POLITECNICO
MILANO 1863

enel X

High-tech Startup project
Group 16

Tutor **Jie Li**

Sooraj Gunasekar
969784

Jüri Andreas Kaljusto
967402

Antonio Pucciarelli
974675

Chiara Sperlí
968815

Osvaldo Benitez Vargas
961487

2021/2022 academic year

Contents

List of Figures

Chapter 1

Value proposition canvas

1.1 VP canvas

The work that was performed by our group started with a first approximation of the Value proposition Canvas that was created to ensure a fit between the new services of drugs delivery and diet e-consulting, and the current market. Therefore, our offer was identified focusing on what are the negative situations that our customers could face when they use the service of a pharmacy or, when they need to book a doctor's appointment to receive a diet. These negative situations are represented as pains and the main goal of our initial work was to identify the key aspects, about our services, that could act as pain relievers.
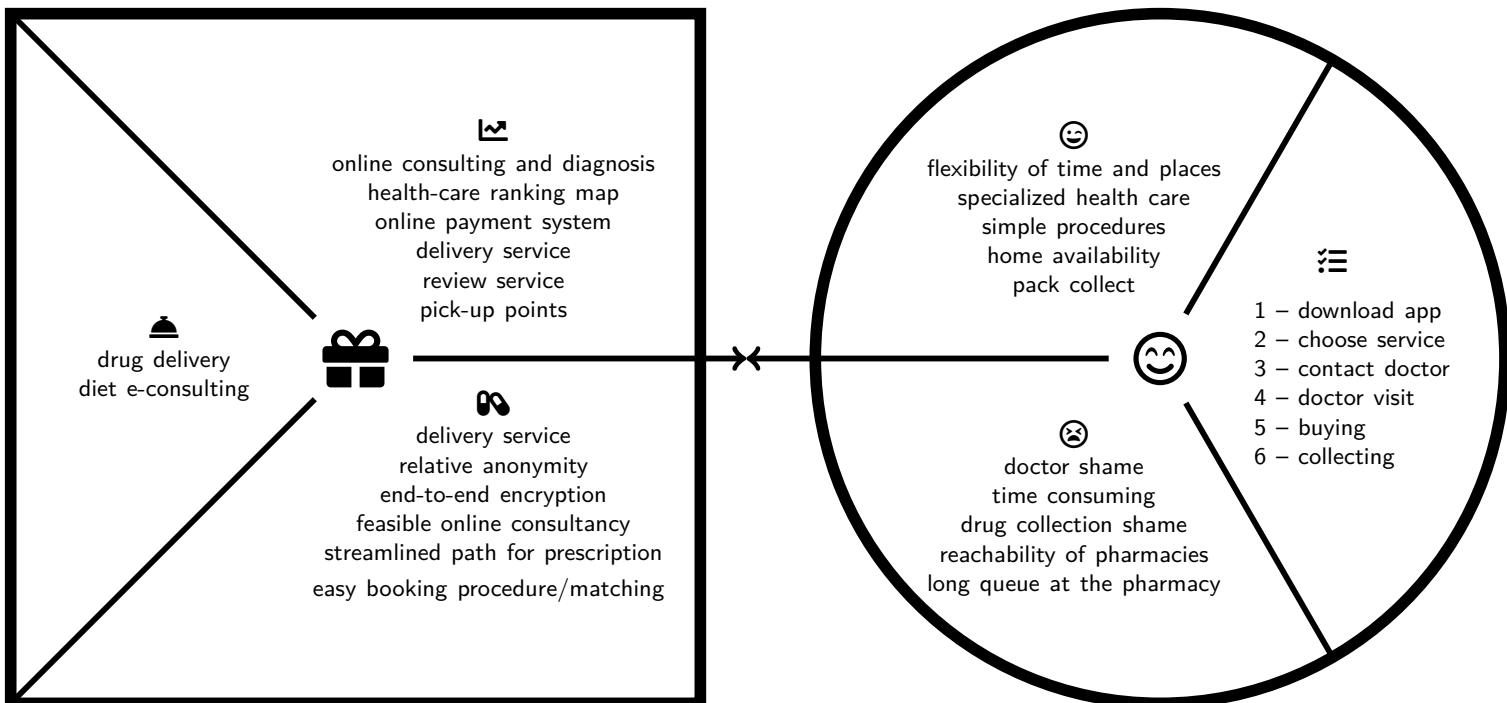

Figure 1.1: Value proposition canvas.

Then in the same way that was done as with pains and pain relievers, the gains, which are all the things related to increase the value of our services, were identified, in order to understand how our VP could have been able to generate them (gains creators). After having structured the initial version of our VP, the validation process was performed and it led to the final version of the VP that is presented in Figure 1.1. It is necessary to underline that since the riskiest hypothesis tested is about the drugs delivery service, the VP is mainly focused on it.

1.2 Service description

ENEL X healthcare application is an already existing application mainly used for remote patient monitoring, video consultancy with doctors and home assistance for elderly and fragile people. Our goal was to develop and introduce additional services, such as drugs delivery and online doctor/nutritionist consultation, for the customers. The first service should permit the customers to receive the medicines that they buy through the app, directly at home or at a selected pick-up point. The second service should give the possibility to book an appointment with a specialized doctor to obtain a personalized diet. The customers are supported with choosing their doctor thanks to the ranking and reviews based system.

1.2.1 Pain description

To recognize the most important pains it was necessary to determine which are the main discouraging situations that a customer experiences while going to the pharmacy to buy goods. It was decided to build two categories which relate in a proper manner each situation faced, these are time related situations and shameful circumstances.

Time related pains As can be seen in the VP canvas, time related pains consist of:

- time consumption to go to the pharmacy

- difficulty to reach the pharmacy

In the first case, the pain referred to all kinds of situations when people cannot find the time to physically go to the pharmacy, for example: students/workers that face a lot of commitments during the day and find it very difficult to leave their workstation; or situations in which people can encounter a long queue before entering the pharmacy. In the second case the pain is associated with all the people who live/stay in places far from the pharmacies and there ore need to spend a lot of time reaching them.

Shame As shown in the VP canvas two shameful conditions for the customer were identified: doctor shame and drug collection shame, which may create a feeling of being judged. Doctor shame was set as a pain because many times the customers feel uncomfortable visiting the doctor due to a feeling that their condition is not severe enough to require medical consultancy or in contrast, they fear being judged due to the severity of the situation. Moreover, drug collection shame is a pain due to the lack of privacy during the purchase of the medicine or goods acquired at the pharmacy.

1.2.2 Pain relievers description

From the VP canvas, the two major pains faced by the customers were time related pains and shame. Our proposal addressed the pains and how it is possible to build our service to solve these pains through the pain relievers listed below.

Fast and reliable drug delivery service

"Lack of time" is one of the main pains for the customers, therefore, to encounter this issue our model provides them an online drugs delivery platform that guarantees the delivery in one hour at their doorstep or at a pick-up point. Moreover, the customers have the possibility to track their order and to contact the customer service in case of any problem.

Privacy

Another important pain to be addressed is the "shame". Our proposed model was meticulously developed in such a way that the privacy of the customers is ensured at any cost. Some of the features such as end-to-end encryption and relative anonymity options were provided to the customer as the pain-relieving solutions for shame.

1.3   Customer job

The ENEL X healthcare application is developed in such a way that the interface is user friendly and accessible for all the age categories. The customer must download the ENEL X healthcare app and fill the registration details followed by the selection of service. ENEL X app could offer in addition to doctor e-consultation, features such as diet service and drugs delivery service in the following way:
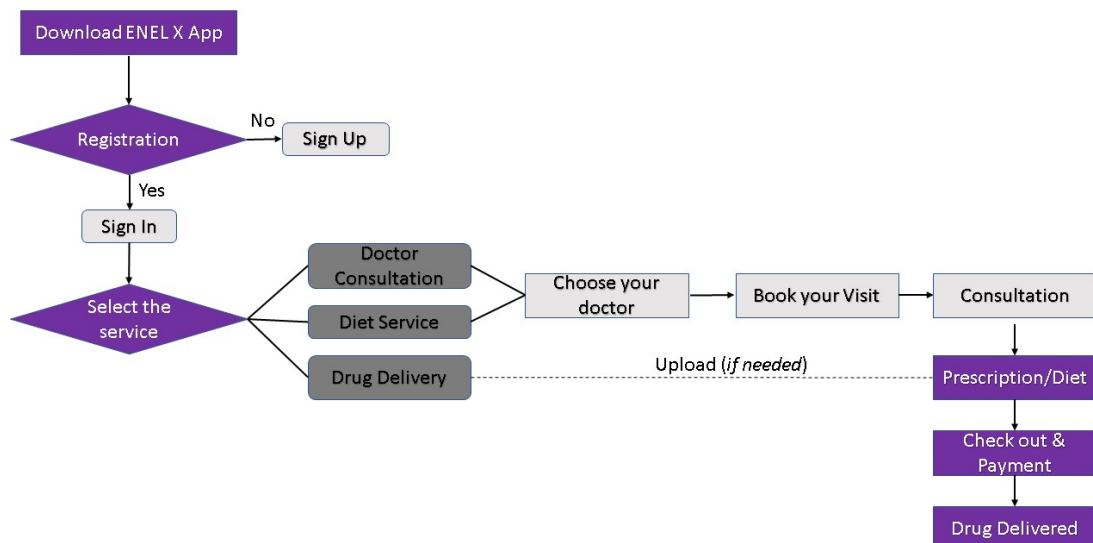
Figure 1.2: Customer job

This application provides multiple choice for the customers to choose among doctors and nutritionists e-consultation with stars rating, experience and labelled medical expertise.

Nutritionists e-consultation   If customers choose the nutritionist, they can book the appointment for the consultation and then get the diet.
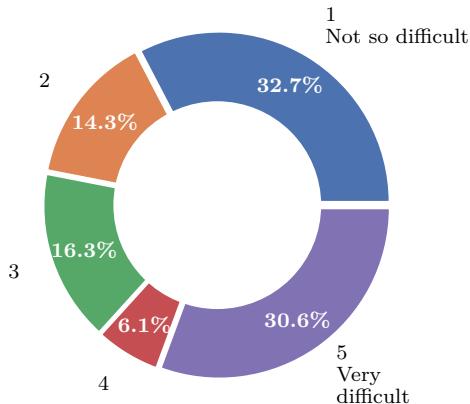
Doctors e-consultation   If customers choose the doctor, they can book the appointment to get a consultation and consequently the prescription for a medicine (if it is needed). After this,

the doctor forwards the prescription to the next section where the customers must confirm the checkout list and do the payment for the drug to be delivered at their doorstep. Customers can also avail the drug delivery option by directly uploading the prescription and completing the payment. If no prescription is needed, customers can go straight to the online store where they can buy the medicines.
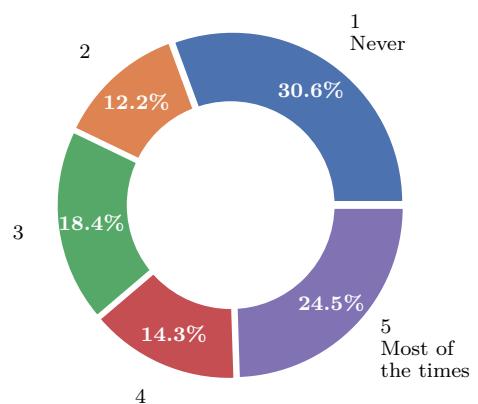
1.4   Survey – Pains check

It is essential to understand and validate the pains faced by the customer to develop a better product. The below donut charts illustrate the results of the survey that was done to figure out if the pains inserted into the VP are real pains faced by the customers. The results of the survey confirmed that time related pains and shame were some of the main pains faced by the customer as mentioned in the VP canvas.
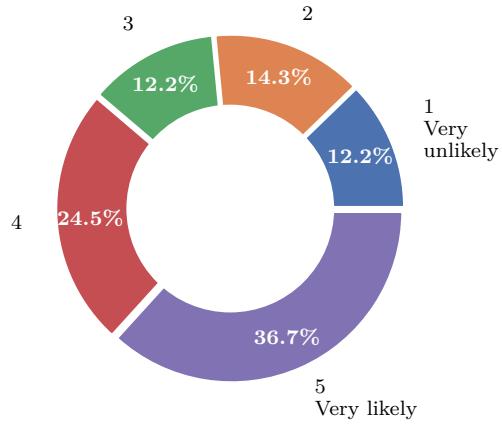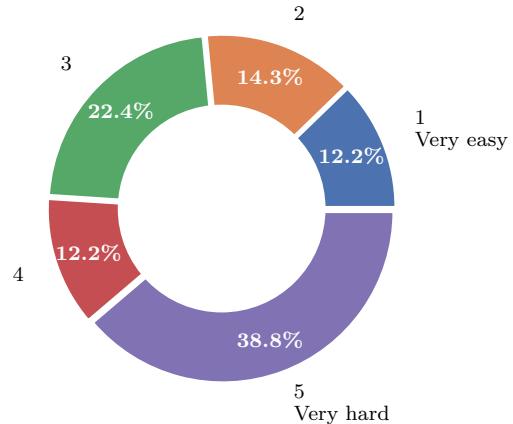
Figure 1.3: Question response donut charts.

Chapter 2

Hypotheses

People are willing to pay for medicine delivery One of our main hypotheses is that people are willing to pay to have their medicines delivered to their homes without having to go to the pharmacy. With the advancement of modern medicine, the standard solution to an infection in the leg or a mild fever is no longer necessarily amputation or a plunge into an ice bath. Instead hardworking doctors and scientists have come up with various medical drugs and remedies which are available at the pharmacy. However, going to the pharmacy can be a challenge for many people as there can be several challenges a person faces in order to get there. Many people simply do not have the time to take transportation to reach the pharmacy, stand in line waiting for complicated orders, and then travelling back home. People living in smaller cities or people with physical disabilities may not have an easy access to a pharmacy, others might need a medicine that a pharmacy does not have. Some people are too sick to want to leave their homes in order to buy the necessary drugs, others might have a chronic illness where they would not want to always go to a pharmacy to pick up their drugs. Another consideration is for the people who suffer with various mental health issues or anxieties which prevent them from wanting to go through the stress of meeting people, or there are situations where a person could feel a certain shame having to ask a person for a certain type of medicine. Therefore it is our belief that a large group of people would be willing to use a mobile app with ease of access and information about a whole range of medicines, and pay a small fee to have these medical drugs delivered to their doorstep, quickly, securely, anonymously and easily. We intend to test this hypothesis by doing market research and through surveys in section 4.1.

People want more than one option for consulting the doctors Our other main hypothesis is that people want the option to choose between more than one consulting doctor when seeking information or treatment of their ailments. The current approach when becoming sick, injured or struggling with one or several questions about personal health is to take the necessary time out of their day to go to a hospital to receive treatment or answers. This can either be done by scheduling a visit with their dietitian, general practitioner or by going to the emergency room and waiting for treatment. This is often scheduled at an inopportune time with weeks to wait for their dietitian or general practitioner, or is a time consuming uncomfortable wait for anything other than severe and often life threatening injuries at the emergency room. In addition, after waiting all that time, it is possible that the treatment or information received has been inadequate and will require further time and effort to address. This is why we believe that people want to be able to choose exactly who their consulting doctor is before having to go through this long and wasteful process. Given the options to choose their consulting doctor from a list of doctors rated by their price and ability through a mobile app where the customer chooses the category of their problems will lead to much quicker and better customer satisfaction. We intend to test this hypothesis as can be seen in section 4.5.

Chapter 3

Market and companies analysis

3.1 eFarma analysis

eFarma has been the number 1 online e-pharmacy in 2017 and 2020. eFarma describes its business as: *"Il core-business della Società consiste nella vendita B2C a distanza (online), tra gli altri, di prodotti farmaceutici, integratori, prodotti per la bellezza, cosmetici, prodotti per la cura della persona, prodotti veterinari e alimenti particolari."* [eFa20].

eFarma could be one of the main possible competitors in the market. Products are sold online and the shipping time starts from 1 week time period. The shipping cost is free on purchases over 19.90€. Products are shipped all around Italy.

Law and prescription   Although the Italian government allows selling medicines online, not every medicine can be sold on the internet. The Italian Health Ministry does not allow selling online medicines that require a prescription.

As eFarma highlights: *"in Italia ... non è permesso vendere farmaci da prescrizione su Internet."* [eFa20]

From this statement, it is possible to understand that services based on medicines delivery must comply government rules that are quite restrictive and that can have a negative impact on selling.

Market permeability   Although having high selling, eFarma estimates that the market would be much larger if more people are aware of e-pharmacies. The idea of buying medicines online is not completely spread among the Italian population.

eFarma says: *"... la penetrazione del digitale nel settore farmaceutico è ancora molto bassa. Tale considerazione, però, porta il mercato italiano del farmaco online ad essere quello con maggiori potenzialità."* [eFa20]

This last statement, suggests that there could be some lack of information about the e-pharmacy service on the Italian market and/or that the already existing service is not good enough for being used by the expected consumer market.

Analysis results   As result of eFarma analysis, Italy gives positive feedback in the e-pharmacy market. There are still some points that can be improved. These points are:

- Shipping **cost**

- Shipping **time**

- Unavailability of medicines that require **prescription**

3.2 Pharmap analysis

Pharmap is an italian start-up founded in 2016 that offers as main service the possibility to receive pharmaceutical products directly at home. This company is nowadays the leader in Italy for drugs delivery services and operates in collaboration with more than 1000 pharmacies in 250 cities all over the country. Each user of the service offered by pharmap can enter into the website/app and by choosing a delivery address and a pharmacy near to its house, can buy all the medicines that are needed and can receive the order within 60 minutes or in a fixed time period. One of the most innovative aspects, with respect to other companies that work into the pharmaceutical field, is that with pharmap it is possible to get also all that kind of drugs that require a prescription. Since the selling and the consequent delivery of drugs with prescription is part of the service that should be implemented into ENEL X app, it is particularly interesting to understand how pharmap have received the authorization to do that.

3.2.1 How Pharmap solved the prescription problem

The main aspect to be considered is that pharmap is not an e-commerce of medicines and therefore it is not the direct seller, but it is just an intermediate between the pharmacies and the people. To obtain a medicine with prescription thanks to pharmap, there are two options:

- the first one is to give the physical prescription to the rider that will take it to the pharmacy and will complete the order;

- the second one is to download a digital copy of the prescription that will be sent directly to the pharmacist.

Chapter 4

Validation

4.1 First hypothesis validation

4.1.1 Survey

As presented in chapter two the main hypothesis regarding the drugs delivery service is that people are willing to pay in order to receive medicine with a courier. To validate this supposition a first approach used was to insert into the survey, that was previously presented, two questions structured in the following way:

- Suppose there is a mobile app that provides drugs delivery service in 1 hour, how much would you expect to pay for this service?

- Suppose there is a mobile app that provides drugs delivery service in 12 hours, how much would you expect to pay for this service?

The responses to these questions allow to understand not only if potential customers would like to pay for the service that is offered but also the amount of money that they are willing to spend related to the time for shipping. The relation between cost and time is very important because these are the two main driving factors for any delivery service: the major part of the couriers base their shipping price on how many people use their service and on the shipping time. Therefore, from the point of view of a potential partnership that should be established with a courier, two reasonable shipping times were fixed and for each of them people were asked to specify a range of cost. In this way, once it is clear if and how people want to pay, it is also possible to understand if there is an already existing courier that could guarantee, with the fixed time, the minimum cost chosen by the customers.

Another important aspect that should be highlighted is that since this service is a part of an app related to healthcare there is not a very specific market segment to which the survey is referred. The customer base that must be tested is very wide it can be composed by workers, students, old people, or whoever present a particular issue that do not permit to easily reach the pharmacy. For this reason, the survey was not built following a segmentation of customers and it was spread through different channels in order to reach as much people as possible. The answers to the survey were collected in a time period of two weeks and they can be analyzed thanks to the graphs in Figure 4.1. These graphs show the relation between the minimum and the maximum cost for the delivery and the number of people that have chosen these costs. As it can be seen, most of the people who answered to the survey have chosen a minimum cost of 3€ for both the delivery time of 1 hour and of 12 hours.

Others graphs that can help in understanding how the service should be built are the ones shown in Figure 4.2. From these maps it is possible to note that the minimum cost as well as
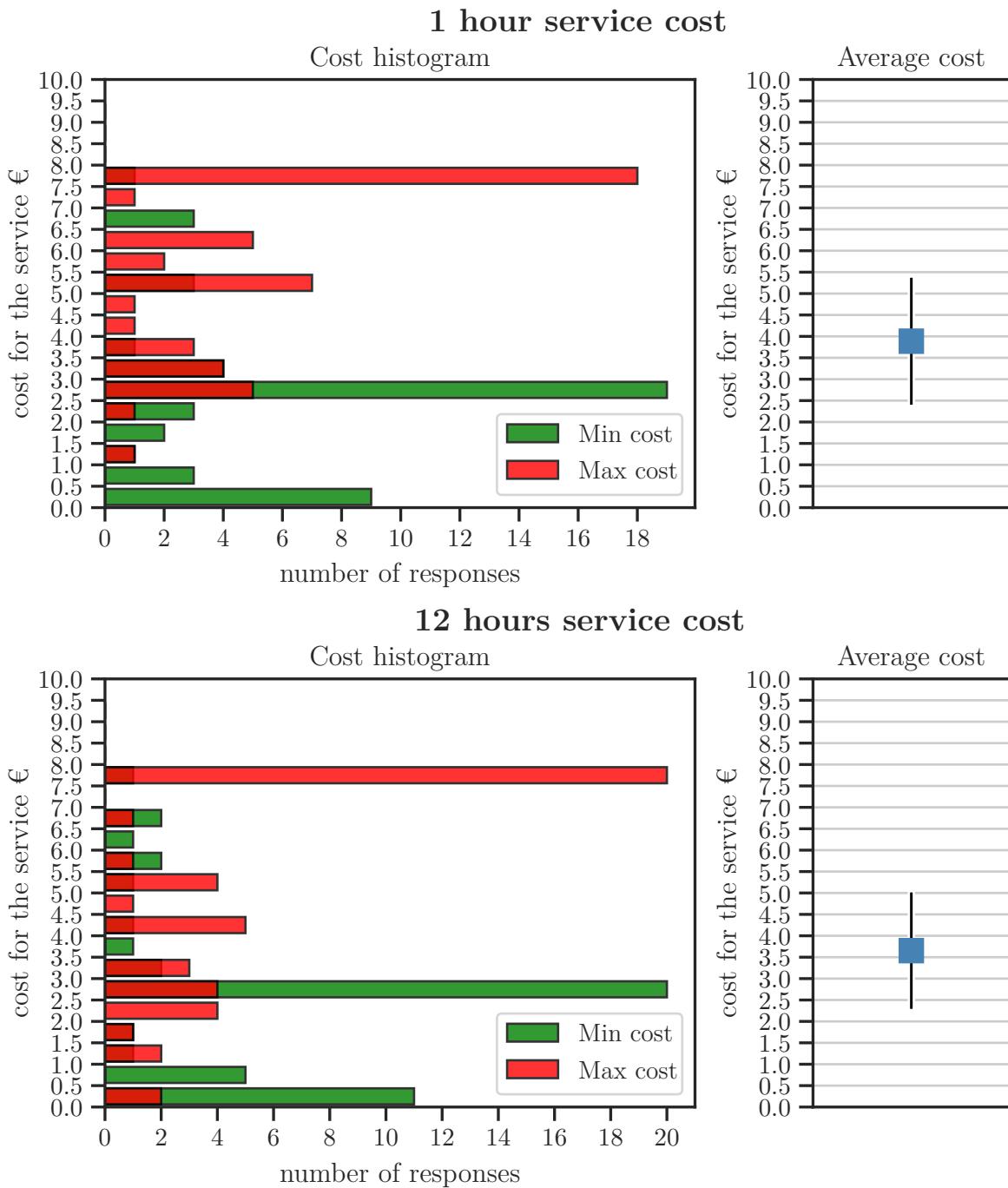
Figure 4.1: Service cost.

the maximum cost for the service is not the same for all the regions and, moreover, there are some regions where the answers are not available. This last thing underlines the necessity to perform an analysis to know if these data are missing because people are not interested into the service or because they didn't receive the survey. In general, this kind of charts are useful to understand where the service can be more successful depending on the price that is going to be chosen for the delivery.
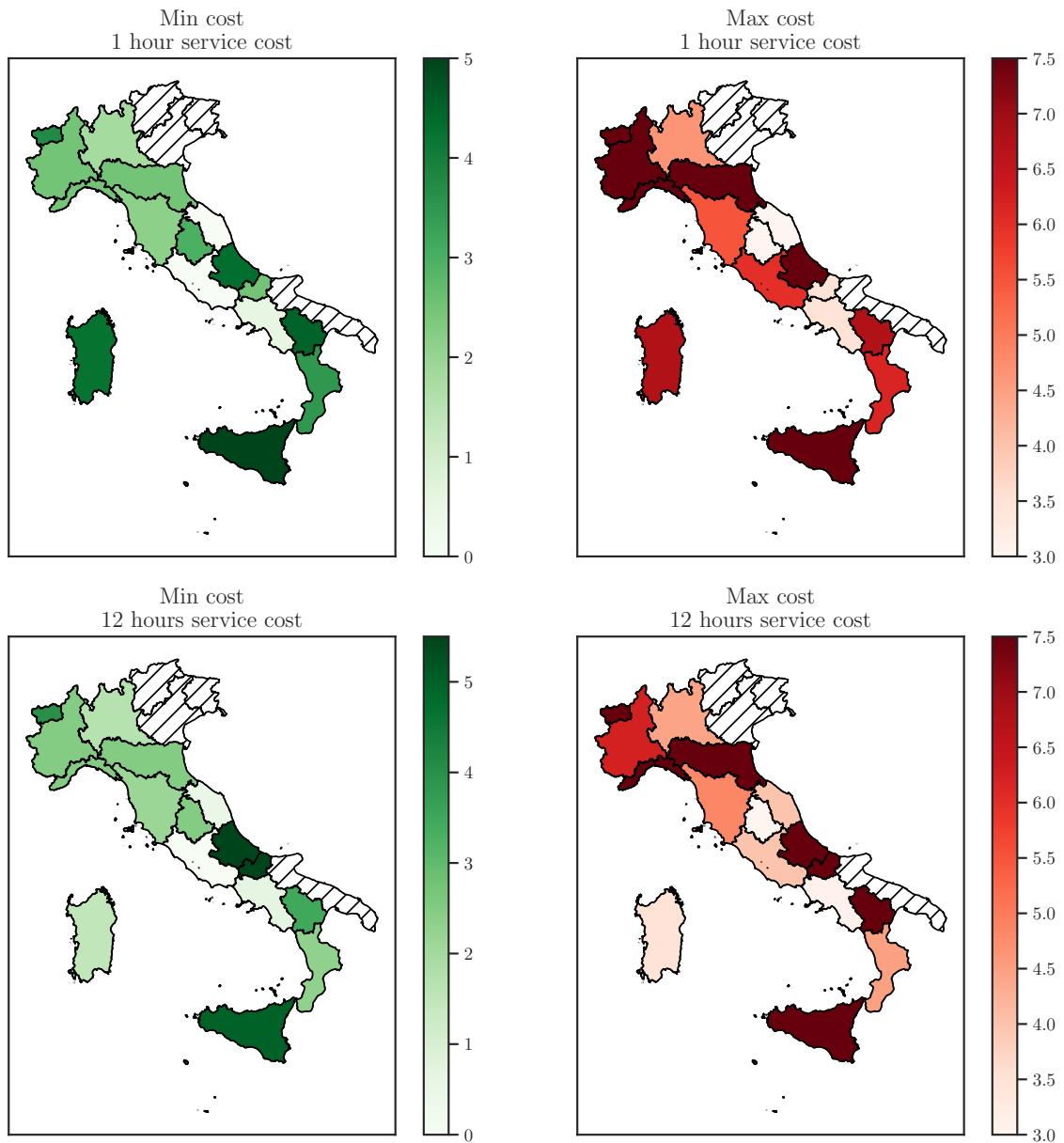
Figure 4.2: Map of the costs.

4.1.2 Additional validation tools

The validation of the first hypothesis through the survey is just a first step that can help to realize if people really want to spend money to obtain the service that is them offered, but of course it is not enough to be sure of this. Therefore, another test was designed basing on the fact that the drugs delivery service should be implemented into an app, called "Smart Axistance", that was already developed by ENEL X and used by different people.

This means that there is a formed customer base that can be tested to understand if it would use the app also for the additional service of drugs delivery. The experiment that should have been performed to test these people consisted in:

- to put inside the app a pop-up message with a question similar to the one given into the

survey.

- as an optional choice, to put inside the app a brief video, explaining how the new service of delivery should work, with a like button at the end to get a feedback from the customers.

- another way to contact already existing ENEL X customers via an e-mail asking them the same questions of the survey, presented at the beginning of chapter 4.

Unfortunately, it was not possible to perform this experiment because it was too time demanding to collect data.

Therefore, to make the validation process more valid and reliable, some researches about the success of the main competitors were performed. This was done following the reason that if there are people who use the services offered by the main competitors, as pharmap and eFarma, this means that these people are effectively willing to pay to receive medicine delivery.

4.2 eFarma

From the eFarma's budget document, it is possible to understand that the company revenue stream increased in the past years: *"I ricavi di vendita, pari ad Euro 20.150.797, sono in crescita del 125% rispetto all'esercizio 2019 mentre il Margine Operativo Lordo (EBITDA) è pari a Euro 367.239, in crescita del 140% rispetto al periodo precedente."* [eFa20]

This increase in selling suggests the development of a new flourishing market based on medicine delivery. This positive results can be used as an additional hint for the validation of the hypothesis.

4.3 Pharmap

The first data about the progress of pharmap into the market can be found in an article, written in 2017, on the newspaper "il Sole 24 Ore". In this article the CEO of the start-up, Giulio Lo Nardo, stated that their company was first launched in the city of Milan where they had collaboration with 25 pharmacies and a stream of orders equal to 30 orders per day. At that time the revenue of the first sells was so encouraging that the goal of pharmap was to expand the business also in the other most important cities in Italy like: Roma, Palermo, Genova, Torino, Cagliari, Sassari. After only two years, in 2019, into another article published by "Fortune", a quite known business magazine, there was written that pharmap had increased its revenue of +88% (w.r.t the previous year), that had collaborations with 1500 pharmacies and an average numbers of order per day around 3000. From these data it is quite evident that the business of pharmap had a relevant increase and a great success on the market. This success is confirmed by the most recent information about pharmap (that can be found on the website "mark-up.it"): for the current year 2021 the numbers of pharmacies associated with pharmap are said to be 1700, the cities in which the service operates are 250 and the number of people who downloaded the app increased of +365% w.r.t. 2020.

4.4 SARS-CoV-2 & market response

During the pandemic most of the businesses suffered huge losses. The contrary has been for the e-pharmacy market, where safety restrictions and lockdown brought to a substantial increase in online-selling during 2020/2021 time period.

eFarma attests: *"In Italia il mercato online dell'"Health & Pharma" ha chiuso l'anno 2020 con un giro d'affari di circa 1,2 miliardi di euro, con un aumento del +87% rispetto all'anno*

2019. Più in particolare, il valore di mercato delle farmacie online (e-pharmacy) si è aggirato intorno ai 389 milioni: un risultato ben oltre le attese se si pensa che diversi istituti di ricerca valutavano lo stesso mercato circa 315 milioni." [eFa20]

This statement gives positive results for the validation of the hypothesis: "**people are willing to pay for medicine delivery**". An increase in selling brings to an increase in **deliveries**; this can be seen as a validation of the hypothesis.

4.5   Second hypothesis validation

Regarding the second hypothesis this is focused, as explained in chapter two, on the service of e-consulting. To validate it, it is necessary to find a way to show evidences about the fact that people want to choose the specialist to be contacted, from a list of doctors based on a ranking system. By searching on the internet it is simple to find various websites like: "dottori.it", "miodottore.it" or "idoctors.it", that give the possibility to firstly choose the specialist to consult (dermatologist, cardiologist, nutritionists,...) and secondly to see for each doctor the reviews of other patients and the number of stars, on a maximum of five, that quantifies the quality of his service. These websites are quite popular and used by different people, for example idoctors is reviewed on "trustpilot" by 1206 people and the 81% of them consider the service offered by idoctors as excellent. While, for miodottore.it it is possible to read in an article (of the 12-07-2021 published by "forbes") that this website is a part of a platform called docplanner that operates in many countries and has a stream of booked appointments equal to 4 millions.

Chapter 5

Final results

After the validation process what can be concluded is that both the first and the second hypothesis are already validated in such a way by the work of exisisting companies. Therefore, to make people use our services, instead of the ones given by others, it is necessary to design them in a competitive perspective. Regarding the drugs delivery there are three main weak points of the competitors that could be solved by our service:

- shipping price

- the possibility to guarantee a service that is operative also when pharmacies are closed; as it is possible to note from the pharmap analysis they are just an intermediate between people and pharmacies therefore they cannot work out of the opening hours of the pharmacies

- the possibility to guarantee the delivery of drugs that need a prescription

Our solutions to these problems are:

- about the shipping price it should be established a partnership with a courier that allows us to guarantee a price for the delivery around 3€, as indicated by the survey analysis, that is the cheapest price among our competitors

- about the last two issues it is possible to build our service in collaboration with pharmacies but also as an e-commerce. On one hand the collaboration is needed because the italian law does not allow e-commerce to sell drugs with a prescription. On the other hand the e-commerce system give us the possibility to sell the other drugs even when pharmacies are closed.

Another point is that customers can benefit from the use of a unique app with multiple healthcare services. Therefore, the e-consulting for diet and the drugs delivery are just a part of a wider offer that can guarantee the medical assistance under many aspects. People will not have the necessity to search for different platforms depending on the service, they will simply rely on one app for almost everything they will need.

Chapter 6

Business model canvas

Key Partners	Key Activities	Value Propositions	Customer Relationship	Customer Segments
• Logistics companies • Pharmaceutical companies • Specialized doctors	• Drug delivery • Buying drugs from the pharmaceutical companies • Collecting data on specialized doctors • Services implementation into the app **Key Resources** • Warehouse • Servers • Logistics	• Fast and reliable service for buying and collecting drugs • Nutritionist consultation with a highly rated professional	• **Personal assistance** – Chat service – Call-center • **Self-service** – Self interaction with orders on mobile app **Channels** • Mobile app • Social networks • e-mails • Advertisement • Newspapers • Website • Banners • Journals	• Students • Workers • People with chronical desease • Old people • Physically-challenged people

Cost Structure	Revenue Streams
• Advertisement • Buy and stock of the medicine • Shipping • Salaries and infrastructures	• Selling of pharmaceutical products • Selling of shipping service • Diet e-consultation service

Figure 6.1: Business model canvas.

Bibliography

[eFa20]   eFarma. "Bilancio eFarma". In: *Camera di commercio* (2020).