APPENDICES

Master thesis
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APPENDIX A
THEORETICAL BACKGROUND

A.0

This chapter expands the theoretical foundation of this thesis.

In this chapter:

A.1 STRATEGY IN AGILE ORGANIZATIONS

In order to create a successful strategy for Picnic's store team, we must first discover how long term strategic thinking relates to agile approaches. In order to do so, we look at definitions of strategy and agile organization, and the literature on their compatibility. This will provide us with a theoretical framework upon which we can build findings from the internal research and case studies.

Defining strategy

The term strategy has been defined in a variety of ways, but almost always with a common theme, that of a deliberate conscious set of guidelines that determines decisions into the future (Mintzberg). And in management theory, the Chandler (1962) definition is typical: "*. . . the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals*" Mintzberg argues that strategy formation revolves around the interplay of three basic forces.

1. **An environment that changes**
   This change is constant but irregular, with frequent discontinuities and wide swings in the rate of change.
2. **An organizational operating system, that seeks to stabilize its actions**
   Despite the characteristics of the environment it serves, the organizational system will seek to stabilize its actions. This effect is known as "the inertia of an organization that mainly wants to safeguard its current existence"
3. **A leadership whose role is to mediate between these forces**
   To maintain the stability of the organization while at the same time ensuring its adaptation to environmental change,

Life cycles of strategies

It is important to note that all strategies have a life cycle. Roughly this cycle follows the steps of conception, elaboration, decay and death. Within this cycle, there is a presence of waves of change and continuity within the process. This suggests that strategies to do not commonly change in a continuous fashion, but rather in incremental steps followed by a period of continuity. This is consistent with human cognition, which does not react to phenomena continuously but in discrete steps. Responses can only be invoked by changes large enough to be perceived. In addition to that, this pattern seems to be consistent with the notion of sequential attention to goals, proposed by Cyert and March (1963). This assumes that the leadership of an organization may choose to deal with the conflicting pressures for change from the environment and the organization by first attending one problems, and then the other. This is due to the fact that for most organizational systems, change is disturbing.

Product strategy

The Mintzberg definition of strategy stipulates that a strategy should be a deliberate conscious set of guidelines that determines decisions into the future. In the case of product development, these guidelines are often captured in a product roadmap. These roadmaps, that are often very detailed, aim to provide the team with guidance on what to build, and when these features should be completed.

In general, managers appreciate these roadmaps. They are a good way for them to make sure a team is working on the highest-value products first. In addition to that, the board needs to run the entire company which means the need to be able to plan efforts ahead across teams. Due to dependencies, it is very important that these developments happen in synchrony with each other.

Planning product development through a detailed roadmap requires teams to define problems and hypothesis upfront, as well as development effort and cost, as all of these assumptions have to be taken into account in order to be able to define a roadmap.

A.1 STRATEGY IN AGILE ORGANIZATIONS

The other end of the spectrum: agile organization

On the opposite side of the spectrum from strategic planning, there are agile approaches. By agile we refer to the mindset and way of thinking, proposed in the Agile Software Development Manifesto (Beck et al. 2001) rather than specific methodologies.
The manifesto lists four core values:

1. **Individuals and interactions over processes and tools**
2. **Working software over comprehensive documentation**
3. **Customer collaboration over contract negotiation**
4. **Responding to change over following a plan**

Especially core value 4 seems incompatible with the strategic thinking mentioned earlier.
But is this true? Can you run a team or company, producing valuable products by merely adapting to change? Are carefully formulated strategies superfluous because of this new way of working? In order to answer these questions, we have to look at the differences and similarities of the two approaches in more detail.

Compatibility product strategy and agile thinking

Both approaches differ in the way they tackle defining problems and forming hypothesis. In an agile approach, decisions are made quickly and then put to the test, whereas strategic thinking generally requires a longer period of deliberation before acting. This is due to the more definite nature of strategic decision making; after the decision is made it is the idea to "stick to the plan".
In their paper "Limitations of agile processes", Turk and France (2014) identified the following limitations of agile approaches:

1. **Limited support for building reusable artefacts.**
   Agile approaches mainly focus on solving specific problems. Therefore, the development of generalized solutions yielding long-term benefits isn't prioritized
2. **Limited support for development in large teams**
   Agile approaches focus on direct communication lines and face-to-face meeting. The number of lines that have to be maintained increase exponentially as the team scales, which leads to lower effectiveness of communication and meetings.
3. **Limited support for creating larger and more complex software**
   Agile approaches are focussed on responding to change over following a plan. However, in large and complex system there may be critical architectural aspects that are difficult to change because of the critical role they play in the core services offered by the system. In such cases, the cost of changing these aspects can be very high and therefore it pays to make extra efforts to anticipate such changes early.

Turk and France (2014) conclude that the most practical processes lie somewhere in between the purely agile and purely strategic spectrum extremes. They argue that most of the current agile approaches lie close to the agile end of this spectrum, but still have strategic elements such as test-first code development and daily review meetings with particular formats.

Examples of hybrid approaches

Turk and France state that the most practical approaches are hybrids between purely agile and purely strategic ways of organizing and planning. One such hybrid approach is the Sprint 0. This concept is introduced by Jongerius et al. (2013) in their book get Agile. In this sprint "The goal is to set up a clear vision, team support and strategy for the following sprints and the entire project".
Another example of a hybrid approach are Objectives and Key Results (OKR's), a method that is used in a number of technology companies with Google being the most famous example. This method was established by Andy Grove of Intel in order to answer two simple questions: 1) Where do I want to go? And 2) How will I know I'm getting there (Grove 1995). In essence this boils down to: 1) What are my objectives, and what are the key results I need to measure to make sure I am making progress.

A.2 AFFECT VERSUS COGNITION

In the action phase, the user is required to make choices. Although we would expect the user to make decisions that are most

In their paper: "heart and mind in conflict: the interplay of affect and cognition in consumer decision making"(1999), Shiv and Fedorikhin argue that the average shopper is not a "thinking machine".

They have found two factors that influence choices:

1. **Available processing resources**
2. **Impulsivity of user.**

If a user is either more impulsive, or when available processing resources are limited, the customer will pick the option that is superior on the affective dimensions but inferior on the cognitive dimension.

This effect is moderated by the presentation mode. Real products evoke higher affect laden responses than symbolic representations such as photos. This increases the impulsivity of the user.

Furthermore, the authors argue that a large majority of decision making processes in shopping are not very deliberate. Customers purchase groceries largely on autopilot. They argue that this is the only possible way, as one simple grocery trip requires a large number of micro-decisions.

Less processing resources available means more impulse buying

Any factor that reduces the availability of processing resources in the shopping environment is likely to increase impulse buying by consumers. Anecdotal evidence: Grocery shopping should have very short checkout time so that people do not have the time to deliberate about what is in their shopping carts and end up leaving the store with products they chose on impulse.

Symbolic representations evoke less affect than actual products

Furthermore, their research suggests that in e-commerce, we face an extra challenge as customers only get to see symbolic representations of products. This leads to a situation where customers are more likely to make decisions based on cognition and less on affect. A possibility to mitigate this effect is by encouraging customers to envision themselves using the product. This will evoke the same sensory processes that actual product usage does.

A.3 PERSUASIVE DESIGN PATTERNS

These tactics are derived from the work on behaviour design of van Lieren (2018) and the Persuasive Design Patterns Cards, of UI-shop.com. These cards were purchase for the Picnic design team to use in their daily practice.

Tactics to simplify behaviour

The following strategies to simplify behaviour, as defined in the Persuasive Design Patterns method can be used to simplify the aforementioned behaviour.

- Limited choice
  It is much easier for us to make a decision, when there are fewer options to choose from.

- Tunnelling
  Close of detours from your desired behaviour without taking away the user's sense of control.

- Tailoring
  Tailored information is more effective in motivating behaviour as there is less irrelevant information for the user to filter.

- Powers
  Provide users a way to reach their goal more quickly than they could before.

- Feedback loops
  Make it easier for users to adjust their behaviour and future actions by providing prompt feedback as they interact.

Although Picnic saves its customers a considerable amount of time in grocery shopping, it might not feel as such. Therefore, we can use the following techniques to decrease perceived time consumption:

Chunking
It is easier to process and remember information when it is grouped into familiar and manageable bits.

- Sequencing
  When complex activities are split into smaller pieces, it is easier for people to perform the desired behaviour.

Other strategies to increase the user's processing fluency and limit the cognitive load:

- Recognition over recall

Users are better at recognizing things from a list than we are recalling them from memory. This explains why customers who are used to shopping with grocery lists are more successful in using Picnic. They can recognize the items on their list, whereas users that rely on the physical lay-out of the physical supermarket can not recognize their known process in the app.

- Intentional gaps

Users are motivated to complete incomplete lists. Picnic can use this by showing the gaps user have in their process

- Conceptual metaphor

It is easier for users to understand a new idea or concept, when it is linked to another more familiar concept. Picnic can use this strategy by making features in the store resemble their physical counterparts

- Reduction

Simplify complex behaviour to increase the benefit/cost ratio, making it easier for users to engage in the target behaviour.

A.3 PERSUASIVE DESIGN PATTERNS

Tactics to influence motivation

Seeking pleasure

The most important strategies of utilizing the seeking pleasure driver are:

- Achievements

Users tend to engage in behaviour in which meaningful achievements are recognized. Picnic can use this by celebrating micro-achievements with the user, for example when a customer places an order.

- Completion

Having closure is a reward in itself. Our need for closure and completion drives us toward action, so find ways to anticipate celebration of completion to engage users in your target behaviour.

- Levels

Using levels to communicate both progress and future goals is a great way to keep the skill level of users in check as their ability grows.

Avoiding pain

The most important strategies to utilize the drivers of avoiding pain are:

- Loss aversion

User's fear of losing motivates them more than the prospect of gaining something of equal value.

- Endowment effect

Possession feels like ownership, so when users possess something, they feel that it would be a loss to let go – even though the users don't own it.

- Framing Users

tend to avoid risk when a positive frame is presented to them but tend to seek risks when a negative frame is presented.

- Anchoring.

When making decisions, users often rely proportionally more on the first information that is presented.

- Status quo bias

Users tend to accept the default action instead of comparing the actual benefit to the actual cost.

- Sunk cost effect

Users have a tendency to continue to invest, even if it brings them losses. This is due to the fact that they hate to see our initial investment go to waste.

- Narratives

The narrative qualities of stories help users engage in a different perspective than their own.

- Autonomy

We feel autonomous when we feel as if we have control over our own destiny. The feeling is reinforced when that freedom is not granted to everyone.

- Curiosity

We crave more when teased with a small bit of interesting information.

Seeking hope avoiding fear

Similarly, fear, the anticipation of something bad happening, will drive users to act. Just as the hope of gaining a future reward can motivate us to act, so can the fear or not obtaining it. All rewards and possible achievements can be framed as either something we gain or as something we lose.

- Fear of missing out (also known as the scarcity effect) is often used as a tool to frame a future gain as something negative. By framing something as being less attainable or accessible, its perceived value rises.

Seeking social acceptance avoiding rejection

A number of persuasive patterns seek to motivate users to act by influencing our sense of belonging:

- Reciprocation

Users feel obliged to give back when they receive something.

- Social proof

If users are in new and unfamiliar situations,

actions of other are assumed in order to feel safe. This means that customers will mimic behaviour of others.

- Status

Users tend to adjust their personal behaviour to reflect positively on how peers consider them. This is what Eyal means when he is talking about Rewards of the Tribe.

- Nostalgia Effect

Reminiscing about the past and the social connections we have had, we tend to favour social connections and downplay economic costs.

Examples of utilized strategies within Picnic
Some of these strategies are currently successfully used within Picnic such as the nostalgia effect evoked by the milkman metaphor, curiosity, sparked when users enter the waiting list, or loss aversion, when users are asked if they want to give up their place on the guestlist in favour of someone else.

APPENDIX B
USER RESEARCH

B.0

This chapter expands on the user research that was conducted. First an overview of all research will be provided. After that the results of the qualitative research will be presented. Then the same will be done for the quantitative research.

In this chapter:

B.1 OVERVIEW OF RESEARCH

For this thesis it was essential to understand the users of Picnic and the problems they face.
In order to do so a wide variety of qualitative and quantitative user research was performed.

This research was performed with Picnic customers, users that did register but did not order (non-order users) and non-users (grocery consumers that had no experience with Picnic yet). This diverse approach allowed me to distil how grocery shopping works for different types of customers.

This introduction provides an overview of the research activities that were conducted.

Overview of research conducted for this thesis

Qualitative research

Interviews

Phone interviews (N=26)
In-depth interviews (N=4)
Phone interviews were conducted to be able to speak to a large sample set. These customers were sleected in order to have a nice balance between new and experienced and satisfied and dissatisfied users.
Unfortunately none of these interviews could be recorded and later transcribed because of GDPR concerns of the company.

Surveys

Non order survey 1 (N=7301)
Non order survey 2 (N=500)
Additional survey (N=73)
Two exisiting surveys of Picnic were analysed. These were combined with another survey targeted at Dutch parents questions that wre more specific to this thesis.

User testing

Testing prototypes with users and discussing the app with them (N=6)
Two lengthy sessions with users were conducted in which the app was thoroughly discussed.

Concierge test

(N=8)
Helping grocery consumer shop in the Albert Heijn. Observing how they shop and think about their groceries. This was very helpful in understanding the grocery shopping process better. The research was conducted in multiple Albert Heijns in Amsterdam.

App reviews

Scanned and analysed +-2000 app reviews.
This provided very broad view of how users think about Picnic. The star rating also allowed me to quantify how positive or negative people were.

Informal feedback

At least 5 long discussions on Picnic with random people at parties. My thesis and the company it was on invoked a lot of interest. This informal feedback was not very academical but provided a lot of insights on how people think about Picnic.

Quantitative research

Purchase data

Purchase data of customers was thoroughly analysed. We looked at how income, household type, location and other factors influenced buying behaviour. With buying behaviour we mean frequency, basket value but also the types of products and the moment of ordering and the selected delivery slots. Unfortunately all of this information was deemed confidential by the company. This is also necessary to comply with GDPR concerns.

In app behaviour

We analysed how people navigate the app, where they add products and at which moment they drop out of the funnel. This was done in different levels of detail. This information is also deemed confidential by the company.

Conclusion

By combining qualitative and quantitative research I was able to constantly generate and test hypothesis. When you have the qualitative finding from interviews that for example singles have a harder time reaching the €25 order limit of Picnic, I was able to directly check how many clicks and seconds it took them to reach this limit, and compare that with other groups of customers. This was a very valuable approach. The synthesis of the research can be found in the thesis itself.

B.2 QUALITATIVE USER RESEARCH

In-depth interviews

Interview guide
Four in-depth interviews with Picnic customers were conducted. The first interview arose by coincidence and was thus a fully unstructured interview. The other three interviews were conducted using a semi-structured interview guide.

Interview users who have their first order. Some of them continued shopping on a regular basis, and some of them stopped using our app after a while.
We preferably use recent invites, so their experience is still fresh. But we do want to be sure that people have had the time to place an order.

Sampling strategy
The idea is to interview a diverse sample of Picnic customers. However, the in-depth interviews required users to take a couple hours during their (working)day and meet us on neutral ground (a lunch bar).

Interview guide
We are mainly looking for unknown/ill-defined problems, so we use a semi-structured interview approach.

Goal
Find out reasons what drives people to order at Picnic or not. Explore what needs or still unmet by our product, and ideate on how we could do so.

Questions/topics
Introduction:
I am Willem, I work with Picnic and try to make our product as user friendly as possible. Therefore, we are going to explore your experience at Picnic. To structure this process, we are going to walk through your entire Picnic journey.

Topic: Previous habit
Probes: How did you shop for groceries before using Picnic
Reason to switch to Picnic
Probes: What moved you to switch to Picnic?
Why Picnic?
Waitlist
Probes: What happened next?
What did you think about the waitlist?
Trigger
Probes: What moved you to start shopping?
What was the moment you started shopping
Shopping
Probes: How did it work for you?
How did the app work?
What did you think about shopping
Delivery
Probes: And what happened next?
What did you think about the delivery?
Consuming
Probes: What was the next step?
How about the products?
Conclusion, main problem Picnic is solving
Probes: What would you miss when Picnic would stop?

Results

Interview 1
In-depth interview with Picnic user (ID 103-820-0875 /Rotterdam/ family/2 young children)

Using the same account on two phones (husband and wife)
Ordering 2x /week, Tuesday and Friday evening

Uses Picnic app as shopping list, adding products throughout the week

Therefore, it is really problematic when delivery slot turns out to be unavailable

It means that the carefully compiled grocery list is rendered useless, he has to go to Albert Heijn, and he has to delete all items from his Picnic “mandje”

Thinks it is unfair that loyal customers do not get priority when selecting slots

Has the perception that Picnic mainly focuses on acquiring new customers, rather than satisfying existing customers

Is positive towards recipes/shopping lists function, but not sure if he would use a “subscribe to product” function because he doesn’t think his groceries are that predictable (edited)

Interview 2
In-depth interview with Picnic user, young female (ID/ Delft)

Previous habit
Goes shopping at Jumbo every (other) day

Reason to switch to Picnic:
Had a friend who told her about Picnic and registered right away

Waitlist :
Was a bit disappointed by the waitlist, she wanted to use it right away.
Did give a feeling of exclusivity
Invite to guest list came quicker than expected

Trigger:
When she got the invite Picnic was not on top of mind anymore

so she did not use it right away
Now she is using a diet book (Fajah Lourens) she found a shopping rhythm which helps here do shopping at Picnic
When she was working the delivery slots were not suiting her. She recently quit her job so now she has more time to be home for when the runner comes. Also the slot times improved in general.
Shopping
Orders once a week and goes once a week to the Jumbo
Sometimes she abandons her order when she can not find a single product. She goes to Jumbo to do all her shopping
Expects more bio products because of green image.
Didn't understand freshness guarantee, was searching for a best until date
First takes a look at the promo's then switches to search
When shopping for the first time she checked all categories
Assortment doesn't feel complete when she is not able to find specific products
Would like to have control over her besteld list

Delivery
One time the runner couldn't find her house, this was a bit frustrating
Doesn't care that much about the delivery experience. She mentioned that having the same runner, might lead to a more personal connection which might change her attitude towards the delivery experience

Consuming
Friends told her about the bad quality of the Picnic bread, so she doesn't buy that.
Emailed two times when she had a bad product.
Thought it was a bit weird that she didn't get a refund but got the product free in her basket. The product wasn't relevant when placing a new order.
What would you miss when Picnic stopped:
Convenience of not having to go to the supermarket and carrying her groceries. Also likes the game element and finding everything on her list.

Additional remarks
Favourites not the same as besteld "sometimes you order bananas, but they are not necessarily your favourites"
Mainly buys shelf-life
Likes the game element of the app (hunting for products)
Dislikes it when her order "disappears" (meaning she has spent time and effort and then doesn't complete the purchase for some reason)
Because of low order frequency, she likes a refund better.

Interview 3

Two Picnic users, one who is currently ordering, one who is on the waitlist
(for privacy purposes we will call them Thomas and Nick (waitlist))
Previous habit
Thomas his girlfriend is Chinese, so she does a lot of shopping at the Toko.
Lived across to Albert Heijn and did go there every day
Now shops at Jumbo twice a week,
Nick does all his shopping once a week

Reason to switch to Picnic
Recommenced by colleagues
Before is was hard to get to the 25 euros. No has a cat and the extra items he needs make it easier to reach the 25 euro.

Waitlist
Nick would like to adjust his profile when he is on the waitlist.

Trigger
Thomas started right away shopping after invite to get his wachtverzachters.

Shopping
Uses mainly besteld page
First he checked the whole app to check the assortment, thought it was complete
Buys mostly stockables
Buys mostly A-brands
Wouldn't like the shopping buddy. He wants to have control over his basket, because it's about money he spends. He also thinks the besteld page works already good.

Delivery
Likes the accuracy

What would you miss when Picnic would stop?
Convenience of not having to go carry all the groceries

Additional remarks
Asked about automatic orders > they still would like to be in control over final decision

Interview 4

Picnic user Delft / father of 2

Previous habit
Tried to go shopping twice a week. But during the week his planning would break and had to go to AH every day.

Reason to switch to Picnic
Friends told him about Picnic
He would like to try it

Waitlist
He had to wait really long, but the wachtverzachters softened the pain
The waitlist felt also logic to him because he saw that it helps keeping the level of service high

Trigger
Started right away after first email
Forgot a couple of times and switched to old behaviour
Says you really have to learn to Picnic
And very proud when you do learn how to Picnic (expert feeling)

Shopping
For some products still going to AH, for example he doesn't like the bread and hagelslag
If products are not in the assortment he has to go to another supermarket
Has a couple of fixed recipes he cooks most of the times
Starting with besteld and then switching to search
Likes that he doesn't do impulse purchases
Checks new and promo to get inspired
Delivery
Order rating response lasted up to 2 months, but if you send a WhatsApp you get help right away. This really frustrated him, why do you even give that option?!
Was a bit worried about our employees after the news

Consuming
Sometimes struggle with freshness. Get frustrated when something has gone bad and he has to go to the supermarket

What would you miss when Picnic stopped?
Convenience of not having to go carry all the groceries

Additional remarks
Found the short GIF extremely funny

Phone interviews

Phone interviews (N=17)
The interviewees were first asked to confirm their household status, validating the information they entered when first using the Picnic app.
In avoidance of leading questions, we first approached the interview with open questions, getting them to reflect on their Picnic shopping experience. We then drilled down further, exposing their needs and pains in both physical grocery shopping and their Picnic experience.

Unfortunately, GDPR concern within Picnic prevented the recording of the interviews. Therefore, no transcripts are included.

Interview guide

Interview users who have not placed their first order and compare with people who have.

We preferably use recent invites, so their experience is still fresh. But we do want to be sure that people have had the time to place an order. Therefore, we select samples that received a direct invite a minimum of 2 weeks ago, and a maximum of 4.

Sampling strategy
The idea is to interview a broad sample of Picnic customers. therefore, we use a rational subgrouping sampling approach. This means that we will look into the following subgroups: working parents, stay-at-home parent(s), couples without children.

Interview guide
We are mainly looking for unknown/ill-defined problems, so we use a semi-structured interview approach.

Goal
Find out reasons why people didn't order. Get better insights into the motivations of our customers.

Questions/topics
Introduction:
I am Willem, I work with Picnic and try to make our product as user friendly as possible. You recently got invited in the app and I would like to ask a few questions about it, is that okay with you?

What do you think about Picnic?
Why did you download the app?
Did you place the first order? Why/why not?
How was that for you?
>> Dig deeper into the why

Interview notes

Interview 1
Woman, couple, active customer

Couple	Check
Convenience driven	Yes
Usually coordinate shopping together	No
Lower routine than family	Yes
Now very well which products they want	Yes

Stopped using Picnic because she moved to Eindhoven
Couldn't change address
Ordered once a week:
Orders a max of 2 dinner meals, in order to be flexible. She ordered the meals in the beginning of the week because she didn't know when she wanted to cook them. Sometimes she would eat out, go to the snackbar or fancy something else and buy the ingredients at AH.
Main reason to use Picnic was because of the free deliveries
Process of ordering together
Both add products on their own phone, and then do a final check the evening before ordering. Goes pretty well! Did not have problems coordinating their groceries.

Interview 2
Man, non-order, single

Single	Check
Hard time reaching €25	No
Unable to plan dinner ahead	Yes
Do not mind browsing app	Yes
Are not focussed on minimizing time in app	Yes

Oudere man (67), slecht ter been.
Zou vooral erg graag een PC app willen. Hij doet namelijk al zijn bankzaken via de PC. Geeft aan dat al zijn kennissen dit ook erg graag willen.
Kan ook de producten op "zo'n klein kutscherm" niet zien.
Besteld voornamelijk voorraad producten: dranken e.d. Hij heeft geen zin om al 1 of 2 dagen van tevoren te bepalen wat hij wil eten.

Interview 3
Woman, non-order, couple

Couple	Check
Convenience driven	Yes
Usually coordinate shopping together	No
Lower routine than family	Yes
Now very well which products they want	Yes

Wilde graag bestellen. Maar bedacht dat pas als ze terugkwam van de supermarkt, waardoor het al niet meer nodig was. Deed alle boodschappen samen met haar vriend. Wisselend wie de boodschappen deed. Picnic leek haar te mooi om waar te zijn. Ze vertrouwde het niet. Hoe kan je deze goedkoopste boodschappen en gratis thuis leveren? Dacht dat er een addertje onder het gras zat.

Interview 4
Woman, active, single

Single	Check
Hard time reaching €25	No

Unable to plan dinner ahead	No, but it is a challenge
Do not mind browsing app	Yes
Are not focussed on minimizing time in app	Yes

Hoorde over Picnic via media en facebook
Reden om te starten was dat bij haar nieuwe woning supermarkten ver weg waren
Vond het scrollen en browsen onhandig. Vooral ook switchen tussen categorieën.
Koopt vooral basisdingen. Mist biologisch, zoutarm etc. vooral bepaalde merken
Doet altijd voor de hele week boodschappen, ook voordat ze Picnic gebruikte.
Weet precies wat ze wil gaan eten op welke dag.
Bezorgtijden komen niet altijd goed uit. Wil graag zondag of maandag haar spullen voor de rest van de week.
Ideale bezorgmomenten zouden zondagavond en doordeweeks tussen 7 en 8 zijn.

Interview 5
Woman, active, couple

Couple	Check
Convenience driven	Yes
Usually coordinate shopping together	No
Lower routine than family	Yes
Know very well which products they want	-

Hoorde van Picnic via een vriendin
Gebruikt de app vooral omdat het makkelijker is
Gebruikte in het verleden marley spoon, maar vindt picnic fijner vanwege losse ingrediënten
Eet 3 a 4 keer in de week samen met haar vriend, en besteld vaak op maandag voor de rest van de week
Kwaliteit van brood en andere luxe producten kan een stuk beter

Interview 6
Woman, active, family

Family	Check
Efficiency driven	Yes
High Routine	No
Decide what to eat	Yes
Forget products	No

Niet blij met gebrek aan lokale producten, vond daarom Crisp beter
Daarbij is de houdbaarheid van de producten niet goed
Vindt het fijn dat ze door Picnic niet fysiek met haar kind naar de winkel hoeft
Vindt Picnic fijn met name voor grote en zware producten
Houdbaarheid is een probleem vanwege flexibiliteit

Interview 7
Woman, active, couple

Couple	Check
Convenience driven	Yes
Usually coordinate shopping together	Yes
Lower routine than family	Yes
Know very well which products they want	Yes

Doet vaak boodschappen in overleg met haar partner, maar bestelt wel altijd zelf op eigen mobiel
Vondt de email met aanbiedingen heel fijn
Ouder persoon (45-60) woont wel samen met partner
Picnic is vooral een stuk makkelijker.

Interview 8
Woman, active, couple

Single	Check
Hard time reaching €25	Yes
Unable to plan dinner ahead	Yes
Do not mind browsing app	Yes
Are not focussed on minimizing time in app	No

Weduwe, begon Picnic te gebruiken uit noodzaak omdat ze niet meer zelf boodschappen kon doen
Nu dat ze weer kan fietsen gebruikt ze Picnic vooral voor zware spullen
Heeft een probleem met de houdbaarheid van de producten
Vindt het soms moeilijk om aan de 25 euro te komen per bestelling
Gebruikt juist het browsen van categoriën om niks te vergeten, want je komt overal langs.

Interview 9
Woman, active, family

Single	Check
Family	Check
Efficiency driven	Yes
High Routine	-
Decide what to eat	-

Gebruikt nu wat minder picnic vanwege paar foutjes in levering (kwark was stuk)
Ze vindt de routine heel erg fijn, voornamelijk dat je kan kijken naar producten die je eerder hebt besteld
Het gemak zit hem vooral in dat je niet zelf naar de winkel hoeft.

Interview 10
Woman, active, family

Family	Check
Efficiency driven	Yes
High Routine	Yes
Decide what to eat	-
Forget products	Yes

Vooral fijn dat je niet meer de deur uit hoeft
Ik gebruik het vooral voor basis artikelen zoals brood, boter, etc.
Ik ben ook fan van de aanbiedingen
Vaak is het zo dat ik (vrouw) bepaal wat we voor het gezin bestellen in de app.

Interview 11
Woman, active, family

Family	Check
Efficiency driven	Yes
High Routine	Yes
Decide what to eat	No
Forget products	No

Ik vind het fijn dat ik niet de deur uit hoef
Als ik met picnic boodschappen doe gebruik ik geen lijstje, maar normaal wel
Vindt het fijn om te browsen omdat ik dan niks vergeet
Ik (de vrouw) bepaal de boodschappen
Haal soms artikelen bij de Lidl als ik ze snel nodig heb
De routine is heel erg fijn

B.2 QUALITATIVE USER RESEARCH

Interview 12
Woman, active, single

Single	Check
Hard time reaching €25	No
Unable to plan dinner ahead	-
Do not mind browsing app	Yes
Are not focussed on minimizing time in app	No

Ben het gaan gebruiken toen ik moest revalideren
Ik bespaar juist heel veel geld met picnic omdat ik gelijk kan zoeken wat ik wil, en niet wordt verleid door het assortiment
Voornamelijk basisproducten want eten wordt vaak voor me gekookt
Groot fan, altijd beleefde bezorging en niet zelf de deur uitDe routine is heel erg fijn

Interview 13
Woman, active, family

Family	Check
Efficiency driven	No
High Routine	No
Decide what to eat	Yes
Forget products	Yes

Learned about Picnic by seeing EPV.
Is verhuist en kan niet meer bestellen.
Stond nog als single in app, maar inmiddels een man en een kind.
(Dit zag je ook terug in order frequentie en value)
Ze was "de chef van het huishouden" en hoefde dus niet te overleggen met haar partner.
Was zeer positief over CS, vond ze erg klant gericht.
Vind de kwaliteit belangrijker dan prijs, zou graag willen dat Picnic meer focust op high-end/

Interview 14
Woman, active, family

Single	Check
Hard time reaching €25	No
Unable to plan dinner ahead	No
Do not mind browsing app	Yes
Are not focussed on minimizing time in app	Yes

Moved to Groningen and can't order anymore.
Did not have problems with reaching the minimum order amount, because he would order all his meals beforehand. These meals were very similar most of the time.
Prefers his deliveries on Fridays, to get the nice stuff for the weekend and have everything he needs for the rest of the week.

Interview 15
Woman, active, single

Single	Check
Hard time reaching €25	No
Unable to plan dinner ahead	No
Do not mind browsing app	Yes
Are not focussed on minimizing time in app	Yes

Moved and is not able to order anymore. She also started living with her partner instead of by herself. Nowadays she shops at AH:She likes the inspiration for dinner meals it gives her. The bonus is a good way for this, or the little cards with recipes/
She dislikes that she does not really plan her groceries that well anymore
She now forgets more products and make more impulse purchases.
Because when using Picnic, she was at home and could check if she still had products in stock.
Mentioned that Picnic's products are fresh longer than AH's.

Interview 16
Woman, non-order, family

Family	Check
Efficiency driven	No
High Routine	Yes
Decide what to eat	No
Forget products	No

"Ik kijk vooral uit naar het bestellen van jullie vleesproducten"
"Jullie hebben veel meer producten dan andere supermarkten"
Geeft aan normaal een lijstje te gebruiken, maar niet bij picnic
Zij overlegt niet met haar man, doet alles zelf. Heeft geen problemen met vergeten Denkt eraan om vooral dezelfde producten (vlees, kaas, brood) te kopen bij Picnic
Kookt divers (internationaal)

Interview 17
Woman, non-order, family

Family	Check
Efficiency driven	Yes
High Routine	Yes
Decide what to eat	Yes
Forget products	No

Picnic leek vooral handig
Nog niet besteld want geen tijd
Fijn dat stuk goedkoper is dan albert Heijn
Koopt bijna elke week hetzelfde
Overlegd het altijd met zijn vrouw
Heeft veel lijstjes voor boodschappen

B.2 QUALITATIVE USER RESEARCH

Conlcusion interview session 1

- Target-group: customer who filled in (re)activation survey
- # called: 30
- # picked up: 12 (4 x 0-order customers and 8x 1+ order customers)

Main findings (N=12)

General

- Delivery slots are a key factor in determining if Picnic "works" for someone or not.
- Moving and losing access to Picnic is a frustrating experience. This is partly due to the fact that the procedure is rather unclear.
- One customer thought Picnic was "too good to be true". She thought it was suspicious that the company offers free deliveries and the lowest price. Was afraid that the products would therefore be of low quality, and did not order because of that.
- Picnic is especially helpful for "not having to carry heavy stuff" such as big or heavy products and hoarding groceries.
- Picnic helps people save money, which might hurt average basket value"
- "I save a lot of money because I can find the products that I am looking for, without being teased to make impulse purchases."
- A large share of customer needs a clear external motivator to start using Picnic. Examples of these motivators are moving to a house far away from the supermarket, a physical injury, illness or other circumstances.

Families

- Families are very happy that Picnic saves them trips to the supermarket with kids
- Groceries are often purchased together, with the same account on two phones
- Sometimes, the shared order will be checked together before placing it
- There is often on person in charge of the groceries

Couples

- Do not eat together at home every day. Need to ensure they are flexible with their meals.
- Some couples mitigate this challenge by ordering two or three meals for the full week via Picnic, and figure the rest out along the way.
- "That gives us a bit more freedom"
- "Sometimes I just do not know what my week is going to look like"

Singles

- Singles often have a hard time reaching the €25 order limit

"I have to order for multiple days, otherwise I do not have enough!"

Conclusions interview session 2

Target-group: customer who filled in (re)activation survey
- # called: 12
- # picked up: 5 (2 x 0-order customers and 3x 1+ order customers)

Main findings (N=5)

Families

- Hypothesis that families often use the same account on two devices is not true for all customer, the families interviewed in this round indicated that the mother is often responsible for the groceries. The responsible people in these families do however consults with their partner on the grocery list.
- "I am the boss of our household activities"
- "I always consult with my wife before placing the order"
- Families often buy roughly the same items, week in week out.
- Families prefer to always have the same delivery slot.

Singles

- Can only be successful if Picnic is used in a disciplined manner, and when these singles also buy their dinner meals with Picnic. Otherwise, the minimum order amount is too much of a barrier.
- "I have to buy my dinner meals with you guys, otherwise I won't reach the limit!"

B.2 QUALITATIVE USER RESEARCH

Concierge test

Approach

In order to find out more about grocery shopping, a concierge test was conducted. This is a test were you do the task for the user, with the user giving you instructions. This was done by going to three different supermarkets in the centre of Amsterdam. Customers were asked if they wanted to participate when entering the supermarket. If the customer agreed, I would carry the basket and let them tell me which products to add to it. During the shopping, I also had the chance to discuss their choices and observe their behaviour. Because the customers had to explicitly state what they wanted, they were forced to walk me through their thinking process allowing me to learn all about their grocery shopping habits.

Findings

The main findings are on how people come up with what they are going to eat that night, in what order they add the products to their baskets, and a bias known as permission seeking behaviour.

Grocery list versus inspiration in store

People often have either a grocery list, or they start thinking about what they want while entering the store. In the second situation they often do have a vague idea on what kind of meal they want to cook, for example an Asian dish with rice, or a quiche. But the exact information on the ingredients and preparation are unclear prior to shopping.

Order of grocery shopping

Meals are often build with the protein (meat/fish) as a starting point. The most common order seems to be: 1) Vegetables and proteins, 2) Carbs such as rice and pasta & tastemakers, such as pasta sauce or wok paste, 3) extra such as Kroepoek or pine nuts.

On alternative order is starting with the tastemaker and then adding the rest. The back of the container of the tastemaker often serves as a recipe for these users.

The fourth phase is making a final impulse purchase such as chips or ice-cream, or items that the customer really needs such as toilet paper or laundry detergent.

Permission seeking behaviour

Lots of people first buy healthy products, which they feel give them the permission to

Limitations research

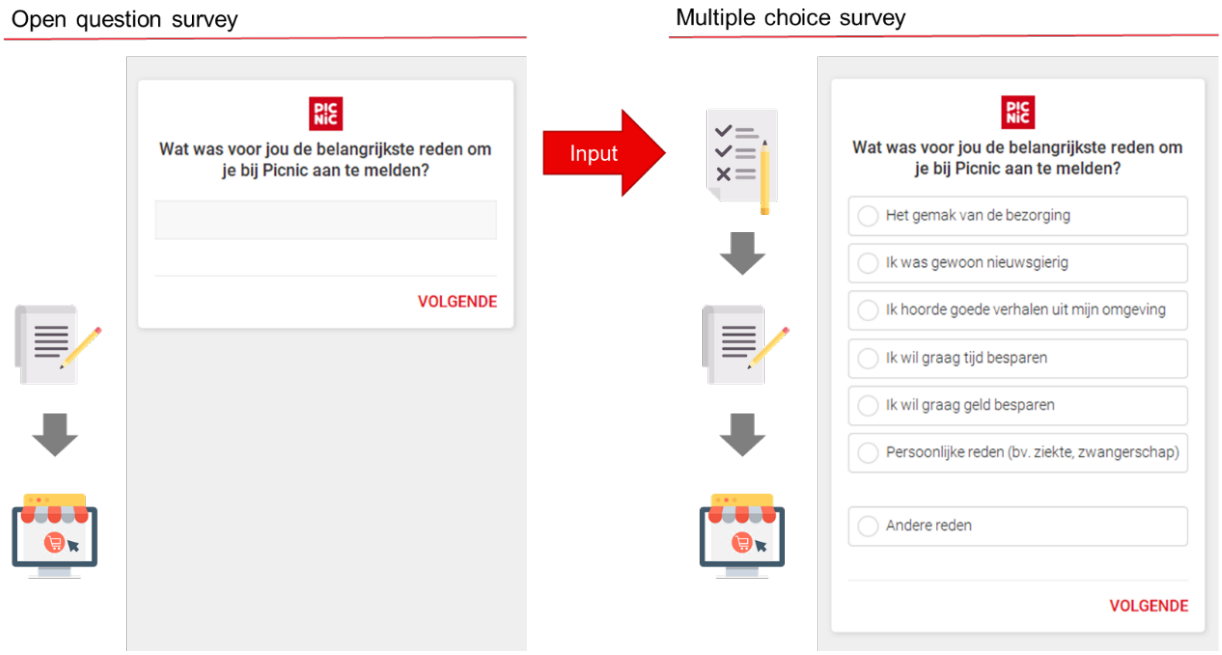
A large share of customers shopping at Albert Heijn did not want to participate in this research. Therefore, the sample is most likely not very representative. In addition to that, the test was conducted in a highly urban environment, with a high supermarket density. Furthermore, the way that people shop for groceries changes throughout the week, and this test was conducted on one day. In order to get more valid results, this test should be repeated in less densely populated areas on multiple days of the week.

B.2 QUALITATIVE USER RESEARCH

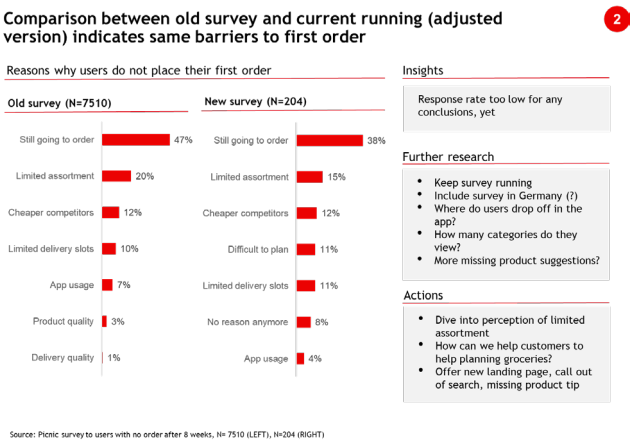
Non-order survey

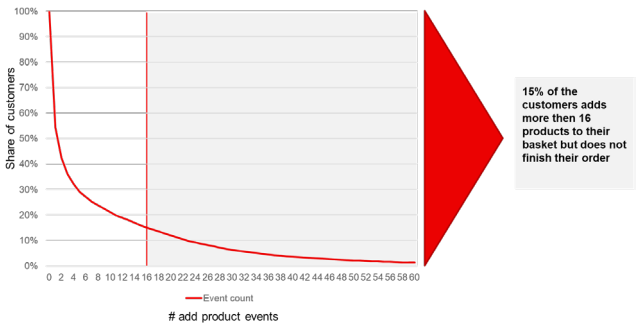
Customers do not place orders with Picnic for the following reasons
To find out why registered customers, do place an order, or do not place an order a survey was send.
The first version of this survey was answered by 7510 Picnic users, and the second version by 204 Picnic users.

Survey design
First open questions in pilot test, these answers are then used in the multiple choice questions.



Sampling strategy
E-mail to non-order customers





B.2 QUALITATIVE USER RESEARCH

Results from survey

Customers face a mix of challenges when they first use Picnic. These challenges are a result of the totally new process of grocery shopping Picnic introduces. Because this process is so new to customers, we expect them to be unable to articulate all the problems they face when placing their first couple orders with Picnic. These expectations are based on preliminary interviews with users (N=8) , design literature such as Convivial Toolbox (Sanders and Stappers 2012), and experiences of designers and UX experts at Picnic. Thus, we must tackle a combination of explicitly stated problems, and problems stemming from observations on one hand, and tacit and latent needs on the other. We refer to the latter, as "deep problems". In order to find these "deep" problems, we will use the corresponding method for each layer of knowledge.

Surface problems in onboarding

Users indicate four main problems they face when they start using Picnic .

1. Assortment; Users feel like the assortment is small and incomplete. Furthermore, they cannot check product quality themselves as they would do in the store.

"The assortment doesn't feel complete, because I can't find some of my favourite products"

2. Delivery slot; There is a limited number of slots available to the users, most of the time two per day. These might not be suitable.
3. Inconvenient process; Users describe the process of grocery shopping as inconvenient. This inconvenience has two main reasons: 1) The Picnic store provides limited inspiration for what to eat, and 2) due to the lack of a familiar spatial layout customers have no reminders about products they might want to buy but are not fully aware of.
4. Price (perception) ; Even though Picnic promises to deliver your groceries for the best price with free delivery, customers still feel competing supermarkets are cheaper. In the survey, 12% of the customers who did not place their first order indicated that this was because competitors were cheaper.

The problems mentioned above are believed to be the main reasons that users do not start or keep using the Picnic app.

Deep problems in onboarding

A mix of methods was used for previous research efforts; data was collected via in-app feedback, app analytics, user interviews, and Appstore/Play store feedback.

This preliminary research has yielded the following hypothesized main problems in on-boarding customers:

1. Low interest purchase; Groceries are a low interest purchase. This means that customers often do not have the motivation to think about they could improve their process of doing groceries. They simply purchase groceries on autopilot.
2. High cognitive effort; Ordering groceries via Picnic requires significant cognitive effort. Due to the long wait time, it requires a fairly detailed week planning of the user, which is a complex mental process. In addition to that, customer have limited inspiration on what to buy for dinner. They can't feel or smell the products, they lack the spatial reminders of physical supermarkets and they can't peak into someone else's basket to see what they are having for dinner. Finally, there is not familiar physical lay-out that can serve as a reminder to buy certain product for the user
3. No instant gratification: The app doesn't give its users instant gratification. After placing the relatively cumbersome order, users have to wait 18 hours on average for their reward in the form of their groceries.

Feature requests

In the reviews of the app, users often give feature suggestions. So far, users have mainly requested the following features:

- To have their own list of favourite products.
- Have pre-made recipes in app, or be able to save their own recipes.
- Add product to the current order.
- Filter products on price, brand or food characteristics (bio, gluten-free, etcetera).
- Integrate the delivery moment with their

online calendar.

Customer needs
Feature suggestions can be seen as outings of customer needs (Welnic 2018). The feature request mentioned above boil down to three types of needs .

1. Control

All features are essentially a request for more control. The customer wants to be able to adjust the app to his preferences instead of being subjected to a rigid structure.

2. Relevance

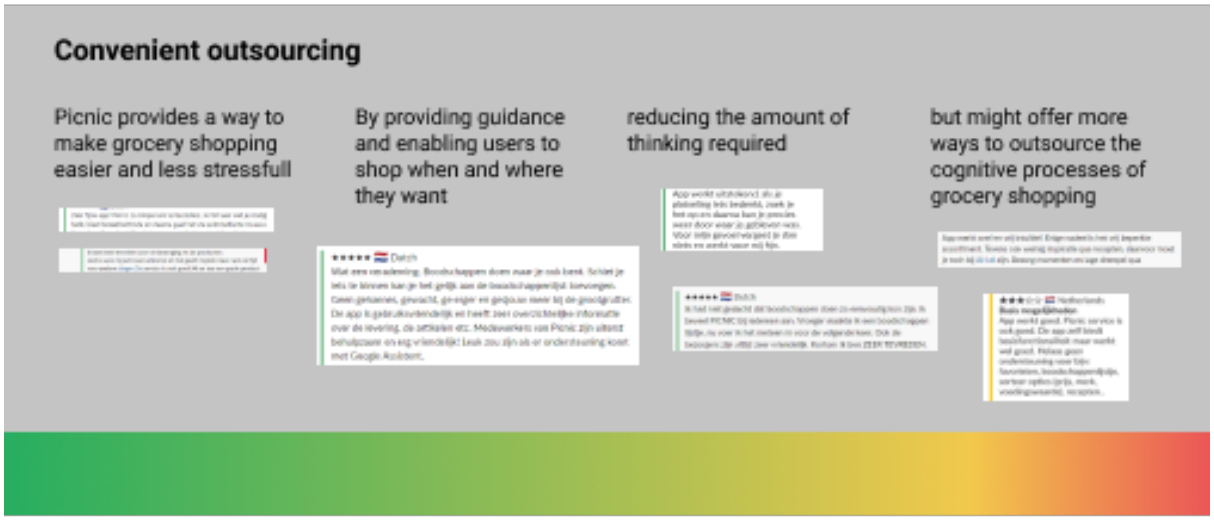
Filtering products will lead to more relevant content per screen/swipe/second

3. Convenience

Integrations and curated content make the process of ordering and receiving orders easier for Picnic's customer

B.2 QUALITATIVE USER RESEARCH

Analysis of app reviews



B.3 QUANTITATIVE USER RESEARCH

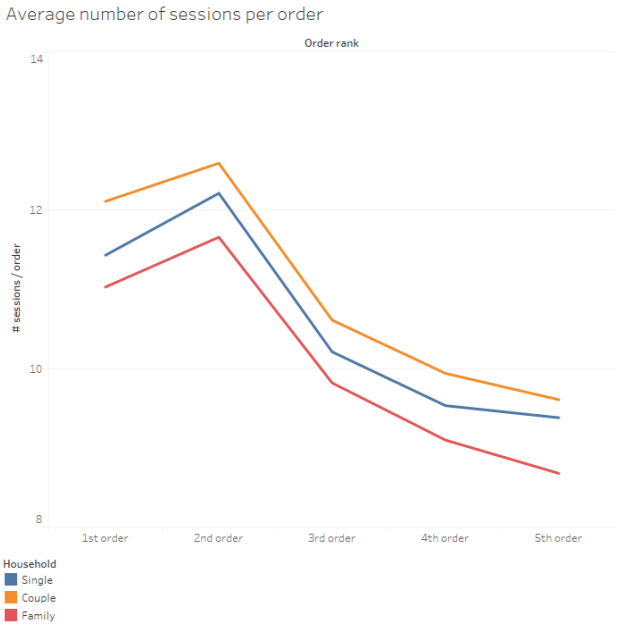
In app behaviour

Approach

By the data from the in-app behaviour of customers, the qualitative findings can be validated. This data analysis was conducted for data over the full year of 2018 to filter out seasonality effects. The analyses was conducted by using Tableau data visualization software.

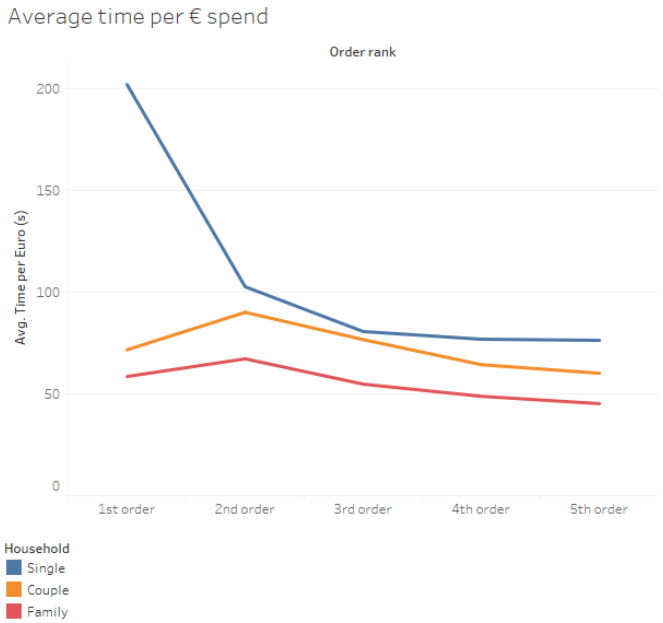
Number of sessions

First we looked at the number of sessions per order, split over the different types of households. This shows how often customers need to come back to the app to place an order. Notice that couples need the most sessions per order. In addition to that, the number of sessions decreases strongly as customer get more experienced. This trend is only broken in the second order, which takes more sessions than the first one. The hypothesis is that this is due to the fact that the first order is merely about “discovering” the app, and the second order is the first real one, where customers order more and more different products. They have now gained the confidence that Picnic can deliver.



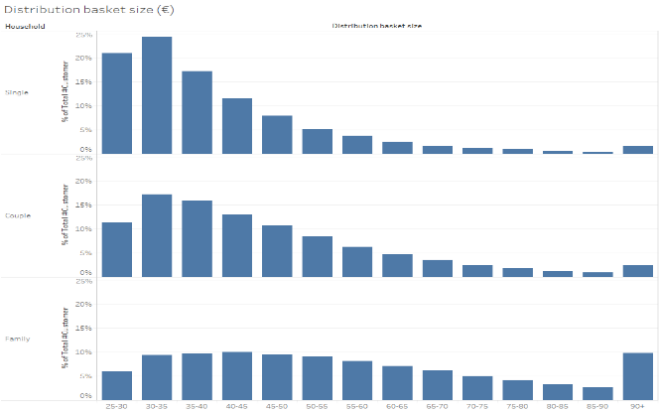
Time per order;

After that, we have looked at how much time it takes to compile the order. To correct for different basket sizes, we looked at the time per € spend. Especially during the first order, singles seem to spend a large amount of time per euro they spend. This confirms the qualitative finding that singles have a hard time reaching the €25 order limit.

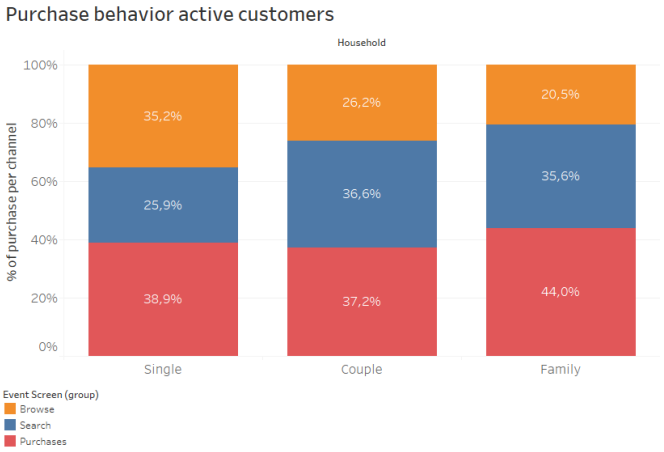


B.3 QUANTITATIVE USER RESEARCH

Basket size
how much do you spend, how many products do you buy



Purchase “channel”;
via browse function, search function, or from previous purchases page



B.3 QUANTITATIVE USER RESEARCH

EXCLUDED FOR CONFIDENTIALITY

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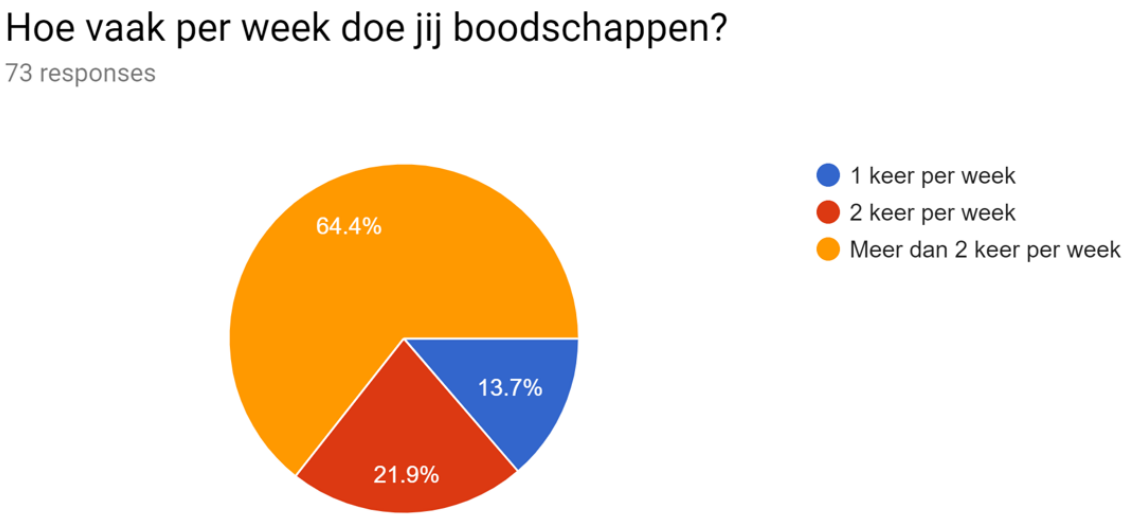
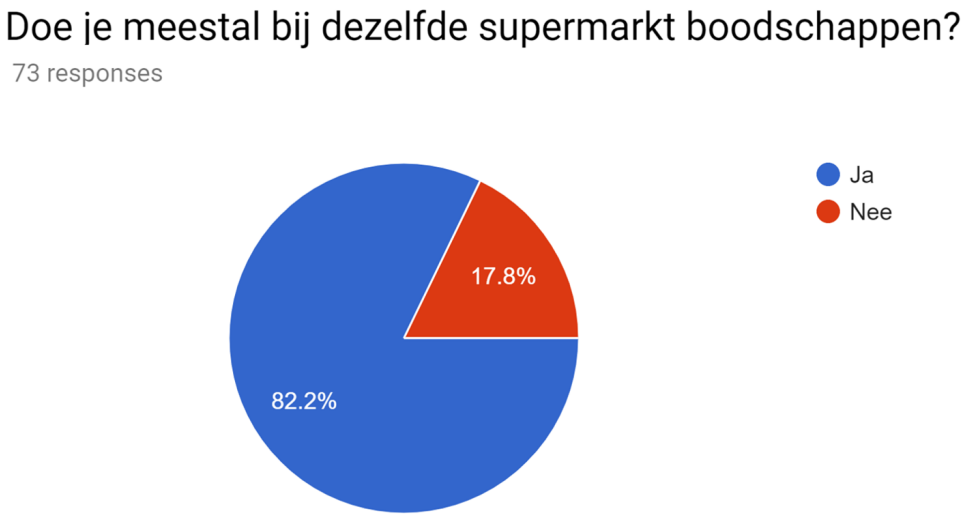
B.3 QUANTITATIVE USER RESEARCH

Additional survey

A third sruvey was conducted to learn more on the behaviour of Dutch families. In order to get the right respondents, the survey was posted on several fora for parents in the Netherlands. This data was not used directly, but to provide additional context for this thesis. Some of the most interesting results of the sruvey are included in this appendix.

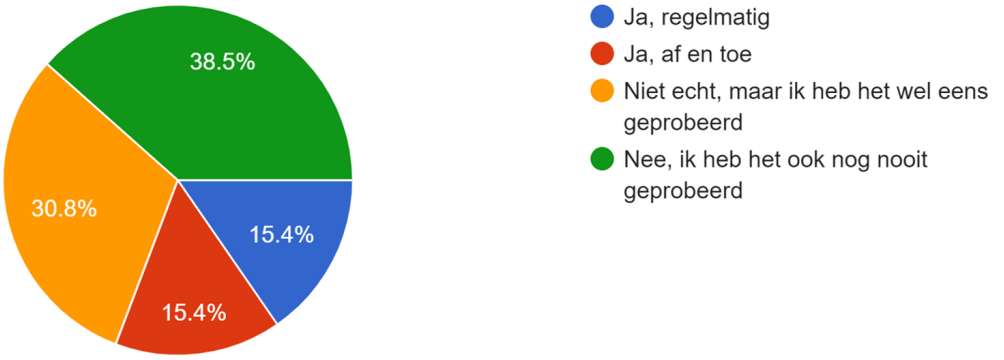




B.3 QUANTITATIVE USER RESEARCH

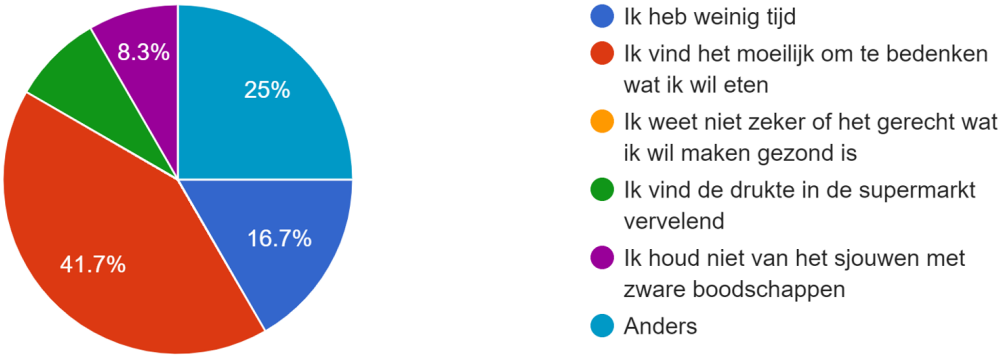
Bestel je ook wel eens boodschappen online?

73 responses



Wat is je grootste uitdaging bij het doen van boodschappen?

73 responses



APPENDIX C
ORGANIZATIONAL ANALYSIS

C.0

This appendix researches how the Picnic organization works. It does so by looking at the current product development process, and by analysing a previous design model.

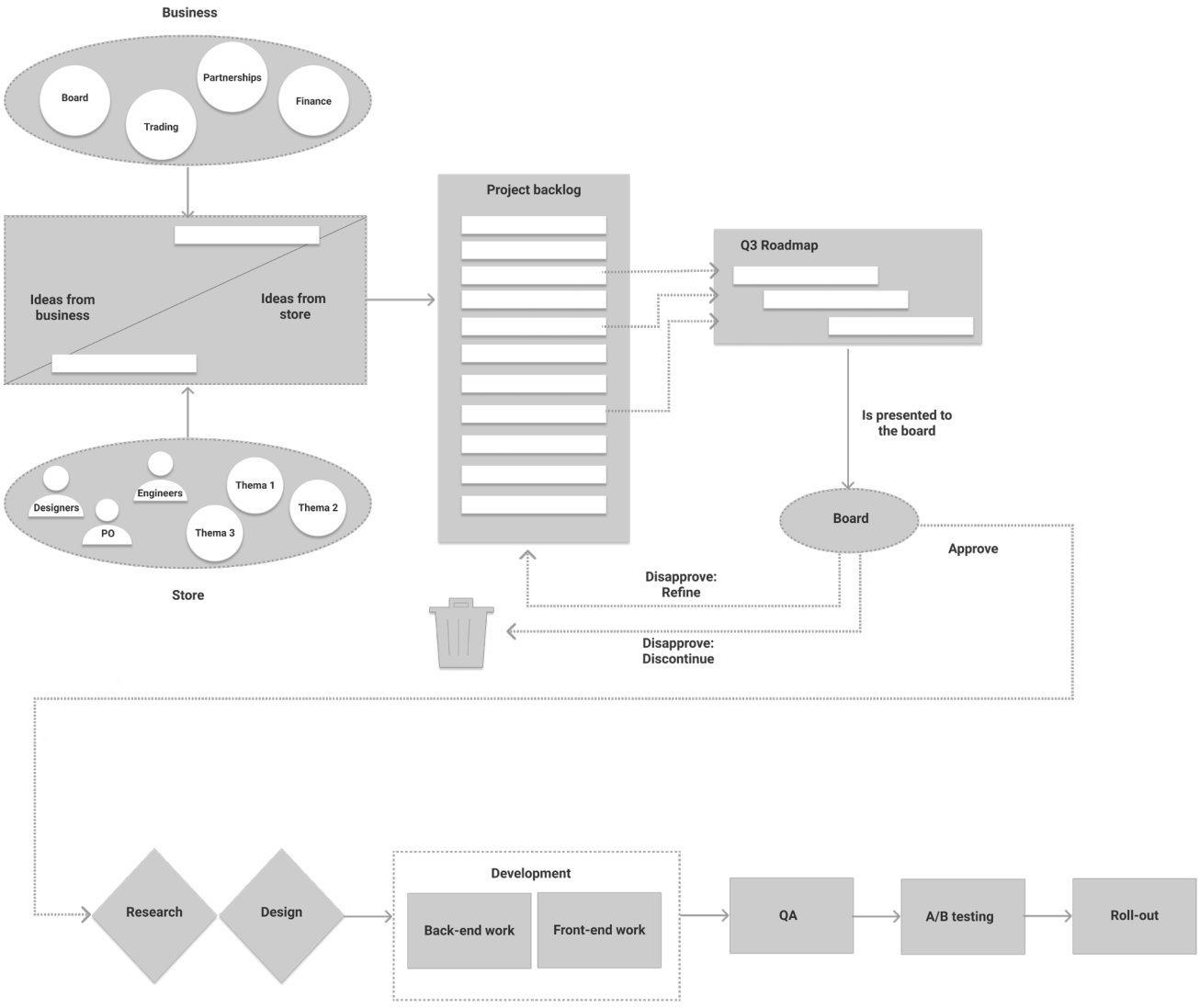
In this chapter:

C.1 PRODUCT DEVELOPMENT PROCESS

In this section an organizational analysis is performed to ensure the suggest product development framework is compatible with the inner workings of Picnic. Taking this in consideration increases the feasibility of the proposed solution.

Overview product development process

The typical product development process of Picnic's store team looks as follows:



C.1 PRODUCT DEVELOPMENT PROCESS

The process consists of the following stages:

1. Quarterly company roadmap
Picnic sets goals on a quarterly basis. This process of goal setting is finalized in a meeting with the business and tech leads of all teams, as well as the management.
Prior to this meeting, business teams and the management team can request certain projects to the store team. In addition to these requests, the store team comes up with its own projects for the quarter. Most of the time, the designers and product owner of the store team have already worked on the projects in the previous quarter, in order to clearly define how the new feature should work.
During the meeting a joint decision is made about which projects have priority for that quarter. These decisions are formalized into a roadmap. After the roadmap has been established, the product owner will collect the requirements of business stakeholders. Based on this, a feature will be defined and documented online. This allows business stakeholders, product owners, designers and engineers to have a shared understanding of what the feature should look like.

2. Quarterly team roadmap
The decisions from the planning meeting are translated into a visual roadmap that the team will work on during that quarter. In this road mapping session, most decisions on what to build that quarter are already made. The topic of the discussion is when the team is going to build what. This can sometimes lead to frustrations in the team, especially when certain features come as a surprise.

3. Execution of the roadmap
The next step is to execute on the plan made on the roadmap. This execution can be roughly divided into three phases: Design work, back-end work, front-end work. Most of the time, projects will be executed in this order. Picnic works in two weekly sprints, loosely based on the SCRUM framework. Therefore, the work is divided into micro-projects that should be manageable in a two-week period. In order to keep the team aligned, there is a daily stand-up where everyone shares what he will be working on that day. After the sprint we have bi-weekly demos.

4. Testing
After the new feature is developed extensive testing will take place. This testing aims to cover all risks involved with product development, as defined by Cagan (2008). These risks include value risk, usability risk and performance risk. There are multiple ways Picnic tries to mitigate these risks. First of all, the feature is extensively tested with prototypes made by the designers. This covers most of the usability and value risks. In addition to these tests, the QA engineer runs automatic tests to find bugs in the code. This ensures performance of the new feature is on par.

5. Rollout: A/B test
In this test we compare the performance of the new feature to the previous situation. What is defined as performance differs for every feature, but it is most common to look at Picnic's top-level Key Performance Indicators (KPI's). The store's most important KPI is the Customer Annual Value (CAV), this number indicates how much a given customer contributes to Picnic's result. This is based on the Net Contribution (how much does an order contribute to Picnic's bottom line) times the delivery frequency (how many deliveries are made to that customer).
Although it is depended on the effect you expect to observe, A/B tests are generally run with around 5.000 customers in the active group (with the new feature), and 5.000 customers in the control group.

6. Definitive rollout
If the A/B test produces satisfactory results, the feature will be released to all Picnic customers.
Analysis current process
The current product development process is relatively linear. This means that once an idea is passed the quarterly roadmap session, it must be build and A/B tested. Only after that test, it can be

discontinued. While it is logical that the business has to align on what is being build each quarter, the problem is that this process assumes that the team has all the necessary information upfront. This does not take into account that most learning is done while designing and developing the product.

Secondly, the process is relatively top down, meaning that the management team and other business teams have a large say in what is being build. This happens first in the quarterly road mapping sessions, and later in the board meeting where the roadmap needs to be approved.

Finally, there is an inherent conflict between different stakeholders embedded in the current process. In the road mapping sessions, different teams with different goals need to decided what needs to be built together. This happens without the teams having an objective way to consider the impact of their solutions. This conflict is enlarged by the limited development capacity of the store team.

Needs of stakeholders

The current process has come into existence for good reasons. When we are to change the product development process, these underlying reasons must be taken into account. For the purposes of this thesis, three types of stakeholders are defined: (1) The store team, (2) the business teams, and (3) the management team. Based on the aforementioned analysis, combined with interviews with the stakeholders, the needs of the different stakeholders were identified.

1. The store team

- Direction

The store team needs to have a clear direction for their product development efforts. It helps the team come up with solutions that provide the foundations of new features that are to be built later. In this way, work adds compounding value rather than incremental steps.

- Clarity

The team needs clarity on the type of work one will be doing in the foreseeable future. Unclarity is stressful for the team members. Clarity on the other hand can increase the motivation of the team.

- Context

Context essential to make good product decisions. The Chief Design Officer of Werkspot identifies a lack of context as one of the most common reasons for teams to fail. (interview Werkspot). This is. By having sufficient direction, clarity and context, the members of the store team are able to work relatively autonomous and efficient. They will have the ability to make the right product decisions. And they will be motivated.

2. Other business teams

- Commitments

Other business teams must know when something is going to be built and deployed, so they can plan their efforts accordingly.
Having clear commitments is not enough, as the business teams should also be able to trust that the store team is going to execute on these commitments.

3. The management team

The management team, also known as the board, is responsible for the business's performance. To ensure this is going well, the management team needs two things:

- Priorities

The management teams needs to ensure the store team is working on the highest value projects.

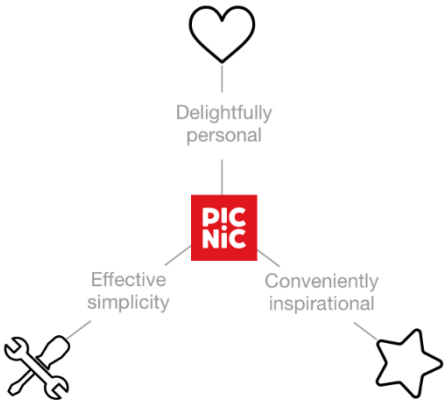
- Accountability

The management teams wants to be able to check how the store team is performing on the projects they are working on.

The priorities are a tough question, as normally everyone thinks he is working at the most important stuff at that moment. The priorities of individuals in other teams might also be different than those of the management team.

C.2 INTERACTION QUALITIES MODEL

The store team has formulated its vision on the store by the way of the Interaction qualities model. This model aims to capture the qualities new product features should have in order to be successful. This model came to be rather spontaneously. Currently, this model is somewhat in use, but not as a strategy framework. It is used by the designers in discussions and as a way to reflect on new features. The framework is thus used in hindsight, rather than an outlook.



The three interaction qualities included in the model are:

1. Delightfully personal
2. Effective simplicity
3. Conveniently inspirational

These qualities will be discussed in more detail below.

Delightfully personal

The aim is to make the Picnic app delightfully personal. The metaphor we use for that is: Picnic, the modern milkman. This is used throughout the company and also communicated to outside stakeholders.

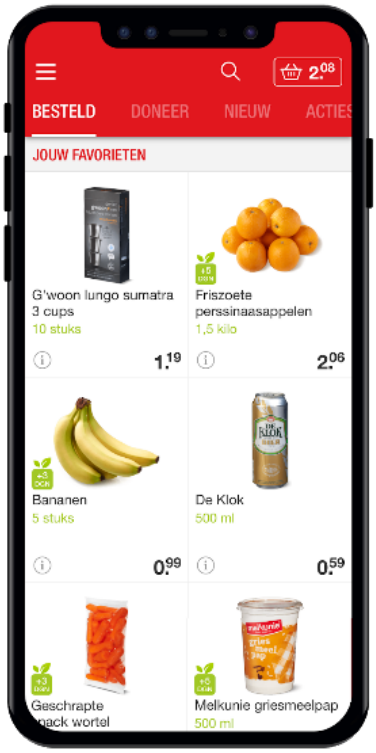
K. van Mourik, designer at Picnic, defines it as follows: "A milkman is friendly, a familiar figure that slowly gets to know you.
This means interactions are personal and friendly but never too informal. We always listen to our users so interactions should be like a conversation where we are reactive and emphatic to users. Whenever it is possible and appropriate we are optimistic and funny in our communication."

The main qualities associated with Delightfully Personal are:

- Conversational
- Light and funny
- Emphatic

One example of a "delightfully personal" feature is the new order confirmation process. This happens in a conversational way instead of simply giving a calendar date. We celebrate the order

confirmation moment with fun facts that are based on the users.



Effective simplicity

The second aim is to make the app effective and simple. The metaphor used for this is “Ultimate shopping tool”

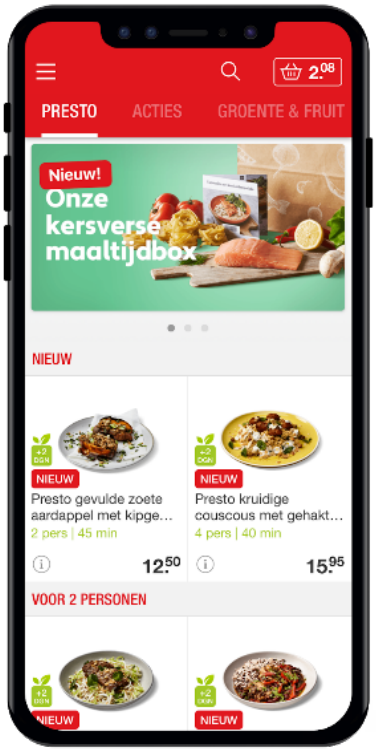
Van Mourik: “We cut out as many UI components from each flow and interaction as possible. Finding the optimum between the most minimal interface and the most effective flow. By doing so we create effortless interactions that require little cognitive effort. We should take some limit the number of decision for users by focusing on the most important use cases, preventing complicated UI’s and possible stress. We aim for the user to use our product multiple times a week, so it should both be easy to learn and effective and fluent over time.”

The main qualities associated with effective simplicity are:

- Cleanest UI possible
- Effortless flow
- Loyal users first

An example of such a feature is the “Besteld” (purchased) page.

A straightforward overview of all products that users need every week anyway. This enable users to add the largest chunk of groceries to their basket in a very effective and fast way.



Conveniently inspirational

Besides the weekly staples we also want to offer users an inspiration journey of discovering new products. The metaphor used for this is: “A smart personal assistant”.

Van Mourik: “Everybody likes to try something new every now and then, but no one likes to be overloaded by choice. We should surprise users with suggestions and products they did not expect in the online shopping context. The suggestion should be relevant to user context, making them fitting and convenient. Creating an experience that is truly better than the brick and mortar experience”

C.2 INTERACTION QUALITIES MODEL

The main qualities associated with conveniently inspirational are:

- Surprising and relevant to user context
- Accommodating the hunt
- Reduce decision making without the user losing control

Examples of features that are conveniently inspirational are the Presto meal boxes Picnic offer.

Challenges for the store interaction model

Although I believe this model is a very good starting point to inform product decisions, it faces a number of challenges. Due to these challenges, the model is not widely used and not as valuable as it could be. These challenges are:

1. The model is very design driven. Buy in from the engineers and other business stakeholders is limited
2. The interaction qualities are open for interpretation, making evaluating intitatives on their basis hard and unproductive.
3. Due to their ambigous nature, the qualities do not provide sufficently clear guidance. Therefore, they are not easy to translate to tangible product ideas
4. The model does not resonate with management, further decreasing company wide buy in
5. The model does not make its outcomes measurable. This is a major obstacle in a company with a large number of analytically inclined people.

In addition to these challenges. I personally believe that the inspirational part is not necessarily discovering new products, but far more importantly, deciding what to serve for dinner.

APPENDIX D
CASE STUDIES

D.0

This chapter identifies succesfull strategies in creating habit-forming products by looking at best practices.

In this chapter:

D.1 SPOTIFY

In order to make the theory on retention more tangible, we have looked at a real-world case study. Spotify is one of the most successful companies in designing a habit-forming digital product, that positively effects the lives of its users. Over the last three years, Spotify has decreased its churn rate from 8,3% to only 5,5% in 2018, whilst adding 43 million new users (Spotify IPO filing 2018).

Spotify retention strategy

This decrease in churn rate, in combination with explosive growth is very impressive, especially when you consider that this was in a very competitive period, with Apple, Google and others entering the market aggressively.
We identify three main drivers of the lower churn rate:

1. **Increase in product personalization**
   Spotify manages to create more invested and engaged users by personalizing their product. Examples of this personalization are song recommendations based on playlist (It is basically like Spotify is saying "hey this song suits your playlist; do you want to add it?"). Another example is the Discover Weekly playlist. This personalization is happening in Spotify's content and not its functionality. This increases the ability and motivation in the action phase, as you can find better music with less effort.

2. **User generated value within the product**
   Spotify is very good at letting user create value within the product. Examples of this are: following artist, following friends, creating playlist, and the Spotify algorithm learning your preferences which improves recommendations. The strongest driver here is the large collection of Spotify playlists that users might create over time. These are artefacts into which the user has put significant effort, making the decision to cancel all the more difficult. This is based on the condition that the value can't be transferred to competing music streaming services, as is currently the case.

3. **The introduction of shared plans.**
   Spotify gave its users to share an account within the same household. This model shows significantly higher retention rates. This makes sense, because people do not want to disappoint others by terminating the subscription. More so, the one paying for the subscription will feel like the provider making him feel competent and benevolent. This strategy is built upon a social reward, or the risk of losing this social reward.

These drivers involve the action, reward and investment phase of the habit model

Product features

If we look at the features Spotify has developed, we can see that a lot of them have a positive impact on retention. The scores for impact are estimations based on the opinion of the author of this thesis. In the table below we show how

Product feature	Engagement level	Switching cost	Network effect	Growth impact	Retention impact
Shared account		✔	✔	Medium	High
Create your own playlist	✔	✔		Medium	High
Sharing songs and playlist	✔	✔	✔	High	High
Following friends and artist	✔	✔	✔	Medium	High
Discover weekly	✔	✔		Medium	High
Song recommendations	✔	✔		Medium	High
Curated playlists	✔			Medium	Medium

D.1 SPOTIFY

In addition to that we can identify more successful applications of habit-forming theory. The variety of Spotify's curated playlist ensures you like some of them but most certainly not all. This creates a sense of variability in your reward. This applies to the Discover Weekly playlist as well, where you mostly like only some of the songs suggested to you.

Conclusion

The most important drivers for the very successful retention strategy Spotify uses are (1) User generated value within the product and (2) Product personalization.

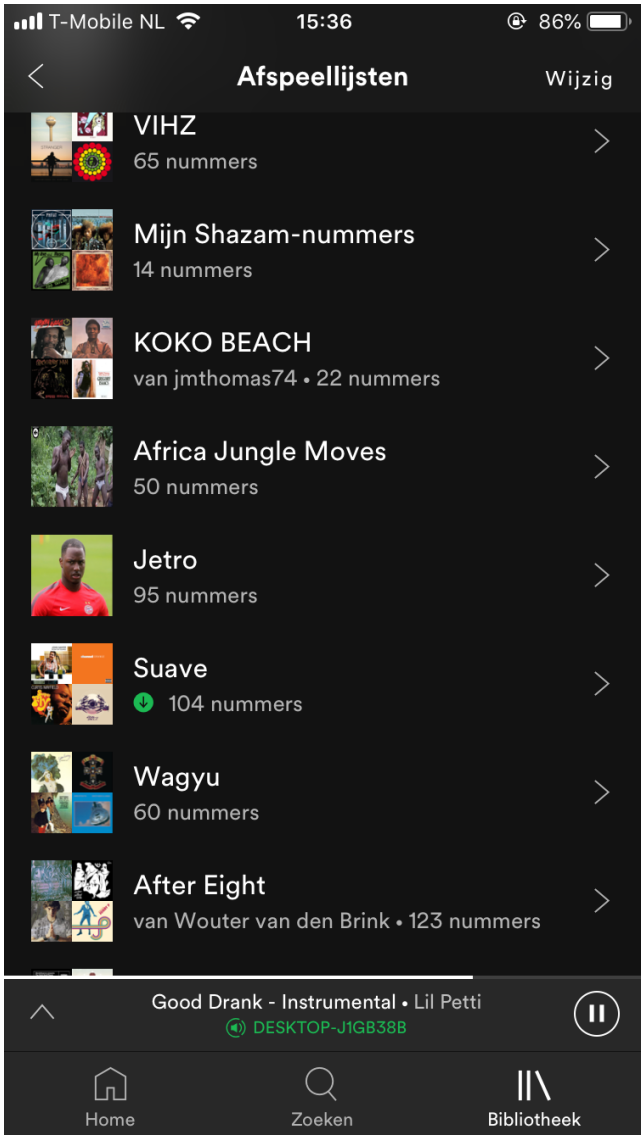
Users generate value within the app in three ways:

1. **Following friends and sharing songs and playlist with them**
2. **Creating their own playlist**
3. **Improving Spotify's recommendations by using the product, each time the product uses the app the product gets better for then.**

The product is personalized in two ways

1. **Top-down:**
   Spotify's algorithms create personalized suggestions and playlist for the user. In addition to that, human curators create great playlist in order to increase the choice users have.
2. **Bottom-up:**
   By creating their own playlist, following other users and playlist, and by ordering these playlists, the user makes the app better for himself.

Both the generated value and the personalization have a positive impact on product quality and switching costs, the two main drivers of retention.

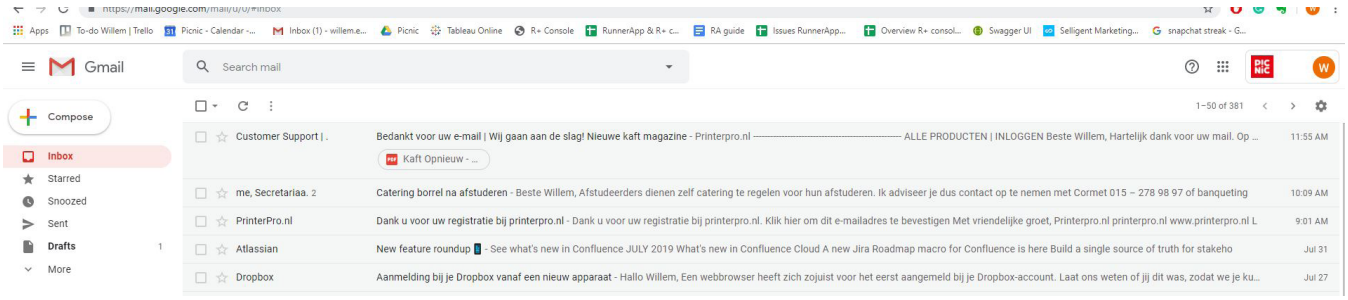


D.2 HABIT FORMING PRODUCTS

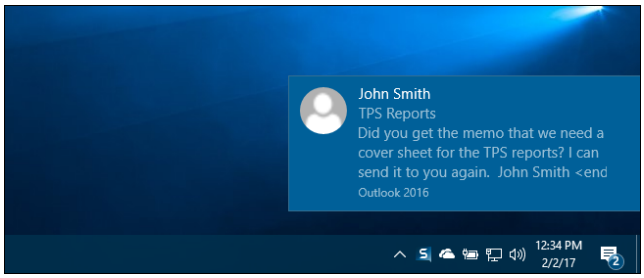
E-mail

Email is potentially one of the earliest habit-forming digital product that was around. This technology is so habit forming for four reasons:

1. **Each message loads the next trigger**
   Each interaction with your e-mail client will load the next trigger. By sending people mail, you will greatly increase the chances that you receive mail. This creates an ongoing loop of interaction.
2. **Strong investment and network effects**
   Apart from sending messages, users also invest into their email accounts by growing their address book. The more e-mail addresses you have in your list, the more useful the service becomes.



3. **Instant gratification**
   Whether sending or receiving an e-mail, the experience always instantly gratifies. Receiving e-mails will make you feel important, and sending a well-composed mail allows you to feel competent and professional.
4. **Variable rewards**
   You never know when you will receive a reply to that important mail you send. Or who is going to reply. This makes opening your mail client a more exciting experience.
5. **Strong triggers**
   Triggers will appear directly on your screen, either on your smartphone on your work PC. Because most work of professionals happens on the PC, they will always see the trigger and be able to act on it instantly.



D.2 HABIT FORMING PRODUCTS

Smartphone habit mechanisms

The average Dutch person spends 3 hours a day using his smartphone, and Chinese youth even 7 hours. In a survey by Dutch television channel BNN, Dutch youth indicated to prefer going without sex than without their smartphone. These are all pretty strong indications that smartphones are very habit forming.

1. **Diverse utility creates many and diverse triggers**

   Your smartphone is the swiss army knife for almost everything. Therefore, a large number of internal triggers can be connected to the use of your smartphone. This might be for example curiosity to check some random fact in a discussion, a sense of loneliness causing you to check your messages, or amorous feelings causing you to stalk the social media profile of your crush.

   By having so many use-cases, opening your smartphone becomes the go to option for almost all triggers that occur. So we have a lot of triggers, and high perceived utility.

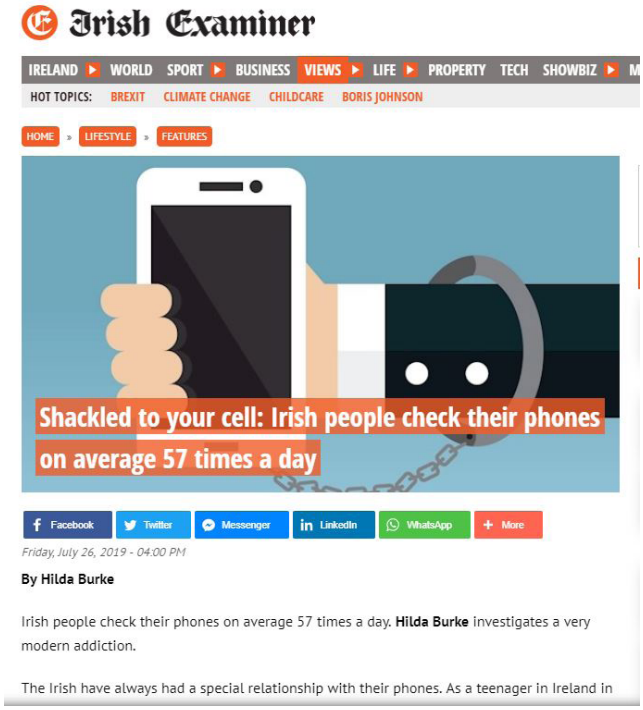
2. **Ubiquitous presence**

   Because of the fact that people always have their smartphones with them, the ability to act on these triggers is almost always present. This enables a habit to form much easier.

3. **Variable rewards**

   The rewards provided by the apps on your phone are all highly unpredictable. You never when you will get a reward in the form of a message, like or a nice cat video. Nor do you know who is going to send that reward to you. The combination of these drivers makes users interact with their smartphone very often. This interaction often satisfies the itch that triggered the behaviour in the first place. Therefore, both the utility and frequency are there for a habit to form.

The habit-forming nature of smartphones is often a topic of discussion.



APPENDIX E
EXPERT INTERVIEWS

E.0

This chapter includes calculations on market share and size as well as on the estimated impact on increasing conversion to active customers.

In this chapter:

E.1 SUPERMARKET EXPERT

Interviewing marketing manager of Edah, one of the former biggest supermarkets of the Netherlands.

Approach:
In all expert interviews we will used the semi-structured interview approach. This is mainly because the expert interviews in the first phase of the project will be explorative. Allowing a certain degree of freedom will allow us to uncover a wider and deeper understanding of the topic that's being explored.

Data collection
During the interview, I recorded important part of the conversations. Furthermore, notes were taken about main concepts in the interview. In addition to that, the flip over drawings of the interviewee were collected as well. This combined approached allowed for rich data collection.

Interview Hans Manders- Former Marketing Manager Edah
Edah is a former Dutch grocery chain, that at its peak had a 9% market share. The company was consolidated in Konmar after which the chain gradually was incorporated into other major Dutch grocery chains.

1. Experience Hans at Edah
Mr. Manders was hired as a management advisor. After rotating roles for a couple years, he found his passion in data-driven, customer base marketing. With his team he was the first to introduce "bonuskaarten" (member cards) in their stores. Another initiative by them was the "Promotion box", this allowed customers to scan their bonus card and get a personalized promotion offer (note: this was in 1998).

When asked what their biggest challenges were, Mr. Manders mentioned the limited understanding of the importance of data at the time. Furthermore, he mentioned the corporate culture at Edah that at first kept that from experimenting as quickly as possible. However, when his first couple experiments where wildly successful, the board gave him more recognition and permission to experiment more.

2. Vision on grocery market
Mr. Manders: "It is basically pushing boxes, and as margins are very low y you should push boxes as efficiently as possible". However, Mr. Manders did think commerce, marketing and psychology are a whole other space in this grocery market. He says that you should have the same approach of constant optimization, but the mechanisms work differently.

3. Vison on Picnic
The interviewee wondered how the Picnic business model worked, as he believed that delivery at the door was almost impossible to do for free. I explained the model where Picnic has a very direct supply chain, in which we barely keep stock and how this influences you working capital. He did think the conversion numbers weren't all that bad for such a new alternative without instant gratification.

4. Segmentation
The interviewee favored segmentation on the basis of actual behavior over demographics. He mentioned that while demographics can be very informing, the actual behavior is what counts. I brought up the challenge of zero order customers (meaning customers that haven't placed their first order yet). These customers have no behavioral data, and therefore either demographics or user input is the only source of information about that customer. He acknowledged this challenge, and mentioned a couple ways to nudge customers to buy:

- Volume promotions: Buy one get one promotion
- Full spent promotions
- Product promotions (-15% etc.)
- Category promotions

The interviewee mainly believed in full spent promotions, or category promotions (for example: big discount on all your meat). He mentioned that a clear time trigger is very important.

E.1 SUPERMARKET EXPERT

5. Supermarket

Concept of fair share: the customer should buy x% diary, x% meat etc. By using this general metrics, you can see in which category your store is underperforming. In order to capture full share of wallet, it is important to get your fair share in each segment.

The interviewee shared the concept of cross tables, which look like this:

Category	Heavy user	Light user	No user
Gold (based on RFM)			
Silver			
Bronze			

This is a visual way that represents what you want your customer to do in a certain category.
Mr. Manders mentioned that getting a customer from 0 to 1, is way harder than getting him from 3 to 4.

6. Models

Mr. Manders mentioned what he views as the most important model: RFM.
RFM stands for Recency, Frequency and Monetary value.

Another favourite mental model of the interviewee was the 80/20 rule, also known as the Pareto Principle. He stated that 20% of your customer bring in 80% of the revenue, or at least 80% of the profit.

7. Retention

After sharing the challenge of increasing conversion and retention, the interviewee questioned where exactly in the funnel people where dropping out. He urged me to drill down further. For example, do people open the app after being moved from the waiting list, and then decide not to order? Or do people not even open the app in the first place. Then we know where to target exactly to improve first order conversion.

8. Conclusion

Mr. Manders urged me to mainly use common sense when determining how to act on certain nights. For example, it is fairly logical that people want more ice-cream when its warm, compared to a cold winter day.

Furthermore, he explained the clear distinction between “shoving boxes” the highly complex logistical processes behind the grocery market and his domain of commerce. He pointed out just how valuable pushing the right buttons in your customers can be.

Being a very data-driven marketeer, Mr. Manders pointed out that collecting and labelling the data isn’t the hard part. Analysing is a bit harder. Making sense of it, and developing successful commercial actions is the hard part.

E.2 DIGITAL ORGANIZATION EXPERT

In order to find common problems and possible solution, a case study was conducted. We looked at how a relatively big digital company that works with Agile processes, manages to embed long term strategic thinking in its organization.

The case study was conducted by interviewing Kris Boon, Chief Strategy Officer at Werkspot. Werkspot is an international market place company operating in seven countries. It is owned by IAC (NASDAY: IAC), an international investor in media and tech companies such as Tinder.

Challenges
The shareholder expects 1-3-year strategic plan and demands yearly and quarterly operational planning. Boon questions if this time scale is realistic for a digital business. The company used to have detailed roadmaps, but they never became a reality due to changed circumstances. Therefore, the company wanted to develop a method that did give the shareholders insight into what was happening, without committing to specific output, rather focussing on outcome.

Strategic organization of Werkspot
The method they came up with works as follows:
You start with a vision that is shared throughout the company and is stable over multiple years. This purpose functions as the north star for each team. Strategy is then used to operationalize this vision. Boon believes that this strategy should be formulated on a high level, with a maximal time-span of one year.
The strategy consists mainly out of company-wide Objectives and Key Results (OKRs). These are in term broken down into team OKR's. The setting of the OKR's is a collaborative process that happens both top down and bottom.
The OKR's are evaluated in the bi-weekly sprint by confidence vote. The team is asked if they think they are on track to achieving their results: "These confidence votes are more valuable than the numbers alone, as they are often quite volatile."

Benefits and drawbacks of the process
Boon says this method provides his teams with autonomy, inspiration and focus, while avoiding scapegoating if something goes wrong, or focussing on output rather than outcome.
Despite these benefits, Boon admits that the process only work perfectly for about 20% of his teams. Setting the right OKR's can be hard, and lots of people have to get used to the new way of organizing. He mentions that often, employees have difficulty dealing with autonomy. He provides two reasons for this:

1. Team members need a very good context of the problem, the user and the business. Without proper knowledge of the business you are in, it is very hard to take the right decisions and be autonomous as a team.

2. Team members need to have some experience in order to efficiently deal with problems. Without this experience it is very hard to achieve fully autonomous teams. Within Werkspot, young promising product people are often linked up to more mature product managers.

In addition to that, traditional business people find the model hard to understand, and they want to be able to control what the team is working on. To them it is vague what the team is actually going to do.

APPENDIX F
IMPLEMENTATION

F.0

This chapter includes additional visualizations on the implementation of the prposed product design framework.

In this chapter:

F.1 CONFLUENCE PAGES

Product design principles

WE Aangemaakt door Willem Evers
Voor het laatst bijgewerkt op 21/07/2019

The Store's product principles establish the foundation of the store. The principles provide direction and create understanding of what is important to the team and the product. In addition to that, these principles can serve to inspire new product features.

(inspiration: https://www.atlassian.design/guidelines/brand/personality)

Trust over everything else

Groceries and high-frequency deliveries into your kitchen require trust. Trust is multi-faceted; our customers should trust their data privacy, the friendliness of people, and the quality of groceries. Picnic should never violate that trust but reinforce with every interaction.

Meaningful interactions over full automation

Forming a habit requires interaction and can't be fully automated. Becoming the best milkman requires a personal connection and trust, which can only be achieved through meaningful interaction. Therefore, shopping at Picnic should never be fully automated for users.

Meaningful interactions provide users with a feeling of being in control. However, customers do not want to spend too much time and energy on grocery shopping. Therefore, Picnic should provide only meaningful interactions, meaning important or pleasant decisions.

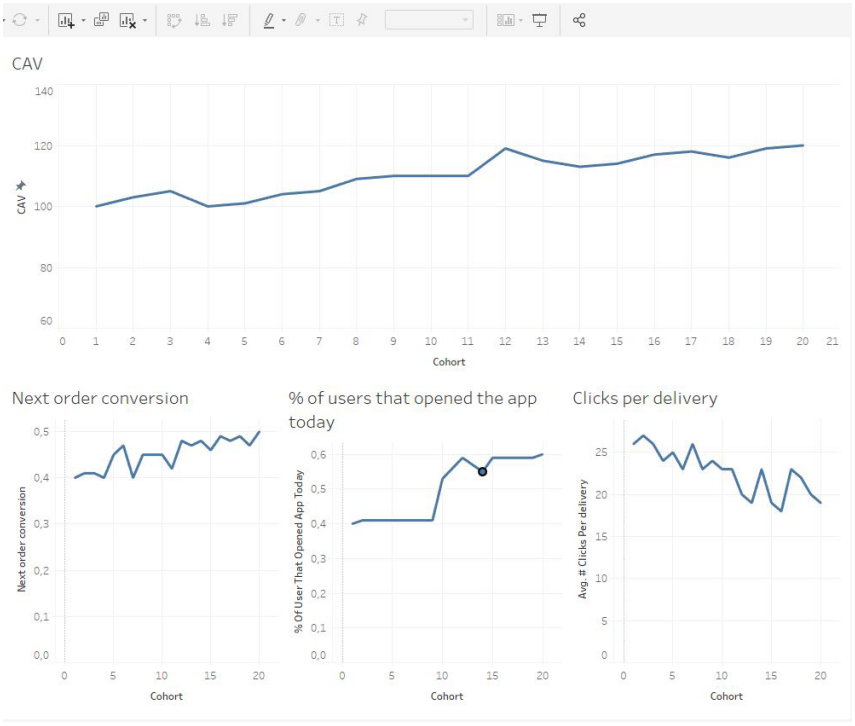
Customer perception over rationality

True customer preference shows through actual behaviour and does not always follow rational paths. The value customers ascribe to product and services is highly subjective. The store team must never mistake its own assumptions on what is "the right thing" with actual customer preference that shows true actual behaviour.

Building and nurturing over exploiting

Picnic is in it for the long run and values a good relationship with the customer over quick profits. The company is building a better way of doing groceries together with its customers, and this takes time. Therefore, we focus on building and nurturing the market rather than exploiting it.

F.2 DASHBOARD



F.3 PERSONAS

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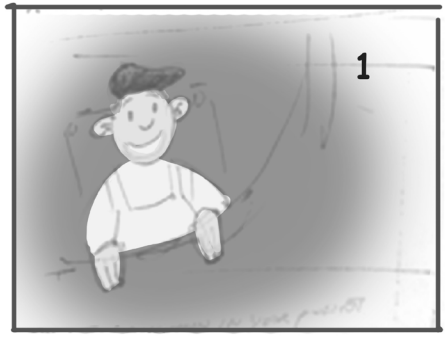
STORY BOARD VISION MOVIE

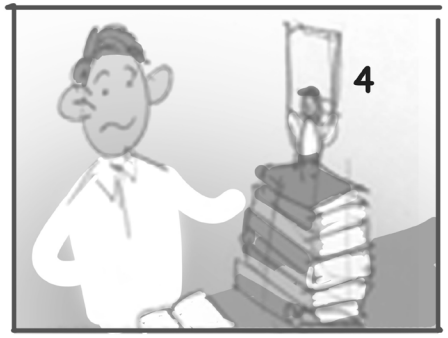
The little milkman,
right in your pocket



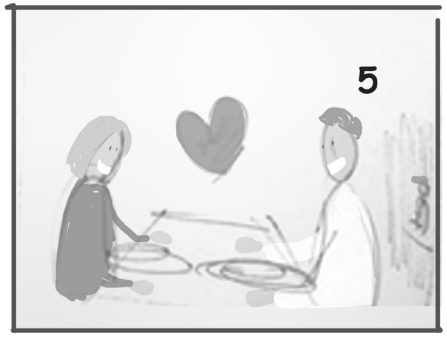
Mom is working late,
don't forget to order breakfast!

The whole family is super happy,
with their delicious breakfast

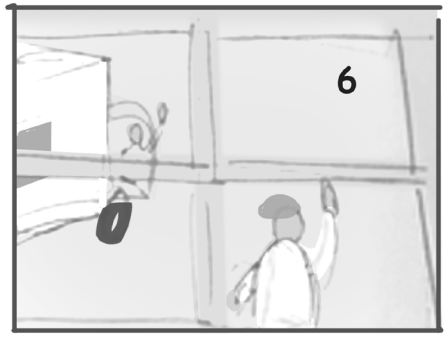
Dad wants to surprise mom,
but needs Peter's help in deciding
what to cook.



"How nice honey!"
The little milkman has done his job
.



The Runner and Peter greet
eachother, what a team!



APPENDIX G
CALCULATIONS

G.0

This chapter includes calculations on market share and size as well as on the estimated impact on increasing conversion to active customers.

In this chapter:

G.1 MARKET SHARE AND SIZE

EXCLUDED FOR CONFIDENTIALITY

G.2 IMPACT OF INCREASING RETENTION

EXCLUDED FOR CONFIDENTIALITY

APPENDIX H
GROCERIES

H.0

This chapter will provide additional insight in the grocery industry.

In this chapter:

H.1 BACKGROUND

The aim of our strategy is to improve the grocery shopping experience, we must first understand it thoroughly.

Shopping can be a pleasure and a chore
We can identify two ways of shopping: On a Saturday morning, you may take a walk through a local market and choose cheese with the help of a cheerful employee. This is a journey of discovery to learn about the varieties, bringing joy to the customer. On the other hand, there's the purely utilitarian shopping experience. The routine shopping you do for regular items that are part of your weekly stock: milk, yoghurt, bread, cornflakes, bananas. This experience is virtually the same week in and week out.

Two ways of shopping:
- Utility (routine)
  Consumers who shop in utility mode, they aim to shop fast and efficient, getting the must haves. These users often have grocery lists with them to remind them of what they need.
- Discovery (impulse)
  In this mode of shopping, consumers try to find out what they need and what else they would like. In the supermarket world, executives try to create dwell time in their stores. With dwell time, we mean how long the customer is dwelling through aisles. Experts estimated that a 1% increase in dwell time leads to a 1.3% increase in spending (Fassler 2019). This increase in spending is mainly associated with impulse acquisitions, which are able bring joy to the consumer under the right circumstances (Rick, Perreira, Burson 2014).

These two types of experiences are not necessarily separate shopping session. Within one session, a consumer might spend some time shopping in utility mode to purchase the shopping list, whilst sometimes switching to discovery mode to try something new or treat themselves to specific items.

In our design we can use the following findings as extra context. See Appendix G for full research.
- Doing groceries requires thousands of micro-decisions, which are made with little thought.
- Customer acquire moral credentials by buying healthy products
- Customer like to settle in pattern in basket sizes and frequency of shopping
- Small basket versus big basket shopping prefer different types of discounts
- Special food needs and allergy
- 8,8% has an allergy, natural food, organic and gluten-free are most important characteristics of food.
- Risk main barrier in ordering online groceries

Pareto principle applies to groceries
In 1998 at AH, the top 20% of its customers generate 64,3% of their revenue with an average of 5662 guilders a year. At Edah this number was even higher, their top 20% accounted for 72,8% of its revenue. (Trouw 1998)

Doing groceries requires thousands of micro-decisions, which are made with little thought.
Supermarkets contain thousands of products, and consumers make dozens of decisions inside them — decisions about health, safety, family, and tradition that get to the core of who the consumer is (Fassler 2019). Consumers make most of these choices almost unconsciously as they have extensive experience with grocery shopping. However, this only applies for traditional, physical stores. When shopping online, a lot of the context needed for the shopping autopilot to kick is not there. Therefore, putting together the shopping basket might get harder.

Customer acquire moral credentials by buying healthy products
Research shows that one good deed may reduce the motivation to engage in others. Monin et al have documented that once people can achieve moral credentials via good deeds, they feel licensed to subsequently misbehave in other situations. This same mechanism applies for groceries, where buying fruit and vegetables first makes costumers feel good

about themselves, after which they allow themselves to buy less healthy items.

Customer like to settle in pattern in basket sizes and frequency of shopping

Grocery shopping is repetitive – while individual trips may differ somewhat, most consumers settle into specific shopping pattern with respect to the average basket size per trip and frequency of shopping (Bell and Lattin 1998). Logically, households with larger expected basket sizes tend to shop less frequently.

	Choice Decision	
Shopper Type	Category	Store
Small Basket	Elastic	Inelastic
Large Basket	Inelastic	Elastic

Small basket versus big basket shopping prefer different types of discounts

Two types of shoppers (big basket, small basket) but their aggregate quantity of groceries over a fixed period of time is the same. The big basket shopper will prefer an everyday low pricing store, whereas the small basket shopper prefers a promotional store, even if the average price is higher!

This is due to the fact that the big basket shopper has to purchase products across a wide spectrum of categories and thus has limited flexibility to profit from occasional deals. For the small basket shopper, deferring products that are have a high price isn't problematic as she will quickly return to the store (Bell and Lattin 1998). Kahn and Schmitlein point out that these different behaviours can also occur within the same household, depending if the household is making a major trip to the store, or just a fill in trip.

Special food needs and allergy

8,8% of the Americans has some type of food allergy. People with allergies generally shop more cautiously, checking labels more often. They are also more likely to purchase organic food (Kim et al 2017). Research from the Coca Cola Retail Council has find that US consumers value the following food characteristics the most:

1. **Natural food, indicated by 31% of the respondents as very important**
2. **Non-GMO, indicated by 24% of the respondents as very important**
3. **Organic, indicated by 19% of the respondents as very important**
4. **Gluten-free, indicated by 13% of the respondents as very important**
5. **Lactose-free, indicated by 24% of the respondents as very important**

Risk main barrier in ordering online groceries

Mortimer et al (2016) have found that perceived risk is the biggest barrier in ordering groceries online. They argue that online grocery retailers should focus on buying trust with their customers. Examples of these trust building strategies are letting customers tailor the retail environment to their own preferences. Their paper advises stores to try to minimize the feelings of anxiety inherently associated with doing online groceries.

H.2 TRENDS

We identify the following trends in the food retail industry.

Convenience
One of the most important trends in the food retail industry at the moment is convenience.
We see that supermarkets carry more and more meal-packages, pre-cut vegetables or ready-made products. Another outing of this trend is the ever growing home delivery market. Customers do want to have a nice meal, but they do not want to go through too much trouble to prepare it.

Dining out
In 2014, Americans dined out more than at home for the first time ever. This is a result from a slow shift away from home cooking that has been going on since the 1960's. According to a 2017 report from the USDA's Economic Research Service this trend is likely to continue; millennials shop at food stores less than any other age group, spend less time preparing food, and are more likely to eat carry-out, delivery, or fast food even when they do eat at home. Unfortunately we do not have this data for the Dutch market, but the strong growth of companies such as Takeaway.com, Deliveroo and others in the Netherlands confirms this trend.

Local products
Numerous news outlets and food specialty magazines identify the trend of an increased demand for local products. Unfortunately reliable data on this trend is lacking.

Vegetarian products
According to research by TNS NIPO, the percentage of people who never eat meat has increased from 1,8% in 2000 to 2,3% in 2013. According to the association of vegetarians in the Netherlands, this percentage is currently at 5%.

Biological products
Supermarkets in the Netherlands have sold 7% more biological products in 2017 (Bionext 2018). This is a continuation of a long term trend.

Experience versus outsourcing
According to research from design firm Frog, there is a bifurcation taking place in the retail industry today. On the one hand you have retail experiences that help people outsource aspects of their lives, removing burden and hassle to make the transaction as seamless as possible. And on the other hand, you have retailers shaping experiences that offer consumers discovery and community.
Implementation

H.3 COMPARISON CUSTOMER JOURNEYS

As mentioned earlier in this report, Picnic is mainly competing with the traditional grocery habit of (potential) customers. The moments a user is aware of his groceries, and the influence a grocer has at this moment is fundamentally different between offline and online grocery shopping. This is visualized in the figure to the right. Although Picnic has the advantage of engaging with its user in a bigger part of his journey, it does has the disadvantage that the awareness at the moment of ordering is smaller.

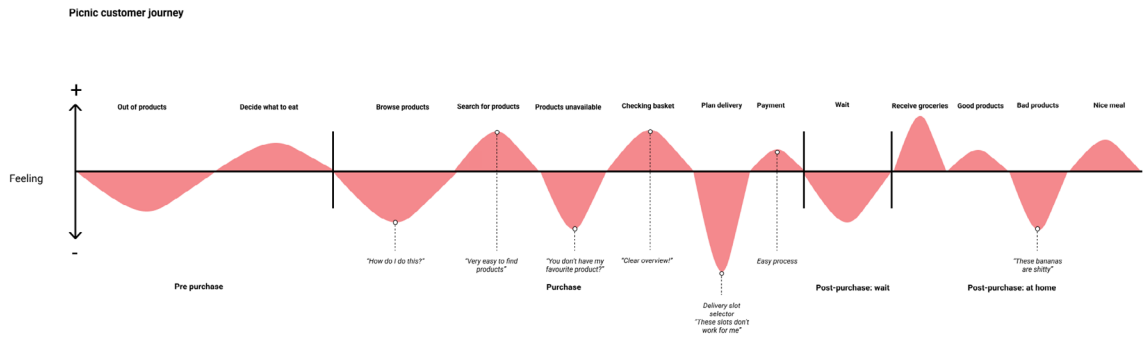
	Pre-purchase	Purchase	Post-purchase
Influence of Picnic	Medium	High	Low
Influence of traditional grocer	None	Very high	None

Comparison of shopping experiences

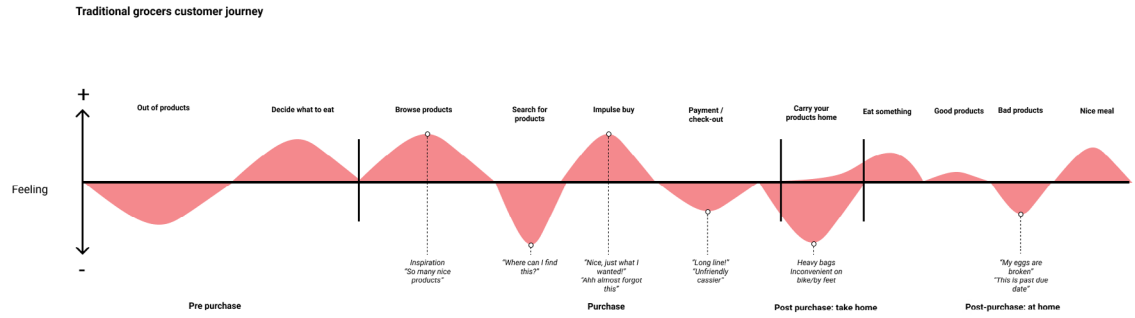
By aggregating internal usage data, field research and customer interviews, we have gained insight in the grocery shopping processes of users, both offline in traditional grocery store and online with Picnic. We will first look at Picnic's customer journey. We notice that the main positive moments during the purchase involve the easy search and clear overview of the basket. Post purchase, receiving the groceries specifically stands out. Negative emotions involve the unavailability of products, selecting an appropriate slot, the waiting time and receiving bad products. If we look to the customer journey of customers of physical grocery stores on the other hand, we see a different experience. Here, browsing for products is seen as positive. Wandering through the store provides inspiration and reminders. Searching for products is harder, as customers do not have an easy way to find out where a product they don't buy often is located. Furthermore, the checkout and carrying product home is seen as a negative experience, whereas customers love eating what they have just bought. If we simplify the differences between these customer journeys, we can summarize them as follows:

Physical versus cognitive effort

Picnic requires less physical effort, while it is a big cognitive effort. This effort can currently only be taken with people who are either very good at planning, or have a very big need due to personal circumstances, or have a lot of time on their hands. Traditional grocery stores might require more physical effort, but they are easier on the brain. You can go when you want and retrieve your products right away.



Picnic's customer journey (the scale on the Y-axis is the customers emotion)



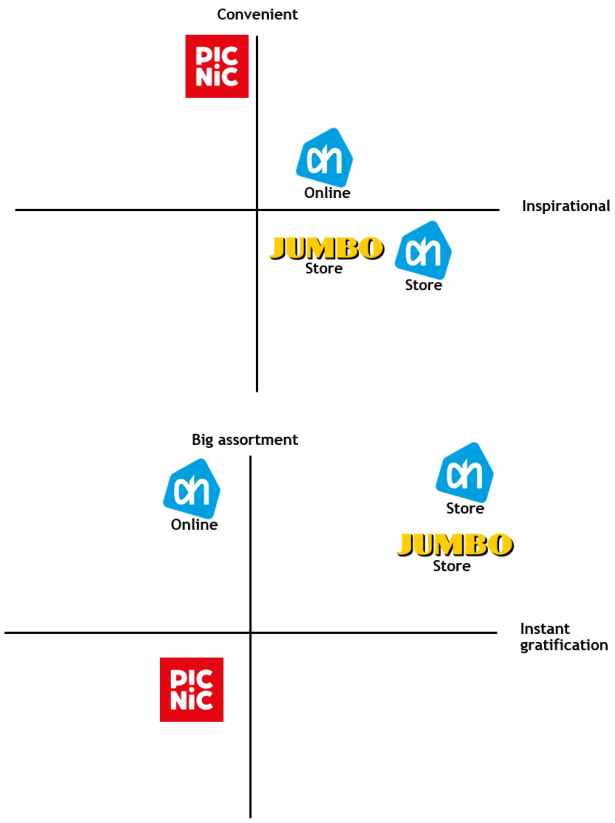
Traditional grocers' customer journey (the scale on the Y-axis is the customers emotion)

H.3 COMPARISON CUSTOMER JOURNEYS

Comparison of benefits

If we plot the differences between the alternative options Picnic (potential) customers have, we can see that currently Picnic is not scoring high on the inspirational scale. AH's long experience with generating food ideas through Allerhande has placed it ahead of the pack. We do notice a difference between online and offline grocers, as the offline experience provides more sensory feedback leading to more inspiration.

The second point on which Picnic can improve is the instant gratification. Although it is very hard to compete with the corner-store on this dimension, there are online grocery providers in Europe that do score higher than Picnic. An example of this is Amazon Prime Now in Paris. This service enables free grocery deliveries into the homes of Parisians within two hours. This requires drastic logistic changes, which are outside of the scope of this project.



Conclusion

Picnic's most important competitive advantages are:

1. Picnic offers its customers an unparalleled level of physical convenience.
2. Picnic can influence the customer throughout customer journey, not only during the purchase.
3. Picnic provides its customers with a very focused way of shopping, which is very efficient when someone knows what he or she wants.

Whilst the company's most important competitive disadvantages are:

1. Shopping at Picnic requires a large cognitive effort by the user, this is due to two issues:
   a. The nature of the service, where the groceries are delivered the next evening, requires planning on the side of the customer.
   b. Customers are offered a limited amount of inspiration, and most of the reminders in the form of subconscious cues that exist in physical supermarkets are lacking.
2. Picnic cannot give its users instant gratification.
3. Currently, Picnic has a relatively small assortment lacking some of its customers favourites.
4. Picnic provides a very limited amount of inspiration to its consumers.

APPENDIX I
WORKSHOPS

I.0

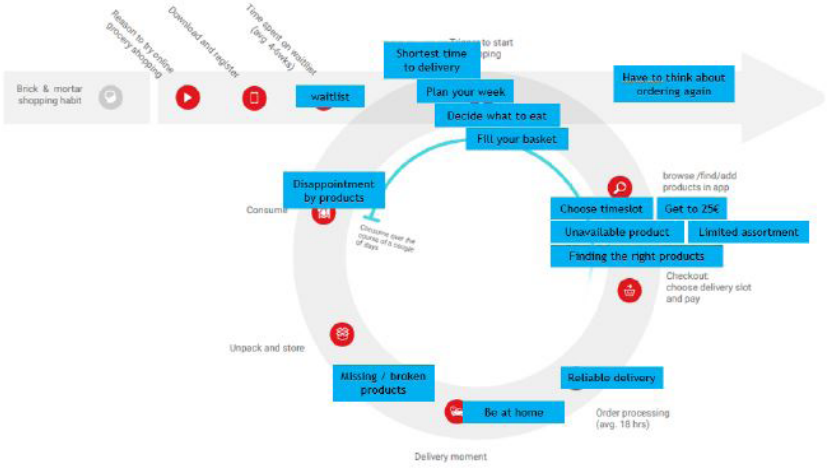
This chapter will provide additional insight in the grocery industry.

In this chapter:

I.1 DESIGN WORKSHOP

Shared understanding	▪ Everyone understands the challenge and solution direction ▪ Clear problem definition	✓
Framework	▪ Tangible model to evaluate new initiatives	~
Focus area	▪ Agreement where to focus our effort (clearly documented)	~
First initiatives	▪ List with possible projects, evaluated using framework	~

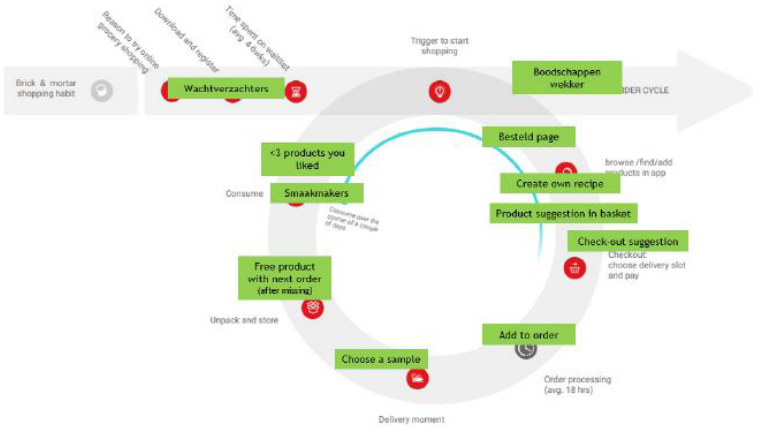
Friction in user journey



I.1 DESIGN WORKSHOP

Triggers in user journey

Initiatives user investment



I.2 VALIDATION WORKSHOP

First, design and technology savvy customers got an explanation of the proposed framework. The vision, product strategies and principles where explained and discussed. After the customers were familiar with the concepts, they were asked to rate the last four main features launched by the store team on this strategy. So, the feature that suited the framework the best was ranked the highest. This exercise was performed with three customers, all professionals working in app design or development. This ranking was than compared with the actual effects of these features, obtained by previous A/B test. This allowed us to check if the features that suit the framework the best, are also the most effective in increasing retention.

Paradigms

A. Meer hulp bij bestellen

Bestellen bij Picnic is anders dan bij de gewone supermarkt. Daarom zijn we van plan onze gebruikers beter te helpen met:
- Het plannen van hun boodschappen
- Lekkere recepten voorstellen
- Je favoriete producten op betere plekken in de winkel neerzetten

B. Wat vaker en leuker interactie met de app

Make users use the app more often by connecting grocery related triggers to the Picnic store and providing variable rewards.

C. Een meer persoonlijke winkel

We will create a more personal connection with the user. We do so by both customer driven and picnic driven personalization. This will make the app better with each use.

I.2 VALIDATION WORKSHOP

Principles

A. Bouwen
over exploiteren

Picnic bouwt samen met zijn klanten aan een betere manier van boodschappen doen.
Dat kost tijd, en we zitten er voor de lange termijn in.

We zullen dus altijd focussen op het uitbouwen van de markt en het opbouwen van relaties over exploiteren.

B. Controle voor de klant
over controle door Picnic

Onze winkel is in het begin heel makkelijk te gebruiken, maaar als een klant een stapje verder wil gaan is dat ook mogelijk door het maken van eigen lijstjes, instellen van filters, en het zelf afhandelen van refunds.

C. Betekenisvolle interacties
over volledige automatisering

We geloven dat klanten graag zelf willen beslissen over hun boodschappen, maar wel op een zo makkelijk mogelijke manier. We denken dat volledig automatiseren van het doen je boodschappen minder fijn is voor onze gebruikers, omdat ze dan geen controle meer hebben.

D. Natuurlijke groei van relaties,
over geforceerde commitment

We willen de band met klanten langzaam en natuurlijk laten groeien, en niet vragen om overhaaste commitments te doen. Dit is een beetje zoals in een romantische relatie, stapje voor stapje zodat het elke stap leuk blijft.

E. Gevoel van de klant
over cijfertjes

Hoe goed mensen een product vinden is vrij subjectief. We moeten nooit denken dat we weten wat het juiste is om te doen, maar kijken naar hoe klanten zich gedragen en ons daar op aanpassen.

F. Vertrouwen
over al het andere

Omdat een klant op ons moet vertrouwen voor zijn boodschappen (zowel op de kwaliteit, als op dat het goed geleverd wordt), moeten wij zorgen dat we dit vertrouwen elke dag weer verdienen.

G. Families
over singels en koppels

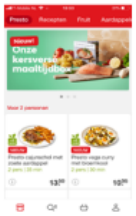
Families passen het beste bij Picnic, en daarom moeten we zorgen dat Picnic zo goed mogelijk bij families past. Dat betekend niet dat we singels en koppels niet belangrijk vinden, maar families hebben een streepje voor.

I.2 VALIDATION WORKSHOP

Features

A. New lay-out

New layout of app, with new ways of navigating



B. Picnic reminder

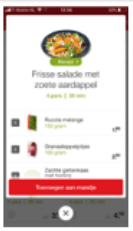
Allows users to set a reminder for placing their next Picnic delivery

C. Add to order

Allows user to add product after completing their order

D. Complete recipes

Allows users to order entire recipes with just one click



APPENDIX J
SEGMENTATION

J.0

This chapter will provide insight in how and why Picnic is advised to segment its groups of users.

In this chapter:

J.1 SEGMENTATION

Focus on families

Picnic should focus on families as their needs are most compatible with Picnic's value proposition, and offer the biggest potential for online groceries.

Step 1: Segmentation

Segmenting is splitting a heterogenous group into homogenous segments. These segments are relatively homogenous and actionable. After trying several approaches, it was decided to segment Picnic's users based on household composition. This proved to be the most valuable segmentation strategy for three reasons:

1. The subsequent segments showed distinct behaviour
2. The information is directly available after users have registered. Purchase data, for example, is only available after customers have made a purchase.
3. The data quality is high and offers a clear distinction. This is different in for example CBS data, that aggregates on postal code areas and is thus less precise.

Goals of segmentation

By creating comprehensive and actionable subsegments, we aim to provide each internal Picnic team with a powerful tool to explain and predict customer behaviour. In addition to that, these shared subsegments will create a shared language between teams, resulting in more effective collaboration. This will allow us to serve our customers better, resulting in higher conversion rates.

Explain and predict customer behaviour

The current practice of aggregating all customers makes it harder to identify trends and patterns in our data. By breaking the heterogenous group of Picnic customers down into relatively homogenous subgroups with similar pains and preferences, their behaviour can explained in more detailed. When this behaviour is known, future behaviour can be more accurately predicted.

Shared language between teams

In the current situation, teams make their own distinctions in Picnic's customer base to run experiments. This creates barriers for effectively sharing customer insights. By using a shared model of our different customers, findings can be easily communicated across teams. This information sharing will lead to a detailed picture of our different customer segments, from which all teams can benefit.

Higher conversion rates through better service

By understanding our customers better, we can cater to their needs more effectively. One of the main drivers of retention is the perceived utility of a product or service (Chen and Hit 2005). This means that the improved service level facilitated by better insights will lead to higher conversion rates throughout the onboarding funnel (getting customer from registrations to active customers).

J.1 SEGMENTATION

Defining segmentation

In essence, segmentation means dividing a heterogeneous market into relatively homogeneous groups, with the purpose of serving the needs of these users in the best possible way. Literature dictates that in order to successfully segment a group of customers, this group has to satisfy three conditions.

1. Markets are significantly heterogeneous regarding consumer's needs, wants, requirements, tastes and preferences.
2. A firm's market offerings can be adopted to meet the needs, wants, tastes and preferences of such segments.
3. For many firms, a strategy of targeting specific segments can lead to competitive advantages in the marketplace and in turn to superior financial performance.

Picnic meets all three conditions

For Picnic's customer base and product, each of these conditions is met. Therefore, we can conclude that it is beneficial for the company to apply a segmentation to its customer base.

Context of segmentation

Standard process of segmentation

The standard process of segmentation consists of the following three steps (Hunt, Arnett 2004):

1. Identify segments of demand
2. Target specific demand
3. Develop specific strategy for each targeted market segment.

Desirability of segments

Kotler (1984) has identified four requirements to evaluate the desirability of potential market segments, namely measurability, accessibility, substantiality and actionability. Once a segment meets these requirements, it can be implemented in Picnic.

Segmentation process

By targeting specific needs of users, we aim to provide a superior service. However, this service should be provided at acceptable costs. This means that we have to do two things: (1) select a limited number of subsegments to ensure that said segments are actionable and (2) make it simple to adapt our service to specific needs.

J.1 SEGMENTATION

ɛlecting the appropriate segments

ɲ order to select appropriate segments, we combine design techniques with data science. We use wo different approaches and compare the results. The combined results were then validated ɲternally at Picnic by the means of a workshop.

ʿhis approach combines qualitative design methods such as user interviews, observations, ǀuestionnaires, clustering techniques and expert interviews. In addition to that, we have thoroughly ɨnalysed purchasing data. This was mainly to validate findings from the qualitative research interviews and surveys mentioned earlier in the report), but also provided new insights.
ɲ order to define clusters we use variables that; *"are most representative of the target group, and he most relevant to the project"* (Boeijen et al 2014).
Ғrom both customer and expert interviews, we have found that one of the most important ǀistinctions is that of household situation (single / couple / family). Intuitively, this makes sense, as a amily will buy different articles and quantities compared to someone who lives in a smaller ɨousehold. These groups differ on four variables that are strong indicators of in-app ɔehaviour:

1. **Number of sessions;** how often do you come back to the app per order
2. **Time per order**; how much time do you need to compile your order? We have used the average time per € spend, in order to correct for the fact that there is a large difference in the number of products and average order value between the segments.
3. **Basket size**; how much do you spend, how many products do you buy
4. **Purchase "channel"**; Do you purchase products via the browse function, search function, or from previous purchases page

ʀesults

ʿhree distinct segments[1] [2] are defined.

	Single	Couple	Family
Characteristics(1)	17% of customers Delivery value €44 #Deliveries/Year 5	27% of customers Delivery value €51 #Deliveries/Year 7	39% of customers Delivery value €62 #Deliveries/Year 9
Main challenge(2)	▪ Reaching €25 order limit	▪ Combining Picnic with varying schedule	▪ Groceries are critical in organizing family life
Behavior	**Discovery driven** ▪ heaviest 'browser' ▪ Most time spent in app	**Deliberate shopping** ▪ Uses search most often ▪ Most sessions per order	**High routine** ▪ Use purchase page most often ▪ Least time spent in time

J.1 SEGMENTATION

Success per segment

If we look at the conversion rates of our three distinct segments, we notice that Picnic is more successful in converting families to active customers.

Determining the impact of segments

After having defined the segments based on customer types, needs and expectations, we look into how relevant the segments are to Picnic. We analyse the number of customers in the group, the average delivery value (which is a proxy for the profitability per order) and the order frequency. This approach is inspired by the RFM model (Cheng, Chen 2009). Our proposed model can provide a ranking of how important a customer segment is to Picnic.

By doing this, we found that the successful family segment accounts for 55% of Picnic's customers, and 67% of total revenue. The margin level of these customer group is expected to be even higher, as their average basket size is bigger. Bigger baskets are more profitable because a significant part of the variable cost, such as vehicles lease and runner salary, scale per delivery and not per item. This means while the revenues per delivery do increase, a part of the variable costs stays the same, leading to higher profits per order.

J.1 SEGMENTATION

Impact of segments

Families drive Picnic sales and thus deserve most focus

 1) Determined over 2.9 million deliveries between 01-06-2018 to 01-06-2019. Includes internal deliveries to FC's

Validating the specific needs of the segments

The identified segments have distinct ways of shopping at Picnic and use the app differently. In the design approach we have already focused on underlying needs as a variable in the clustering process. However, the sample size on which the qualitative findings are based is relatively small. Therefore, it is essential that we validate the claims with a bigger group of customers from each subset.

J.1 SEGMENTATION

Validation by phone interviews

The following hypotheses about our customers were validated by phone interviews:
In order to avoid biases, active and non-active customers are evenly represented in the selected sample.

Families

Hypothesis	Validation	Explanation
Families mainly use Picnic is optimize for efficiency in their grocery shopping	✓	Although convenience is very important, efficiency seems the main driver for families to use Picnic.
Families have a high routine process	✓	The efficient families have a high degree of routine. Ordering similar products with a standard delivery slot. When these products or slots are unavailable, it causes friction.
Families often have problems with deciding what to eat or forgetting essential products	~	Although deciding what to eat is a challenge, families can easily fall back on routine dishes. They do indicate that they do not always want to make the same dish over and over again.
Both parents usually share an account on multiple devices, using it as a shared shopping list	~	Some of the families have, but it also seems that a large share of families have one person that is responsible for doing the groceries.

Couples

Hypothesis	Validation	Explanation
The main reason couples use Picnic is to increase their convenience, they are less time-poor than families	✓	Time isn't necessarily the biggest problem for couples, they just do not want to spend it on groceries as it is too tedious and stressful.
The main challenges for couples is to coordinate shopping together and manage for variance in their schedules	✓	Couples often have to verify they have all the right products with their partner. Some do this with a shared account, while others go through the shopping list together in person. Couples manage the variance in their schedules by for example buying meals for only 4 nights a week, eating out or going to AH the rest of the days.
Couples generally know very well which items they want, even these items are outside of their routine purchases.	✓	Most couples do not have a very high routine, but for the users that do convert, this isn't a big problem during their shopping.

Singles

Hypothesis	Validation	Explanation
Singles have a hard time reaching the €25 order limit	~	When singles also buy their dinner at Picnic, this isn't a problem. But when they are somehow unable to do so, €25 is hard to reach.
It is very challenging for singles to plan their dinner meals multiple days ahead	✓	Planning their dinner is hard, because friends might join or singles might eat at friends.
Singles do not mind browsing and exploring in the app, they aren't focused on minimizing time spent in the app	✓	Singles are not time-poor. Although they don't want to waste time in the app, they do not mind browsing for products or deals.

J.1 SEGMENTATION

Segments have different pains and needs

Apart from universal pains of assortment and delivery slots

Pains	▪ Hard to reach €25 limit *"I have to order for the full week, or else I will not have enough."*
Gains	▪ Convenience: groceries without having to leave the house *"It is just very easy."*

Pains	▪ Hard to plan ahead in a flexible lives: *"Sometimes I do not know what my week is going to look like."*
Gains	▪ Convenience: no worries about getting groceries in busy lives *"On Monday I order for the full week, and not think about it again."* ▪ Communication: good alignment with partner on groceries

Pains	▪ Being out of crucial products ▪ Difficult to come up with healthy and diverse recipes
Gains	▪ Convenience: stress free shopping experience *"Have you ever tried taking kids to the supermarket?"* ▪ Saving time *"Now I can spend more time with my kids"*

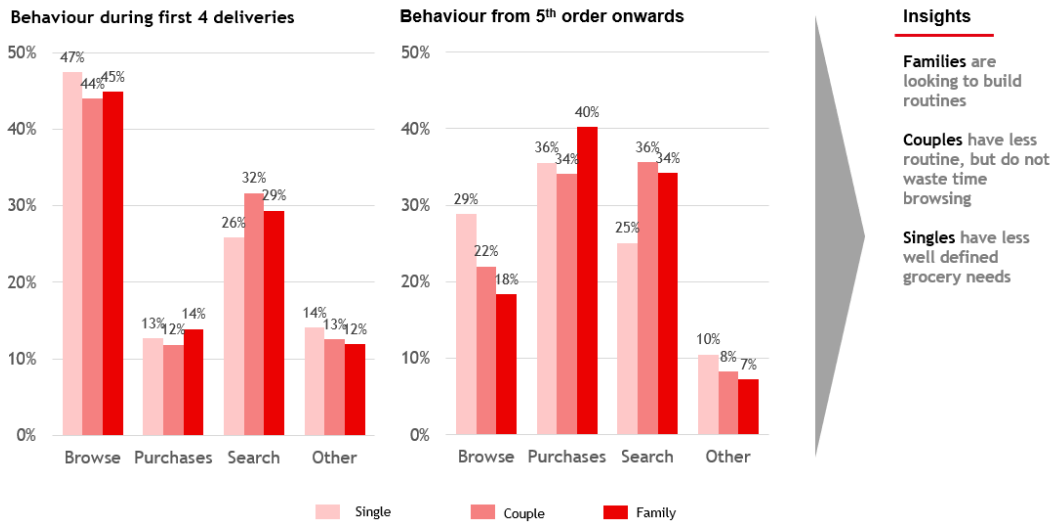
J.1 SEGMENTATION

Quantitative validation

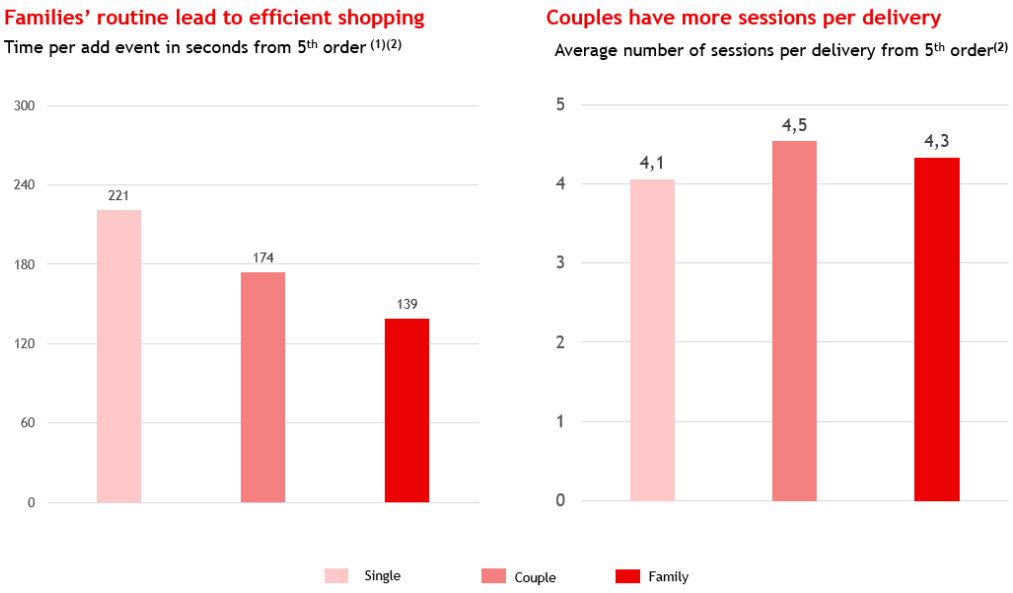
In addition to the interviews and other qualitative input, we have looked at the app usage data of the different segments

The different pains and needs identified in the previous chapter are confirmed by the different behaviour types of users in the app. Picnic is advised to cater to these different behaviour types in order to provide an optimal experience.

Families are the heaviest purchase page users



This different ways of adding products to the basket also translates to differences in time spend per add event, and the number of sessions per order.



J.1 SEGMENTATION

Focus on families

The service that Picnic offers works the best for families. Generally speaking, their behaviours and needs are the most compatible with Picnic's value proposition. In addition to that, families are the most valuable subsets of customers for Picnic and the grocery market in general. This finding is supported by expert interviews (see Appendix C) and market reports. GfK (2018) claims that household with children account for 39,5% of grocery market revenue, and 60,3% of the online grocery revenue. In addition to that, their behaviour involving groceries is the most compatible with the Picnic customer journey.

This view is supported by the notion of CEO Beckers who states that: *"It is for people who can and want to plan ahead – families for example-." (interview in Management Scope, September 2018)*

Picnic's growth potential among families

Although this group is already our most important customer, there is still a huge potential in this market segment. Right now, only 35% of the families in the areas where Picnic delivers has registered with Picnic[3], if we take the conversion rate of 21,3% this would mean that around 7,5% of all families in the areas where Picnic delivers becomes an active customer. This group of active families is estimated to purchase around 19% of their groceries at Picnic.

From these numbers we can conclude that although Picnic is currently only able to convert a small percentage of families, whilst the ones that do convert are highly valuable to the company.

Specific intended user

We therefore advise Picnic to focus product development efforts on its main intended user: Families. This does not mean that we cannot cater to the needs of other subsets of our customers, but it means that it is not our focus. The strategy of designing for one specific intended user is common practice in the design industry. It provides more insight, focus and inspiration and leads to stronger results.

Challenges and opportunities for families

The main challenges these families face when shopping at Picnic are:

1. Building a new habit, as their previous grocery shopping habit is very strong.
2. Families have a hard time aligning Picnic with their weekly schedule, and fitting their weekly grocery routine into the delivery slots of Picnic.
3. Families find it hard to get inspiration for what to eat for dinner, and often revert to recipes they already know.

Opportunities to get families into the Picnic habit are:

1. Facilitating the creation of a habit, in order to help families do groceries as effectively as possible.
2. Families are the most time-poor group of customers.
3. Convenience is extremely important for this group. This is recognized by Beckers as well, who states that: "For the big group of families, convenience becomes essential very quickly" (interview in Management Scope, September 2018)

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