

Mechanics@Home

Designing an optimised
user-centric service for
PostNL's XL parcel delivery



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Mechanics@Home: Designing an optimised user-centric service for PostNL's XL parcel delivery

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PREFACE

Dear reader,

Ik ben Simone Cobussen en ik heb iets voor je /
I am Simone Cobussen I have something for you *

I hereby present you my master thesis with the title '**Mechanics@Home: Designing an optimised user-centric service for PostNL's XL parcel delivery**'. This thesis represents the end of my master Strategic Product Design at the Delft University of Technology.

Before you will read the report of my graduation project together with PostNL, I would like to express some gratitude to people who helped my realise and finalise this project.

Firstly, I would like to start by expressing my gratitude towards my graduation committee. Pinar Cankurtaran and Sijja Bakker-Wu helped me to get the best out of myself and the project, but they also made sure mental health comes first. This really means a lot to me.

I would also like to thank Isabelle, my company mentor, for assisting me whenever I needed help, but also redirect me to the right people. Thank you for involving me in fun project and for the never ending enthusiasm. In addition, thanks to all the employees at Extra@Home who were willing to answer all my questions.

My gratitude also goes out to everyone that helped me with brainstorming, evaluating, validating and gave their input to come to the final result. Particularly to the proofreaders, who helped me step outside of the graduation tunnel and made suggestions on how to improve the report.

Lastly, I would like to thank my family and friends. Thank you for studying with me and listening to me. Specifically, my parents and my brother for taking care of me during the last miles of my graduation report.

For now, I have said enough thankyou's and I hope you enjoy reading this report about an optimised user-centric service for PostNL's XL parcel delivery named Mechanics@Home.

Simone

*This is a small reference to PostNL's slogan: Wij zijn PostNL en we hebben iets voor je

EXECUTIVE SUMMARY

This graduation project is carried out for PostNL's XL parcel delivery. PostNL is one of the biggest delivery companies in the Netherlands and one of their departments takes care of XL parcel delivery. This department is called Extra@Home. XL parcels can be seen as non-regular parcels, meaning odd sizes or weights. For Extra@Home, the XL parcel delivery comes with a delivery, installation and assemblage service. Products varying from wardrobes to washing machines can be delivered, assembled and installed in the customer's house.

Extra@Home proposed a graduation internship to analyse the current customer journey to search for possible service optimisations. Context analysis and literature research outline the graduation project's context.

The customer journey was composed with literature review and user research insights. User research was conducted by interviewing expert, experiencing a service delivery, interviewing Extra@Home's customers and experiencing the communication. From the customer journey negative and positive customer experiences were derived. Negative customer experiences were evaluated with the SERVQUAL model. The SERVQUAL model provided two different design directions: Extra@Home can be more customer-oriented and services of Extra@Home can be more user-centred. Several factors led to the decision to continue with the last direction.

This direction was the start of the designing process, with the outcome of Mechanics@Home (Figure 1). It is a service designed for Extra@Home that improves the current service. It is a user-centred service, that emphasises the core values and strengths of PostNL.

Customers and mechanics of Extra@Home are put at the centre of the service. The service is a personal approach to the current service. The customer gets the opportunity to get to know the mechanic before they come to their house to deliver and install a product. The customer also receives personal communication from the mechanic with updates about their delivery.

An integration with the current PostNL app makes sure that customers have a positive experience when encountering the service of Extra@Home. Instead of a lot of different communication channels, everything can be handled in the PostNL app. Transparent communication about what happens in the service journey is essential.

From the mechanic's point of view, the service highlights the skilled mechanics, which will create a feeling of responsibility from the mechanics. This feeling of responsibility exists, because the customer knows them, because they are responsible for their service delivery and they are known by the customer.

A service blueprint outlines the service of Mechanics@Home with front- and backstage actions. For a direct implementation a service roadmap was created. This roadmap has a three-step implementation strategy and it works towards the vision of integrating Mechanics@Home completely in the PostNL app and in Extra@Home.

Finally, Mechanics@Home was validated with all the important stakeholders in this project: customers, Extra@Home, mechanics and the marketing team.



Figure 1: Mecahnics@Home

TABLE OF CONTENTS

1.	Project introduction	8
1.1	Project background	9
1.2	Project approach	10
2.	Context analysis	12
2.1	Company background	13
2.2	Trend analysis	18
2.3	Competitor analysis	19
3.	Literature review	22
3.1	Last mile delivery	23
3.2	Customer journeys	24
3.3	SERVQUAL model	25
4.	User research	27
4.1	Interviewing experts	28
4.2	Experiencing a service delivery	32
4.3	Interviewing Extra@Home's customers	34
4.4	Experiencing the communication	35
4.5	Customer journey	36
4.6	Customer experiences	42
5.	Design brief	48
5.1	Design directions	49
5.2	Chosen direction	53
5.3	Design goal & requirements	54
6.	Ideation & conceptualisation	55
6.1	Ideation process	56
6.2	Evaluating ideas	57
6.3	Concept exploration	61
6.4	Integration with PostNL app	62

7.	Final design	63
7.1	Mechanics@Home	64
7.2	Service scenario	65
7.3	Customer-mechanic interaction	67
7.4	Service blueprint	68
7.5	First validation	70
7.6	Service roadmap	71
7.7	PostNL app prototype	74
8.	Validation	77
8.1	Validation setup	78
8.2	Validation with mechanics	79
8.3	Validation with Extra@Home	81
8.4	Validation with marketing	82
8.5	Validation with customers	84
9.	Discussion	88
9.1	Results discussion	89
9.2	General discussion	90
9.3	Recommendations	92
10.	Reflection	93
11.	Reference list	94
12.	Appendices	100
A	Approved project brief	101
B	DESTEP analysis	108
C	Competitor analysis	110
D	Interview guide & characteristics table	112
E	Customer journey Extra@Home	114
F	Clustering requirements	116
G	Brainstorming session ideation	118
H	Brainstorming session concept	120

1

PROJECT INTRODUCTION

This chapter introduces the project and how the project was structured to create a final design.

1.1 | PROJECT BACKGROUND

PostNL is one of the leading companies in mail and parcel delivery in the Netherlands. Daily, PostNL delivers 1.1 million and 8.1 million mail. They continue to innovate and come up with new creative ideas by responding to emerging trends, such as digitalisation. It is no longer necessary to buy a physical post stamp, but by writing a code on your addressed letter, you can send a letter to anyone (PostNL, n.d.-f).

Besides delivering mail and parcels daily, PostNL has a department dedicated to delivering XL parcels in and around the house. This department is named Home & Garden. They not only focus on delivering XL packages, but also on installing and/or assembling the products. Home & Garden started approximately 13 years ago as a small organisation with clients such as Leen Bakker and Wehkamp (Buurmeijer, n.d.).

Home & Garden consists of two networks: Extra@Home, established within PostNL and day-to-day practice of services of 'basic' XL parcels, from companies such as Ikea, Electrolux, and others. Secondly, JP Haarlem, an acquired company, which focuses on the luxury sector, with clients such as Studio Henk, Riviera Maison, etc. (Buurmeijer, n.d.). In this project I focused on Extra@Home because that is the department in which I am an intern for my graduation project. The Extra@Home delivery service consists of three service levels: Doorstep service, Top service and Installation service. Delivery drivers will deliver XL parcels over the first doorstep to customers for the Doorstep service. Top service includes placing the product at the desired location and performing assemblage and some minor installations. Installation service handles more complex and mostly built-in appliances, which require installation from skilled mechanics (PostNL, n.d.-a).

The goal of Extra@Home is to become the number one delivery company in the Benelux in XL parcels with premium services. Currently, Extra@Home is trying to achieve this through continuous innovation and improvement on customer journey (Buurmeijer, n.d.). To achieve this, a graduation internship was proposed where the current customer journey of the services will be analysed and searched for possible optimisations. This was the starting point of creating my graduation project. Together with the company

mentor of Extra@Home and graduation committee, the project has been refined into detail. As mentioned above, Extra@Home has three service levels, hence three different customer journeys. For this project I will only focus on the most complicated one: Installation service. However, this service overlaps with the Top service, as they both go beyond the doorstep and the service performs assemblage and installation of products, both services will be analysed. Since no clear problems were suggested, the analysis of the customer journeys will provide several problems that will lead to different service design solutions.

Several parties are involved with the service, as mentioned above. Additionally, several parties are involved with the graduation project. Consequently, the main stakeholders involved in the service are Extra@Home, the delivery drivers/mechanic, Extra@Home's client that wants to use their service, and the customers of that company, hence Extra@Home's customers, that want to buy the product and have it delivered and assembled (Buurmeijer, n.d.). The main stakeholders involved in the projects are Isabelle Starren, my company mentor, and Dr. Pinar Cankurtaran and Ir. Sijja Bakker-Wu, my graduation committee (see Figure 2).

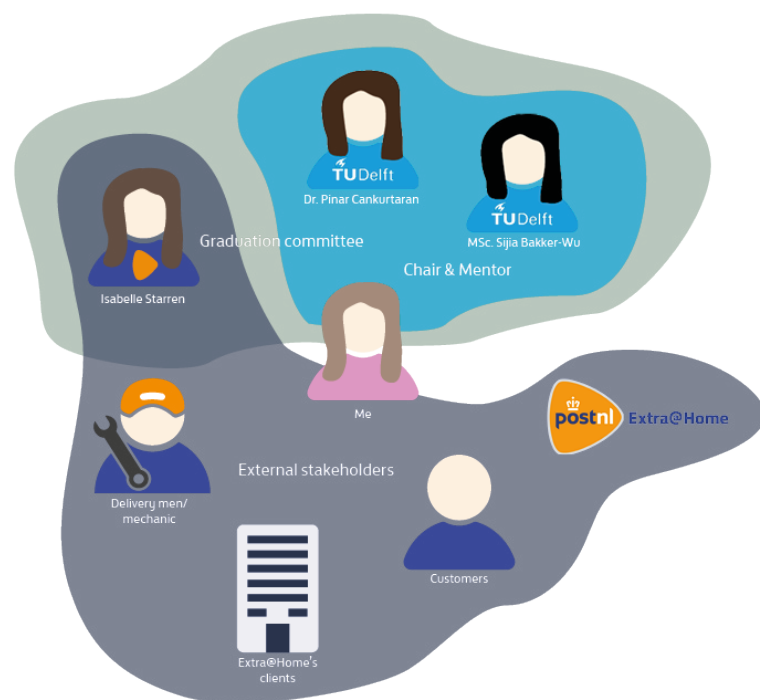


Figure 2: Stakeholders involved in graduation project

1.2 | PROJECT APPROACH

As taught during the education of Industrial Design Engineering and Strategic Product Design, most design projects use the method of a Double Diamond to tackle complex problems (Design Council, 2022). The project follows the Double Diamond method with four phases: discover, define, develop and deliver (see Figure 3). In each phase several design methods are used for this project, which are covered in each chapter. The methods used for this project are derived from 'Delft Design Guide' by Van Boeijen, Daalhuizen, Zijlstra & Van der Schoor (2014) and 'This is Service Design Thinking' by Stickdorn & Schneider (2012).

Discover

The discovery phase covers the understanding of the context of the graduation project. In this phase the context analysis provides the background of the company and a trend analysis. Furthermore, the competitors of Extra@Home are analysed. The literature review covers the theory of last mile delivery, customer journeys and the SERVQUAL model. Four types of user research are conducted: two types of interviews, shadowing and a service safari. This all leads to understanding the context of the graduation project and laying the foundation for the next phase.

Define

All the insights gathered from the discovery phase help to define the design brief in the define phase. The problem is defined in this design brief and a design direction with requirements is suggested for starting the next phase.

Develop

During the developing phase the previous proposed problem is answered by offering several solutions. These solutions are created in the ideation chapter and one is chosen through evaluation and further refined in the conceptualisation chapter.

Deliver

In the delivery phase, a final design is delivered and, with the help of a multi-stakeholder validation, final recommendations are made. The concept is finalised into a service blueprint and a service roadmap. The report ends with a discussion and a personal reflection.

Key takeaways

In each chapter key takeaways will be mentioned. Key takeaways can be seen as a conclusion of the chapter, and they will be considered in the next chapters.

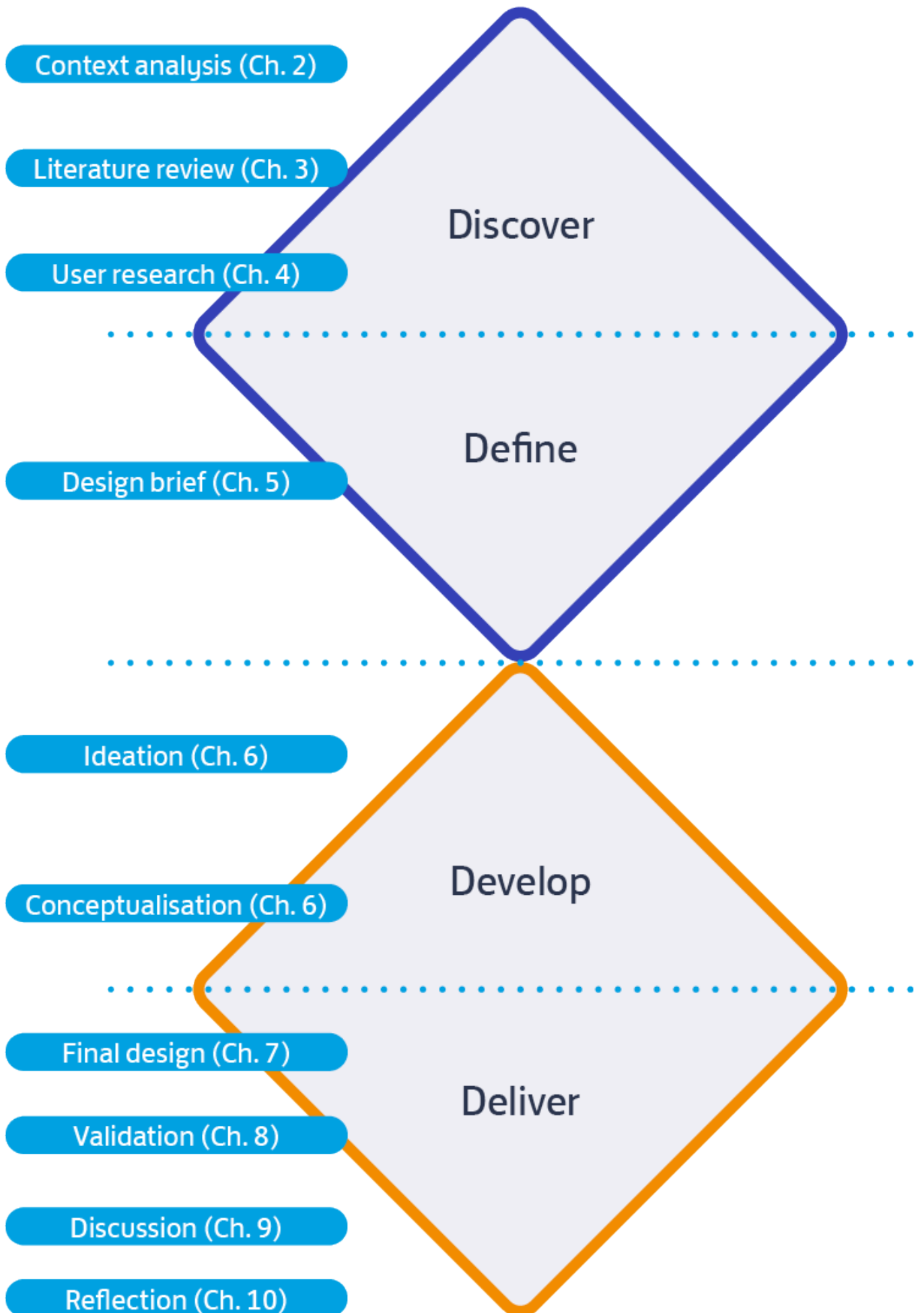


Figure 3: Double diamond method used in graduation project

2

CONTEXT ANALYSIS

This chapter contains the discovery phase. It provides background information to understand the context around the project, with PostNL's company background, an analysis of competition and trends that explain the future of parcel delivery.

2.1 | COMPANY BACKGROUND

The project is initiated by the company PostNL (Figure 4). To get a complete picture of the company, a desk research was conducted. The history and their current situation are described below.

History

In 2019, PostNL celebrated their 220th anniversary and for this special occasion, PostNL (2019) dived into their history and told the following story: At the end of the 18th century, Napoleon introduced a central and national post system in the Netherlands that he brought from France. 'PostNL' was born and started as a national enterprise in 1799. Before this date, mail was only locally handled through different parties. Until the 19th century, mail was delivered by foot, which meant that postmen had to travel long distances by foot. At the beginning of the 19th century, big technological innovations occurred, such as the steam train, meaning it became easier to travel between cities. A need for long-distance communication arose and not only people travelled by train but also their mail. In 1882, the first packages were sent by mail, but only until the beginning of the 20th century, post became post as we know it present-day, due to people learning to read and write. In 1980, 'PostNL' already started with next-

day delivery, and when the internet was invented, 'PostNL' was ready for this change. Before 1989, PostNL was called PTT (Staatsbedrijf der Posterijen, Telegrafie en Telefonie) because it was owned by the government, but in 1989, PTT was privatised, which meant that PTT would continue as PTT Post. From 1998 to 2006, a lot of reorganisations and name changes happened, and in 2011 TNT Post became PostNL.

PostNL now

Nowadays, PostNL is the national postal delivery service in the Netherlands. PostNL delivers mail five days a week in every street of the Netherlands and delivers parcels seven days a week throughout the Benelux. They deliver 8 million pieces of mail and 1.2 million parcels every day. Furthermore, they offer innovative services, such as Track&Trace and the PostNL-app. This PostNL-app has over 6.8 million users (PostNL, n.d.-b).



Figure 4: Logo of PostNL

Strategy

PostNL's long history contributed to the fact that PostNL wants to continue building on their identity, with their ambition to become everybody's favourite delivery driver. To accomplish this, PostNL (n.d.-b) created a strategy, with strategic targets such as helping their clients' companies to grow, attract and retain motivated employees, assure a sustainable and solid postal company, reduce their impact on the environment and have profitable growth and sustainable cash flows.

Orange Compass

PostNL (n.d.-b) created an Orange Compass for their employees to ensure that their strategy can be executed. The Orange Compass works along three core values: we keep it simple, we make it smart, we do it together. Each value comes back into four themes of PostNL: desired customer experience, desired employee behaviour, optimal working environment and optimal leadership. In Figure 5 the explanation of the core values along each theme is explained of how to accomplish the strategy. Within each department of PostNL, the Orange Compass is leading, which assures that PostNL will perform along the same values.

The orange compass

Answers with explanation

Desired customer experience

What we would like our customers to say about us



Makes it happen

At PostNL, I know it will work out. I don't need to worry about it and can rely on it. They are clear about what I can expect. They always make it easy for me.

Works with me

PostNL aligns directly with my life. They help me. They pay attention to me, to new developments, society and tomorrow's world.

Makes me happy

PostNL is always near and is there for me. They are friendly, involved and make it personal. I look forward to working with them.

Desired employee behaviour

How the people who work for and with us ensure that the customer experiences it like this



Do what we promise

I am there for the customer. An agreement is an agreement. It's that simple. The customer always comes first, even if something goes wrong. I'm always clear and open about that. I come up with solutions. I just take care of it.

Stay one step ahead

I have a keen eye for new opportunities. I predict a question coming. I assess how I can contribute to a clean, green world. If I can't do something right now, I will be able to soon. That's what I go for.

Connect and surprise

Every point of contact is a valuable moment. I make it personal and always go for a smile. If we do it together, we come up with something great. It's important to me that I give just that little bit extra where I can.

Optimal working environment

The type of working environment required to make it possible for all employees.



Just deliver

We have a can-do attitude. We get the space and we take responsibility. If something doesn't work out, we find ways of solving it together. We just do it.

Smarter every day

Every day, we do our best to provide a better service for the customer. We know what's going on and there's room to try things out and learn. We are constantly working on smart solutions and a sustainable future.

Look out for one another

People come first. We have an open atmosphere in which we can say anything. If there's something standing in the way of that, we discuss it. We value and trust each other. Together, we get it done.

Optimal leadership

What this requires of our management team and all managers.



Making it possible

I make sure that the basics are in order and that processes and systems are simple. I actively ask questions and listen carefully to what's going on. Everyone needs to be able to work effectively.

Providing support and guidance

I monitor the whole and bring about improvement and innovation. I aim for a sustainable future, for the company, employees and society. I create energy in my team so that they contribute to this.

Enabling connections

I ensure good, pleasant collaboration both within the team and with others. I make sure everyone achieves their potential. I give my attention and trust, and I appreciate it when people take initiative. I care about the individual and am visible.

Figure 5: Orange Compass

Organisation

Approximately 40.000 people work at PostNL within different departments. The departments Parcels & Logistics, Mail NL and Cross Border Solutions are 'responsible' for the delivery of mail and parcels and they focus on the last mile delivery. They are divided into different departments with different delivery networks (see Figure 6) (PostNL, n.d.-b).

Home & Garden

As previously described, Home & Garden is one of the departments within Parcels & Logistics. Everything that cannot be sent within the regular parcel service will be distributed through the Home & Garden department (see Figure 7).

Home & Garden is divided into different sub-departments (see Figure 6). Extra@Home is a department that started within PostNL and JP Haarlem is an acquired company that still operates under their own name. JP Haarlem delivers and assembles furniture from companies in the luxury sector, such as Studio Henk, Riviera Maison, etc. As said in the Project introduction, I only focused this project on Extra@Home, because that is within my assignment from PostNL.

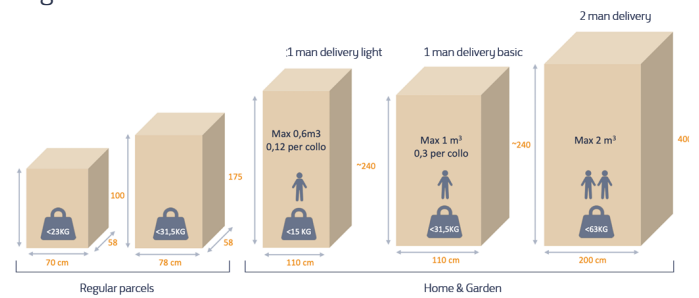


Figure 7: Distribution of parcels

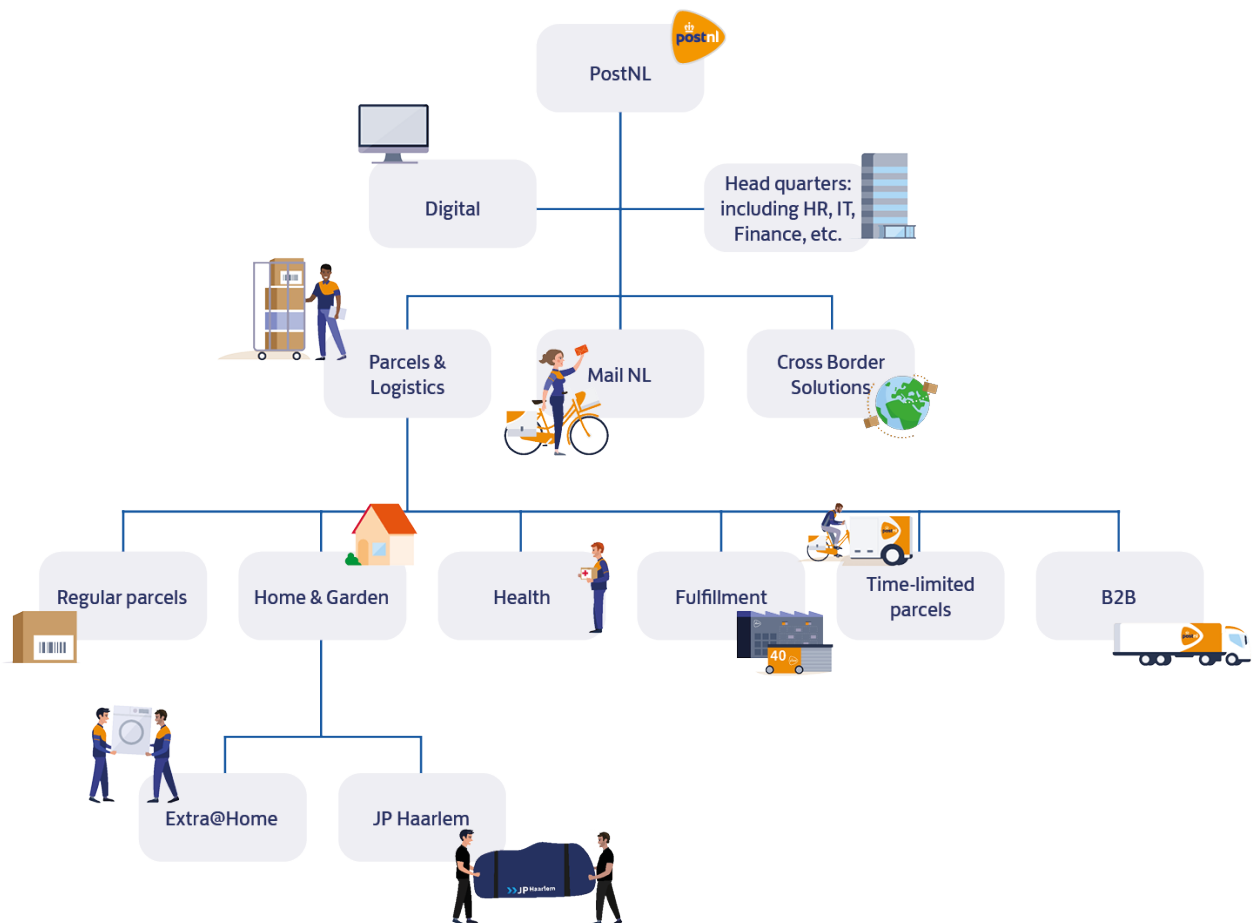


Figure 6: Departments of PostNL

Extra@Home

Extra@Home started approximately 13 years ago within PostNL when Cargo, which is a distribution network within B2B, indicated that there is a demand for customer delivery of large packages, instead of solely B2B delivery. Thus, Extra@Home was born and they focused on the XL parcels market for customers. XL parcels for Extra@Home can be kitchen appliances, bicycles, furniture, consumer electronics, airconditioners, smart home appliances, etcetera.

The beginning of Extra@Home was quite rough and in the first 5 years there was not much focus on value proposition, a lot of loss, reservations within PostNL and insufficient quality which all led to a negative Figure of this delivery service towards customers.

After this rough start, Extra@Home adopted a new strategy and created a customer journey, started to measure the Net Promoter Score (NPS) and most importantly the customer became the central point of attention. This all led to having strong growth as one of the most important KPIs of Extra@Home (Buurmeijer, n.d.).

Extra@Home is divided into different networks, so each need of the customer can be answered with the right price and service. These networks represent three different service options as displayed in Figure 8.



Figure 8: Home & Garden's service levels

The networks of Doorstep Delivery and Top service & Assemblage are arranged through subcontractors. Subcontractors are companies that Extra@Home acquires when they need delivery drivers and mechanics to execute the services. Installation service mechanics are employed by PostNL. The three networks are divided into different channels to deliver the right service to the customer as displayed in Figure 9 (PostNL, n.d.-d). As mentioned above in Figure 7 the difference between one- and two-man deliveries in both the doorstep & Top service and Installation service is specified by weight. The last service, installation non-integrated, is almost the same as Top service, but they do more complex installations for non-integrated appliances.

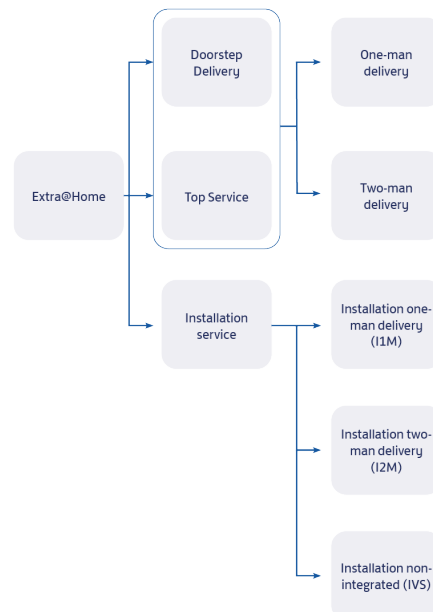


Figure 9: Delivery channels of Extra@Home

Existing customer journey

In this project the customer journey will be researched of Extra@Home. Extra@Home employed a customer journey specialist, who focuses on optimising the customer journeys within Extra@Home. She created the customer journey of the Doorstep and Top service and for Installation service. Except for a difference in the offering of the service, the customer journey has three differences (see Figure 10). The first difference is that customers of Doorstep and Top service will receive a delivery calendar to make an appointment. Customers of Installation service will receive a phone call to make a delivery appointment.

The second difference is in the confirmation of the delivery date email. For the Doorstep and Top service, this email seems to be more detailed, while the email for the Installation service only contains a confirmation. Thirdly, the Doorstep and Top service orders are planned at night before the delivery date, meaning the customers will receive a notification of their delivery time at max 7 a.m. on the day of the delivery. The Installation service is planned the day before the delivery date, meaning the customers sooner receive an indication of the timeframe of their delivery.

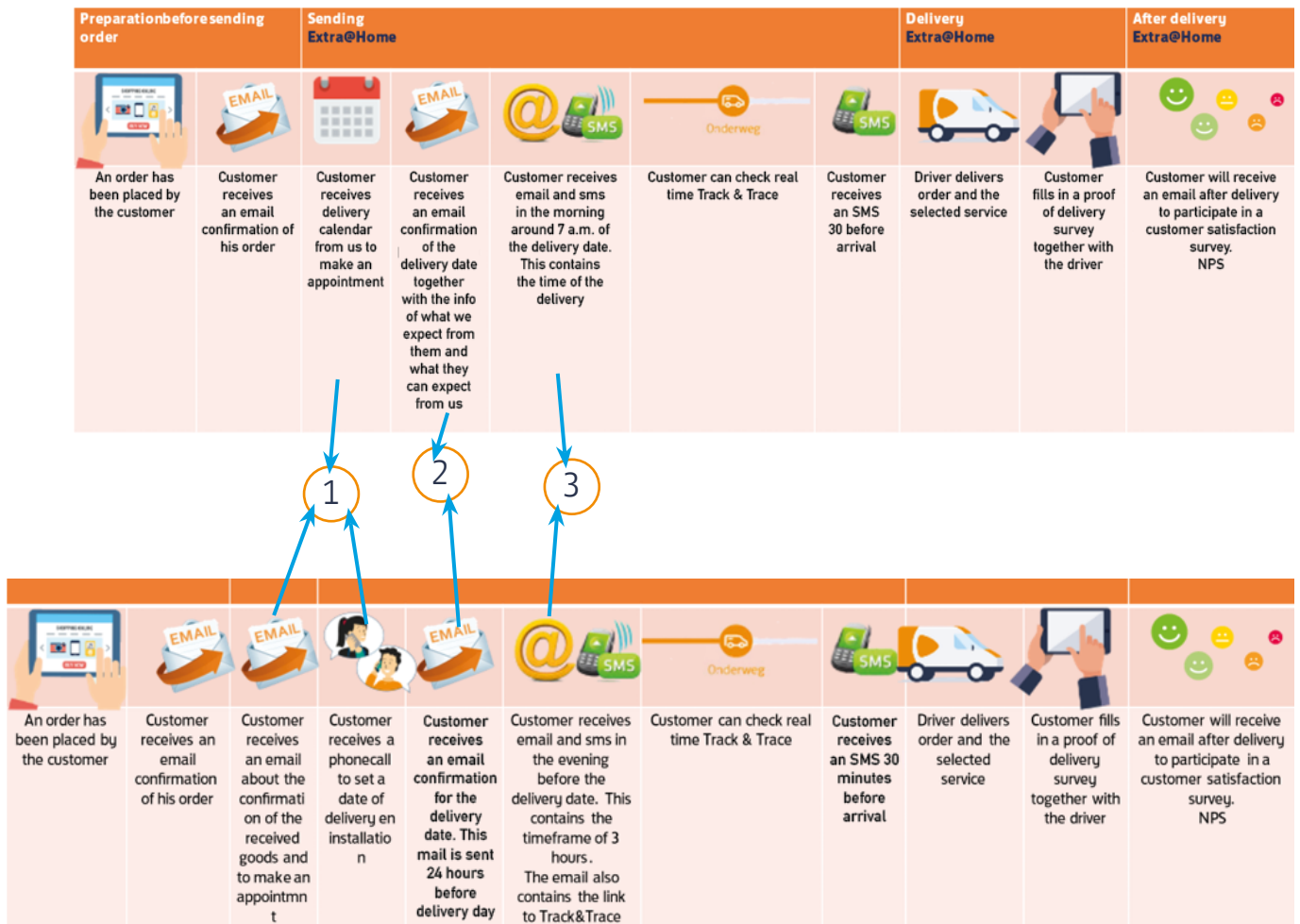


Figure 10: Customer journeys made by Extra@Home

Key takeaways Chapter 2.1

PostNL offers innovative services • PostNL's ambition to become favourite delivery drivers of everybody • Orange Compass to perform along same values • Extra@Home is one of the departments of Home & Garden, which is one of the departments of Parcels & Logistics • Extra@Home offers three services • Extra@Home performs along customer journey

2.2 | TREND ANALYSIS

Not only an internal analysis is needed to understand the context of this graduation context. External factors are also important to understand the complete context. The world keeps on changing and the future of the parcel industry will be shaped by ongoing and expected developments. A trend analysis can indicate these developments and therefore, with the use of the DESTEP method (Appendix B), important developments are mapped out. These developments are important to keep in mind while designing. The ones with the biggest impact are described below.



Growing parcel industry

As mentioned in the previous chapter, Toy et al. (2022) expects the global e-commerce sector to keep on growing 20% every year. This trend shows the report by Autoriteit Consument & Markt (2021) as well. They indicated that the national parcel industry grew 24,7% in 2021. As CBS (2022) discovered, there was a big growth in 2021 in purchases of furniture, living accessories and garden products. However, this is mostly due to the Coronavirus (CBS, 2022). People staying home made them purchase more online, because shops were closed. In 2022, there is a slight decrease in these purchases with 5,4%. This, in turn, can be explained by the fact that shops are open again.



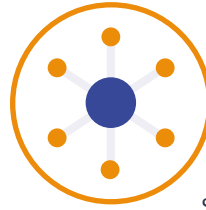
Higher expectations of customers

Along with the growth of e-commerce come higher expectations from customers of the parcel industry. They are demanding higher levels of service, meaning customers want a quick delivery and a Track & Trace link to trace their parcel (Sendcloud & Nielsen, 2021). Same-day delivery is also emerging. This same-day delivery leads to crazier expectations, for example to within 10-minute delivery (van den Heuvel, 2022). However, most customers do not have a strong preference for a specific carrier if their parcel is delivered without problems (Sendcloud & Nielsen, 2021).



Personalisation

These higher expectations of customers also translate into a demand for personalisation (PostNL, n.d.-g). According to Arora et al. (2021) customers associate personalisation with positive experience and feeling special. This personalisation can be realised in every touchpoint throughout the customer journey. It can be translated in the pre-service period where communication is personally addressed to customers, or in the post service period where the company would check in with the customers about their personal experience. Personalisation in service leads to persuading customers of purchasing, repurchasing and recommending to friends.



Omni Channelling

Omni channelling is the evolved version of multi channelling. Omni channelling is a trend that stems from personalisation, where companies focus on a tailored experience for the customer (Toy et al., 2022). It does not matter which channel the customer uses; each channel will be tuned to the other for a hassle-free experience.



Staying competitive

With all the previous trends, it is hard to stay competitive. It is important to keep on innovating not to be left behind (Adyen & KPMG). Companies that perform better are companies that connect their physical and digital world. They create a smooth customer journey over all their channels. Furthermore, new competitors are arising (PostNL, n.d.-g). Companies that used to only sell products, are now offering delivery services to their customers.

Key takeaways Chapter 2.2

Future developments have to be kept in mind • Parcel industry keeps on growing • Customers have higher expectations • Customers demand personalisation • Personalisations is effective for companies • Omni channelling is the future where every channel is tuned to the other • Companies need to innovate to stay competitive

2.3 | COMPETITOR ANALYSIS

Competitors play a big part in the parcel industry. Where PostNL is leading in the parcel industry (PostNL, n.d.-f), Extra@Home struggles to keep up with the competition. As mentioned in the previous chapter, even companies that used to be a product-selling only company, start to deliver the products themselves. Therefore, in this chapter the competitors of Extra@Home were analysed to create useful insights. These insights will show the opportunities for Extra@Home to focus on.

Firstly, it is important to Figure out Extra@Home's competitors. They are appointed together with employees of Extra@Home. Figures 11 & 12 show the circles of levels of competition (Kotler, Keller

& Chernev, 2022). Figure 11 is the competition of the Top service and Figure 12 the competition of Installation service.

Secondly, analysis is done for each competitor by doing research about the service each competitor delivers and then by researching review websites. Scores, complaints and positive comments were analysed (see Appendix C).

An important side note is that review websites may be biased, since customers mostly only complain if something goes horribly wrong or perfectly right. However, since all competitors are analysed this way, it is still useful to analyse them this way.



Figure 11: Competitors Top service

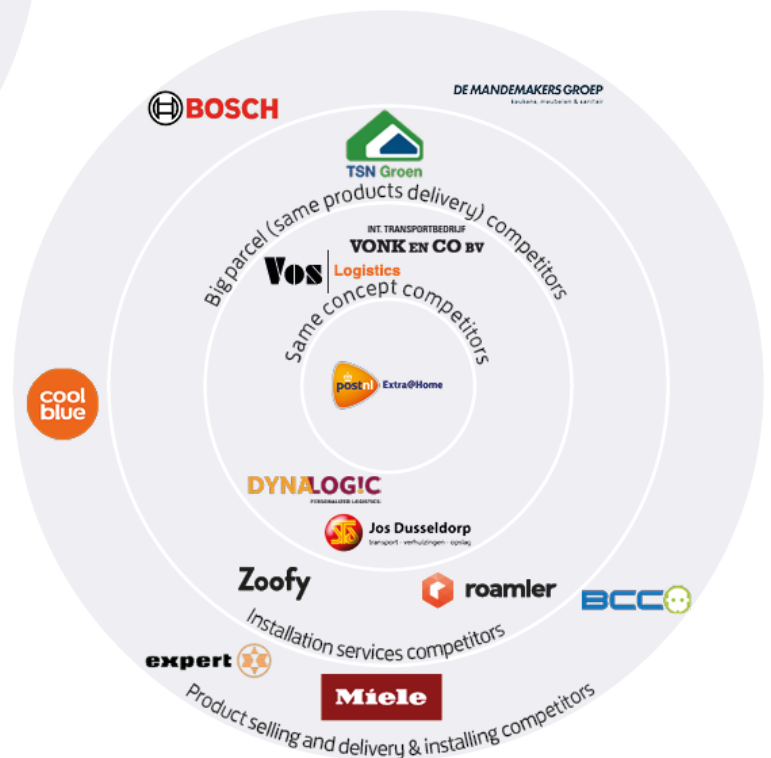


Figure 12: Competitors Installation service

Main competitors

The three companies that rank the highest were selected for further analysis. This, to understand why they rank so highly and what customers like about them. Two of the highly ranked competitors are product-selling companies that also deliver and one of them is the highest rank of delivery companies. Furthermore, three interviews with customers of competitors were conducted. The setup of these interviews was the same as the interviews with the Extra@Home customers. The competitors were Coolblue, Expert and Dynalogic.



Coolblue

Coolblue, as they explain themselves, is more than an ecommerce company. They offer complete solutions to customers with supporting infrastructure. To make a difference they offer customer-oriented product journeys, to make customers happy Coolblue, n.d.-b). Coolblue has the option of standard doorstep delivery or delivery with extra service options. Coolblue offers the same service options as Extra@Home for kitchen appliances: over the doorstep delivery and installation of non-integrated and integrated products (Coolblue, n.d.-a).

Customers from review websites and the interview are saying the following about Coolblue:

'After your order, you go together in the shipping process. It feels like being taken on a personal trip, while in the meantime your 'travel guide' provides you with installation and usage tips. Every time it is a pleasure to find out what you have come up this time' (Trustpilot, 2022h)

'We had chosen Coolblue, because their website works nice and we figured that if they offer us a nice website it is justified to buy a product with them.'



Expert

Expert is a physical electronics store in the Netherlands. They have stores all over the country. If you order online, you are still helped and assisted by the local store nearby. Therefore, the contact with the customers is close (Expert, n.d.-a). Expert also delivers the online orders. They offer

doorstep delivery and over the doorstep delivery. They also offer the same service options as Extra@Home for kitchen appliances. They deliver over the doorstep and install non-integrated and integrated products (Expert, n.d.-b).

Customers from review websites and the interview are saying the following about Expert:

'Expert has short and quick communication lines. They treat you as a human and not as a file or number. They always offer excellent personal service and good advice' (Trustpilot, 2022i)

'You may get a cheaper option at someplace else, but at Expert you also receive the service'



Vonk en Co

Vonk en Co is a family business that specialises in the transport of kitchen appliances. Their main business lies in the whole supply chain, but they seem to be successful in customer delivery. They have motivated staff that offer service options besides delivery options. They offer a full-service concept where mechanics deliver and install integrated and non-integrated products. They also collect the packaging material (Van Suilichem Communicatie BV, n.d.). What is interesting to see is that most customers talk about the mechanics by mentioning their names.

Customers from review websites are saying the following about Vonk en Co:

'I had bought a washing machine and Michael and Danny carried the washing machine without any damages to the second floor. They thought along for the best placement of the washing machine, because of my dryer. They also gave a clear explanation about the machine. In one word, amazing!'

All the previous aspects from the competitive analysis together lead to interesting conclusions. They provide different insights into Extra@Home's competition. These are useful for finding a competitive advantage for Extra@Home and can be used for ideation.

The most important insights are:

- Every competitor deals with the same issues: lack of communication towards customer, company is hard to reach, damages to the product that will be delivered, late deliveries, not delivered on agreed day or delivered service does not match to what is promised;
- Not every competitor collects the packaging material;
- Coolblue and Expert have the highest ranking from the customers, Vonk has the highest rank as a delivery company;
- Companies that rank high from customers also sell products;

- Delivery companies that rank high have a good communication system;
- Companies that are 'personal' have high rankings. The highest ranked companies are personal in their own way. Coolblue has 'creating a positive customer experience' as their top priority and one customer described placing and receiving an order at Coolblue as a journey that you go on together. Expert has a customer service, but most communication with customers is handled through their physical shops. If a customer has a question, they will be directly forwarded to the nearest shop and speak with a store employee who has a lot of knowledge about the service and the products. Vonk is a family company and a lot of customers mention the names of the mechanic/delivery drivers in their reviews, so they know the mechanics by name.

Key takeaways Chapter 2.3

Competitors of Top service and Installation service differ • All competitors deal with the same issues • Product selling companies rank high • Good communication is positively received by customers • Personal approach seems to be the approach to rank high and have positive customer experiences

3

LITERATURE REVIEW

To get a full understanding of the theory of the project, literature research was conducted. This chapter reviews multiple literature. The literature covers the subjects of last mile delivery, customer journeys and SERVQUAL.

3.1 | LAST MILE DELIVERY

As mentioned in the chapter company background, PostNL's department Parcels & Logistics, the umbrella division of Extra@Home, focuses on the last mile delivery. Before only focussing on the last mile delivery of Extra@Home, it is important to understand the concept of last mile delivery.

According to Toy, Gesing, Ward, Noronha & Bodenbenner (2022) the global e-commerce sector will keep on growing 20% every year. One of the most important stages in the e-commerce journey is the final leg of the supply chain: the last mile delivery. The last mile delivery is the journey of the package when it leaves the depot for transport to the customer (Vakulenko, Shams, Hellström, & Hjort, 2019) (see Figure 13). They also indicate that customers demand service quality and that customers expect a more personalised service for the last mile delivery.

Ghajargar, Zenezini & Montanaro (2016) state that the quality of logistics service performance will help to increase the customer satisfaction. Customer satisfaction is the fulfilment of customers' requirements or needs (Jobber & Ellis-Chadwick, 2019). Mangiaracina, Perego, Seghezzi, & Tumino (2019) explain two important factors that influence customer satisfaction. Firstly, punctuality, meaning receiving the order within a predetermined period.

Furthermore, delivery speed, meaning the time between ordering and delivery of the order. Therefore, last mile actors are finding new ways of delivery services. Services that tackle challenges to answer recent customer needs are for example same-day delivery or even instant delivery (i.e. Gorillas, Getir) (Van den Heuvel, 2022). These service innovations are also needed, as e-commerce companies see service level targets as constraints they must necessarily meet to remain competitive (Mangiaracina et al., 2019).

Most of these recent service innovations are often linked to customer experience, because the customer is involved in the service innovation design. According to Meyer & Schwager (2007) customer experience can be described as the internal and subjective response customers have to any direct or indirect contact with a company. To understand the customer experience of Extra@Home's customers a study on customer experience should be conducted. A praised strategic management tool by both academics and practitioners to understand the customer experience is mapping a customer journey (Rosenbaum, Otalora, & Ramírez, 2017).

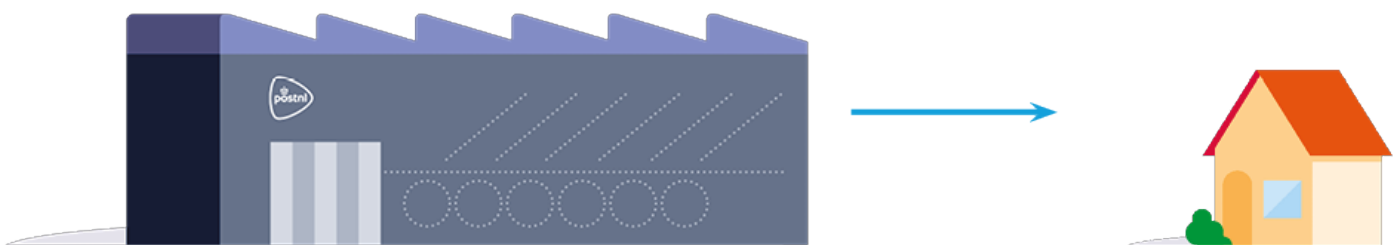


Figure 13: Last mile delivery

3.2 | CUSTOMER JOURNEYS

As aforementioned, mapping a customer journey helps to understand the customer experience. Furthermore, the initial project is to analyse the current customer journey of Extra@Home. However, to initiate this analysis, it is important to understand customer journeys and how to map out a customer journey.

Tueanrat, Papagiannidis & Alamanos (2021) explain a customer journey as a process or sequence that customers pass through to access or use an offering of a company. Additionally, a customer journey map is a vivid, but structured visualisation of this customer journey (Stickdorn & Schneider, 2012). As Van Boeijen et al. (2014) mention, using this method will help you to develop a deep understanding of the process that users go through when using a service to achieve their aims and to see the wider context in which a service process takes place (Stickdorn & Schneider, 2012).

Rosenbaum, Otalora & Ramírez (2017) note that a customer journey consists of three phases that customers could experience during the service period. In the customer journey map, each phase is displayed along a horizontal axis. In these phases different stages/activities customer experiences are mapped (Van Boeijen et al., 2014). The pre-service period points out stages where the customers get in touch with the service (Stickdorn & Schneider,

2012) and their experience before the actual service occurs (Rosenbaum, Otalora & Ramírez, 2017). The (actual) service period redirects to the customers experiencing a service. Lastly, the post service period refers to the customer's experience after the actual service (Stickdorn & Schneider, 2012).

Along the vertical axis, strategic categories should be developed that are relevant for the research as Rosenbaum, Otalora & Ramírez (2017) state. They further explain that each phase is divided into different touchpoints a customer experiences. A touchpoint is a point where the customer/user interacts with the service (Stickdorn & Schneider, 2012). Additionally, they are the only points where an interaction between the customer and the organisation takes place (Abbing, 2010). These touchpoints could be described by stages and activities performed by the customer.

Stickdorn & Schneider (2012) propose further analysis, if applicable, for these touchpoints by asking questions within each period as: what are the customer's expectations, what are the emotions a customer experiences and are the customers satisfied or dissatisfied? Customer (dis)satisfaction can be referred to as pain and pleasure moments (Tueanrat, Papagiannidis & Alamanos, 2021). A proposed customer journey could be structured as Figure 14.

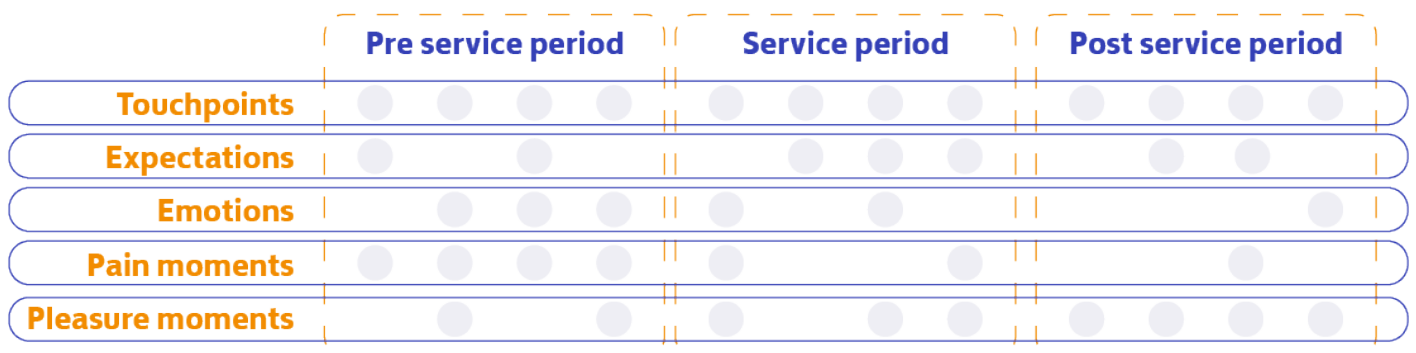


Figure 14: Proposed customer journey

3.3 | SERVQUAL MODEL

To evaluate customer experiences across the customer journey, the SERVQUAL model is a good starting point (Lemon & Verhoef, 2016). Before evaluating the customer journey, a complete understanding of the SERVQUAL model is needed.

Experiences of services are mostly subjective and the quality of services is therefore perceived by the customers (Grönroos, 2016). He states that service quality has two dimensions: a technical outcome-related dimension and a functional process-related dimension (Figure 15). The technical outcome-related dimension includes what customers

physically receive in their interactions with a company. The functional process-related dimension explains how the customer receives and experiences the service. Technical dimensions are more objective than the functional ones. These two quality dimensions combined both influence the Figure of the company. As Grönroos (2016) describes in his paper, good perceived quality occurs when the experienced quality meets the expectations of the customer (expected quality). Mostly, the customers' perceived quality is low when there is a gap between the experienced and the expected quality.

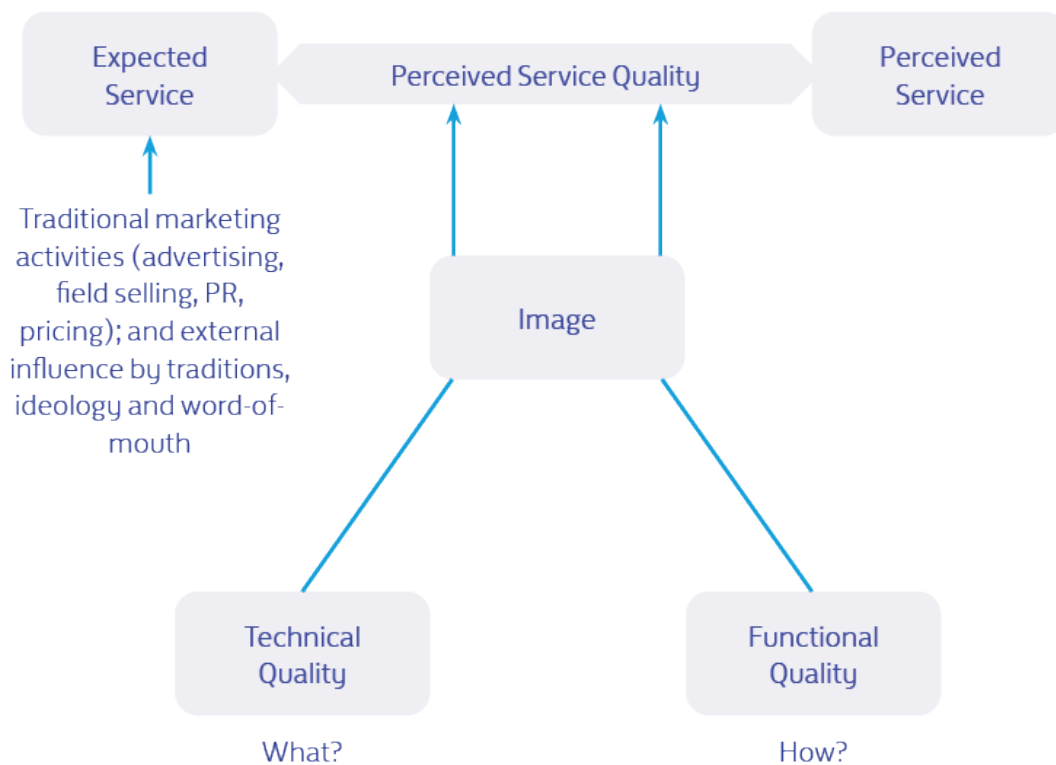


Figure 15: Service quality

This gap is more extensively explained in the SERVQUAL model by Zeithaml, Berry & Parasuraman (1988). Customers' perceptions of service quality are influenced by five gaps (see Figure 16). Gap 1 refers to the difference in customer expectations and what the management perceives as customer expectations, meaning the company does not know what the customer expects. Gap 2 represents the difference in the management perceiving certain customer expectations and how they translate these perceptions into service-quality specification and or policy for the employees to execute the service.

Furthermore, Gap 3 represents the difference between the service that is actually delivered by the employees and the specifications that are set by the management. Moreover, Gap 4 refers to the difference between the service that is delivered and the promised service to the customers by external communication. Lastly, Gap 5 is the difference between the customers' expectations and the perceived service, which is dependent on the previous gaps.

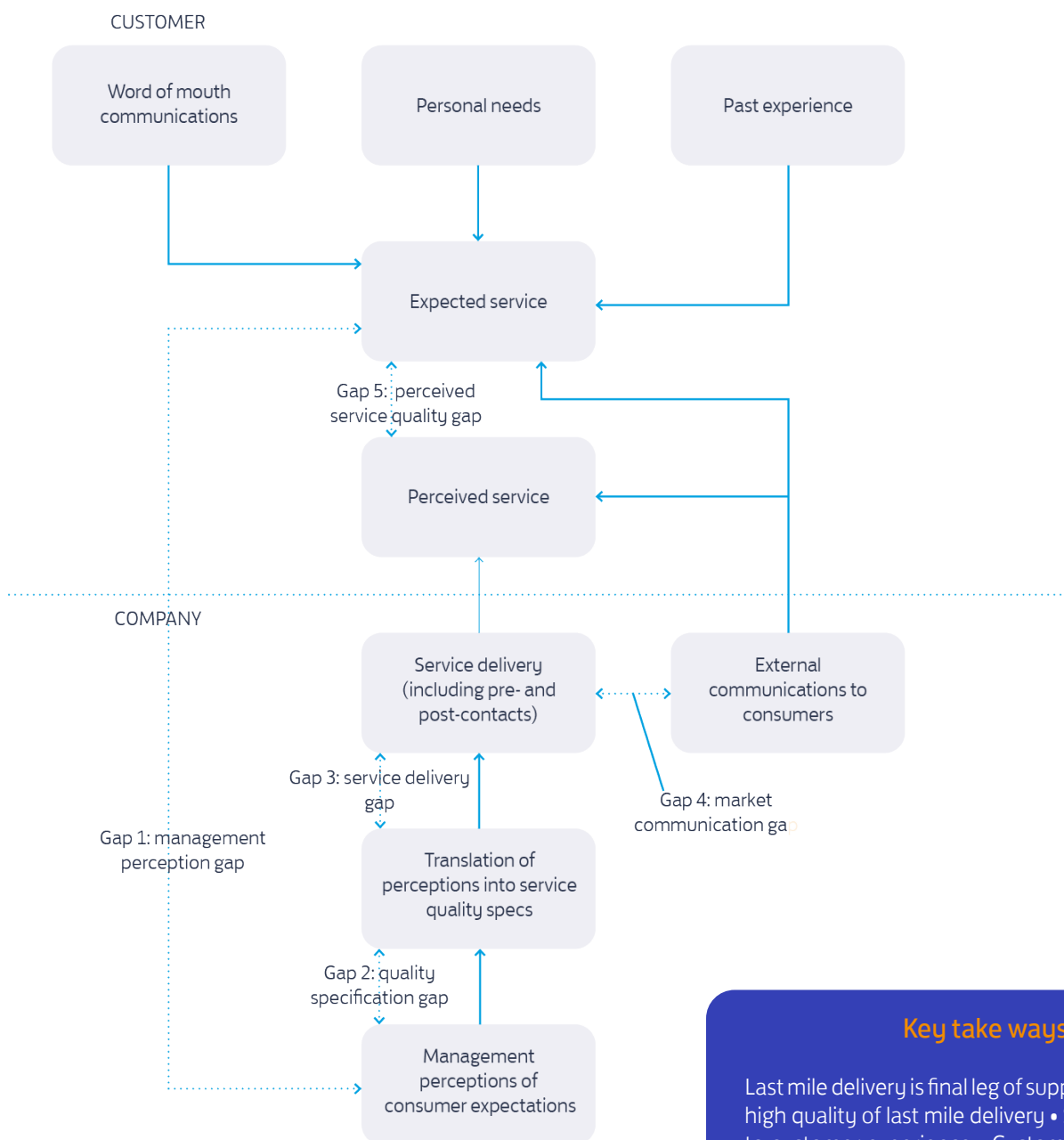


Figure 16: SERVQUAL model

Key take ways Chapter 3

Last mile delivery is final leg of supply chain • Customers demand high quality of last mile delivery • Service innovations are linked to customer experience • Customer journey is used to develop understanding of customers going through a service • Customer journey map is visual representation of this journey • SERVQUAL is a good model to evaluate customer journey along five gaps

4

USER RESEARCH

This chapter describes different user research that were conducted. These user research studies represent three important stakeholders in the project, helping to understand the customer experience of Extra@Home's service.

User research is conducted to gain insight into the customer journey of Extra@Home. Four types of user research are used: interviewing experts, shadowing, interviewing customers of Extra@Home and service safaris. These research studies represent three important stakeholders of the project: mechanics

and delivery drivers, customers and office employees. Each research contributes to the final result of the user research: the customer journey of Extra@Home. In this chapter I will elaborate on each of the user research.

4.1 | INTERVIEWING EXPERTS

To understand Extra@Home as a company, Extra@Home's employees, who are experts within their area of expertise, were interviewed. The interview theory of Van Boeijen, et al. (2014) was used to conduct this interview. This theory consists of the following steps:

1. Interview guide: Make an interview guide, including a list of topics, based on your research questions. Test this guide in a pilot interview if preferred.
2. Interviewees: Invite the right interviewees. Depending on your objective you may interview 3 to 8 people.
3. Interviews: Carry out the interviews. An interview typically takes about one hour and is usually voice recorded.
4. Transcripts: Either make transcripts of what was said or make summarising notes.
5. Analysis: Analyse your transcripts and draw conclusions.

Each step is extensively described below.

1. Interview guide

The aim of this user research was to gain more knowledge about Extra@Home and its operations. To get these insights, Extra@Home's employees were interviewed. These interviews follow an unstructured form. Unstructured interviews do not have questions prepared in advance and are flexible with not knowing the outcome in advance (George, 2022). This setup is preferred for these interviews, because the aim was to gain more knowledge and not specific knowledge.

2. Interviewees

Beforehand, Isabelle indicated a few employees that were useful to talk to. During the interviews the employees referred me to other employees that

could be helpful for my project and knowledge. Table 1 shows their function, what they know and with what subject they helped me with.

3. Interviews

The setup of the interviews were mostly casual conversations, either planned or just by walking by their offices when I was at the office. The duration of the interviews therefore also varied from 5 minutes with just answering one question to 30 minutes with several questions about understanding Extra@Home.

4. Transcripts

Since these interviews were mostly casual I, made notes during the interview. When in doubt, I checked the answers with the interviewee.

5. Analysis

The interviews with the employees helped to understand the operations of Extra@Home in each different section. Interviewing different employees helped to create a holistic overview of Extra@Home.

Results

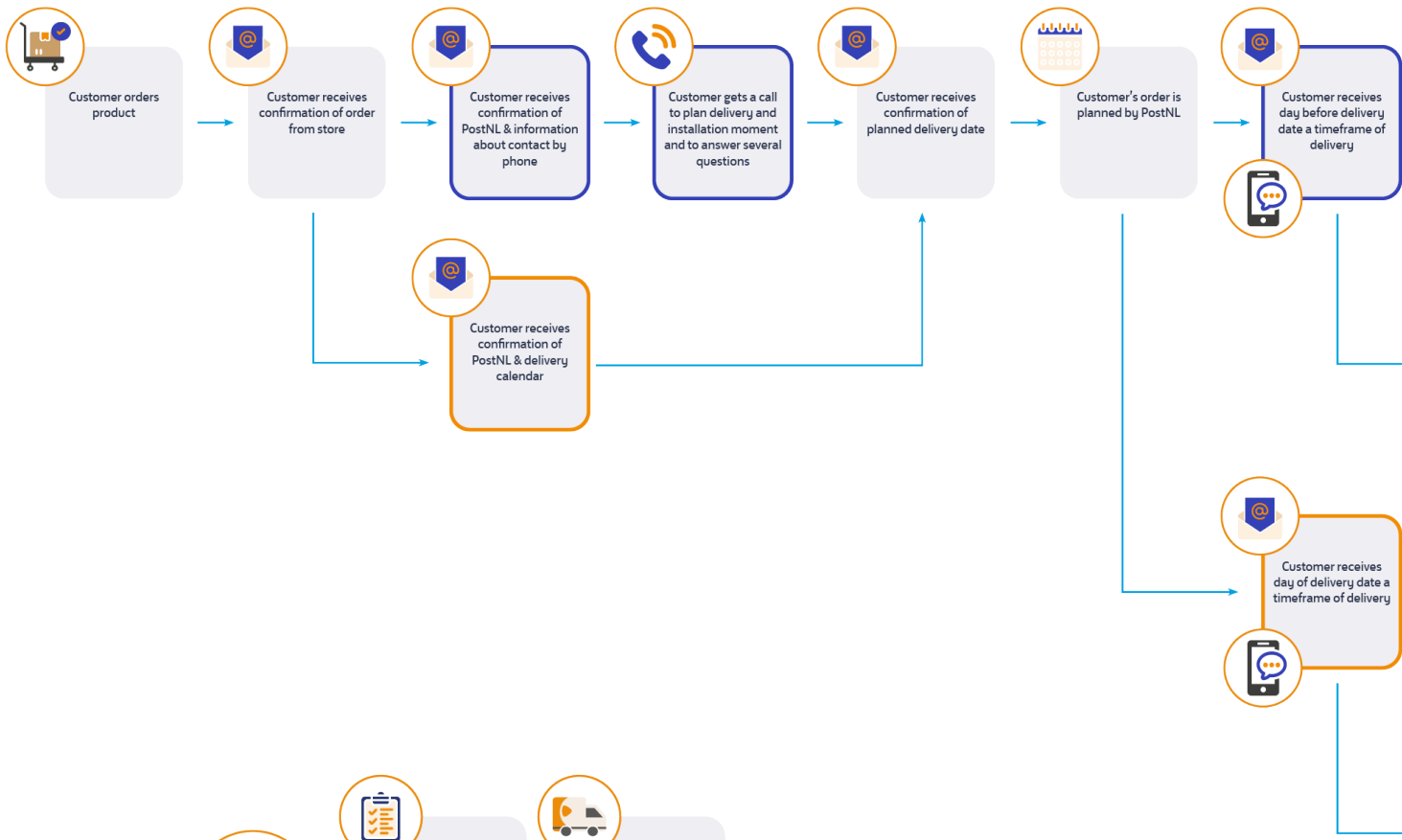
Firstly, an important insight was that the customer journey, created by Olga, was not complete and some steps were missing. Therefore, new journeys were created in Figure 17 on the next page to get a good overview of each of the steps in the service levels. However, if you compare the above-described theory of customer journeys with these customer journeys, it can be concluded that the customer journeys of Olga might not be customer journeys, because no customer experience is involved. It could be described as a last mile delivery journey. Therefore, with the help of user research the customer journey for Extra@Home can be created.

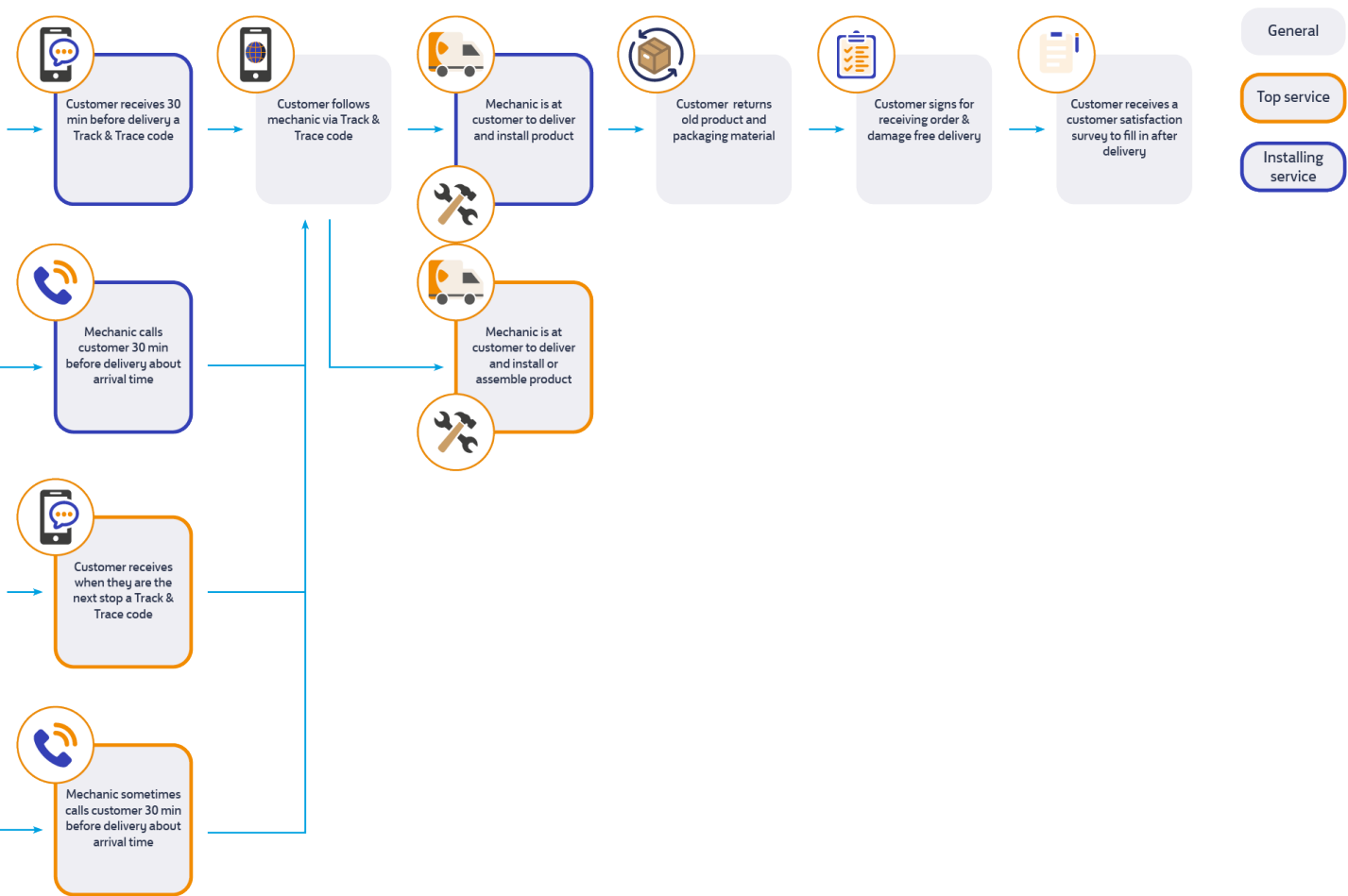
Who	Function	Knows what	Helped with
Isabelle	Business Developer	Everything about Installation service	Gaining knowledge of Installation service/adjusting journeys
Kayleigh	Logistiek Account manager BGV	Everything about Installation service & planning	Gaining knowledge of Installation service/adjusting journeys
Dion	Logistiek Coördinator BGV	Everything about Installation service & planning	Gaining knowledge of Installation service/adjusting journeys
Thijs	Manager Network management Extra@Home	A lot about the logistics of Doorstep and Top service	Gaining knowledge of Doorstep & Top service / adjusting journeys
Daphna	Sectormanager Home&Garden	A lot about the logistics within PostNL	Adjusting last mile delivery journey
Olga	Customer journey specialist	A lot about customer journeys of Extra@Home	Explanation of her customer journeys
Marijn	Account Manager	Everything about JP Haarlem	Gaining knowledge of JP Haarlem
Hamid	Trainer Education & Quality	Everything about the education of Top service's mechanics	Gaining knowledge of Mechanic journey
Peter	Manager Education & Quality	Everything about Top service's mechanics	Gaining knowledge of Mechanic journey
Katinka	HR Business Partner	Previous graduate student Extra@Home	Gaining knowledge of doing research with customers
Frank	Manager Customermanagement	Insights in customer experiences	Finding customers for research
Loes	Account Manager	A lot about Extra@Home	Gaining knowledge of Extra@Home/adjusting journeys

Table 1: Experts interviewed

Furthermore, after interviewing the education manager & trainer of the Top service, the mechanic journey was created, to get insights into what mechanics are supposed to do when executing the service. This mechanic journey is depicted in Figure 18 on the next page. This journey displays how trainers of Extra@Home educate the mechanics of the Top service. As mentioned above, they are mechanics from subcontractors, which means that they may have had different training in how to deliver a service. For mechanics of the Installation service, there is no education, because they are well-educated mechanics and Extra@Home would rather have them have their own way of delivering the service,

than an unsatisfied mechanic that must follow a lot of rules. Indeed, they need to follow some rules, for example making pictures and let the customer sign for delivery, but it is less strict. This policy is also due to the lack of well-educated mechanics that can be employed.





Key takeaways Chapter 4.1

- Interview theory is used to construct unstructured interviews
- Interviews with employees lead to a mechanic journey
- Customer journey by Extra@Home was not complete
- Customer journey by Extra@Home cannot be listed as customer journey, but last mile journey

4.2 | EXPERIENCING A SERVICE DELIVERY

To experience a service delivery with Installation service mechanics, I accompanied a mechanic for a day. Furthermore, a comparison with the mechanic journey in the previous chapter could be made.

The setup of this user research was constructed by the tool 'Shadowing' explained by Stickdorn & Schneider (2012). Shadowing is explained as a researcher immersing themselves in the lives of customers, front-line staff or people behind the scenes to observe their behaviour and experiences. In this case, observations of the front-line staff and customers were made. Stickdorn & Schneider (2012) further argue that spending time within the service environment is often the only way to develop a truly holistic view of how the service is operating.

Setup

During shadowing, as Stickdorn & Schneider (2012) explain, the researcher needs and tries to be as inconspicuous as possible to not interfere with the service. To document the findings, text, video and photographs (Figure 20) can be used. Photos were made during the service delivery and notes were written down after the service delivery to the customer.

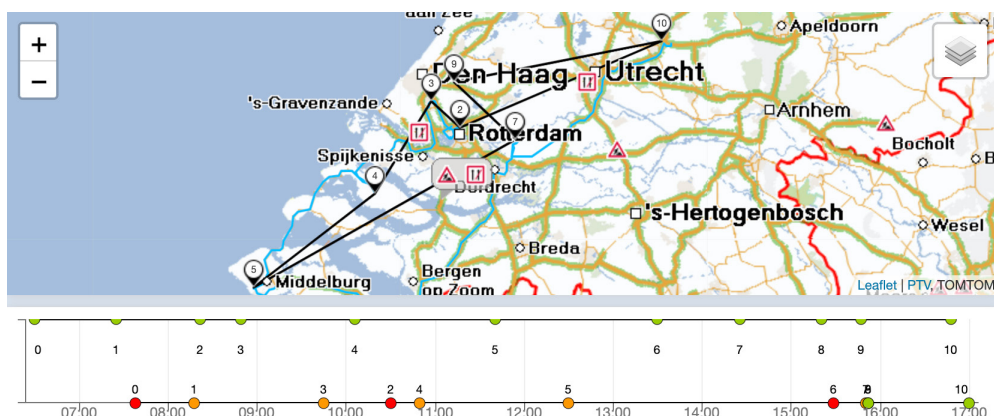
Service delivery experience

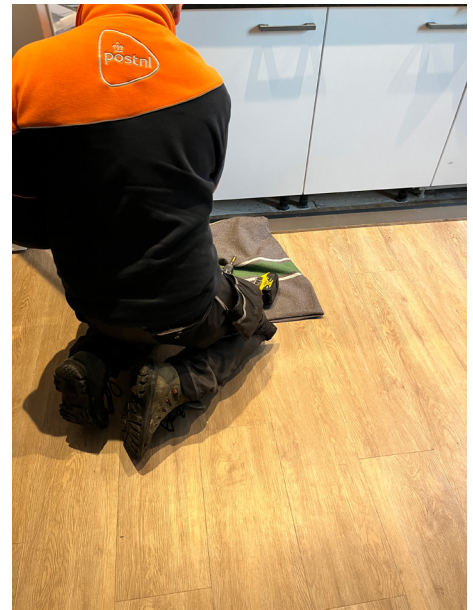
The planned itinerary was Amersfoort - Rotterdam - Delft - Dirksland - Koudekerke - Streefkerk - Zoetermeer - Amersfoort. Figure 19 shows the itinerary.

The first thing the mechanic said was that it was going to be a long trip, because we had to go to Zeeland. A slight annoyance was present, because Wednesdays are supposed to be for Randstad deliveries, but sometimes planners differ from this policy. He said that he is passionate about his job, because he likes

the customer contact, but because of the planner's job he gets to ride very long routes. Moreover, too little time for each customer and long travel time, makes him cancel his last visits, because he wants to be home on time with his wife and kids. This also happened during this trip. In Figure 19 you can see that there are 10 stops. However, 1 & 2, 6 & 7 and 8 & 9 are at the same address, but they are in the system as delivery and collection of old products (something that the client obliges Extra@Home to do). As Figure 19 shows, stops are within the timeframe, but stop 6 is already in timeframe 8 & 9, thus the mechanic cancelled his last stop. We installed an integrated refrigerator, an integrated hob and an integrated heated borrow drawer. At one address nothing was delivered, just properly installing a wine refrigerator that was previously installed incorrectly. During each stop he showed real craftsmanship. The journey of this mechanic does not really deviate from the mechanic journey mentioned above, since he almost executes the same steps in the service delivery. However, he gives his own twist to the service delivery, because as he said he is not a robot.

From the customer's point of view, each customer is happy to welcome him in their home, because he delivers and installs the product or fixes a poorly placed product. One customer did not pick up the phone, but it is policy to still go to the customer even though they do not pick up the phone to tell the mechanics they are home and ready to welcome the mechanic. When we arrived at the address, she was home and the product could be installed. Some customers did not order the products themselves, but their landlord ordered the products for them. A lot of customers expressed their satisfaction when the mechanic collected the packaging material. In the end, every customer was satisfied with his craftsmanship.





Key takeaways Chapter 4.2

- Shadowing tool is used to observe mechanic
- Planning impedes mechanics from doing a good job
- Mechanic is really skilled
- Mechanic performs along mechanic journey, with their own twist
- Customers are happy to welcome mechanic in their home
- Customers like that packaging material is collected

4.3 | INTERVIEWING EXTRA@HOME'S CUSTOMERS

Lastly, to get insights into the customer experience to map out the customer journey, customers of Extra@Home were interviewed. The interview theory of Van Boeijen, et al. (2014) was used again to conduct this interview. Each step is extensively described below.

1. Interview guide

The aim of this user research was to get insights into the customer experience of the Top service and Installation service and is therefore translated to the following research question:

How do customers experience the service delivery of Extra@Home?

To answer this question, several interview questions were set up. The interview follows a semi-structured form. In semi-structured interview questions can vary and mostly the questions asked will respond to the answers given by the respondent (Van Boeijen, et al., 2014). The interview questions are based on the theory of Lankmilier (2022), who uses a three-stage form for in depth interviews that are the basis for customer journeys. Stage 1 is empathy and contextualisation. This stage helps to make the interviewee feel comfortable and introduces questions about the service. Stage 2 is the evaluation of the present, where customers describe their experience with the service in detail. Lastly, stage 3 emphasises the dreams of the future, how customers would view their perfect service. Together with the previous literature review of customer journeys, an interview guide was created (see Appendix D). After doing a pilot interview, as suggested, some alterations were made to the interview guide, to have a more suitable interview to answer the research question.

2. Interviewees

Extra@Home already asks about the customer satisfaction after the delivery by letting the customers fill in a survey. This survey measures the Net Presenter Score (NPS). PostNL chose the NPS method, because it delivers a quick survey, which has a lower threshold to fill in. This method measures to what extent a company is recommended in percentages. Therefore, the question that always remains the same is: 'How likely would you recommend the company to friends or acquaintances?'. This question can be answered with a scale of 0 to 10. Respondents that fill in 0 to 6 are

dissatisfied and are labelled as criticasters. A score of 7 or 8 is passively satisfied and are labelled as passives. Lastly, a score of 9 or 10, meaning high satisfaction, can be labelled as promoters. The score is calculated by subtracting the percentage of criticasters of the total number of respondents from the percentage of promoters of the total number of respondents (Buurmeijer, 2022). 14 random interviewees were selected each representing the two different service levels, different products and different NPS scores. 14 were selected, because the interviews were held over phone, meaning customers might not be able to answer the phone or did not want to do an interview.

3. Interviews

The customers were interviewed over the phone and voice recorded, because after discussing with several employees from Extra@Home, that would be the most convenient way to reach customers. Customers did not know they would be interviewed, thus permission had to be asked prior to the interview. Therefore, in the end after customers not wanting to participate or not answering their phones 9 customers were interviewed. These interviewees represent 3 promoters, 3 passives and 3 criticasters, with orders varying from a refrigerator and washing machine to a sofa bed and bicycle. Their ages varied between 25 and 66. Appendix D shows a characteristics table of the interviewees.

4. Transcripts

Transcripts of the interviews were made with the use of Word transcribing tool and the voice recordings.

5. Analysis

After the customers were interviewed, a clear picture emerged of the customer experience of Extra@Home services. The interviews were analysed using the 'Thematic Analysis' by Braun & Clarke (2006). In the results chapter this method and results will be discussed more elaborately.

Key takeaways Chapter 4.3

Interview theory was used to construct semi-structured interview • Questions for customer journey are asked according a three stage form • NPS is a tool that PostNL uses to measure satisfaction • Interviews were voice recorded • Thematic analysis was used to analyse results of interview

4.4 EXPERIENCING THE COMMUNICATION

To experience the first steps of the customer journey myself, I placed a test order in the system. The theory of the tool 'Service Safaris' by Stickdorn & Schneider (2012) was used to construct this research. In a service safari, researchers are asked to experience a service themselves and to become a customer. These safaris provide useful insights to create a customer journey map.

Setup

For a service safari little tools are required. Normally, people are being asked to record their experience, so recording tools or a notebook can be useful. However, since only the communication part will be experienced, screenshots were taken.

Experience communication

Together with an employee of Extra@Home, a test order was created in the order system they use: DireXtion. The order was placed with an Installation service and a set date for delivery. As the last mile journey shows, normally customers receive an email with PostNL confirming their order. Since the test

order was already placed directly in the system, I did not receive this email.

Emails that were received:

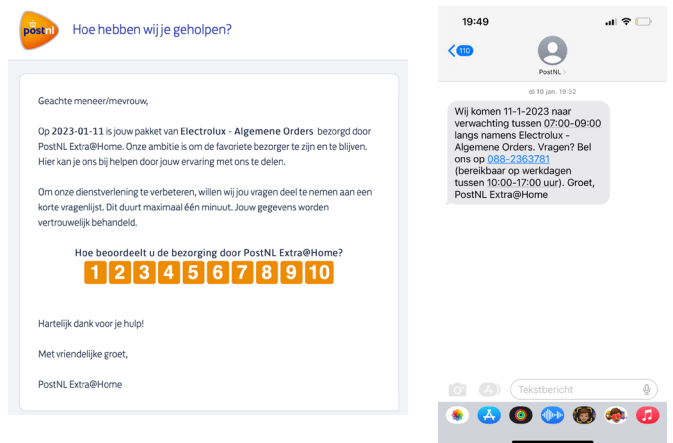
- Confirmation of delivery date (Figure XX);
- Confirmation of timeframe (Figure XX);
- Customer satisfaction survey (Figure XX);

SMS that was received:

- Confirmation of timeframe (Figure XX).

Some insights were generated after receiving this communication:

- The emails are only personalised with order number and address, not with name of customer;
- The emails are written in English and Dutch, except the customer satisfaction survey and SMS, that one is only in Dutch. This might be explained because we filled in the preferred language as Dutch, but there seems to be no consistency;
- The emails are quite long, filled with a lot of text and the SMS is short with only the confirmation of timeframe.



Key takeaways Chapter 4.4

Service safari tool was used to experience communication by Extra@Home • Test order was placed to experience the communication • No personalisation in communication • Language is non consistent • Overload of information in emails and not much information in SMS

4.5 | CUSTOMER JOURNEY

All the previous literature research is the foundation to create a customer journey canvas. Combined with the user research it was possible to create a customer journey of the over the doorstep delivery service of Extra@Home.

As discussed in the literature review the customer journey has three periods along the horizontal axis, the pre-service period, the service period and the post service period. The customer journey also has different categories along the vertical axis. These categories are stages, activities, expectations, pleasure moments and pain moments. The last three are added as suggested by Stickdorn & Schneider (2012) to further analyse each touchpoint. Emotions are left out, because pleasure and pain moments already refer to positive and negative emotions. The interpretation of these categories along the vertical axis are extracted from the interviews using the method 'Thematic Analysis' by Braun & Clarke (2006). This type of analysis helps researchers to go from a chaotic set of data to important themes in the data. The process of this analysis contains six steps:

1. Familiarising: Going through all interview material and getting to know your data. Transcribing is needed if audio recordings were used.
2. Preliminary coding: Assigning codes to the data. A code is a brief description of what is being said in the interview.
3. Searching for themes: Interpretation of the codes is needed. Codes can be clustered to themes.
4. Reviewing themes: Compare themes to data, the themes need to be a good representation of the data.
5. Defining and naming themes: If needed after reviewing the themes, refine the themes established in the previous step

6. Producing report: Presenting the results of the analysis

Below is a description of how each step in the thematic analysis was carried out for interpretation of the categories

1. Familiarising

This step is already done in the previous chapter Interviewing Extra@Home's customers.

2. Preliminary coding

The categories needed for the customer journey were already defined and colour coding was used in each interview transcript to distinguish these categories. Additionally, codes were added to these colour coded phrases.

3. Searching for themes

The codes identified in the previous step were if necessary thematised and clustered. These clusters are the beginning of the interpretation of the activities, expectations, pleasure and pain moments.

4. & 5. Reviewing themes & defining and naming themes

Every interpretation of the data is analysed if it would represent the data correctly. After this was confirmed, the codes were further defined by giving them the right and explaining names.

6. Producing report

Together with some generated insights from the other user research, the customer journey in Appendix E is the final representation of the obtained data from the user interviews.



Stages

Each period of the customer journey will be shortly described by the customer's stages and activities. The stages are displayed in Figure 25 and the activities in Figure 26 and 27 on the next pages.

Pre-service period

The pre-service period explains the period before the actual service delivery: the delivery of the package and an optional installation or assemblage. Firstly, the customer identifies their need for wanting or needing a new product. After this need is identified, the research for the right product starts. Once the right product is selected the ordering of the product and service starts. When the order is completed, the delivery date process starts, with emails and phone calls and delivery date can be planned according to the customer's preferences. Once the delivery date is set, the customer receives information about the delivery and timeframe by email and SMS. On the delivery day, the customer receives a Track & Trace link to follow the driver and a call by the driver when they will arrive.

Service period

The actual service delivery is rather small and consists of less activities than the pre-service period. After the customer receives the Track & Trace link and a phone call by the driver, the delivery of the product and service starts. While the pre-service period is quite standardised, the service period is more personalised to the customer. The product that is delivered is dependent on the customer. The service that will be delivered is dependent on the product and the customer's preferences. Within the service Extra@Home also offers the option to recycle the old appliance and the packaging material.

Post service period

After the recycling phase, the post service period starts. The mechanic asks the customer to sign for damage-free delivery and will leave the house. The customer then receives a follow up with a customer satisfaction survey. If the customer is satisfied or dissatisfied, they will share their experiences about the service with their friends and family.



Figure 25: Customer journey stages

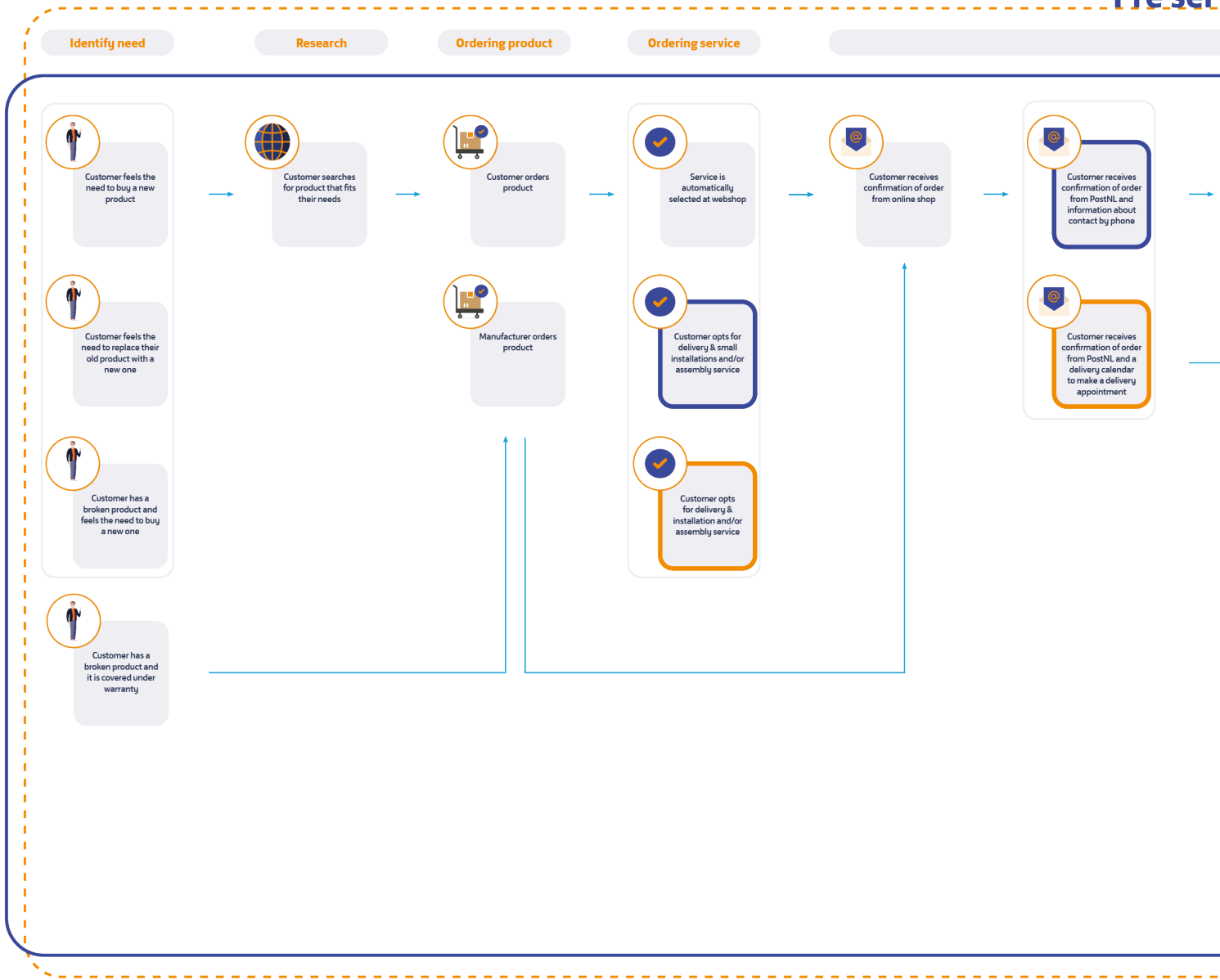
Key takeaways Chapter 4.5

- Theory of thematic analysis was used to construct analysis
- Analysis leads to customer journey
- Expectations, pleasure and pain moments are included in the customer journey
- Coding leads to constructing these categories
- Customer journey has three periods

Stages

Activities

Pre ser



Pre service period

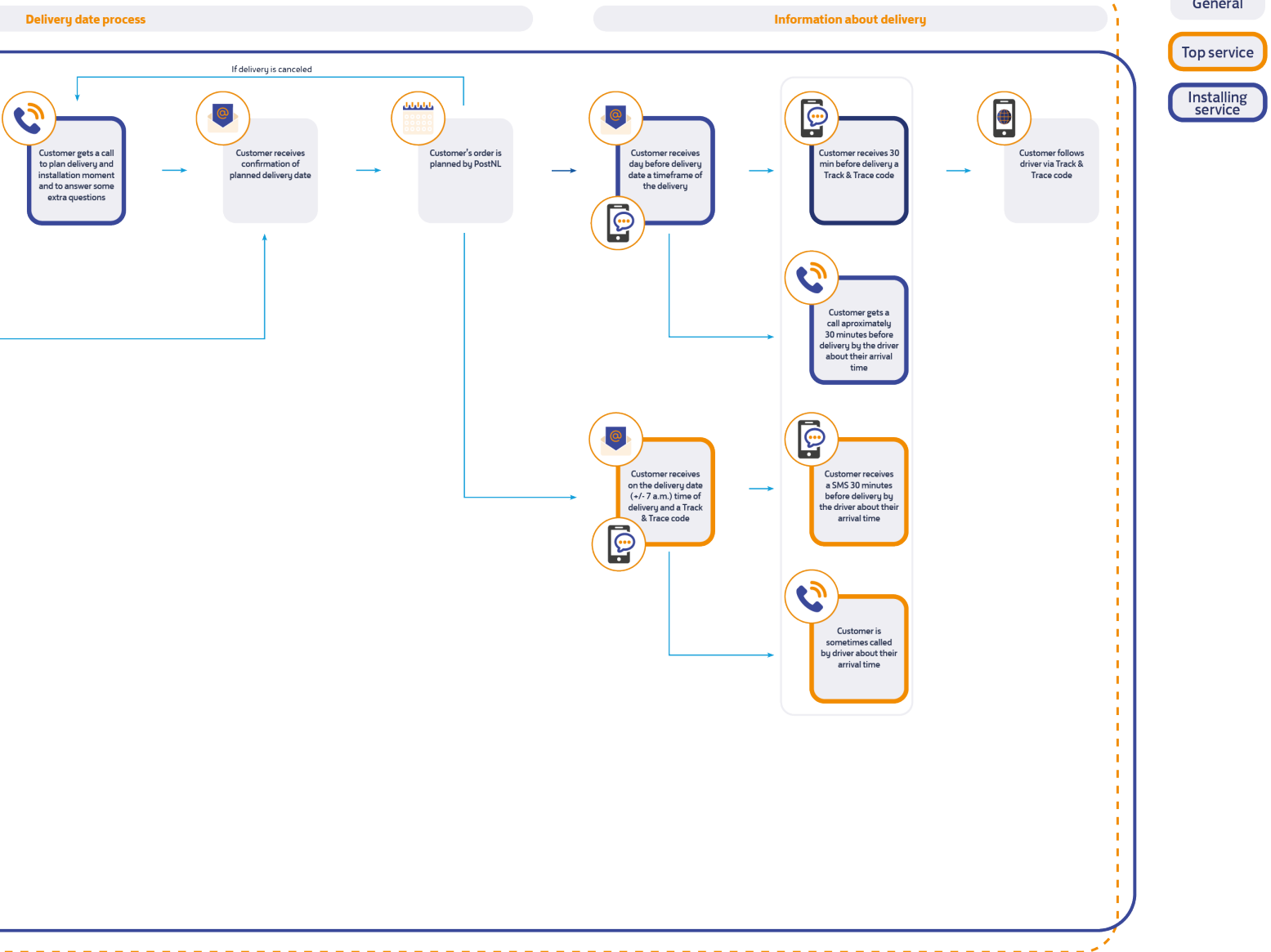
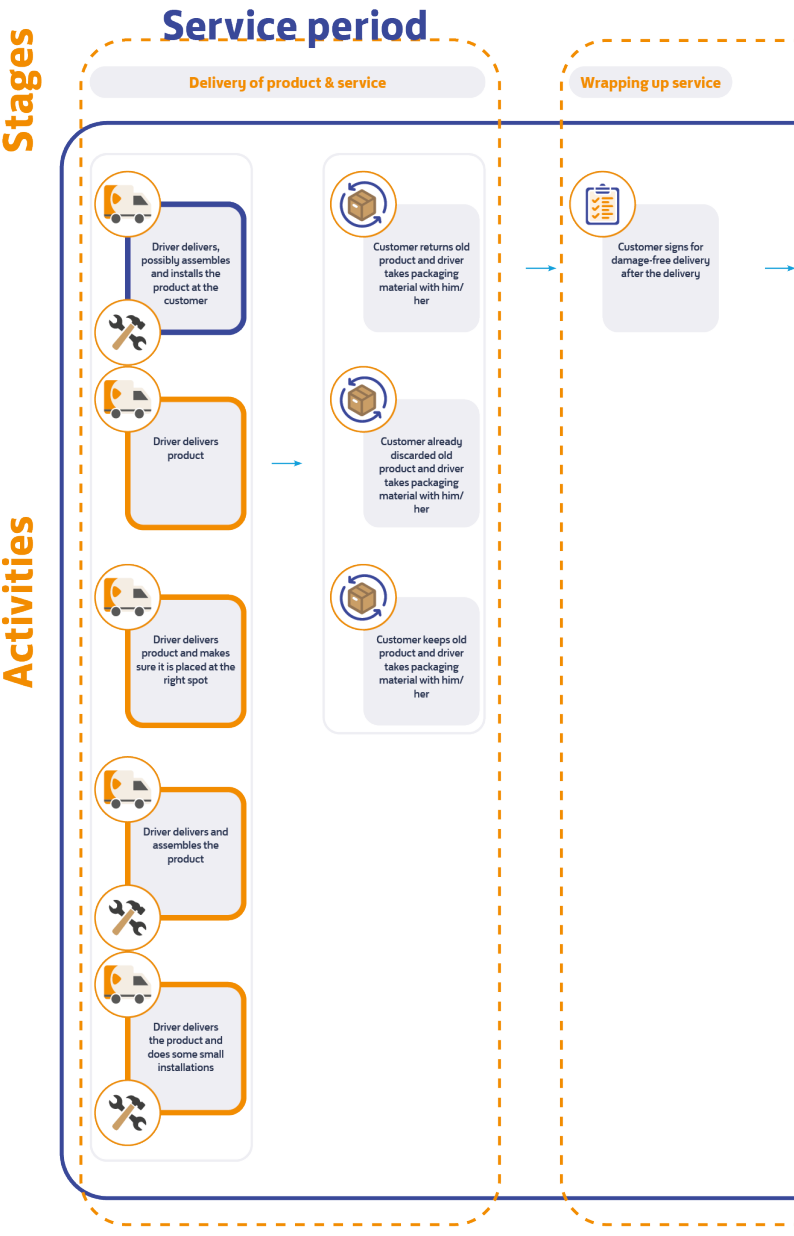


Figure 26: Pre service period

This page displays one of the three periods, namely the pre service period. On the next two pages the service and the post service period are displayed.



Post service period



Figure 27: Service and Post service period

4.6 | CUSTOMER EXPERIENCES

Before reviewing the customer journey with the SERVQUAL model, some more clustering of the previous thematic analysis was done. These clusters led to the overall customer experiences of Extra@Home's service. Below the clusters are depicted, together with quotes of the interviewees. The pain moments are clustered to negative customer experiences and the pleasure moments are clustered to positive customer experiences. Negative customer

experiences will be used for evaluating the customer journey with the SERVQUAL model. Positive customer experiences will be used to describe the strengths of Extra@Home.

Besides seven clusters coming from the interviews with customers, two interesting insights emerged during the other user research. These insights are described in the final two clusters.

Negative customer experiences

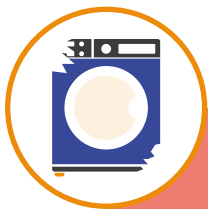


Products are not delivered on agreed date and or time

A lot of customers complain about products not being delivered on the agreed date or time. Either deliveries are cancelled because mechanics experience delays in their route, the order does not fit in the van of the mechanics, so it will be left in the depot or it does not fit in the planning the planner made the day before.



"I am ready on Friday morning for the delivery and I open my mail which shows that the night before at 10.15 pm a mail was sent saying: Good that we have made an appointment for the 25th (which was the next week). And I am like, I do not know anything about that."



Products are damaged

Products are delivered with damages, either made by the client in their distribution centre, made by the mechanic when loading the products, during the trip if a driver does not secure the products in the van or during the delivery to the right spot.



"The product was carried with a trolley, but when it was pulled back the product almost fell off. So I said, please put it there, I will handle it further, to not have any more damages. Also when I looked in the van, no products were secured."

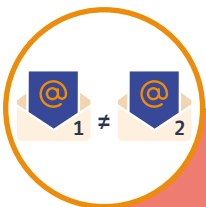


Customers do not know about the service and that delivery drivers are skilled

Because the service of Extra@Home is still unknown, customers do not know that products can be installed by PostNL, because they still see PostNL solely as a package delivery company.



"I did not expect PostNL to bring my order in the first place, because I had the idea that PostNL was just a regular delivery service and just handling logistic stuff? PostNL is pretty decent with that, but installation by PostNL and a special skilled team was totally unknown on my part."



Communication is deficient

Communication from Extra@Home is not always on the same standards. Customers are sometimes not aware of a cancelled delivery, are not reached through the same communication channels as previous channels or are not contacted on the promised date.



"I would be contacted by phone within two days to make a delivery appointment. Well, two days turned into three, because I was called on Friday, even though the order was placed on Tuesday."



It is hard to reach Extra@Home

Firstly, customers do not know how to reach Extra@Home, because the contact details are not always easy to find. Furthermore, as I experienced while working at the office, only one employee keeps the line open for Installation service. When this employee must do another job, the line will be closed and customers cannot reach Extra@Home.



"If a planned route gets cancelled, make a call or send a SMS, because now I received from a completely different mail address a no reply message. I could not do anything with it, it had no contact details. Please send, if you always communicate over SMS, also a SMS if the delivery is cancelled."



Customers feel not heard after bad delivery

During the interviews some customers showed some relief when I called them. They thought PostNL would do nothing with their completed survey and the phone call felt like an outlet for their problems.



"Very nice of you to call me, I did not expect that. I thought I just filled in the survey and now it will end up in the pile. It's very nice for PostNL that they can say that they 'listen to their customers' but they will do nothing with it. So, I am happily surprised"

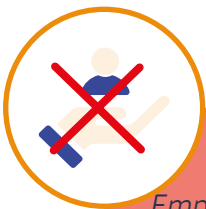


Information of customer is not processed

Customers are called for the delivery with Installation service to ask questions about their living situations. Customers of Top service must fill this in on the seller's website, but in both situations the information is not always processed to the delivery information. This could mean that the planner plans one person for example for a two men job.



"10 or 15 minutes before the delivery I received a call and questions were asked. Do I live on the ground floor or first floor, whatever. And I thought this was a bit too late, because they should have known it a, because I specified that at my order"



Insight from other user researches

Employees at Extra@Home do not always care about the customers

The first time I experienced this insight, was when driving along with the mechanic. He told me the following:

Furthermore, when collecting the right interviewees for my user research I had a meeting with one of the customer managers at Extra@Home. When explaining my research to him, he asked me the following:



"I love my job and meeting people, but sometimes the planning makes me not like my work and I have to cancel orders"

"What do you mean with customer journey? We already have a customer journey expert"



Customer journey created by Extra@Home does not match this customer journey

It is important to be critical towards the current customer journey expert. Her job is to run the customer journey of Extra@Home smoothly, but if you compare the customer journey, which can be seen more as a last mile delivery journey, to the created customer journey, important stages are missing.

Positive customer experiences



Mechanics are very skilled

As experienced at the service delivery of the mechanic and as some customers mentioned, the mechanics within Installation service show real craftsmanship. Some comments were made about the mechanics of Top service, they are also very handy and willing to think along.



"I forgot to unplug the dryer. Normally you have to do that, but they were friendly enough to help us with it, yeah that was really kind."



Customers are pleasantly surprised by the service

As mentioned above, customers do not always know what the service of Extra@Home is and they think it will be just a XL parcel delivery. However, when the mechanics deliver the service, they are pleasantly surprised with it.



"Well, I actually thought very special that they are also installing. I already arranged for somebody to install my refrigerator and I already removed the old refrigerator myself. I was not sure if they would really do that, so I did everything myself, even though it was not necessary, but I was really surprised."



Customers think it is nice that the delivery drivers collect the packaging material

Each customer was also quite surprised that the delivery drivers collected the packaging material. It was not really mentioned in the communication and expected by the customer, but it is a standard service of Extra@Home.



"Actually, what I did like was that they took all of the packaging material with them."



Customers are pleased with the contact after their filled in survey

Even though customers sometimes feel unheard and the interviews felt more like an outlet, they did enjoy it when they were contacted although they already filled in the survey.



"Yeah, you know, make an effort, then you show that you want to improve."



Friendly delivery drivers

Regardless of whether a delivery went well or badly, every interviewee commented on the friendliness of the delivery drivers. Even though they might have done something wrong, or something had gone wrong with the delivery, the delivery drivers remained friendly.



"The only thing that went wrong was the first delivery, however they were very friendly and nice and they did their job correctly. I have no remarks on that."



Sometimes communication went well

If everything went right and a customer had a high NPS, they were also satisfied with the way they were contacted.



“I received notifications throughout the dates with updates on my delivery, so that was perfect.”

Key takeaways Chapter 4.6

Clustering of thematic analysis helps before evaluating customer experiences • Pain and pleasure moments are clustered to seven negative customer experiences and six positive customer experiences • Insights from other user researches are clustered to two negative customer experiences

5

DESIGN BRIEF

This chapter is the definition phase. Key takeaways from all previous chapters lead to two design directions. In this chapter, the design direction is chosen and further specifications for this design goal are established.

5.1 | DESIGN DIRECTIONS

As mentioned in Chapter 3.3, the SERVQUAL model is a useful tool for evaluating customer experiences. In the previous chapter, these customer experiences were clustered into nine negative customer experiences and six positive customer experiences.

In Chapter 3.3, each gap is extensively explained. If all the customer experiences are categorised under the gaps, it will give the following outcome (see Figure 28).

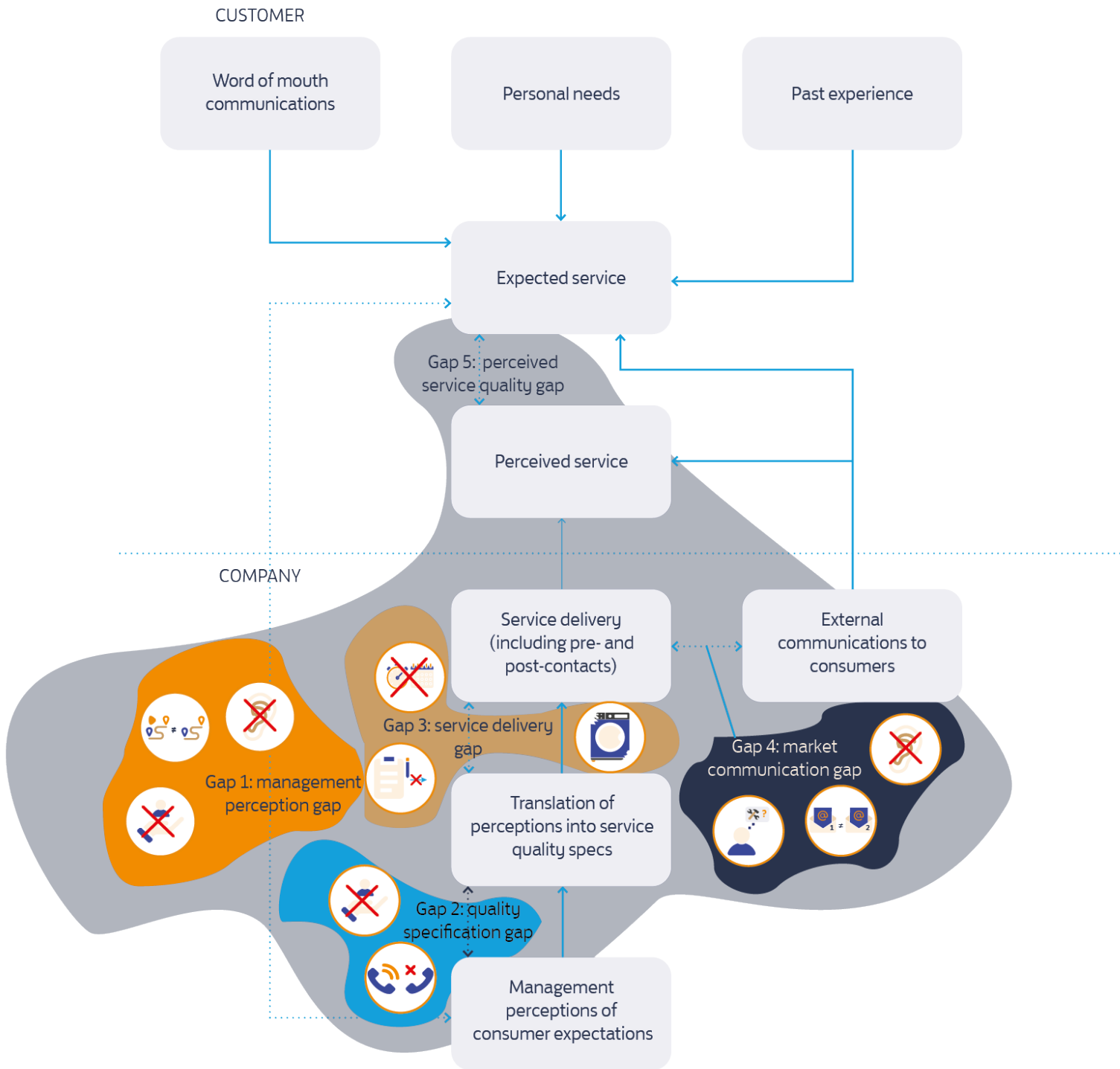


Figure 28: SERVQUAL evaluation

Gap 1: management perception gap

- Employees at Extra@Home do not always care about the customers;
- Customer journey created by Extra@Home does not match this customer journey;
- Customers feel not heard after bad delivery.

These three customer experiences are labelled under gap 1, because they are all caused by the management not always understanding what the customer expects. This occurs because employees do not care about the customer, so they do not know and understand the customer's expectations. Furthermore, if the customer journey created by Extra@Home differs from the actual customer journey, it seems that the management has the wrong perception of what customers expect and what is actually happening. Lastly, during the user research it turned out that customers expect some kind of follow up after a bad delivery experience, which seems to be unknown by the management.

Gap 2: quality specification gap

- It is hard to reach Extra@Home;
- Employees at Extra@Home do not always care about the customers.

Gap 2 contains these two customer experiences, because the management has translated the customers' expectations into a policy that does not answer the customers' expectations. This leads to employees not always being able to answer the phone, because they have other job duties, such as planning the orders and calling the customers to confirm delivery dates. Moreover, as the mechanic said during shadowing, the expectations set by the management are not always feasible for the employees. This leads to employees cancelling appointments involuntarily, where customers suffer from.

Gap 3: service delivery gap

- Products are damaged;
- Products are not delivered on agreed date and or time;
- Information of customer is not processed.

The service specifications set by the management are on a high standard. Apparently, the employees executing the service do not always deliver the service according to the set specifications. Products are damaged and not delivered on an agreed date or time. Additionally, customers need to give information about their living situations, but this information is sometimes not processed. This leads to employees not being able to execute the service, because they might be alone when they need to be with two to carry the parcel upstairs.

Gap 4: market communication gap

- Customers do not know about the service and that delivery drivers are skilled;
- Communication is deficient;
- Customers feel not heard after bad delivery.

This gap is created by these three customer experiences. The communication sent out to the customers before experiencing the delivery is often deficient and communicates different things. Therefore, customers do not know the service that is about to be delivered. Furthermore, Extra@Home promises to listen to their customers, but after a bad experience with a delivery and filling in of the customer satisfaction survey, no action is taken by Extra@Home. The customers were relieved that they could express their dissatisfaction in the interview.

Gap 5: perceived service quality gap

As explained in section 3.3, gap 5 depends on all of the above mentioned gaps. If all the previous gaps would not exist, gap 5 would also not exist.

All five gaps lead to non-desired customer experience. To improve the overall customer experience, propositions for design directions need to be discovered. When diving deeper into the gaps, two main factors are mainly responsible for the gaps occurring. These two main factors can be proposed as directions for further designing. Gap 1 en 2 may occur because of discrepancies within the organisation, mostly caused by employees, either by the management or the service staff. This can refer to a lack of customer-orientation in Extra@Home. Therefore, direction 1 is called: “Extra@Home can be more customer-oriented”.

The other factor that causes gap 3 and 4, can be explained as discrepancies within the service. These gaps arise because the service is not always to the customer's satisfaction. This can refer to a lack of user-centricity in the services of Extra@Home and this leads to direction 2: “Services of Extra@Home can be more user-centred”. Customer orientation and user centricity are already mentioned in the core values of PostNL (see Figure 29). On the next page more explanation is given about this link.

The orange compass

Answers with explanation

Desired customer experience

What we would like our customers to say about us



Makes it happen

At PostNL, I know it will work out. I don't need to worry about it and can rely on it. They are clear about what I can expect. They always make it easy for me.

Works with me

PostNL aligns directly with my life. They help me. They pay attention to me, to new developments, society and tomorrow's world.

Makes me happy

PostNL is always near and is there for me. They are friendly, involved and make it personal. I look forward to working with them.

Desired employee behaviour

How the people who work for and with us ensure that the customer experiences it like this



Do what we promise

I am there for the customer. An agreement is an agreement. It's that simple. The customer always comes first, even if something goes wrong. I'm always clear and open about that. I come up with solutions. I just take care of it.

Stay one step ahead

I have a keen eye for new opportunities. I predict a question coming. I assess how I can contribute to a clean, green world. If I can't do something right now, I will be able to soon. That's what I go for.

Connect and surprise

Every point of contact is a valuable moment. I make it personal and always go for a smile. If we do it together, we come up with something great. It's important to me that I give just that little bit extra where I can.

Optimal working environment

The type of working environment required to make it possible for all employees.



Just deliver

We have a can-do attitude. We get the space and we take responsibility. If something doesn't work out, we find ways of solving it together. We just do it.

Smarter every day

Every day, we do our best to provide a better service for the customer. We know what's going on and there's room to try things out and learn. We are constantly working on smart solutions and a sustainable future.

Look out for one another

People come first. We have an open atmosphere in which we can say anything. If there's something standing in the way of that, we discuss it. We value and trust each other. Together, we get it done.

Optimal leadership

What this requires of our management team and all managers.



Making it possible

I make sure that the basics are in order and that processes and systems are simple. I actively ask questions and listen carefully to what's going on. Everyone needs to be able to work effectively.

Providing support and guidance

I monitor the whole and bring about improvement and innovation. I aim for a sustainable future, for the company, employees and society. I create energy in my team so that they contribute to this.

Enabling connections

I ensure good, pleasant collaboration both within the team and with others. I make sure everyone achieves their potential. I give my attention and trust, and I appreciate it when people take initiative. I care about the individual and am visible.

Figure 29: Orange Compass



Figure 30: Direction 1

Direction 1: Extra@Home can be more customer-oriented

This direction (Figure 30) refers to Extra@Home's internal operating processes. The gaps in this direction occur, because employees are largely responsible for these customer experiences. These gaps can be reduced when the employees become more customer-oriented. Customer-orientation is, according to Luo & Seyedian (2003), the belief that understanding and satisfying customer needs should be an organisation's priorities. Brady & Cronin (2001) further stretch this definition to an organisational culture that puts the customer at the centre of strategic planning and execution and employees should consistently perform with customer-oriented behaviour. PostNL already emphasises customer-orientation in their Orange Compass. This direction can be linked to 'Desired employee behaviour' in Figure 29. In this theme, they describe how they want their employees to behave along the three core values, to improve the customer experience.

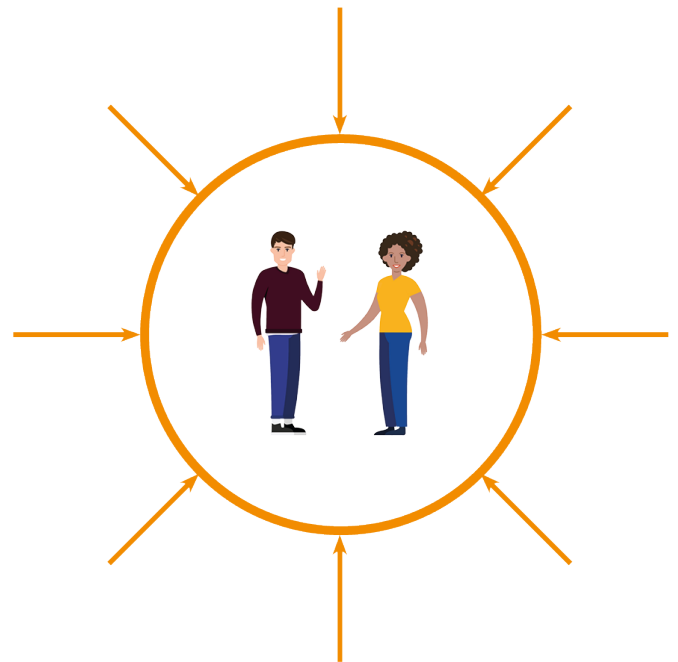


Figure 31: Direction 2

Direction 2: Services of Extra@Home can be more user-centred

This direction (Figure 31) refers to Extra@Home's external operating processes. The customer experiences occur in these gaps, because the services are not optimally designed to get desired customer experiences. To achieve positive customer experiences, the service of Extra@Home needs to be more user-centred. In the book *This is Service Design Thinking* by Stickdorn & Schneider (2012), they mention that 1 of the 5 principles of service design thinking is that a service needs to be user-centred. This means that the customer needs to be put at the centre of the service design process. Yu & Sangiorgi (2017) argue that companies should not be based on the principle of how to persuade customers to fit in their service offering, but on the principle of how to situate the service offering into customers' experiences. PostNL also emphasises user-centricity in their Orange Compass. It can be linked to 'Desired customer experience' in Figure 29. In this theme they describe how they want customers to feel about PostNL, to improve the customer experience.

Key takeaways Chapter 4.7

- SERVQUAL model is used to evaluate customer experiences
- Each cluster is categorised under the four gaps
- Two main factors can be distinguished that lead to gaps
- Factors are reframed to design directions
- 1: Extra@Home can be more customer-oriented
- 2: Services of Extra@Home can be more user centred

5.2 | CHOSEN DIRECTION

In the previous chapter, two interesting directions were proposed to possibly design further on.

Direction 1: Extra@Home can be more customer-oriented

Direction 2: Services of Extra@Home can be more user-centred

However, before continuing with the desired direction it is important to discuss together with Extra@Home what direction they want to follow in consideration of all useful key takeaways.

Firstly, conversations with Extra@Home led to a preference for the direction of ‘services can be more user-centred’. This is substantiated by the fact that Extra@Home wants a short-term solution, and they think that this direction will come with a short term solution, instead of changing the organisational culture, where direction 1 tends to go. Furthermore, they want to improve the customer experience and they think direction 2 will lead directly to improved customer experience, while direction 1 might be more indirectly related to customer experience, because they have to change employee behaviour.

For Extra@Home to compete with companies such as Vonk, Coolblue and Expert, it is important to see which direction could bring a competitive advantage for Extra@Home. All of the competitors make sure their service runs smoothly and is user-centred. For Extra@Home to stay competitive, it is important to make sure the service also runs smoothly and is user-centred. Moreover, as mentioned in the trend analysis, in order to stay competitive, companies need to keep on innovating their services. However,

in order to be more innovative than the competitors a competitive advantage must be created. The competitive advantage could be created by tackling the problems that all companies seem to deal with: lack of communication towards customer, company is hard to reach, damages to the product that will be delivered, late deliveries, not delivered on agreed day or delivered service does not match to what is promised. This could be solved creating a more user-centred service.

Combining the comments of Extra@Home and the competitor analysis, leads to continuing with direction 2: Services of Extra@Home can be more user-centred.

The problem is that there is a lack of user-centricity in the services of Extra@Home. This leads to following negative customer experiences:

- Products are damaged;
- Products are not delivered on agreed date and or time;
- Information of customer is not processed;
- Customers do not know about the service and that delivery drivers are skilled;
- Communication is deficient;
- Customers feel not heard after bad delivery.

User-centricity can be achieved, according to the core values of PostNL in the Orange Compass, by keeping it simple, making it smart and doing it together. In the Orange Compass these are adjusted with the theme ‘desired customer experience’ to the following three pillars (see Figure 32):

- Makes it happen;
- Works with me;
- Makes me happy.

The orange compass

Answers with explanation

Desired customer experience

What we would like our customers to say about us



Makes it happen

At PostNL, I know it will work out. I don't need to worry about it and can rely on it. They are clear about what I can expect. They always make it easy for me.

Works with me

PostNL aligns directly with my life. They help me. They pay attention to me, to new developments, society and tomorrow's world.

Makes me happy

PostNL is always near and is there for me. They are friendly, involved and make it personal. I look forward to working with them.

Figure 32: Orange Compass desired customer experience

5.3 | DESIGN GOAL & REQUIREMENTS

In the previous chapter the design direction (Figure 33), services of Extra@Home can be more user-centred, was chosen to continue for designing.

This direction is translated into a design goal:

'I want to design a service for Extra@Home that is user-centred and complements the core values of PostNL'

If the design goal is broken down into design requirements, the main theme remains that the design should be user-centred. As explained by Stickdorn & Schneider (2012) user-centricity means that the customer needs to be at the centre of the design process. Therefore, it is important to consider the negative customer experiences that occur in this direction when designing.

Thus, one of the design goals is to listen to what the customers want. The customer experiences under gap 1 and gap 2 are translated to requirements that meet customers' demands:

- The customer wants no damaged products;
- The customer wants parcels delivered on agreed time & date;
- The customer wants their information correctly processed;
- The customer wants to know what to expect of the service delivery;
- The customer wants clear communication;
- The customer wants to feel heard after a bad delivery experience.

Furthermore, as mentioned in the previous chapter, a competitive advantage could be created by tackling the issues all delivery companies deal with. Therefore, the issues are translated into requirements:

- Everything should be communicated towards the customer;
- The company should be easily reachable;
- The products should not be damaged that will be delivered;
- The order should be delivered on agreed time and date;
- The delivered service should be the same as what is promised.

Lastly, another main theme is that the design has to suit the core values of PostNL. Therefore, the Orange Compass 'desired customer experiences' is translated into requirements that meets PostNL's demands:

Makes it happen:

- PostNL wants customers not to worry;
- PostNL wants to be clear about what customers can expect;

Works with me:

- PostNL wants to pay attention to customers, new developments, society and tomorrow's world.

Makes me happy:

- PostNL wants to be close to customers;
- PostNL wants to be personal, friendly and involved.

All requirements are clustered into six summarising requirements (see Appendix F). These six clusters are:

Transparent communication, connection with customers, correctly processing of information, on-time delivery, careful delivery and future proof.



Figure 33: Direction 2

6

IDEATION & CONCEPTUALISATION

In this chapter the developing phase starts. Possible design solutions for the set design goal are explored. Brainstorming led to three possible solutions for evaluation. This evaluation leads to concept exploration.

6.1 IDEATION PROCESS

After the define phase ends, the develop phase starts. In this phase the previous set of design requirements are translated into possible design solutions. While keeping in mind the design requirements, brainstorming as a tool was used to start ideating. As Van Boeijen et al. (2014) described, brainstorming can be useful during each phase of the design process, but especially when starting up the generation of ideas after defining the design problem and the first set of design requirements.

In the design goal, six requirements from customer experiences were derived. Furthermore, three interesting themes, based on the core values of PostNL, from the Orange Compass were derived. These were the input for the brainstorming session to generate interesting ideas for Extra@Home to achieve desired customer experience and for the service to become more user-centred. The three themes were central in the brainstorming session (Appendix G) and led to the following three ideas:



Feedback@Home

The first idea is called Feedback@Home and it centres around the theme: 'Makes it happen'. To the existing service of Extra@Home a feedback system will be added. The customer can give feedback to Extra@Home at any time through a feedback app. Once a month the feedback will be analysed by employees of Extra@Home and they can see which feedback can be implemented into their services.



Mechanics@Home

The second idea is called Mechanics@Home. The theme involved in this idea is: 'Makes me happy.' The service of Extra@Home will incorporate the mechanics in every step of the service process. Customers want to be happy in every step of the process and as the interviewees described, they were almost always happy with the friendly delivery drivers/mechanics. The mechanics will become the face of Extra@Home and in each communication step the mechanics will be named. It makes it more personal, instead of just receiving standardised messages.



PostNL@Home

The last idea is called PostNL@Home and it centres around the theme: 'Works with me.' It is based on the concept of a platform. The idea is that PostNL will not only be the deliverer of products but will also provide a place to sell the products of their clients on a platform. Customers know what to expect from their delivery company, because they are also the 'selling' company. Communication will be centralised and in one click a customer can get everything they need in their life and have it delivered and installed by the same company.

6.2 | EVALUATING IDEAS

To deliver the optimal solution for Extra@Home, all the previous ideas were evaluated along different factors contributing to continuation for concept development. These factors are the design requirements, positive customer experiences and key takeaways.

Firstly, all of the ideas were evaluated with a Harris Profile (see Figure 34) along the set requirements in the design goal. A Harris profile displays the strengths and weaknesses of designs with the use of requirements. It helps to decide with which idea

to continue with (Van Boeijen et al., 2014). The requirements from Chapter 5.3 are used for the Harris profile. They are ranked on importance for the project. The importance is evaluated by the number of requirements in the cluster and the combination of PostNL core values and user-centred requirements. The requirements are subjectively evaluated by selecting --, -, + or ++.

The profiles next to each other show that Mechanics@Home has the best overall score.



Feedback@Home



Mechanics@Home



PostNL@Home

	--	-	+	++
Transparant communication			■	
Connection with customers			■	
Correctly processing of information	■	■		
On-time delivery	■	■		
Careful delivery	■	■		
Future proof			■	■

	--	-	+	++
Transparant communication			■	■
Connection with customers			■	■
Correctly processing of information			■	■
On-time delivery			■	
Careful delivery			■	
Future proof			■	

	--	-	+	++
Transparant communication			■	
Connection with customers			■	
Correctly processing of information			■	■
On-time delivery		■		
Careful delivery			■	
Future proof			■	■

Figure 34: Harris profiles of three ideas

Secondly, as mentioned in Chapter 4.6, the customer did not only have negative experiences with the service, but also six positive customer experiences. They can be used to describe the strengths of Extra@Home. Therefore, it is also interesting to test the ideas with the positive customer experiences, to see if the strengths can be used for these ideas. The positive customer experiences are translated into likes of the customers:

- The customers like that the mechanics are skilled;
- The customers like the surprise of the service;
- The customers like collection of the packaging material;
- The customers like contact after filled in survey;
- The customers like friendly delivery drivers;
- The customers like if communication goes well.



Feedback@Home

- ✓ The customers like contact after filled in survey;
- ✓ The customers like if communication goes well.



Mechanics@Home

- ✓ The customers like that the mechanics are skilled;
- ✓ The customers like friendly delivery drivers;
- ✓ The customers like if communication goes well.



PostNL@Home

- ✓ The customers like if communication goes well.

Lastly, key takeaways were collected throughout this report. Insights from the future context and competitor analysis are useful to check the ideas, to see if they have potential to survive in the current and future context.



Feedback@Home

Feedback@Home follows the trend of customers having higher expectations of services. These expectations are sometimes unknown by the company.

With Feedback@Home, the customers can give feedback and express their thoughts, so the Extra@Home knows what customers expect of the service. Furthermore, in the competitor analysis good communication is positively received by customers. Feedback@Home can respond to this demand of good communication. A lot of feedback was already given about the current communication and some small changes could already improve this communication.



Mechanics@Home

Mechanics@Home follows the trend of personalisation, because a personal approach can make the customers feel special.

Throughout the whole customer journey the personal approach could be realised. Personalisation in services will also persuade the customers to choose Extra@Home again as their delivery company or recommend it to their friends. This trend could be further explored to create an optimal personal service. Moreover, the competitor analysis showed that companies that do good are personal. This could be the opportunity for PostNL to create their own personal approach, because each competitor tackles the personalisation differently.



PostNL@Home

PostNL@Home follows the trend of omni channelling. This trend makes sure that all the channels are tuned to each other. Normally, PostNL is not the seller of the products, which leads to discrepancies in the information of the seller and Extra@Home.

If PostNL becomes the seller, all channels can align, making sure the customer has a hassle-free experience. Additionally, Coolblue and Expert are two companies that are the biggest competitors of Extra@Home. However, Extra@Home could not completely compete with them, because they do not sell products. With this idea, Extra@Home could become a big name in the product selling delivery companies. However, this also has a reverse side, because it could go completely wrong when PostNL does not obtain market share, because it might be hard to enter this market.

After all the previous evaluations, it was necessary to evaluate the ideas with Extra@Home itself. The

following remarks were listed for each idea:



Feedback@Home

- It will give more interaction with the customers;
- The PostNL app for parcels already has a feedback button and normally you can change things just minutes before a delivery;
- It might be interesting to combine with other ideas.



Mechanics@Home

- Very interesting, a long time ago a concept with including the mechanics more was investigated by marketing;
- It can help to raise the NPS, but also the branding and brand awareness of Extra@Home;
- Most tangible to continue with;
- It can be integrated in the PostNL app in the future.



PostNL@Home

- It sounds very futuristic;
- Flora at PostNL works like this, so it can work;
- It can be hard to realise on short term;
- Clients of Extra@Home can become competitors with this idea, they might consider quitting Extra@Home. Therefore, more research is needed for this idea.

All of the previous evaluation tends to suggest continuing with idea 2 of Mechanics@Home.

For the requirements evaluation, idea 2 checks the most boxes. Idea 2 & 3 respond to the same amount of negative customer experiences, but idea 2 fits the best with PostNL's requirements. Furthermore, idea 2 responds to the most strengths of Extra@Home, which can help to achieve a successful service design. Subsequently, all of the three ideas respond to trend and competitor insights. This means that the ideas take the future context into consideration. Besides, they create a competitive advantage. However, for PostNL@Home, the competition could overrule the service, meaning no competitive advantage is achieved. Lastly, after evaluating the ideas with Extra@Home, they also tend to be most enthusiastic about the Mechanics@Home idea. Remarks made about privacy and a possible integration with PostNL will be taken into consideration for further concept development.

Lastly, to substantiate the decision for continuing with idea 2, some literature review was conducted on personal services.

As Chung, Ko, Joung & Kim (2020) state that when interactions with service agents meet customer expectations, it will lead to customer satisfaction, loyalty and positive word of mouth. This means that if Extra@Home performs their service along the customer expectations, this will benefit the organisation. Gremler & Gwinner (2000) propose that the motivation for developing a social aspect in a service is needed, because interactions over time between employees and customers are necessary to produce the service. They further state that customers notified them that they desire employee to become 'relationship partners'. These relationship partners should understand them and care about them. This means that more personal services do not only benefit the company, but that it is necessary for a customer to experience.

6.3 | CONCEPT EXPLORATION

Chapter 6.2 led to proof that Mechanics@Home could be the most feasible, desirable and viable idea to continue with.

Before further developing the idea, some research was conducted on existing companies that offer personal services. Budbee, Uber (Eats) and Mercedes Benz emerge in this research and were further analysed.

Budbee

Budbee believes in transparency. Their customers know when to expect Budbee at their doorstep. They do not only know when to expect Budbee, but also who to expect from Budbee. Personalised messages are sent through the app letting the customer know where the delivery driver is. Budbee personalises their messages with with a name and picture (Budbee, 2023).

Uber(Eats)

At Uber and Uber Eats, drivers and delivery drivers have a personal profile on the apps. Fun facts about their languages, hobbies and reasons why they drive are added in their profiles. The profile contains reviews, badges for performance and driving history. Customers can also read compliments of other passengers. This way the customer gets to know the driver (Uber, n.d.).

Mercedes Benz

Mercedes Benz (2022) follows the motto 'one man one engine'. This means that one engineer builds on one engine entirely. They carefully assemble one engine and sign the tag given with the finished unit. The idea behind this motto is that they have the best mechanics on the planet and they believe that this quality is always coming from the mechanics (Vorano, 2021).

Keeping these insights in mind, some more brainstorming with peers was done to realise a personal service. This brainstorming (Appendix H) led to the concept of Mechanics@Home.

Mechanics@Home is a concept where the mechanics of Extra@Home are put in the spotlight of the service. Currently, Extra@Home does not give much credit to the mechanics. When following the proposition of Mercedes Benz, Extra@Home should believe that quality of service comes from the mechanics. Therefore they should give them recognition. This recognition can be given by creating profiles for the mechanics. The mechanics are personally responsible for their profiles. They can add fun facts, inspired by Uber, but a picture is added by Extra@Home itself. It should not become much of a hassle for the mechanics, so a lot will be automated. Communication that used to be sent out through email and SMS with non-personalised texts will now be 'sent' by the mechanics, meaning their name will be displayed and a more personal touch will be added to the communication. This was inspired by Budbee.

The more personal approach will make the customers feel special, however, there are more factors contributing to personalisation. The customer has to create their own profile and add their living information and desired installation spot. This makes processing of information easier for the planning team.

This personalised service will not only give recognition to the mechanics, but it will also motivate them to execute services correctly. They are responsible for the service and the customer 'knows' them. This will intrinsically motivate them to give their best performance.

6.4 | INTEGRATION WITH POSTNL APP

The first idea to realise Mechanics@Home was to create an app exclusively for the use of Extra@Home. After the evaluation of the ideas with Extra@Home, they suggested that an integration with the existing PostNL app could be an interesting option. According to PostNL (2023), the PostNL app has approximately 7 million active users. If Extra@Home will be integrated with the PostNL app, the transition from communication through email and SMS to communication through the app will not be huge for a lot of customers, since most of them might already use the PostNL app.

Furthermore, the marketing campaign behind the PostNL app says: 'How convenient is it to manage all your PostNL matters in one place?' (PostNL, n.d.-e). Unfortunately, Extra@Home matters cannot be managed through the PostNL app. They do have a

valid point, that it is convenient to manage all matters in one place. Therefore, it seems to be convenient and desirable to create a Mechanics@Home integration with the current PostNL app.

Currently, the PostNL app communication (see Figure 35) is linked to email communication (see Figure 36). They run parallel so customers without the PostNL app can have the same options as the app users. This is also an interesting feature for Mechanics@Home, so customers that do not want to use apps, can still use the same features as the app users.

To ensure a seamless integration of Mechanics@Home in the PostNL app, the current layout was analysed.

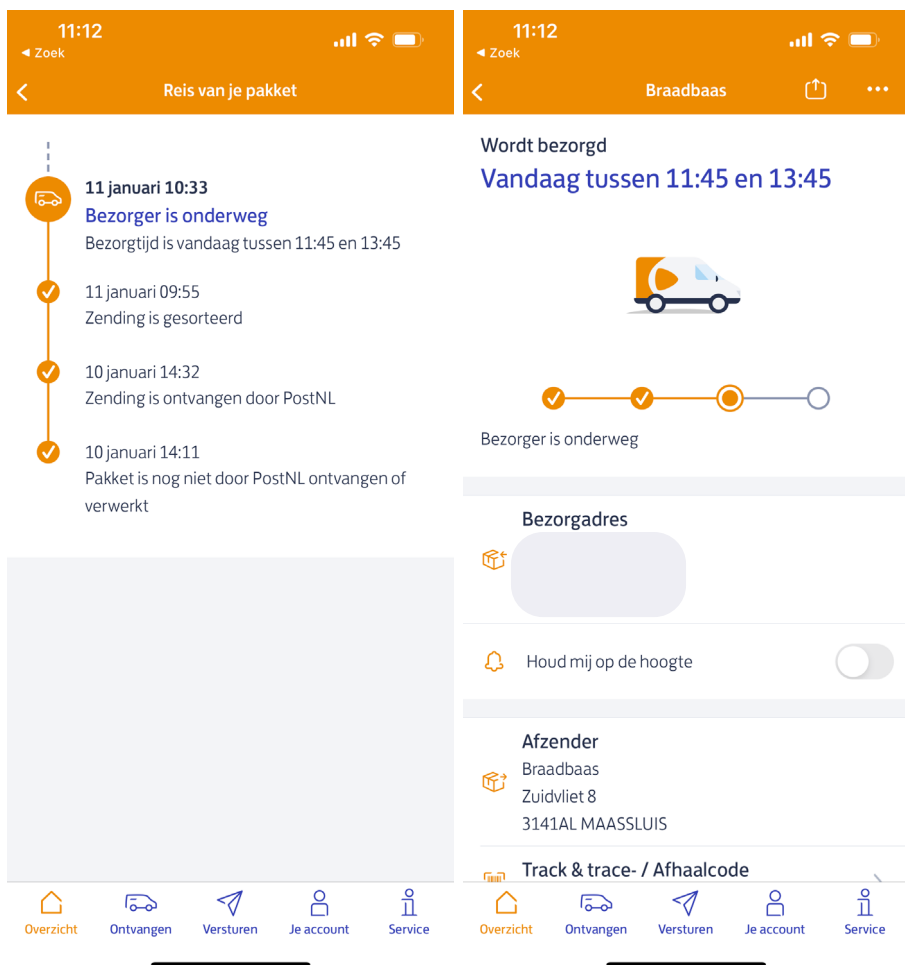


Figure 35: PostNL app communication

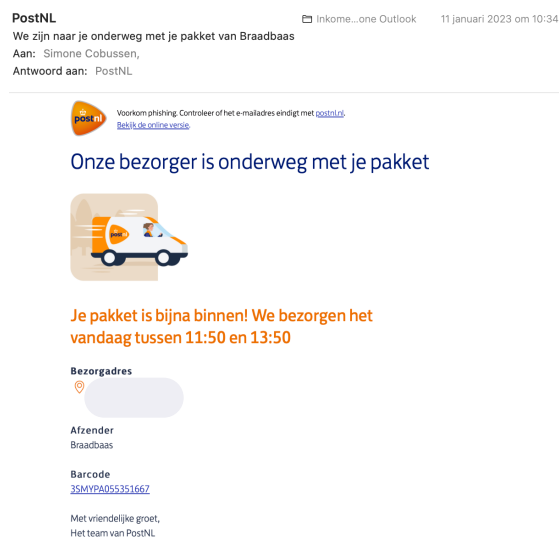


Figure 36: PostNL email communication

7

FINAL DESIGN

Concept exploration in the previous chapter leads to a final design in this chapter ready to be validated. The final design consists of a service scenario, service blueprint, service roadmap and an app prototype.

7.1 | MECHANICS@HOME

Mechanics@Home (Figure 37) is the final design that was created for this project. It is a service designed for Extra@Home that enhances the current service. It is a user-centred service, that emphasises the core values and strengths of PostNL.

Customers and the personal touch of the mechanics of Extra@Home are put at the centre of the service. The service is a personal approach to the current service. The customer gets the opportunity to get to know the mechanic before they come to their house to deliver and install a product. The customer also receives personal communication from the mechanic with updates about their delivery.

An integration with the current PostNL app makes sure that customers have a positive experience when encountering the service of Extra@Home. Instead of a lot of different communication channels, everything can be handled in the PostNL app. Transparent communication about what happens in the service journey is essential.

From the mechanic's point of view, the service highlights the skilled mechanics, which will create a feeling of responsibility from the mechanics. This feeling of responsibility exists, because the customer knows them.

The final design is explained by a service scenario, explanation of the customer-mechanic interaction, service blueprint, service roadmap and a PostNL prototype.



Figure 37: Mecahnics@Home

7.2 | SERVICE SCENARIO



After considering multiple websites, the customer orders the desired product from the retailer's website.



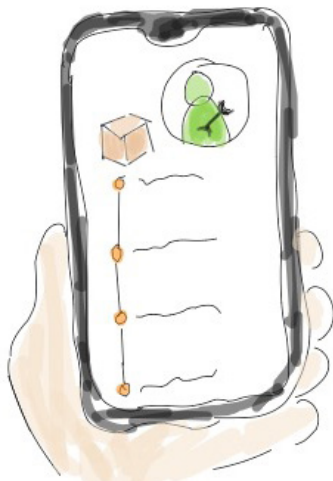
The customer receives information about the delivery and information about how to use the PostNL app, if they want, once their order is transferred to the system of Extra@Home.



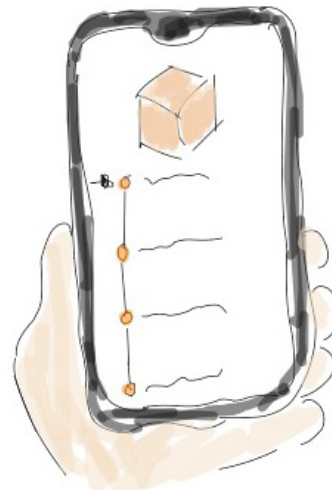
The customer downloads the app (in case they did not have the app on their phone).



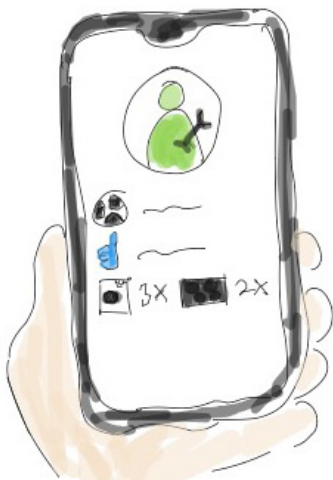
The customer fills in their profile on the app with their desired installation spot, preferred date and timeframe on the delivery calendar.



The delivery and service will be planned by the planning team of Extra@Home. In the meantime, the customer can see what service will be performed at their house.



Once the order is planned the customer receives a message from the mechanic with the expected timeframe for delivery on day in advance.



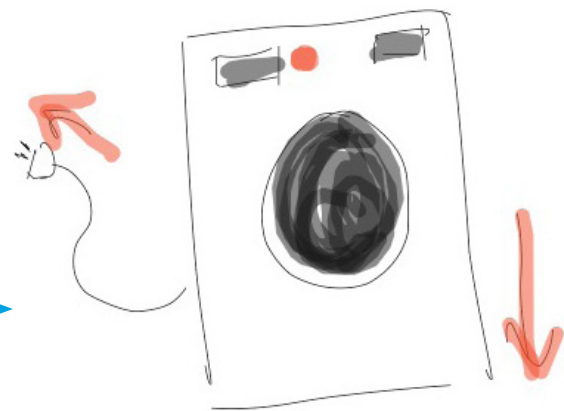
In the same message the mechanic informs the customer about, that they can view the mechanic's profile. The mechanic can choose themselves what to display.



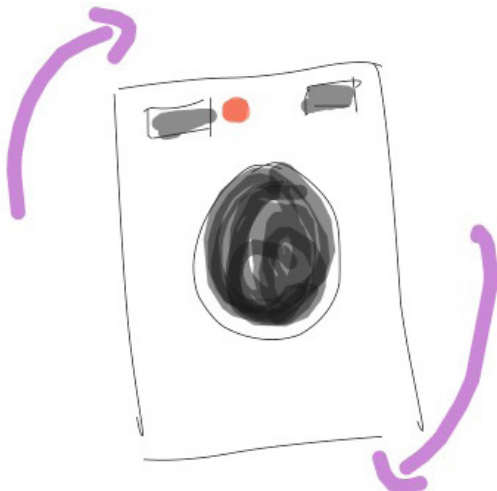
The customer can check the mechanic's route once they have started their working day on the day of delivery to the customer.



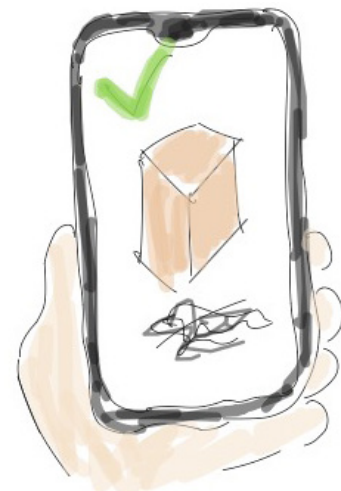
The customer receives a message from the mechanic notifying that they are 30 min away.



The mechanic delivers, assembles and/or installs the product at the customer's desired spot.



The old product is collected by the mechanic together with all the packaging material.



Once the delivery and possible assemblage and/or installation is finished, the customer can sign for damage free delivery in the app.



After the finished service delivery, the customer can rate the mechanic and leave a message for them.

7.3 | CUSTOMER-MECHANIC INTERACTION

An interaction (Figure 38) between the mechanic and to customer emerges in this service, due to the personal communication from the mechanic. This interaction provides a connection between the customer and mechanic. However, creating this connection should not become much of a hassle for the mechanic, because, as experienced during shadowing, they have a lot to do every day. To ensure an effortless, but personal connection between the customer and the mechanic, automated messages will be sent to the customer with the usage of the mechanic's name. Furthermore, to create this connection the mechanic's profile will

be displayed in the app, so the customer will get to know the mechanic. If, for example, an order cannot be delivered, the customer will receive a personal message with a reason, which will mitigate the circumstances, because the customer feels a connection with the mechanic. Additionally, they can interact with the mechanic by sending messages, which will land at customer service. They will then communicate through the name of the mechanic. From the mechanic's perspective, the connection with the customer will cause a feeling of obligation of delivering a perfect service and making sure the order is delivered on the desired time and date.

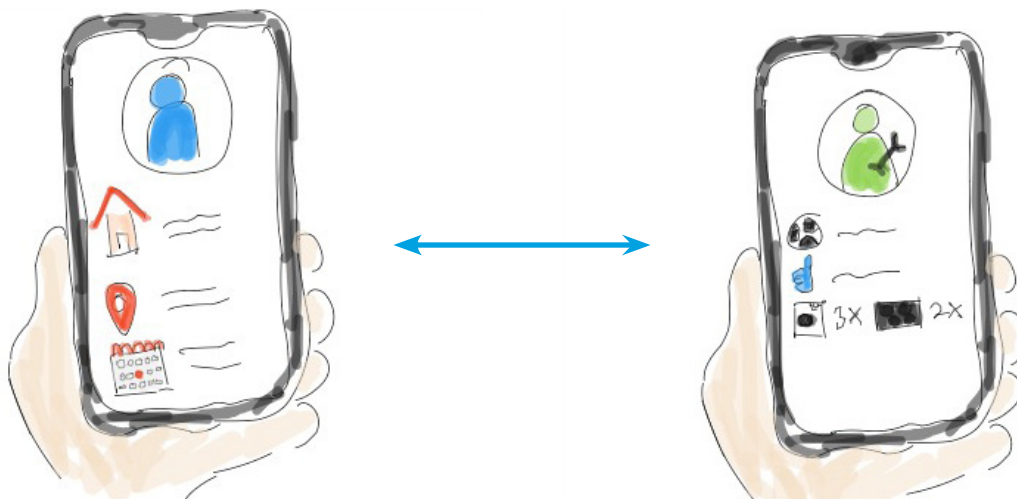
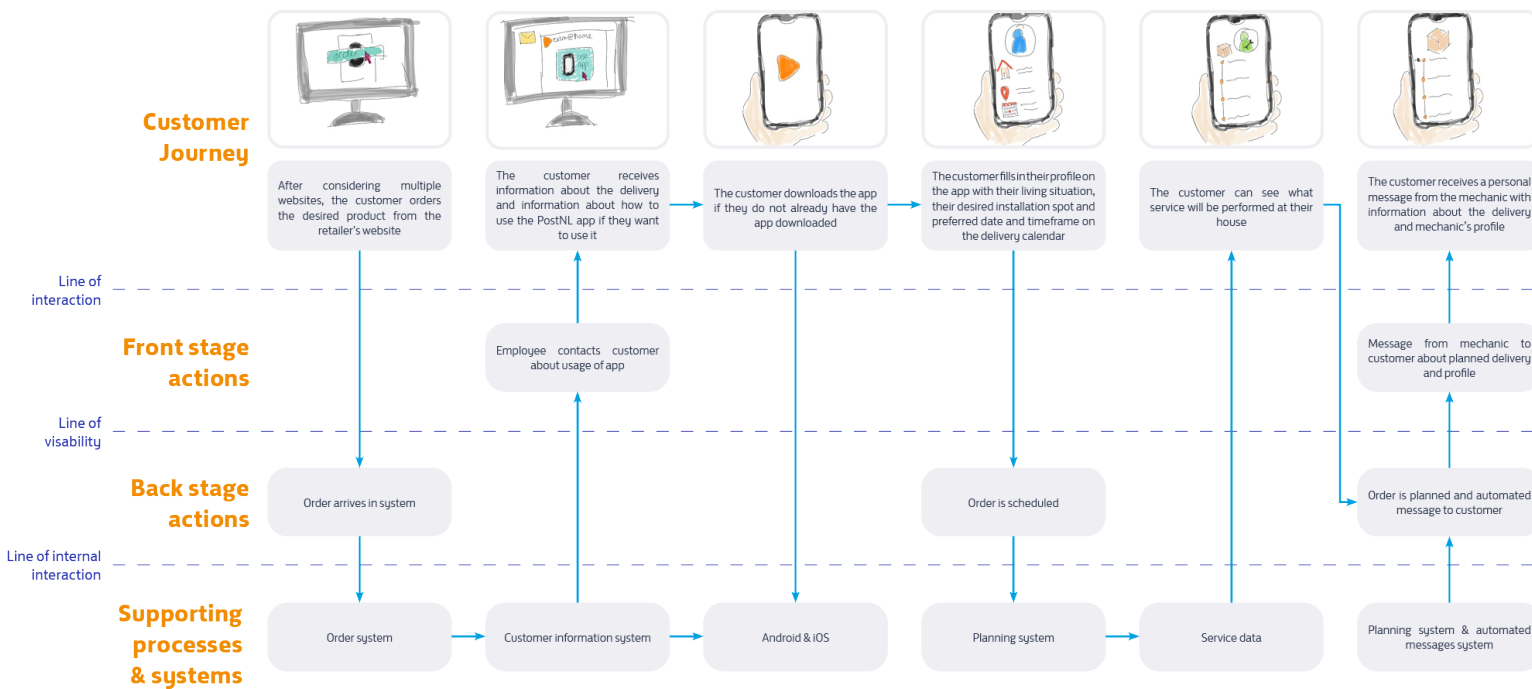


Figure 38: User-mechanic interaction

7.4 | SERVICE BLUEPRINT

A service blueprint is a tool to look at the service from the customer’s point of view and to map out the dependencies between the internal teams and processes. A service blueprint helps to shift from company oriented to user-centricity (Kruitwagen, 2023). As iO Digital (2022) explains, a service blueprint is more in-depth than a customer journey. The customer journey mostly concerns the different

touchpoints, which can be called the frontstage, but the service blueprint also incorporates the backstage: what happens behind the screens and what tools are necessary to create these touchpoints. A service blueprint seems to be the perfect tool to create and define the service of Mechanics@Home. Figure 39 displays the service blueprint of Mechanics@Home.



Four different categories can be mapped out along the service blueprint (iO Digital, 2022) .

The customer journey explains the journey the customer takes while experiencing the Mechanics@ Home service. These are derived from the user scenario.

The front stage actions explain the interactions of the employee with the customer. This can explain the line of interaction displayed in the blueprint. These actions are visible to the customer, which can explain the line of visibility. Two types of customers are interacting with the customer: the planning employee and the mechanic.

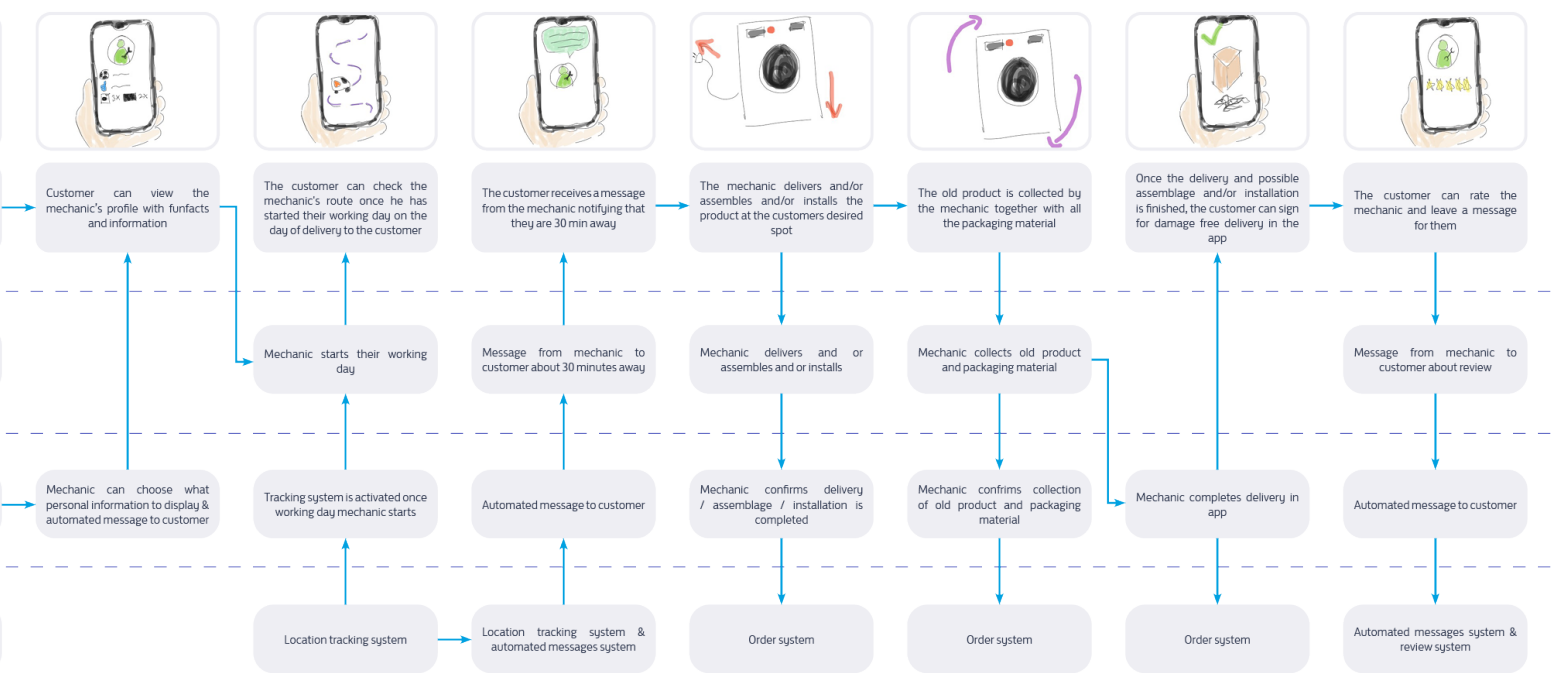


Figure 39: Service blueprint Mechanics@Home

After what is not visible anymore, backstage actions occur. Backstage actions explain what activities the employees perform behind the scenes. A lot of actions happen behind the scenes to make sure the service runs smoothly.

Lastly, the category of supporting processes & systems is mapped out. These are internal steps and interactions that support the employees in delivering the service. This is separated by the line of internal interaction, which explains the backstage systems that are needed for the service to run smoothly.

7.5 | FIRST VALIDATION

The first evaluation of the service was done with PostNL's marketing team. They work within PostNL for a variety of departments, including Extra@Home.

The service blueprint was brought to their attention and they had the following remarks on it:

- They noticed that for direct implementation the service is not suitable. However, they did like the idea of bringing mechanics into the spotlight;
- To implement it immediately a smaller scale service could work, where the service is implemented into the system they are working with;
- On a larger scale for whole PostNL it could be hard to implement, but for Extra@Home it could easily be implemented, because there are not as much mechanics as delivery drivers for parcel delivery;
- For it to be future proof it should become automated and scale proof;
- The new WhatsApp technique, with name and photo displayed when sending a message, could be useful for direct implementation of the service;
- For Extra@Home to shift to the apps a complex IT and change management is needed. There are not many capacities right now to realise that;
- It is also needed to test the service with the mechanics, for direct implementation, will it lead to too much of a hassle?

After these remarks I started brainstorming again, because they had a valid point of direct implementation. However, since Extra@Home expressed their preference for a PostNL app implementation, it is important to take all stakeholders into account. To please both parties, a solution was proposed. A service roadmap seems to be the solution for both needs of the stakeholders. As Service Design Tools (n.d.) explain, a service roadmap is the output of planning processes and visually describes a high-level timeline for the progressive process of development, delivery and evolution of a service solution. The first horizon shows the minimum set of features needed to be ready for the first release, and then the following enhancements that could be made to achieve greater impact. In the next chapter a service roadmap is created for implementation of the Mechanics@Home.

7.6 | SERVICE ROADMAP

As marketing preferred in the validation, a service roadmap (Figure 40 on next page) was created for step-by-step implementation of Mechanics@Home. A roadmap is a good solution for the direct implementation that was desired by marketing. The service roadmap has three different horizons, each going further into the future. The years for each horizon established in consultation with Extra@Home. The services for implementation are explained in each horizon. Subsequently, the value for the customer as well as Extra@Home is mentioned for each horizon. Lastly, the resources needed per service are highlighted for the mechanics and IT department. The IT department is included in this horizon, because IT implementation is needed for the final proposition of Mechanics@Home and the step-by-step implementation.

Horizon 1: Current system

Horizon 1 is the first step that will be implemented this year (2023) towards Mechanics@Home. In this step the idea of personal communication in the current communication system is proposed. Currently, email and SMS is used and in this horizon, the same communication will be used, however with the personalisation of the communication with the mechanic's name. Furthermore, to create a bigger reach for the communication, an integration of WhatsApp messages will be used. This does not only create a bigger reach, but WhatsApp has personal features that imitate the final solution of Mechanics@Home. When a message is sent through Whatsapp the name and photo will be automatically displayed on the phone's interface.

Horizon 2: Introduction PostNL app

The second horizon continues on the foundation of the first horizon. The communication system will remain the same, but the implementation in the PostNL app of Extra@Home will exploit the current features of the PostNL app. This means that customers that already use the PostNL app for

parcels, can use the PostNL app for the same features for Extra@Home. For example, the track and trace link in the app or the push notifications. The customer still receives the communication of horizon 1, but will experience the convenience of using the PostNL app. Therefore, this step is planned in 2024, so there is some time for the IT implementation.

Horizon 3: Integration Mechanics@Home

The last horizon is the full implementation of Mechanics@Home, which will take place in 2026. Integration of Extra@Home in the PostNL app requires a lot of IT solutions, because the order system needs to be linked to the PostNL app. Moreover, to reduce the customer information steps, 'Adres in Beeld' integration is necessary (PostNL, n.d.-c). This ensures that the customer does not have to fill in their living situation, because data from 'Adres in Beeld' will fill in the needed information. In the end, customers will have a hassle free experience with the PostNL app, with personal communication and personal profiles of the mechanics. They do not have different communication channels anymore, but everything will go directly by app, after one email informing them about the use of the PostNL app with Extra@Home. For customers that do not desire to use an app, every feature will be available through email and the website. Lastly, signing for damage-free delivery is currently done via the mechanic's tablet, but with the app it is sure that the customer signs and not the mechanic.

First Horizon

Current system

Services



Mechanics@Home in current communication system with the integration of WhatsApp

Mechanics@Home app features

Customer



Customer gets to know the mechanics that is coming to their house for the service delivery

Customer experience

Extra@Home



The usage of WhatsApp will make sure the reach of the messages of Extra@Home is higher

All the necessary customer knowledge

Mechanics

—

IT

Automated messages & WhatsApp integration

—

Values

Resources

Second Horizon

Introduction PostNL app



cs@Home in PostNL app with current features and communication system



experiences convenience of use of PostNL app



Essary notifications go through the app, so the knows when to expect the delivery and will be home

Names & pictures

Integration in PostNL app

Third Horizon

Integration Mechanics@Home



Mechanics@Home is completely implemented in PostNL app



Customer has hassle free experience with PostNL app with Extra@Home implementation



Extra@Home gets more understanding from the customer. Mechanics will feel more responsibility, because their names are displayed

Personal profiles

'Adres in beeld' integration

Integration of Mechanics@Home in PostNL app

Figure 40: Service roadmap Mechanics@Home

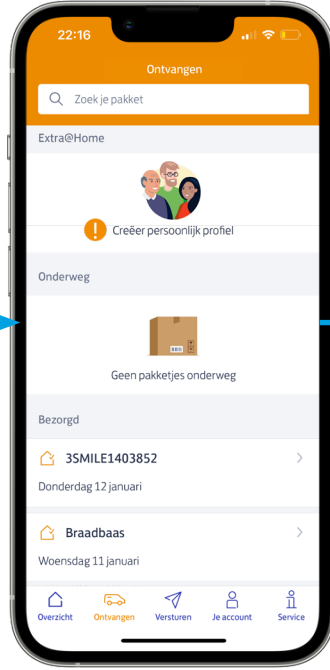
7.7 | POSTNL APP PROTOTYPE

For validating Mechanics@Home the service scenario must be brought into reality, so they can truly experience Mechanics@Home in the PostNL app. As mentioned in Chapter 6.4, an analysis of the layout of the PostNL app was done, in order to create a seamless transition. To realise the service

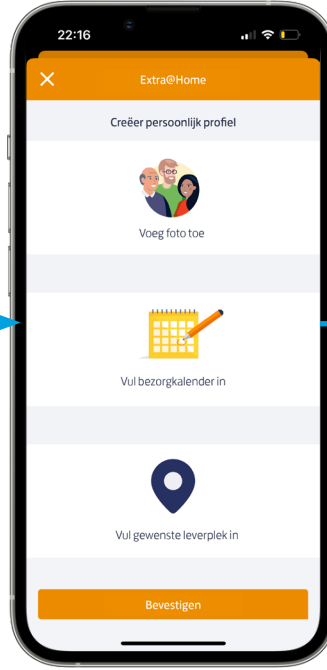
scenario, a framework in Figma was created. Each frame is displayed below and the next pages. The delivery scenario with different days was simulated by creating popups that say for example: 'Your order is planned'.



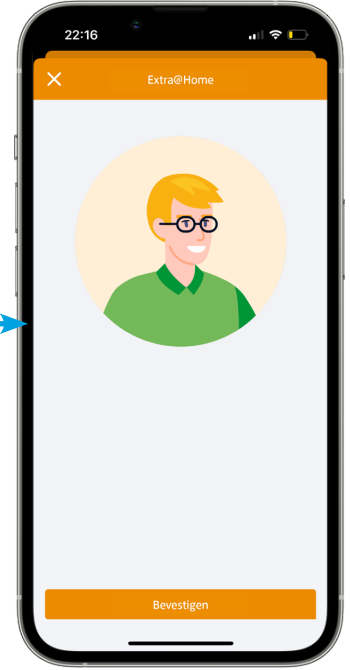
The order is loaded to the PostNL app, activating a notification mentioning an action is required.



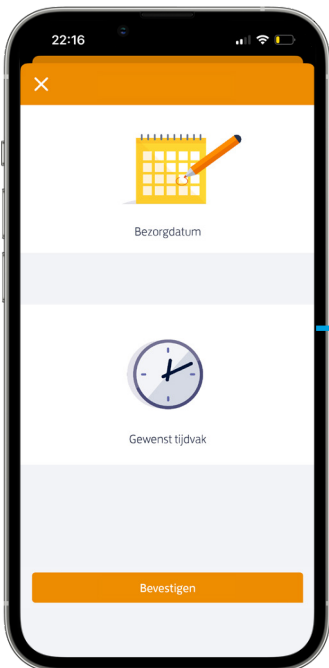
In the 'Ontvangen' page, the customer can click on the action to create a personal profile.



The customer can create a personal profile.



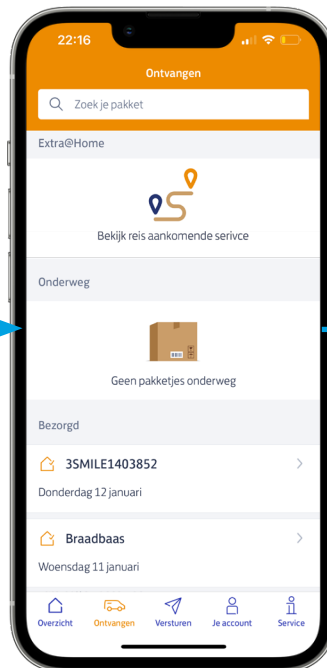
The customer can add a picture of themselves.



The customer can choose a desired delivery date and timeframe.



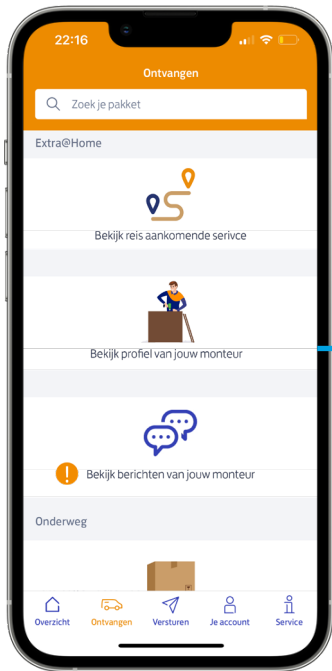
The customer can fill in the desired delivery location in their house.



After filling in the profile, they can check the journey of the upcoming service delivery.



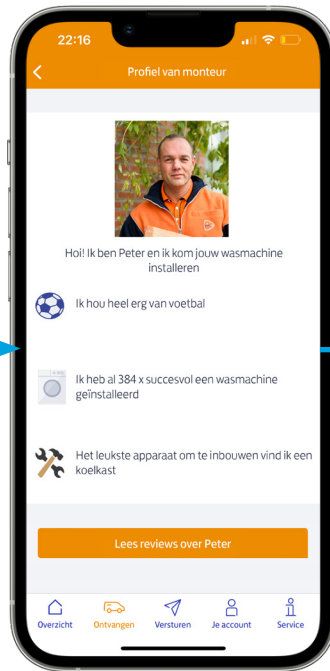
The customer can view the upcoming service delivery.



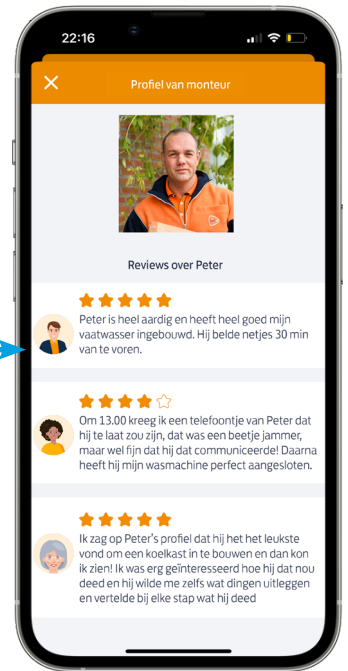
The customer receives a message from the mechanic once the order is planned.



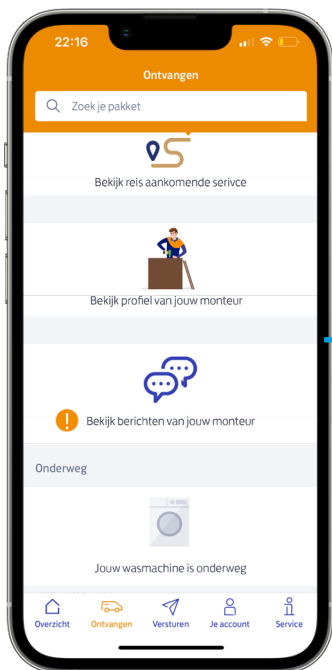
The customer views the message from their mechanic.



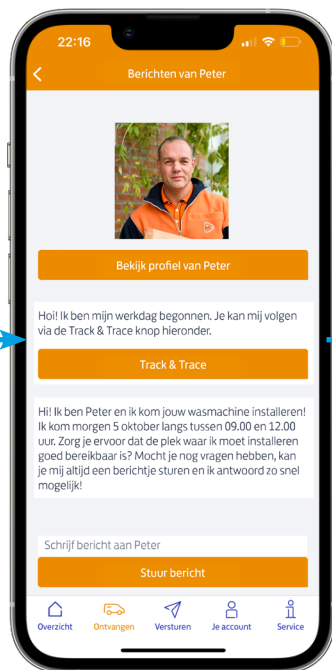
The mechanic's profile shows what the mechanic has chosen to display.



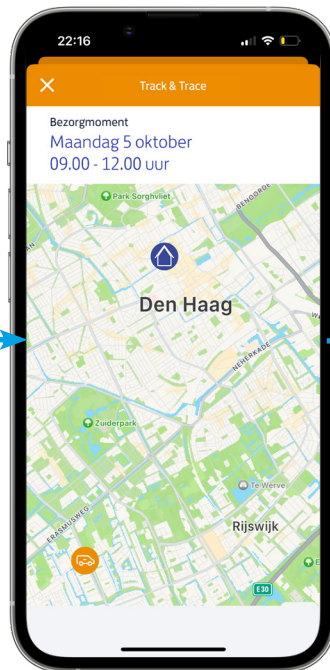
It is also possible to check the reviews by previous customers.



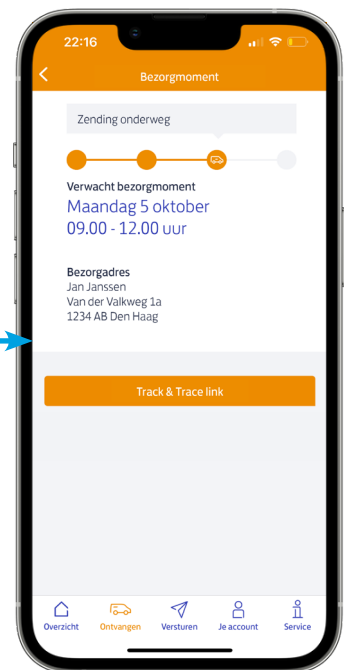
The customer receives a message from the mechanic once the mechanic started their working day.



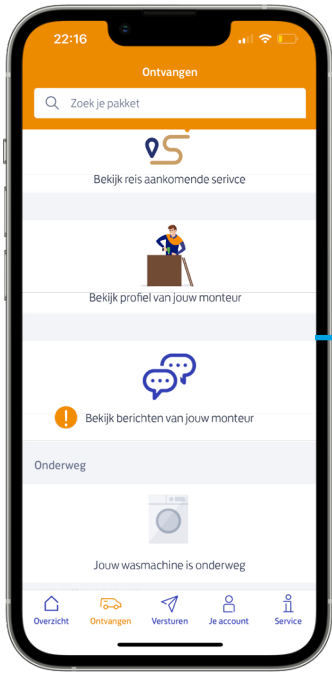
The customer receives the Track & Trace link.



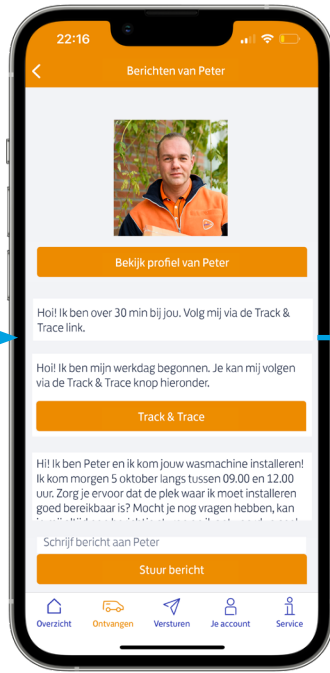
The customer can check the Track & Trace.



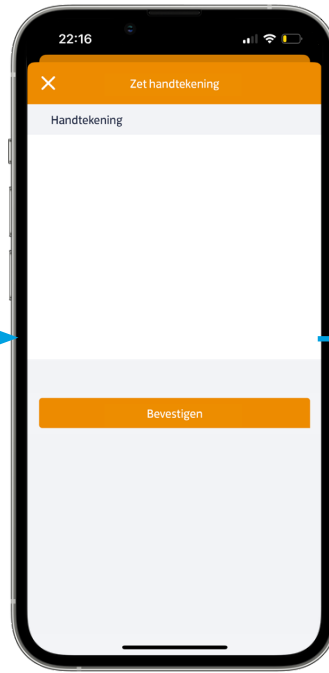
The customer can also check the Track & Trace link through the interface of the 'Ontvangen' page.



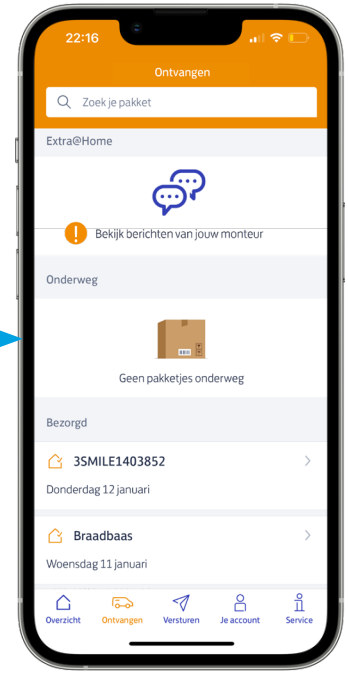
The customer receives a message from the mechanic once they are 30 minutes away.



The customer views the message.



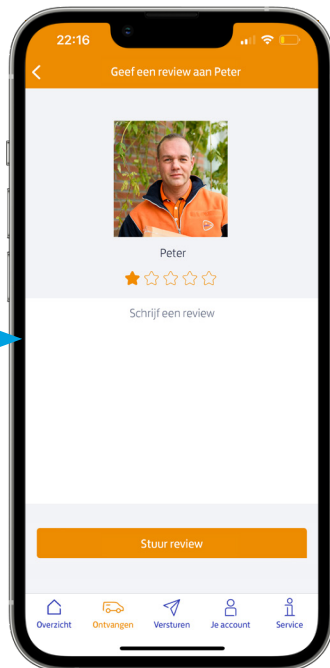
Once the mechanic has completed the service delivery, the customer can sign for damage-free delivery.



After the service delivery, the customer receives one more message from the mechanic.



The customer receives a message from the mechanic about a review.



The customer can rate the mechanic with stars and write a review.

8

VALIDATION

In this chapter the final design will be evaluated and validated with important stakeholders. This will lead to recommendations for further research and design.

8.1 | VALIDATION SETUP

To test the design goal set in Chapter 5, validation with all important stakeholders was carried out. Table 2 shows the involved stakeholders, the goal of each validation and the setup of each validation. The validations are more elaborately explained in the next chapters.

Each chapter highlights the most important insights.

Stakeholder	Goal	Setup
Mechanics	How do they experience the personal approach and possible improvements.	A meeting was scheduled with all the interested mechanics in the morning before their shift started. First an explanation of Mechanics@Home was given with a short run through the scenario by mouth. This was shortly, because the goal was mainly to receive reactions on the personal approach. Questions were asked to start the discussion. The session was recorded.
Extra@Home	How do they see the future for Mechanics@Home and possible improvements.	Together with my company mentor, who is also the strategy leader of Extra@Home to 2028, a meeting was scheduled. While the service scenario was explained and showed, I motivated Isabelle to make suggestions and ask questions. After the service scenario, the service roadmap was explained and during suggestions could be made. The session was recorded.
Marketing	How do they receive the roadmap and possible improvements.	A meeting was scheduled with marketing to show the service scenario and the service roadmap. As mentioned in the Extra@Home validation, making suggestions and ask questions was also motivated here. The session was recorded.
Customers	How do they experience the app and possible improvements.	Different random customers were asked to use the app framework in Figma. First some context was given, that they ordered a washing machine and received an email from Extra@Home to use the app. During the experience they were asked to think out loud and afterwards several questions were asked. The session was recorded.

Table 2: Validation setup

8.2 | VALIDATION WITH MECHANICS

The first validation was carried out with four mechanics of Extra@Home. The setup of the validation is mentioned in Chapter 8.1. The validation session provided the following five insights with quotes substantiating the insights:



Name and picture is a good addition

All Mechanics agreed that an addition of their name and picture in communication towards customers is a useful feature. However, more information seems not that appreciated. The extra information is funny, but not that necessary according to the mechanics.



"Yeah a name, but only a first name and picture is enough."



Privacy needs to be considered

As the mechanics all agreed on is that privacy needs to be considered. They do not want people looking them up on Facebook. They also do not want any 'direct' contact with the customer, so they cannot ask questions about the installation.



"It should not become more personal, because I do not want customers to receive my phone number so they can call us. We will then be called every day with customers asking us where we are, how does this work and can you tell me more about the oven you installed last week?"



Increased customer confidence if customers know mechanics

The mechanics think that if the customers know the mechanics through their name and picture that their trust in Extra@Home will increase. The customers know who will be installing their product and that they are skilled.



"If people know who is coming to their house, because they have a face with the mechanic, then it might increase their trust. They do not always know that PostNL is installing and they often find it weird. If they receive my name and picture, they know that I can be trusted."



Will not feel more responsibility

The mechanics do not think they will feel more responsibility once the customers 'know' the mechanics. They think they already do quite a good job and everything they can for a good delivery. However, for the subcontractors they think it might matter, because they will feel more connected to PostNL.



"Well if my bus is full and a product will not fit in the bus, I cannot do anything about it. It is a shame, but I cannot do much about it."



Reviewing in app is a good addition

The mechanics are currently rated with the NPS system as mentioned in Chapter 4.3. However, this system rates the entire delivery experience, which can affect the rating of the mechanics. Therefore, they like the part where customers can rate the mechanic by star and in the app. This makes it more obvious that the review is about the mechanic and not the whole experience.



"Well now we have to explain the customers the rating system. That is quite inconvenient, because not everybody knows that their rating of the overall experience can affect our personal rating."

8.3 | VALIDATION WITH EXTRA@HOME

The second validation was carried out with Extra@Home. The setup of this validation is mentioned in Chapter 8.1 The validation session provided the following two insights with quotes substantiating the insights:



Future of Mechanics@Home

There is a potential future of Mechanics@Home. Firstly, the integration with the PostNL app is really appreciated. Additionally, the personalised communication with the mechanics. The combination of these two things will lead to a competitive advantage.



"I believe that the addition of Extra@Home to the PostNL app has an added value, but it can also create a competitive advantage."



Some added features will improve the app

It could be a good idea to add the following features to the app, for a seamless experience:

- Customers can add the stairwell's dimensions;
- Customers can change their delivery time, so customers are home for sure at the delivery moment;
- A possibility to confirm the identity of the person who is signing.



"I would like to add a possibility to confirm the identity of the person who signs for damage free delivery, because sometimes it is not clear who signed for the delivery in case of damage claims."

8.4 | VALIDATION WITH MARKETING

The third validation session was carried out with the marketing team of PostNL. After a first validation session before the design was finalised, they could now validate the final design. This led to the following five insights with quotes to substantiate them:



Mechanics@Home creates a seamless customer experience

With Mechanics@Home, marketing explains that a seamless customer experience is created. After the customer's purchase in a webshop, the service of Extra@Home with Mechanics@Home produces a seamless connection for delivery.



"This is where we continuously fight for. We want a bigger reach of webshops, but the orientation phase to the service delivery phase should be one seamless customer experience, which Mechanics@Home can provide."



Create marketing for Extra@Home's clients

From a marketing point of view, marketing campaigns can be created for Extra@Home's clients. They are the ones that choose for PostNL and not the customers, because they are automatically forwarded to the delivery company of the webshop. If a marketing campaign is set up in each horizon, the service can be highlighted for current and new clients.



"We want to persuade webshops to choose for Extra@Home, because we as PostNL offer the webshops a last mile delivery solution."



Iterate on rating of mechanics

There were some concerns about the rating of the mechanics at the end of the service. The customer does not have any influence on which mechanic will come to deliver and install. However, if they see a rating of one star, they might not want that mechanic for installation. Furthermore, the NPS score already reflects the rating of the mechanic.



"It is quite tricky to add a rating of the mechanic, but it can possibly be integrated with the NPS score. In the NPS survey customer could probably answer a question with what they valued most about the mechanic?"



No hassle for mechanics

To achieve the first horizon, it should not become much of a hassle for the mechanics. On the one hand, because they have a busy day and do not have time for extra duties. On the other hand, the mechanics might not execute extra duties, because there is no guarantee if things go manually.



"Make sure that it is not the job of the mechanic, because you cannot guarantee that they will send out the communication in the desired way."



Show value for Extra@Home's clients

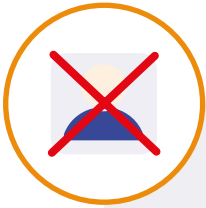
The marketing campaigns should show the added value for Extra@Home's clients. If a customer is satisfied with the service, it will also reflect on the clients.



"If his customer is even more satisfied, with ultimately the service we provide for the business customer, that in turn reflects on his business."

8.5 | VALIDATION WITH CUSTOMERS

Finally, the app was validated with four customers. A Figma framework allowed them to experience the service through the PostNL app. However, an important note here is that the situation of delivery was simulated by giving them a scenario. The customers experienced a 'perfect' service, without hassles during delivery, as that is harder to imagine than a 'perfect' service.



No need for picture of customer

A picture was added to the customer's profile to create an equivalent profile to the one of the mechanic. However, customers expressed that they do not feel the need to add a picture of themselves, or perhaps an avatar.



"I would not add picture of myself, because this app is not social media."



Addition of picture of installation location

One of the customers thought he had to add a picture of the installation location and not of himself, but this might be a good addition, so the mechanic knows what tools to bring,



"It would make sense to add pictures of the installation location. I would do that, because the mechanics know what tools to bring to simplify the installation"



Divided opinions about interpretation of mechanic's profile

Customers appreciate the personal profile of the mechanic with name and picture and the facts that coherence with the service delivery, but the funfacts are not necessary. However, to see that a mechanics enjoys most to install a refrigerator while they will be installing a washing machine is not nice to read.



"I do not care if the mechanic likes soccer, because they will come to install a product and not to chit-chat. I do like the mentioning of the 384 succesful installations of washing machines. However, I can imagine that some people enjoy getting to know the mechanic by the profile."

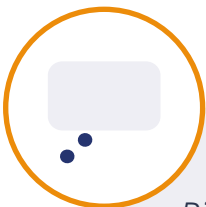


Mechanic's profile could cause discrimination and racism

It is important to consider possible racism among customers, as one customer noted. She has no issues with any colour, culture, gender or other factors, but she warned about today's society.



"But what does worry me for mechanics is that people do not want to host a mechanic for any reason."



Divided opinions about rating of mechanics

The customers expressed different opinions about the option to rate the mechanics. Some customers never review any service, so they would not do it here. Some customers would only give them stars and some customers would give them an extensive review. It is also dependent on the customer's mood and experience



"It depends on what mood I am in. Sometimes I feel like reviewing and sometimes I just don't feel like doing that."



Preference use of app over current communication system

All customers expressed their preference of using an app over communication through email. It is a lot quicker and everything can be found within one place.



"I really enjoy using an app. It keeps the line short and I can read all the messages back in one place."



Improved confidence in delivery

Firstly, customers feel an increase in their confidence of a correct delivery because they know who will deliver and install their product. Additionally, Mechanic's reviews make sure that they know that a skilled mechanic will install the product.



"Because I am ordering a huge and expensive product, it is nice to see that a mechanic has good reviews for the installation. You also get a better image of who comes to your doorstep."



Personal message is desired if something goes wrong

Customers enjoy the message screen with all the mechanic's messages. However, they not only expect notifications about things going well, but they also want to know if something might have gone wrong and why.



"Most importantly, I think someone should communicate the moment someone would not show up on the appointed day. The content of that message could make a difference."



Iteration on app interface

Customers made some comments and improvements about the interface of the app. For example, the information entered by the customer should be linked to the interface of the app. Furthermore, in the message it is not clear if the customer should read from top to bottom or vice versa.



"I would like it that if I filled in that the washing machine needs to be installed in the attic, it comes back to the interface where I see what information I filled in."

All the insights will be discussed in Chapter 9.1. After evaluating all the insights, recommendations for further design and research are given in Chapter 9.2.

9

DISCUSSION

In this chapter the results of this graduation project will be discussed. A discussion on Mechanics@Home is carried together with the SERVQUAL model.

9.1 | RESULTS DISCUSSION

The content of this discussion is based on the findings of the previous written chapters in relation to the validation.

Validation with mechanics

The validation with mechanics confirmed a possible success story of the concept of offering a personalised service. However, it is important to not stretch personalisation too much, to make sure that the privacy of the mechanics cannot be invaded. Therefore, clear boundaries need to be set for the mechanic's profile. The mechanics believe that the service will create more customer confidence, but they would not feel more responsibility if something goes wrong. They explain this by mentioning that they perform the service correctly, but external factors contribute to things going wrong. However, a feeling of responsibility might still subconsciously occur. As a mechanic, they want to deliver a good job and do their best to do a good job, even more if a customer knows that a specific mechanic will deliver the service. The NPS rating is a bottleneck for the mechanics. The NPS rating reviews the whole journey of the parcel, but it will always be blamed on the mechanics as they previously experienced. Therefore, a review method that is only focused on the mechanics might be the solution for this as proposed in the app and they did seem to approve this form of reviewing.

Validation with Extra@Home

The validation with Extra@Home confirmed a future for Mechanics@Home. If not the implementation in the PostNL app will have the future, then the personalised message system will be an option. The additions to the service are good suggestions to improve the service.

Validation with marketing

Marketing expressed that Mechanics@Home creates a seamless customer experience. However, this seamless customer experience needs to be brought to attention to Extra@Home's clients. They need to see the added value of Mechanics@Home, because the customers might have a seamless customer experience, they are still dependent on the webshop's choice of delivery company. This can be done by creating marketing campaigns to increase awareness for Mechanics@Home. These campaigns will not only increase the awareness, but can also

attract new clients for Extra@Home. Marketing mentioned that an iteration on the mechanic's rating needs to be done, because the NPS rating is already used. However, this raises some contradiction between marketing and the mechanics. The mechanics expressed the need for a clearer rating system, because clearly the NPS system as it is does not work. Iteration on the current NPS system can be the solution or the addition of an other rating system can be the solution.

Validation with customers

The option of adding a picture for the customer was added to create equivalence between the customer's and mechanic's profile. However, they did not express the need for this. They did make some valid points for improvements on the interface and current features. Their preference of using an app over email confirmed the need for an integration with the PostNL app. The customers also expect personalisation and transparency if they do not experience a 'perfect' delivery. Lastly, an important comment must be highlighted about a possibility of Mechanics@Home causing racism. The idea behind Mechanics@Home is not to get the opportunity to choose your mechanic, but to get to know your mechanic. No racism is tolerated at PostNL, and if a customer wants a different mechanic due to racist motives, they do not fit in with PostNL's customers.

After reflecting on the validations with all the stakeholders, a critical side note is relevant to mention. It seems that Extra@Home, by whom the project is initiated, seems to be more enthusiastic than the marketing team from PostNL. They seem to be more critical. On one hand, Extra@Home is the initiator of the project and can be enthusiastic with whatever outcome. They just want to be innovative. On the other hand, the marketing team is more distanced from this project, which gives them the opportunity to be more critical, but they also might have a different goal with Mechanics@Home. Their goal is to have a good image and make sure customers, but mostly Extra@Home's clients, are satisfied.

9.2 | GENERAL DISCUSSION

The idea of Mechanics@Home started with the problem that services of Extra@Home are not user-centred. The reasoning behind this statement comes from the evaluation with the SERVQUAL model. That pointed out that the current service of Extra@Home experiences gaps in the service delivery and the market communication gap. A more user-centred service could minimise these gaps and make sure customers do not have negative customer experiences. Because this project is initiated by PostNL, the core values of PostNL also needed to be considered. This led to the following design goal:

'I want to design a service for Extra@Home that is user-centred and complements the core values of PostNL'

To evaluate this goal, Mechanics@Home should be taken back to two gaps that occurred. Gap 3, the service delivery gap, occurred because products were damaged, products were not delivered on agreed date and time and the information of the customer was not correctly processed. With Mechanics@Home all three negative customer experiences can be solved. The first two experiences can be solved the increased feeling of responsibility with the mechanics. However, it is important to stay critical. Even though the service might increase the feeling of responsibility for mechanics, each mechanic is different and might not experience this

increased feeling of responsibility. Furthermore, external factors have a big influence. If the mechanic performs the service perfectly, a traffic jam can cause the mechanic to be late. The last negative customer experience occurred because information of the customer was not correctly processed or processed at all. This customer experience could potentially be solved by the integration of Mechanics@Home in the PostNL app. Gap 3 seems to be minimised by implementing Mechanics@Home in Extra@Home.

Gap 4, the market communication app, occurred because of three negative customer experiences. Customers did not know about the services and that delivery drivers were skilled, the communication was deficient and the customers did not feel heard after a bad delivery. Mechanics@Home makes sure that the customers do know about the service that is about to be delivered. There is a special frame in the app explaining the service that will be delivered. In the mechanic's profile, the customer can read reviews and how many times the mechanic has installed something. However, as mentioned in Chapter 8.4 and 9.1, iterations on the reviewing system should take place. The system as designed in Mechanics@Home could go two ways, because negative ratings can cause that customers know that they will receive an unskilled mechanic at their house. A negative rating does not mean that a mechanic is unskilled, but just that a customer is dissatisfied. Moreover,

all communication can go through the PostNL app. Therefore, communication as designed in the service will be sufficient, because all communication that is needed occurs in the same place. Customers also expect sufficient communication if something goes wrong in the delivery, for example if the mechanic is late for the delivery moment. Negative moments can hopefully be turned around a bit, because there is transparency in communication. Lastly, the experience of customers who do not feel heard after a bad delivery is not completely integrated in Mechanics@Home. The customers do have the option to ask a question to the mechanic, which will be automatically forwarded to customer service. How the customer service handles the question or message of the customer is dependent on the customer service. Perhaps an integration with Feedback@Home could be the solution.

Eventually, the first part of the design goal is realised with Mechanics@Home. For Mechanics@Home to succeed, a complementation of PostNL's core values is also needed. Mechanics@Home should make it happen, works with the customer and makes the customer happy. PostNL explains 'Makes it happen' as customers should not worry and that customers know what to expect from PostNL. Customers have nothing to worry about with Mechanics@Home, because transparency in communication is provided. However, worries about

external factors, cannot be taken away with this service. Mechanics@Home makes sure, as explained above, that customers know what to expect from PostNL. 'Works with me' is explained as paying attention to customers, new developments, society and tomorrow's world. Mechanics@Home takes developments into consideration as explained in Chapter 6.2. Mechanics@Home follows the trend of personalisation. Nevertheless, the world keeps on changing every day and innovation is needed to keep up with competitors. Therefore, continuous evaluation of Mechanics@Home is necessary to keep up with all the developments in today's and tomorrow's world. Lastly, 'Makes me happy' is explained as a close connection with customers which is personal, friendly and involved. Mechanics@Home revolves around the idea of 'Makes me happy', because it is all about creating a personal connection with the customer. Nonetheless, as mentioned in the previous chapter, boundaries need to be set to make sure the privacy of the mechanics is guarded.

All in all, I can say:

'I designed a service for Extra@Home that is user-centred and complements the core values of PostNL'

9.3 | RECOMMENDATIONS

In response to all the insights from previous chapters, six recommendations for further research and design are proposed in this chapter.

More customer tests

For this project, only a simulated customer test was used for validation. In this simulation everything worked perfect and it was more about the experience of the app and what customers could imagine to feel when experiencing this service. However, to fully test Mechanics@Home, it should be brought to reality, where the customer actually experiences the service delivery together with Mechanics@Home. In this way the customer can also experience Mechanics@Home if a delivery does not go that well. How do they feel and does this make a difference from the current service? Therefore, more customer tests are needed.

Iterate on the interpretation of the review system

There seemed to be a small contradiction in what the marketing team wanted and what the mechanics wanted for the review system. It is important to consider both stakeholder, because they have valid suggestions for the review system. Therefore, not just one solution should be applied in Mechanics@Home, but further research and iteration is needed to create a review system that satisfies all stakeholders. Additionally, the customers should also be included in this iteration process, because they are the ones that will review the mechanics. This solution can take many forms, will the NPS continue to exist, or will there be a new system or a combination of both. For this process it might be interesting to analyse other review systems, for example Marktplaats. They have a review system that seems to only be 'positive'. However, something to consider in the future.

Make customers feel more heard

As mentioned in the discussion, customers that feel more heard is not completely implemented in Mechanics@Home. A possible solution could be to look at the idea of Feedback@Home and implement that in Mechanics@Home. Perhaps an user research and literature review on how customers will feel heard is a good starting point to improve on this point.

Important to keep on innovating

One of PostNL's core values is explained as paying attention to customers, new developments, society and tomorrow's world. To pay this attention a need for continuous evaluation and innovation occurs. Perhaps the future lies in AR and not in an app of PostNL. Therefore, a monthly, semi-annual or annual meeting to evaluate Mechanics@Home can be proposed. This could also be linked to Feedback@Home where a continuous feedback system is proposed. Once again, a possible implementation of Feedback@Home might be the solution.

Consider value for Extra@Home's clients and test outcomes

As marketing has noted, it is important to also consider the value for Extra@Home's clients, because they are also a stakeholder. However, the concept first had to be finalised to explain the value for the customer. If the customer is happy, the client is probably also happy. The client can be happier by adding specific features per client. Nonetheless, Mechanics@Home should first be evaluated with each client, before talking about possible specific features.

Racism and discrimination

One customer noted that Mechanics@Home can evoke racism and discrimination. Even though, I never imagined this as a possible side effect of Mechanics@Home, it is important to not let this slip through. Racism and discrimination is way to complex to just mention it in the discussion and to get over it like that. Therefore, more research is needed on how to prevent this.

10

REFLECTION

This chapter is a personal reflection on the project and previous set personal goals in the project brief.

I chose to apply for the graduation opportunity at PostNL, because it triggered me that PostNL had a service that I did not know about. The subjects within SPD that I find interesting are service design and business development, and I think this opportunity kind of combines the two interests. During my study abroad in Sweden, I learned a lot more about business development and strategy and I wanted to apply that knowledge to my graduation project. I think subsequently I used a lot of knowledge during my project. However, the SERVQUAL model is something I learned during my study abroad. It was one of the missing links during the evaluation of the customer experiences, so it really helped me.

Of course, I am not a business administration student, but I thought I could learn a lot from PostNL as a big company, but also from Isabelle, who is Business Developer at Extra@Home. During my graduation project I had the opportunity to explore the whole operation of Extra@Home, but she also involved me in brainstorming sessions about Extra@Home. I learned that Extra@Home is actually a small, almost independently, operating department within PostNL and that if I had any questions I could ask everybody I wanted, if they had the time. From Isabelle I learned to control my chaos, because she encouraged me to set my own meetings and to ask for help and not wait for help. She also taught me how to work with people with different personality.

Within the project, I was hoping to improve my planning skills, presentation skills and independence.

I have always struggled with planning and because this was such a big project, which I was doing alone, I thought it would help me improve these skills. However, sometimes I found it hard to stick to the planning, because doing the project alone felt really lonely sometimes. It was hard to keep the focus and then I had to iterate on my planning. My graduation committee also helped me improving my planning skills, because they encouraged me to send a new planning if the planning turned out not to be working.

I was quite satisfied with my presentation skills, but I wanted to be less nervous before presenting. This nervousness always led to me forgetting what

I have said during the presentation. Even though the nervousness before presentations kept on happening, I think it did not affect my presenting skills. I also found out that I was more nervous about the result after the presentation than presenting. I will keep this in mind during my graduation presentation and I think I can then show to all my friends and family that I know what I am talking about and that I am confident about my presentation skills.

Lastly, I am independent in my personal life, but in work/school life I tend to rely too much on others' approval. I thought that doing a project that I chose and I designed, will help me improve my independence during professional encounters. I sometimes felt a little bit lost during this project. I thought that solving things myself would be the best solution for that, showing that I am independent. However, I noticed that asking help from others does not affect your independence, because sometimes you just need help from others. Within the graduation internship I did feel more independence. I was given tasks to do on my own and the gratitude afterwards made it worth while.

In the end, I am really proud of what I have delivered. Even though not everything worked out as I previously planned, I still learned a lot and I am thankful for this opportunity at PostNL. I am really excited about my future as a graduated SPD student.

11

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12

APPENDICES

In this chapter all the mentioned appendices in the text are displayed.

A | APPROVED PROJECT BRIEF

STUDENT DATA & MASTER PROGRAMME

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



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

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

IDE master(s): IPD Dfi SPD

2nd non-IDE master: _____

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

honours programme: Honours Programme Master

specialisation / annotation: Medisign

Tech. in Sustainable Design

Entrepreneurship

SUPERVISORY TEAM **

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

** chair Pinar Cankurtaran dept. / section: DOS/MCR

** mentor Sijia Bakker-Wu dept. / section: DOS/MCR

2nd mentor Isabelle Starren

organisation: PostNL

city: Amersfoort or Den Haag country: the Netherlands

comments
(optional)

I think, even though, they are in the same department, they both have different specialisations (Sijia - design side; Pinar - strategy side) that can help me within this graduation project.

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



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



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

Procedural Checks - IDE Master Graduation

APPROVAL PROJECT BRIEF

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

chair Pinar Cankurtaran date - - signature 

Digitally signed by Pinar Cankurtaran
Date: 2022.09.23 13:37:28 +02'00'

CHECK STUDY PROGRESS

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

Master electives no. of EC accumulated in total: 30 EC

Of which, taking the conditional requirements into account, can be part of the exam programme 30 EC

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

YES all 1st year master courses passed

NO missing 1st year master courses are:

paraaf SPA: CB

name C. van der Bunt date 26 - 09 - 2022 signature 

Digitally signed by Pinar Cankurtaran
Date: 2022.09.23 13:36:40 +02'00'

FORMAL APPROVAL GRADUATION PROJECT

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

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

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

comments

name Monique von Morgen date 04 - 10 - 2022 signature _____

Designing the optimal service for Extra@Home at PostNL project title

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

start date 13 - 09 - 2022 11 - 02 - 2023 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

PostNL is one of the leading companies in mail and parcel delivery in the Netherlands. Daily, 1.1 million parcels are delivered and 8.1 million mail is delivered by PostNL. They keep on innovating and coming up with new creative ideas by responding to upcoming trends, such as digitalisation. It is not needed anymore to buy a post stamp, but by writing a code on your addressed letter, you can send a letter to anyone.

As many people do not know, including me, PostNL also has another department that focuses on delivering XL parcels in and around the house. This department is called Home & Garden. It does not only focus on delivering the packages, but also installing or assembling the products. Home & Garden started 10 years ago as a small organisation with big clients as Leen Bakker and Wehkamp. The beginning was quite rough and the first 5 years there was not much focus on the value proposition, a lot of loss, insufficient quality which all led to a negative image of this delivery service to customers and doubts within PostNL. After the rough start, Home & Garden took a new direction, where they created a customer journey, started to measure the Net Promotor Score (NPS) and most importantly the customer became the central point of attention. This all led to having strong growth as one of the most important KPIs of Home & Garden. [1]

What is important to know is that Home & Garden consists of two networks: Extra@Home, which is created within PostNL and focuses on 'basic' services of XL packages and JP Haarlem, an acquired company, which focuses more on the luxury sector (such as Studio Henk, Riviera Maison, etc.). In this graduation project I will focus on Extra@Home, because this is within PostNL. [1]

Extra@Home works as follows: a company, for example vanMoof, wants to deliver their bikes to their customers, but also wants to give their customers the service to have their new bike assembled. That is where Extra@Home steps in. Through PostNL vanMoof will deliver their bikes to their customers and have them possibly assembled. Therefore, you can see the construction as B2B2C (image 1). [2] Within this delivery service, there are three service levels (see image 2). The main stakeholders involved in my project are: PostNL (Extra@Home, their delivery and mechanic men, PostNL's (Extra@Home) customer that wants to use their service, and the customers of that company that want to buy the product and have it delivered and assembled. [1]

Opportunities within this project lie within the three service levels. It is really interesting that the service is separated into three levels and to find the customer needs within these three levels. Opportunities may also lie within looking at the current situation with parcels at PostNL. Extra@Home is a separate department that has a different operation modus than the parcel delivery, but can it maybe help to look at parcel delivery to improve the situation? However, this can also be a limitation. Since PostNL is such a big name within parcel delivery it might also come with a lot of expectations and/or bias.

[1] Buurmeijer, T. (n.d.). Welkomstkit & Inwerkprogramma PostNL Extra@Home [Slide show; Powerpoint].

[2] VanMoof Klantcase. (n.d.). PostNL. Retrieved 13 September 2022, from https://www.postnl.nl/Images/vanmoof-klantcase_tcm10-223200.pdf

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Personal Project Brief - IDE Master Graduation

introduction (continued): space for images

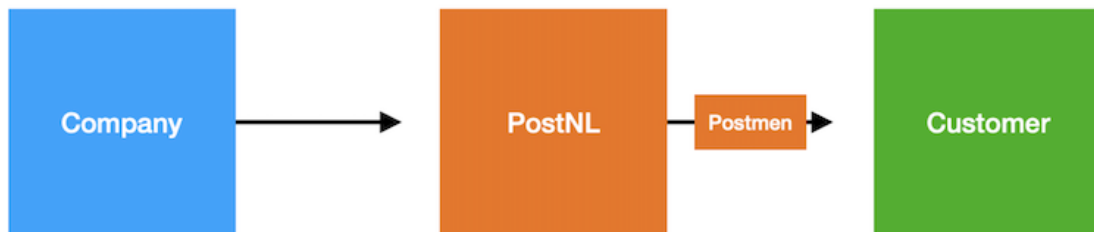
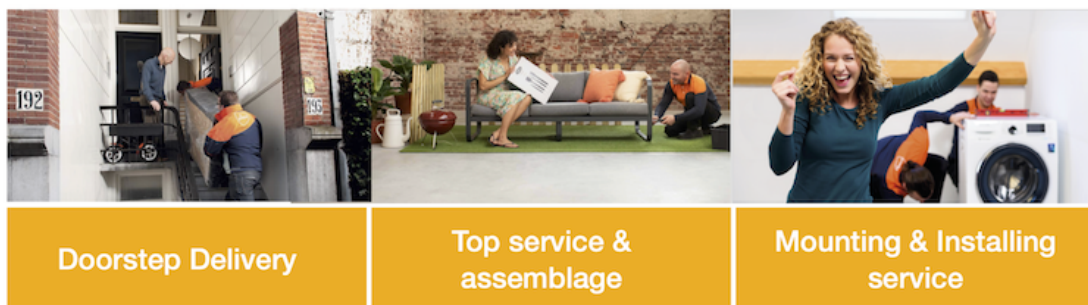


image / figure 1: B2B2C



Doorstep Delivery	Top service & assemblage	Mounting & Installing service
-------------------	--------------------------	-------------------------------

<p>XL goods are delivered to your doorstep as standard. (Until the 4th floor)</p> <p>Delivery of kitchen appliances, furniture, garden furniture and bicycles</p>	<p>XL goods are delivered, unpacked, checked on damages and assembled at the right spot</p> <p>Assembling & Mounting of furniture, bicycles and kitchen appliances</p>	<p>XL goods that need more attention are mounted and installed.</p> <p>Mounting & Installing of TVs, kitchen appliances, smart home, lighting, airco, art, trampolines, etc.</p>
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image / figure 2: Service levels

PROBLEM DEFINITION **

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

The goal of Extra@Home is to make Extra@Home the number 1 delivery company in the Benelux in XL parcels with premium services. [1] To reach this goal, I think we should start at the base. As said above, Extra@Home has three service levels, with each a different customer journey. For this assignment I will only focus on the most complicated one: Mounting & Installing. However, this service overlaps with the Topservice, because they are both crossing the doorstep delivery and mounting products, so it is needed to analyse them both.

The customer journey of this service does not only involve the end customer, but also Extra@Home, their client and the delivery man. Another difficulty is that the service level has different products to be delivered. A dryer needs another type of service than a washing machine.

Dynalogic is one of Extra@Home biggest competitors. Their biggest asset is that they have low prices for their services and a big range of delivery time. However, their customer service is paid and hard to reach to. [1] Another competitor to look at is Coolblue. They are not only delivering their products but also selling their products. However, their core business is the delivery of their products and they are really good at it.

Concluding, the problem is that the service level of crossing the doorstep still has room for improvement. It might be interesting to have the Mounting & Installing customer journey as a starting base, and research and design on that. Because the service level is complex, it is important to conduct an intensive research on the existing services, but also to look at competitors and to do a customer research.

[1] Buurmeijer, T. (n.d.). Welkomstkit & Inwerkprogramma PostNL Extra@Home [Slide show; Powerpoint].

ASSIGNMENT **

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

Analyse the current 2 service levels (Mounting & Installing and TopService) and design the optimal service for crossing the doorstep delivery.

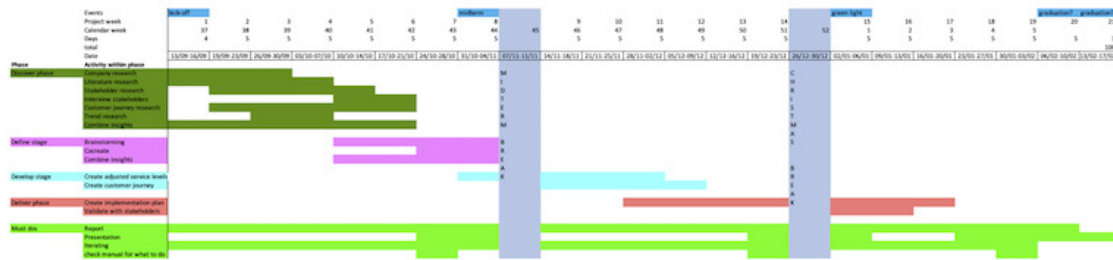
The expected outcome of this graduation project will be:

- an extensive competitor analysis;
- service design of the crossing the doorstep delivery;
- optimised customer journeys of the services level;
- implementation plan of the optimised service level / advice on how to continue with the services. The precise nature of the implementation plan and strategic advice, and the format in which they will be delivered to the company, will crystallise as the project unfolds.

PLANNING AND APPROACH **

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

start date 13 - 9 - 2022 11 - 2 - 2023 end date



I am planning to work fulltime on my graduation project. I scheduled 10 free days for now, after my midterm and during the Christmas break.

My project needs a lot of research, because there are so many stakeholders involved. After conducting the research, it will be interesting to speak with all the stakeholders by doing interviews. Other research that is needed, is customer journey research to really understand the current journeys, but also trend research, to see if there are trends that could influence the current services. This all will be combined into insights, that will help me to get started with brainstorming. I think it will be useful to do some cocreating sessions, to involve all stakeholders into the process, and this will help me to further develop the three service levels and customer journeys. This will continue into an implementation plan for PostNL and a final validation with all stakeholders.

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

I chose to apply for the graduation opportunity at PostNL, because it triggered me that PostNL had a service that I did not know about. The subjects within SPD that I find interesting are service design and business development, and I think this opportunity kind of combines the two interests. During my studies abroad in Sweden, I learned a lot more about business development and strategy and I would really like to apply that knowledge to my graduation project. Of course, I am not a business administration student, so I think I can learn a lot from PostNL as a big company, but also from Isabelle, who is the Business Developer at PostNL.

Within this project, I am hoping to improve my planning skills, presentation skills and independency.

I have always struggled with plannings and because this is such a big project, which I will be doing alone, I think it will help me improve these skills.

I am quite satisfied with my presentation skills, but I would like to be less nervous before presenting. This nervousness always leads to me forgetting what I have said during the presentation.

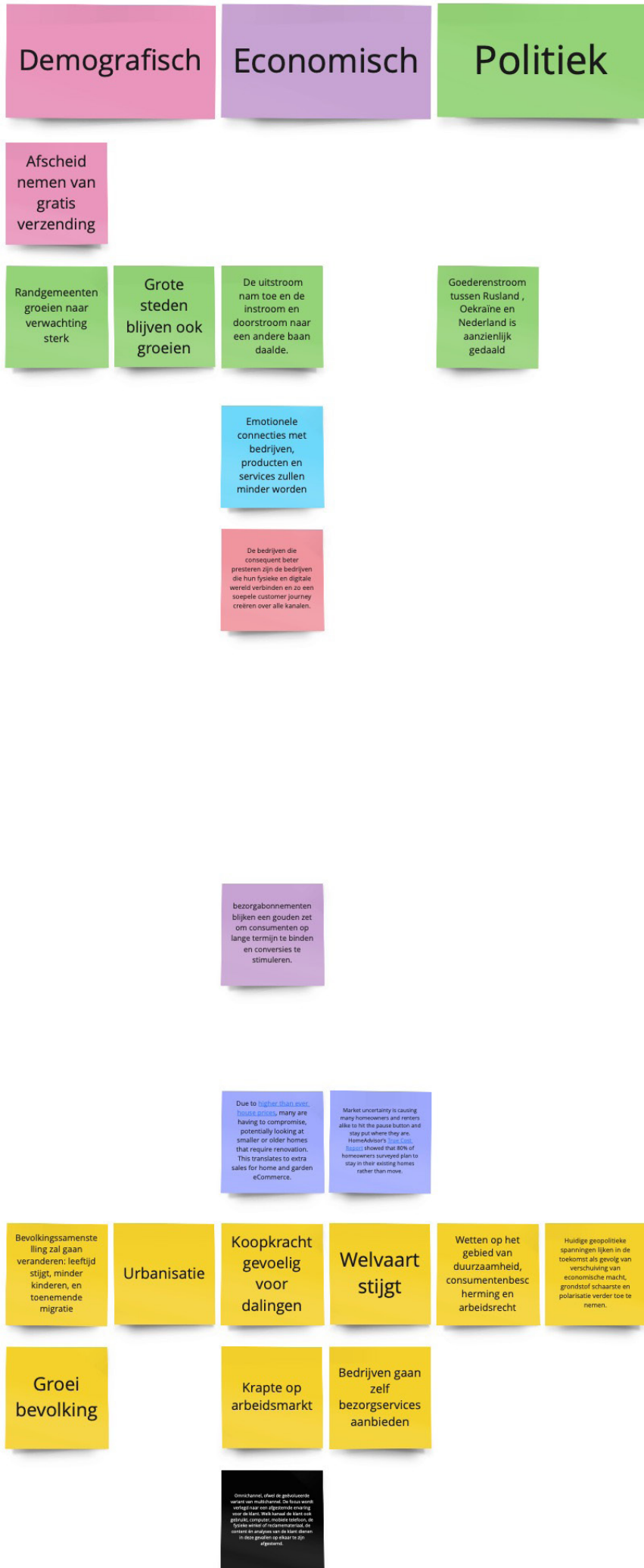
I am independant in my personal life, but in work/school life I tend to rely to much on other's approval. I think that me doing a project that I chose and I designed, will help me improve my independency during professional encounters.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

B

DESTEP ANALYSIS



C | COMPETITOR ANALYSIS

Company	Service	Complaints	Postives
<p>1,7/5</p>  <p>PERSONALIZED LOGISTICS</p> <p>(Trustpilot, 2022b)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Dynalogic, n.d.)</p>	<p>✓ Package was not delivered on agreed time • Hard to reach • Large timeframe • Damages on product & in house • Late delivery • Service does not match promised service • Track & Trace does not work</p>	<p>Hassle-free delivery • Friendly delivery drivers • Collected packaging materials • Called by drive before delivery • Give a small introduction about product</p>
<p>3,3/5</p>  <p>transport - verhuizingen - opslag</p> <p>(Google review, 2022a)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Jos Dusseldorp Transport, n.d.)</p>	<p>✓ Unfriendly delivery drivers • Product is not placed at asked spot • Long waitinglist & cold contact by phone • Service does not match promised service • Late delivery • Very few and non ideal dates</p>	<p>Friendly delivery drivers • Information is in English and Dutch • Compliments about their moving service</p>
<p>4,2/5</p> <p>INT. TRANSPORTBEDRIJF</p>  <p>(Google review, 2022b)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Van Sullichem Communicatie BV, n.d.)</p>	<p>✓ Product not delivered on agreed date or time • Delivery/installation was not done after discovering customer had a pull switch • Unskilled installation</p>	<p>Nice input by delivery drivers • Explanation of product was given • No damaging • Skilled professionals • Quick and on time delivery • Collection of packaging material</p>
<p>2,7/5</p>  <p>(Review Euro, 2022)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Vos Logistics, n.d.)</p>	<p>✓ Service does not match promised service • Customer has to do a lot themself • Long delay with delivery • Damage was reported after delivery, so Vos would not pay for damage</p>	<p>Personal approach delivery drivers • Careful delivery • On time delivery • Friendly delivery drivers</p>
<p>2,6/5</p>  <p>(Trustpilot, 2022d)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Marketingkraam, n.d.)</p>	<p>✓ Service does not match promised service • Late delivery • Delivery of damaged products • Hard to reach by phone • Delivery drivers are lazy</p>	<p>Transparant communication • Nice delivery drivers • On time delivery • Collection of packaging material • Quick solutions after bad experience</p>
<p>1,5/5</p>  <p>(Trustpilot, 2022a)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (DHL, n.d.)</p>	<p>✓ Big parcel delivery is a side task • Lost parcels • Customers do not know where parcel is delivered • Late delivery</p>	<p><i>There are no positives</i></p>
<p>2,4/5</p>  <p>als u nu vervoer niet iets beter maakt</p> <p>(Trustpilot, 2022e)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Van Spreuwel Transport, 2022)</p>	<p>✓ Packages are left outside • Bad communication • Parts of delivery are delivered • Packages are not delivered • A lot of communication with one delivery • Damaged products</p>	<p>Friendly, willing delivery drivers • Planning is willing to think along and help customer</p>
<p>2,9/5</p>  <p>(Trustpilot, 2022c)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (no delivery) (Roamler, n.d.)</p>	<p>✓ Mechanic did not come at agreed time or at all • Bad communication</p>	<p>If they show up: friendly and skilled mechanic</p>
<p>3,9/5</p>  <p>(Trustpilot, 2022m)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (no delivery) (Zoofy, n.d.)</p>	<p>✓ Appointments are canceled without notice • Hard to reach mechanics and customer service • Assembly was not done correctly</p>	<p>Skilled mechanics • Mechanic shows up on time • Service is already available within couple of days</p>

Company	Service	Complaints	Postives
<p>3,7/5</p>  <p>(Trustpilot, 2022j)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Leenbakker, n.d.)</p>	<p>✓ Orders are not complete</p> <p>✓ Products are not delivered • Order today = delivery tomorrow is not a guarantee • Damaged products</p> <p>• Customer has to help delivery drivers</p>	<p>Friendly delivery drivers</p>
<p>4,2/5</p>  <p>(Trustpilot, 2022f)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (BCC, n.d.)</p>	<p>✓ Bad communication</p> <p>• Late delivery • Hard to reach customer service • Customer service is better when going to the store and not call • Mechanics forget to bring correct equipment</p>	<p>Thinking along with customers</p> <p>• Friendly and skilled delivery drivers</p>
<p>4,3/5</p>  <p>(Trustpilot, 2022k)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Mandemakers, n.d.)</p>	<p>✓ Hard to reach customer service</p> <p>• Installation is not done correctly</p> <p>• Order is not complete • A lot of different service appointments with a long time in between</p>	<p>Installations are done perfectly</p> <p>• Professional mechanics</p> <p>• If something goes wrong, mistake is handled directly</p> <p>• Skilled people instore</p>
<p>1,2/5</p>  <p>(Trustpilot, 2022l)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Miele, n.d.)</p>	<p>✓ Hard to reach customer service</p> <p>• Expensive repair service</p> <p>• Damaged products</p>	<p><i>There are no positives</i></p>
<p>1,6/5</p>  <p>(Trustpilot, 2022g)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Bosch, n.d.)</p>	<p>✓ Late with solving problems</p> <p>• Poor installation • Huge amount asked for maintenance • Hard to reach customer service</p>	<p>If reachable, friendly customer service</p> <p>• Think along with guarantee problems</p>
<p>4,6/5</p>  <p>(Trustpilot, 2022h)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Coolblue, n.d.-a)</p>	<p>✓ Communication before delivery does not always match with what was promised</p> <p>• Late delivery</p> <p>• Order is not completely delivered</p> <p>• Poor communication</p>	<p>Clear communication, short waiting times</p> <p>• Customer checks for damages before installation</p> <p>• Quick problemsolving</p> <p>• Honest communication</p> <p>• Has humor</p>
<p>4,6/5</p>  <p>(Trustpilot, 2022i)</p>	<p>Doorstep delivery</p> <p>Top service</p> <p>Installation service (Expert, n.d.-a)</p>	<p>✓ Service does not match promised service</p> <p>• Mechanic spoke unpleasantly about Expert</p>	<p>Contact via stores</p> <p>• Skilled mechanic who take the time</p> <p>• Salesmen = mechanic</p> <p>• Good installation</p> <p>• Mechanics are customer oriented</p> <p>• Delivery on time</p> <p>• Friendly mechanics</p>

D | INTERVIEW GUIDE & CHARACTERISTICS TABLE

RQ:

How do customers perceive the Customer Journey of PostNL Extra@Home/Inbouw & Installatie?

Na het opnemen:

Goeiemorgen u spreekt met Simone van postnl extra@home. Op DATUM heeft u een ARTIKEL via PostNL extra@home laten bezorgen en naar aanleiding van uw ingevulde enquête na de bezorging zou ik graag wat dieper ingaan op uw ervaringen van extra@home aan de hand van een vragenlijst voor een onderzoek naar het verbeteren van de klantreis. Heeft u nu zin en tijd? Het zal ongeveer 10 min duren.

Allereerst wil ik u vragen of het oké is om dit interview op te nemen. Het zal alleen intern gebruikt worden en om tot inzichten te komen. Verder zullen wellicht alleen quotes gebruikt worden voor onderbouwing van de inzichten.

Zeggen dat opname gestart is

Algemene vragen

Q: voor demografische gegevens zou ik graag uw leeftijd willen weten

Ook hoe u woont en op welke verdieping? (bereikbaar met trap of lift?)

Q: wat voor associaties heb je bij PostNL? Alles wat in u opkomt mag u roepen

Q: wat zijn je ervaringen met PostNL?

Q: hoe vaak heb je bestellingen via PostNL laten leveren? (ook reguliere pakkettenservice)

Q: had je hiervoor al eerder een XL product besteld en laten bezorgen/installeren door PostNL?

Q: heb je ervaring met andere bezorgers?

Q: waarom heeft u voor bezorging gekozen? En specifiek voor deze bezorging?

CJ vragen:

Q: Kan je alle activiteiten beschrijven die je hebt doorlopen voor de installeer/bezorgservice en ook beschrijven hoe je je voelde per stap? (voorbeeld van kapper:

als ik naar de kapper ga, bedenk ik eerst dat ik naar de kapper moet, waarna ik een kapper ga selecteren, waarna ik een afspraak maak bij die kapper, etc.)

per stap Q (hangt ook van stap af)

Q: Wat waren je verwachtingen van te voren?

Q: Wat heb je hier gedaan?

Q: Hoe voelde je je toen?

Q: Hoe was de communicatie toen?

Als moeilijk is stappen te identificeren:

Pre:

Q: hoe lang tussen online bestelling en bezorging? Naar tevredenheid?

Q: Hoe is de service vooraf gecommuniceerd?

Q: Wat waren je verwachtingen vooraf?

Q: Heb je via andere manieren nog verder gezocht naar informatie?

Service:

Q: Wat gebeurde er allemaal toen de bezorging/installatie plaatsvond?

Q: Hoe ervoer jij elke stap?

Q: Kritische momenten die eruit springen?

Q: Wat ging er goed/niet goed?

Post:

Q: Hoe was de follow-up na de service?

Q: Heb je iets over de service gecommuniceerd? (Op social media)

Q: Heb je over de service gepraat met je fam/vrienden/kennissen?

Afsluitvragen:

Q: Was je over het algemeen tevreden of ontevreden als je kijkt naar wat je verwachtte en wat je ontving als service?

Q: heb je het idee dat je jouw mening kwijt kan in de enquête?

Q: Zou u over deze service aan vrienden/familie/kennissen?

Q: Hoe ziet de perfecte service er voor jou uit?

Q: Als jij de baas was van PostNL extra@home, wat zou je dan aanpassen?

Q: Zou je zelf de installatie doen als je de juiste kennis hebt?

Q: Nog andere vragen/opmerkingen?

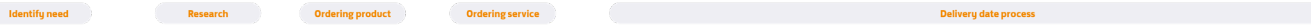
Participant number	Age	Service	Product	NPS score
1	44	Top service	Washing machine	10
2	48	Installation service	Refrigerator	9
3	51	Installation service	Integrated hob	10
4	64	Top service	Sofa bed	8
5	48	Installation service	Refrigerator	7
6	25	Top service	Wardrobe	7
7	66	Top service	Pellet stove	2
8	33	Installation service	Refrigerator	2
9	53	Top service	Bicycle	1

E

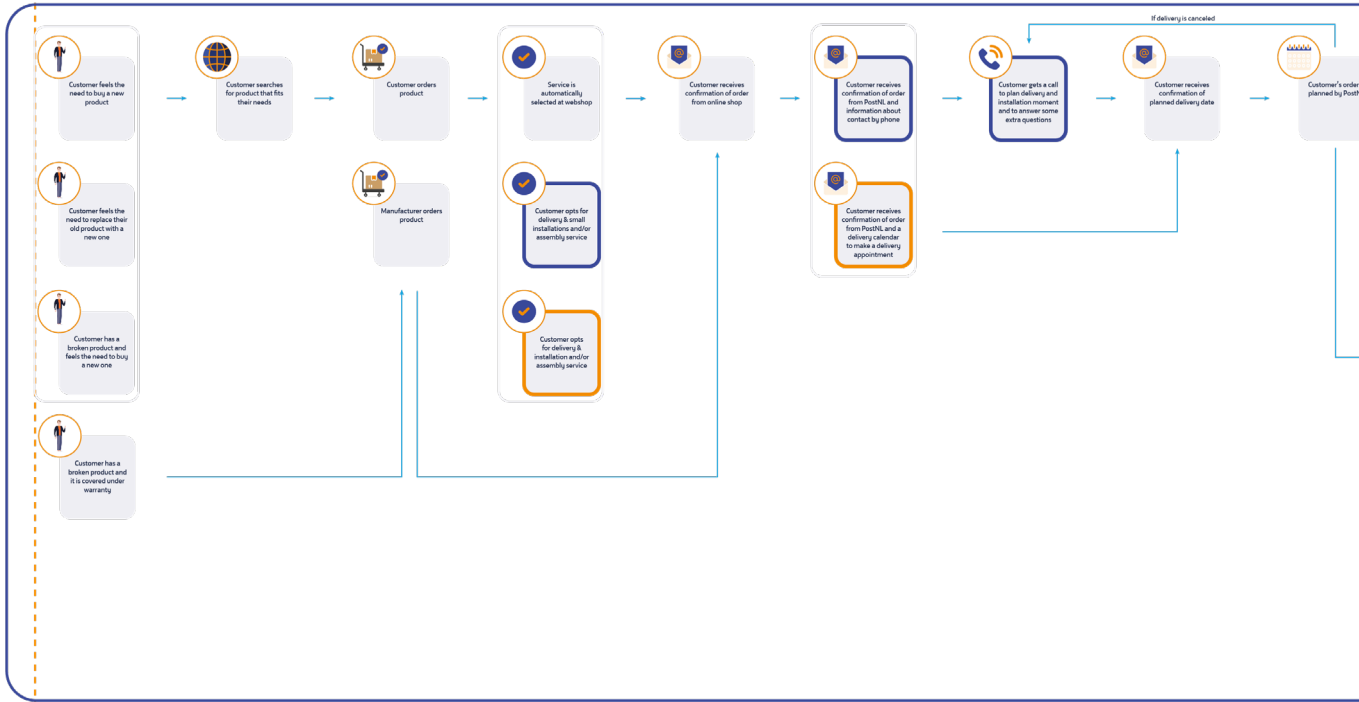
CUSTOMER JOURNEY EXTRA@HOME

Pre service period

Stages



Activities



Expectations



Pleasure moments



Pain moments



Service period

Post service period

Information about delivery

Delivery of product & service

Wrapping up service

Follow up

Sharing thoughts



- General
- Top service
- Installing service

Product will be delivered at estimated time

If delivery time/date changes customer will be informed

Delivery man knows about residential conditions and can deliver the product

Delivery man knows about the service the customer was promised

Delivery man will handle product with care and product is not damaged

Delivery man has the right expertise to place/assemble/install product

No expectations, because was not aware of the service

Friendly delivery man

Delivery man arrives on time

Old product will be returned with PostNL

Packaging material will be taken with delivery man

Post NL will do nothing with the filled in survey

Communication

Quick, tidy and friendly delivery

Delivery man helps with a not get disconnected dryer even though that is not in the agreement

Customer did not know about installing service and is pleasantly surprised with the service

Delivery man is really skilled and knows a lot about the products

Delivery man has nice inputs when a product is hard to deliver at the right spot

Delivery man arrives on time

Collection of packaging materials

Customer is satisfied with service

Customer likes that she is being called after the filled in survey

Customer is not called when delivery gets cancelled

Information is not shared via same paths as previous information sharing

Product is not delivered on agreed time or date

Product is damaged or not handled with care

Product is not installed or assembled in the correct way

Received information about assembling or installing does not match delivered service

Customer has to fix things themselves

Delivery man arrives late

Delivery man is unfriendly

Order is not completely delivered

House is damaged during delivery

Customer is not satisfied with service

Customer does not feel heard after bad experience with delivery

F | CLUSTERING REQUIREMENTS



should
chable

The customer wants
to know what to
expect for the service
delivery

**Transparent
communication**

The customer wants
clear communication,

g should be
unicated
the customer

The customer wants
to feel heard after a
bad delivery
experience,

The customer wants
their information
correctly processed,

nts
ot to

**Correctly processing
of information**

PostNL wants to be
close to customers

**Connection with
customers**

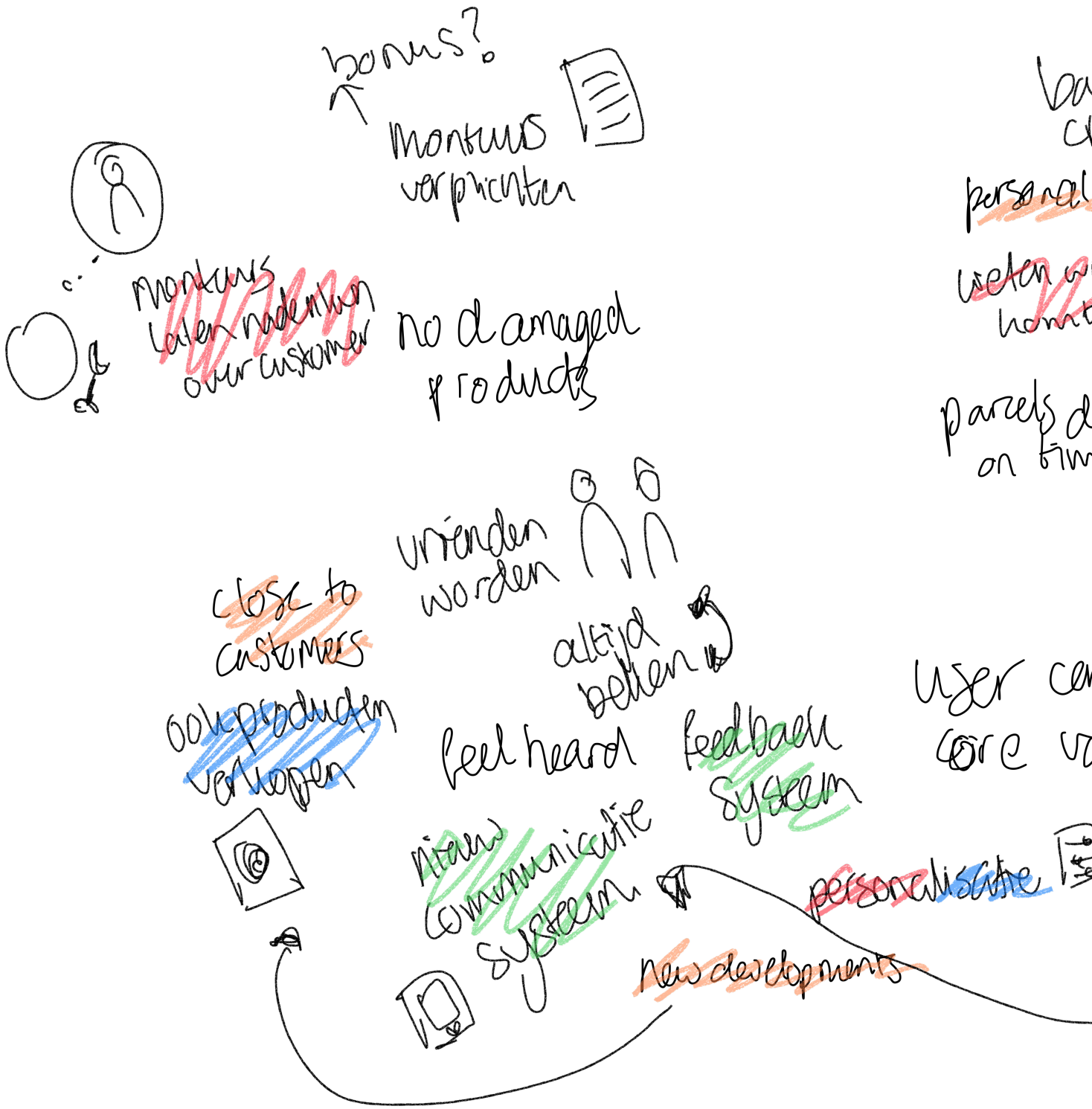
PostNL wants to be
personal, friendly and
involved

The customer wants
parcels delivered on
agreed time & date

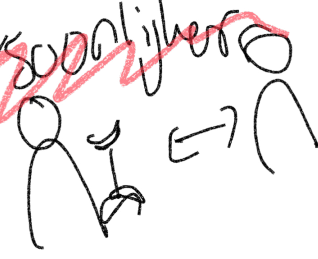
The order should be
delivered on agreed
time and date

On-time delivery

G | BRAINSTORMING SESSION IDEATION



ind
overen → ~~persoonlijker~~



Feedback@Home
Mechanizs@Home
PostNL@Home

~~Handly~~
re w
PDA

~~multitasking~~



delivered
to base

information
correctly
processed

order
system

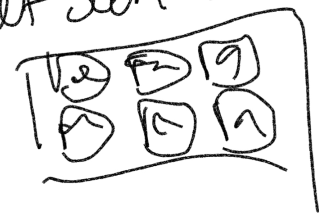
~~not to
worry~~

ntread
values PostNL

what to expect?

alles in
postnl app

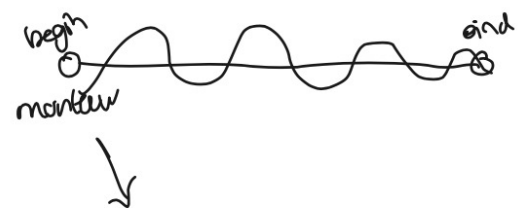
Woraf
aankondigen
met scenario



~~clear what
to expect~~

→ clear communication
niet veel info





monteur ook een persoon, niet alleen een service
↳ altijdens plannen.



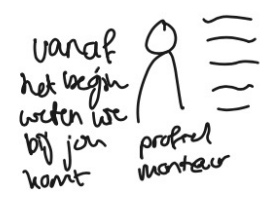
contact op? - monteren.

NKZ monteurs het gezicht van PostNL maken



Post NL marketing over hoe belangrijk de monteur is
 helemaal in de regen jouw afpak in elkaar greet zodat jij kan gesticuleren.
 met twee linkerhanden?

meer updates met tijdlijn.



statistieken achtergrond info van monteur hoeveel dingen al genoemd zijn in afgelopen week of dag

chatten met monteur

brede = bellen / chatten bepaalde tijd van te voren

LAAT weten hoe die zich voelt



woonruimte

duidelijke woonruimte waar met het gemiddeld worden

Energie
 ●●●●●●●●
 SOCIAAL
 ●●●●●●●●

