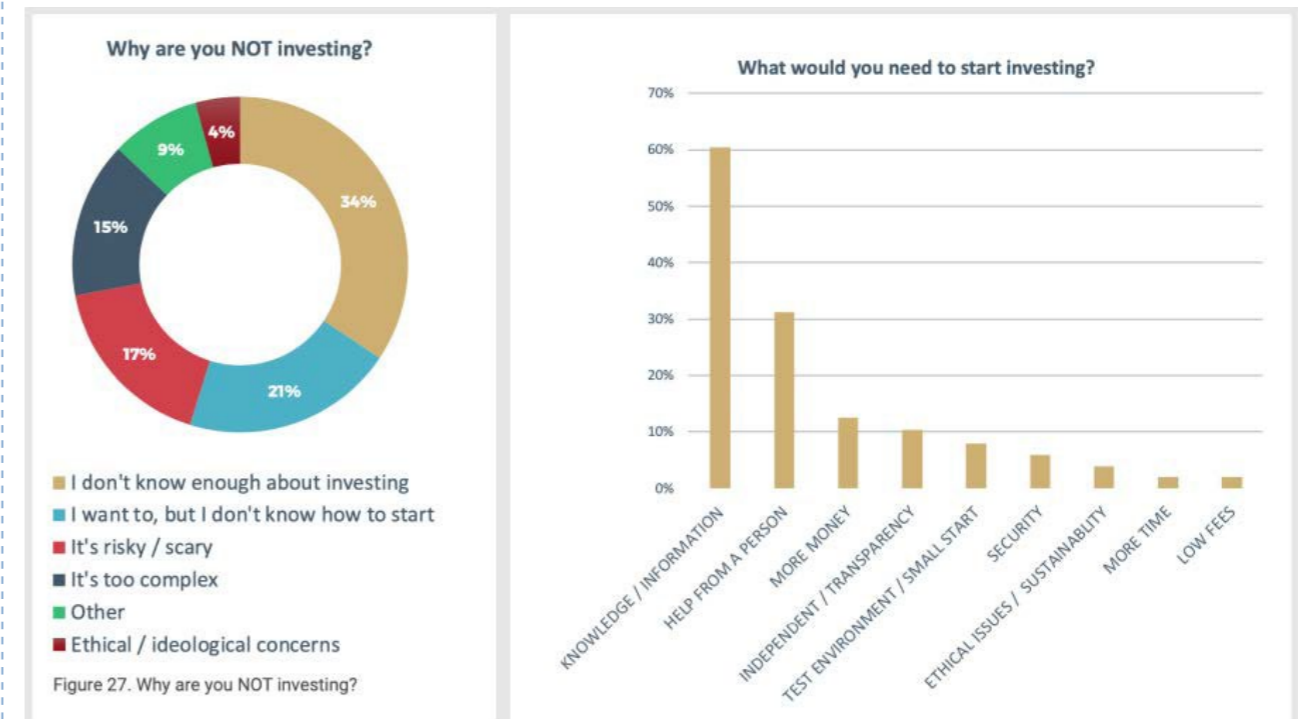


image / figure 1: [Reasons why consumers are not investing, from MSc thesis of J. Frankena \(2021-06-21\)](#)

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.

For investing there are a lot of different propositions on the market who focuses on different types of consumers, for example propositions who show you how much water or CO2 you saved with your sustainable stocks, or propositions that enables you to buy stocks just from your spare money after every transaction. But despite all this attention and launched propositions not a lot of Dutch consumers are trading in stocks, around 16% (AFM research). A recent TU Delft graduation thesis showed that main reasons why people don't invest could be that they have the feeling they lag the knowledge or find it too risky (see image 1). But there are plenty of solutions which helps you invest and inform you in all kinds of formats on youtube and google, but do these solutions really add to people knowledge and activate people to start investing? Or do other reasons withhold consumers to start investing?

Rabobank is also active in this market but has difficulty to attract younger consumers to start investing, but how can Rabobank help this younger consumer to make responsible investment choices that helps consumers earning money for their own financial future but also helps the planet they live on become more sustainable? It is also not clear how to activate this younger consumer in the current red ocean market to make such a choice to start investing consciously for a future that feels far away.

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.

In this thesis I will research how Rabobank can help non-investors from generation Y to start making conscious choices in saving and investing for their future goals. I will find insights which are good motivators to activate the target group to make conscious investments and design a solution for Rabobank that connects to the needs of generation Y.

How can we use sustainability for people to think about their future goals and to let them make responsible investments. And what is the target group's perception towards social responsible investments (SRI)? Are they positive towards a lower expectations of their returning's and be able to make a positive impact on the planet, in economic terms what is the price elasticity for the target group with SRI?

For the user research I will continue with the insights from current research about the target group's behavior and attitude towards stock trading. I will use various tools like in-depth interviews, questionnaires and user tests to generate new knowledge on how to activate the target group to start making conscious choices in saving and investing for their future goals. Expert interviews on consumer behavior and investing will be used to generate new insights or as a validation tool.

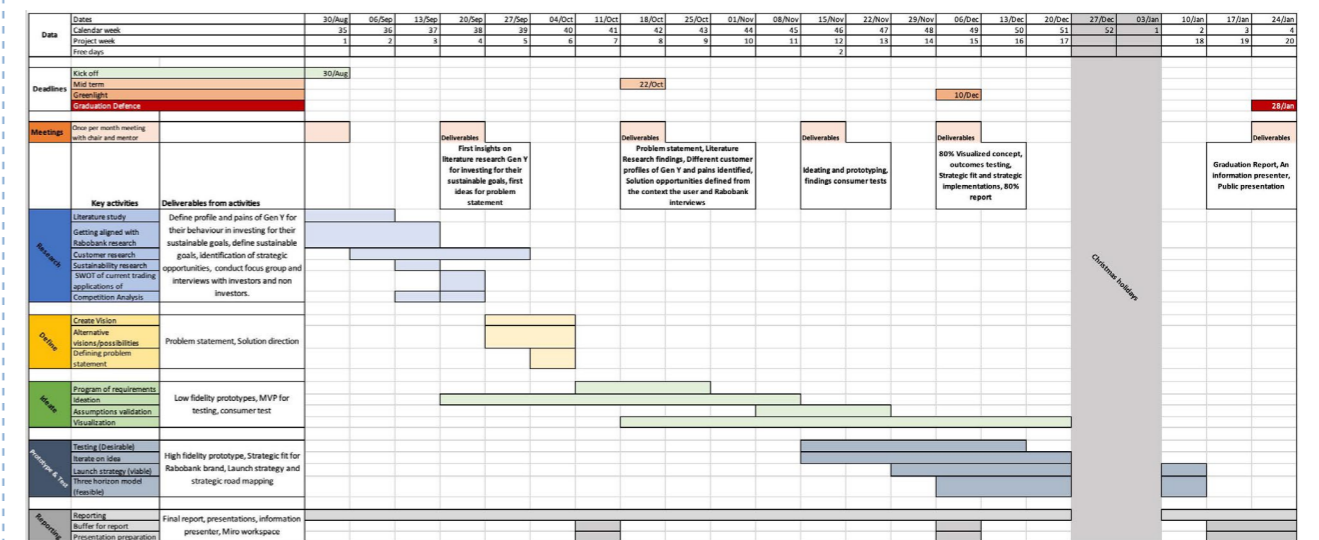
With the rise of digital and app-based services in the stock trading market the solution is probably going to be a digital product/service or a combination, but this still depends on insights in the research phase. Some risky assumptions will be validated with user tests, also the final concept will be tested and iterated with user experiments. Finally the strategy of the final concept on how it can be launched and implemented by Rabobank in their existing ecosystem will play an important role.

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 30 - 8 - 2021

end date 28 - 1 - 2022



I plan to do my graduation topic in the assigned 20 weeks working 40h per week on the project full time. I don't have any extracurricular activities or electives I still have to follow during my graduation.

My approach is based on a emphasize/research phase which should lead to a clear solution direction for the context of my thesis for Rabobank. The Mid-term summarizes this phase where a solution direction is presented. After the Mid-term we continue to try to go from insights to ideas where I try to validate some assumptions and test with MVP's, questionnaires or interviews.

This should lead to a final idea which we will continue to improve and test. In this final phase we will try to validate the desirability through testing, the viability with a launch strategy and the feasibility with a strategic and tactical roadmap.

Reporting will happen continuously in Mural and InDesign, Mural will be more the daily workplace to organize the research and findings which will lead to a final report in InDesign. For continuous meetings it is agreed that once a month we conduct a meeting with the chair and mentor and once every 2 weeks there is a check-in/coaching session with the company mentor.

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge on a specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

I set up this project because I want to combine my interests in trading, sustainability and in-depth consumer research. I want to do this for a big corporate bank because I have not yet experienced such environment in my study. I did a student run Dreamteam at the TU Delft, participated in "de kleine consultant" also run by students and coached by strategy consultancy offices and did an internship at a small innovation consultancy bureau. Therefore I thought a experience at a big corporate before I graduate still misses and luckily I got the opportunity to graduate at Rabobank.

Competences I want to prove in this project are my strengths to find a new strategic direction from a broad research where there are a lot of different insights gained. I want to combine this with a structured approach towards complex problems.

Also I want to prove my visual strengths, learned at DSP Media, where I hope to easily convey the message I want to get across in a visual which will easily inform and convince stakeholders of the new developed strategy.

Skills I want to improve on are customer research and my knowledge about consumer behavior. We learned various customer research methods in SPD research course and BSP, I want to bring this knowledge into practice in my graduation thesis. This will be important to find the latent needs of generation Y. Also in my elective semester where I did my internship I worked a lot with the lean start-up method to validate assumptions, this could also be useful in the project, to not have too much unvalidated assumptions in my final direction and strategy.

What I also want to learn and get more experience on is stakeholder management. In your thesis you have to organize everything yourself and be in the lead of the project. My goal is to have everything management during the whole project towards my two main stakeholders, the TU Delft teachers and my company mentor in a way there aren't any misconceptions and everyone is aligned on the project direction.

I also have some personal ambitions, the first one is to achieve impact for Rabobank which is a big corporate. I have heard many stories and gained experience in my internship that sometimes it could be difficult to be disruptive within a big company. My goal is that the end deliverable is a fitting concept and strategy for Rabobank from which they can use elements from to implement.

Secondly I want to experience how it is to work at a big corporate and if it is an environment I would like to work after graduation. Since it is an environment which I have not experienced yet, now within my thesis I have a lot of opportunities to interview and speak to people within Rabobank and to see if such an environment suits me.

And my last personal learning ambition is to don't stress out too much and have a lot of fun with this project. There is a lot of freedom when setting up your own graduation thesis which can lead to stress, but I see it as a opportunity to challenge yourself, learn new skills and do something you self really like to put time in.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

I really look forward to start my graduation and to show my skills and experiences I have learned so far at the TU Delft in 6 years time. But I also look forward for the unknown challenges that will definitely be there in my thesis and to solve them.

I hope my skills and passion for this project will lead to the necessary 9 to make me graduated Cum Laude from my master SPD.



**Thesis written by:
Segher Brons**

Investing has become a hot topic among the younger generation since the Covid-19 crisis. However, much of its potential is still unused, as seen in a big group of the younger generation which is positive to start but procrastinates this decision. While this younger generation would like to make a positive impact with their money on the environment of the planet earth, the existing investing propositions aren't helping them with that sustainable mission.

In this thesis, I researched how Rabobank can help this group of young non-investors start investing, but with a sustainable focus. Creating a win-win situation for the non-investor who gets motivated to start investing consciously while at the same time helping them to fulfil their sustainable ambitions.