

The influence of user's pains, gains, and jobs in the context of e-health value proposition design for visually impaired young adults in Romania

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ABSTRACT,

With the internet being the backbone of e-commerce, the number of e-health solutions is becoming more prevalent around the world. However, they are not always developed in accordance with the needs of individuals with disabilities. In the past years, the challenge of inclusiveness gained significant attention, with differences among social groups and geographical regions being at the forefront of the debate. Thus, this study chose to focus on visually impaired young adults in Romania and their experience with e-health solutions. Using the Value Proposition Canvas framework created by Osterwalder and Pigneur (2004), the study attempts to address the jobs, pains, and gains of this specific target group, with a focus on the social aspects. Qualitative research is carried out and 8 semi-structured interviews with visually impaired people are conducted. The overall results indicate dissatisfaction with the healthcare system and the medical services. Although the concept of e-health is still developing in Romania, most participants appeared to have some experience with it, which overall was deemed unsatisfactory. The data gathered shows that this particular social group wants to carry out fundamental tasks like scheduling appointments, renewing prescriptions, and gaining access to reliable information. It was indicated that proximity to medical facilities, documents inaccessibility and interaction with medical staff are the biggest challenges. Participants experienced different treatment, either positive or negative, which affects their sense of self-sufficiency and level of independence. Solutions such as ePrescriptions, digital forms and personnel training are proposed for further research as they can address functional, social, and emotional problems of visually impaired people. Overall, this study contends that the design of a value proposition in the healthcare industry is directly influenced by the pains, gains, and jobs of the user. As Romania has limited resources, it is important to thoroughly consider consumer needs in order to design a viable value proposition.

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Keywords

e-health, visually impaired, needs& wants, value creation, value proposition, customer profile

1. INTRODUCTION

1.1. Topic relevance

The challenge of inclusiveness in healthcare platforms gained significant attention in the past years. (Vassilakoupoulou, 2017) The discussion on health equality evolves around the differences among social groups and geographical regions. The elderly, the underprivileged, the uneducated, and those with disabilities are among groups that are more affected by healthcare disparities than others because of their particular requirements. (Moghaddasi, Amanzadeh, Rahimi, & Hamedan, 2017) This research focuses on the latter group, more specifically, people with sight disabilities. According to the World Health Organization, at least 2.2 billion people worldwide suffer from vision impairment or blindness. (World report on vision, 2019) Vision loss is a major disability that takes away approximately 80–90 percent of a person's perceptual abilities and has a negative impact on professional, social, and emotional well-being. (Chaudary, Paajala, Keino, & Pulli, 2017) Visually impaired individuals come with distinct backgrounds, educational levels and social standing which is why the impact of the disability is perceived differently from one individual to another. (Euroblind, n.d.) To optimize a patient's health and independence, professionals must recognize the physical constraints and social challenges associated with visual impairment. (Rosenberg & Sperazza, 2008) These difficulties have prompted researchers to investigate new study areas in a variety of fields, including assistive technologies. Assistive technology allows visually impaired people to access different types of information and improves their overall quality of life. Globally, many people who require assistive technology do not have it available, including 200 million people with low vision who do not have access to certain goods and services. (Assistive technology, 2018)

Romania was chosen as a target market for this research due to the insufficient design of social inclusion policies, the provision of social services, and the unavailability of assistive technologies. The lack of an integrated approach regarding employment, health, and education initiatives needs to be addressed. (Gazibar & Giuglea, Inequalities In Romania, 2019) E-health services can be proposed as solutions to help patients cope with sight loss, assistance, rehabilitation, and social welfare. With the internet being the backbone of e-commerce, the number of e-health solutions is growing around the world. However, they are not always developed in accordance with the needs of individuals with disabilities. (Euroblind, n.d.) It is critical for practitioners and service providers to understand people's needs and wants so that they can improve the quality of healthcare. (Chen, n.d.)

However, there is limited literature on how the needs and wants of Romanian disabled people are addressed in a healthcare setting. It is known that there are already some associations and organizations that serve the needs of visually impaired people regarding equal chances, accessibility, educational, cultural, sporting resources, or counselling for prevention and treatment. (Asociații și organizații care ajută persoanele nevăzătoare sau cu deficiențe de vedere, 2021) For instance, the main association dealing with these issues is the Romanian Association of the Blind (ANR). It is a nongovernmental organization that represents the interests of the visually impaired people throughout the country. Although different types of services are offered to assure the inclusion of visually impaired people in the country's economic, social-professional, cultural-artistic, and recreational life, it does not yet provide an e-health platform for medical-related issues with all needed functionalities.

1.2. Research objective

This research aims to address the needs and wants of visually impaired young adults in Romania by making use of the Value Proposition Canvas framework developed by Alexander Osterwalder and Yves Pigneur (2014). In addition, as businesses are under increased pressure to address sustainability issues, the Triple Layer Business Model Canvas developed by Joyce, A., & Paquin, R. (2016) is discussed in order to include social values into a comprehensive understanding of an organization's value proposition. (Joyce & Paquin, 2016) The consideration of the two frameworks seeks to match the field of social inclusion to a business field. For instance, knowing and understanding consumers' needs and wants is crucial in developing a business model and many make use of it in strategic marketing approaches. Value Proposition is considered the most important factor in the Business Model Canvas, and it has been described by Payne et al. (2017, p.) as "the set of experiences that a business causes its consumers to have". (Sibalija, 2021)

The goal of this study is to offer a contribution to practice by investigating the role of user's pains, gains, and jobs (customer profile) in uncovering the needed services in e-health platforms for visually impaired people, with a focus on the social aspects. In addition, there is a lack of current literature about the Romanian healthcare system and its approach to delivering medical services that are viable for specific social groups. Thus, there is a gap concerning the application in this new field that needs to be addressed. After careful consideration of the factors outlined above, this work seeks to advance theory by constructing social value propositions in addition to those that are solely concerned with economic values.

Based on the research objective, the following **research question** emerged:

'How do user's pains, gains, and jobs influence value propositions of e-health services for visually impaired young adults in Romania?'

Sub questions

1. How is e-health defined in existing literature?
2. How are user pains, gains and jobs defined in the context of value propositions and e-health in existing literature?
3. To what extent are e-health services available and accessible for visually impaired individuals in Romania?
4. What are the pains, gains, and jobs of visually impaired individuals in Romania?
5. What e-health services are needed among visually impaired people in Romania?
6. What potential value propositions are recommended for further research?

The first two sub-questions will be addressed in the theoretical framework chapter and will be answered based on existing literature. Furthermore, they will act as guidance for the third chapter that views the methodology of this research. The methodology chapter will show the research design, data collection methods and data analysis process. After gathering and analyzing the data, sub-questions 3, 4 and 5 will be addressed in the Results chapter. The most relevant findings will be elaborated regarding the theoretical concepts used for this study and some recommendations of value propositions will be suggested for further research. The last part of the research paper will include the conclusions based on all 6 sub-questions which will lead to an answer to the initial research question.

2. THEORETICAL FRAMEWORK

2.1 E-health

Healthcare is a complex and diversified public good characterized by sustained interaction among a diverse group of people and institutions. (Hermes, 2020) E-health is a generally known term nowadays in the healthcare industry, but there is no coherent definition of what it means. The term was created by industry leaders and marketers rather than academics. (Eysenbach, 2001) Gunther Eysenbach, the editor of the Journal of Medical Internet Research, argued the necessity of defining eHealth. Thus, he came up with the following definition:

eHealth is an emerging field in the intersection of medical informatics, public health, and business, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state of mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology. (Eysenbach, 2001)

Furthermore, it refers to all types of electronic healthcare delivered via the Internet, from informational, instructional, and commercial "products" to direct services offered by experts, non-professionals, businesses, or customers themselves. E-health simply improves the efficiency of healthcare while allowing patients and professionals to achieve what was previously unattainable. (E-health, n.d.) In theory, the goal of public e-health platforms is to ease the communication process across actors in the public health spectrum. (Vassilakoupoulou, 2017)

The number of e-health solutions is growing around the world, but they are not always developed in accordance with the needs of individuals with disabilities. (Euroblind, n.d.) It is both an ethical problem for the public sector and a prerequisite for platform sustainable development to involve as many stakeholders as feasible and to manage to reach out to all people by integrating different requirements. (Belleflamme & Neysen, 2021) It is also suggested that in order to develop a set of interlocking value propositions, it is critical to discover the alignment and possible differences between the needs and wants of all groups of users that the platform connects. (Belleflamme & Neysen, 2021) Furthermore, e-health platforms aim to accommodate the different actors while leveraging current digital capabilities. However, as mentioned before, bringing together a diverse group of individuals in a public service environment is difficult. (Vassilakoupoulou, 2017) To convince potential users, operators must come up with a compelling value proposition that persuades people into using the platform. They need to highlight the fact that by using their service they could gain more benefits than by maintaining usual practices. (Belleflamme & Neysen, 2021)

Over the last decade, the concept of value creation has been widely debated in the healthcare industry. (Lindsberg, 2015) Innovations in medical practice, as well as the growing relevance of a patient-centred approach, have managed to raise awareness among the medical communities. (Marzorati & Pravettoni, 2016) For healthcare institutions, patient-driven innovativeness offers both opportunities and limitations. However, there has been little focus on the aspects of customer value as expressed by customers. (Lindsberg, 2015) In recent years, research on value cocreation emerged and the need of including patients and other stakeholders in service delivery gained recognition. (Aghdam, Watson, & Cliff, 2020) Smith and Wheeler (2002) argue that 'developing a profound understanding of the customer's

experience is essential to offering a successful value proposition. (Smith & Wheeler, 2002) In addition to this, Lindsberg (2015) states that e-health is a service that users experience and can assess afterwards. (Lindsberg, 2015)

2.2. Value proposition

Understanding the needs, attitudes, and wants of a target audience is essential to creating value. (Hassan, 2012) In this direction, Alexander Osterwalder and Yves Pigneur developed a more comprehensive model that practitioners could use as guidance for introducing a new idea to the audience in an engaging way. (Osterwalder & Pigneur, 2014) The authors stress the significance of creating compelling value propositions in order to properly communicate to customers how an offering would generate benefits for them. (Osterwalder & Pigneur, 2014) Furthermore, Hassan (2012) recognizes the purpose of value proposition development as a clear understanding of how a company might possibly generate value for specific target users by expressing why they should engage with the company to acquire a product or a service. Value propositions which are well built can help businesses retain consumers, increase profits, and cut costs. (Hassan, 2012)

According to different authors, there are two steps for value creation. Barrett (2014) names them value design and value delivery. Understanding consumer wants is necessary for determining what a company will offer. Furthermore, a company must ensure that they have the operational and management resources and capabilities to develop value- *value design*. Finally, the product/service is distributed, marketed, and sold to clients - *value delivery*. (Barrett, 2014) Furthermore, Osterwalder and Pigneur (2014) developed a new framework as a way to verify that a product/service and market fit together, by focusing on two main blocks of the business model: the value proposition segment (what you give to your users) and the consumer segments (how you understand your customers). (Osterwalder & Pigneur, 2014)

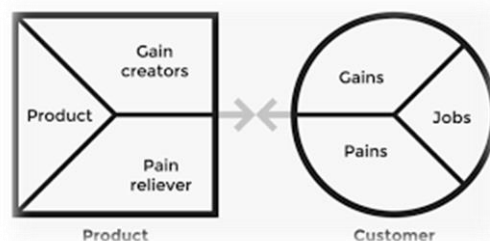


Figure 1: The Value Proposition Canvas

Considering this, The Value Proposition Canvas has two aspects that should be discussed. First, the user understanding should be clarified by creating the Customer Profile. Next, the expectations on how value can be delivered are outlined in the Value Map. When there is an alignment between the two aspects, the model achieves Fit. (Osterwalder & Pigneur, 2014)

2.2.1. Customer profile

The Customer Profile describes the specific target audience by focusing on three subcategories, namely, user *jobs*, *pains*, and *gains*.

User jobs

A user's job might refer to the tasks they are attempting to do, the issues they are aiming to resolve, or the wants they are seeking to meet. (Osterwalder & Pigneur, 2014) According to the authors, three types of customer jobs can be distinguished. *Functional jobs* represent specific tasks or problems that the user aims to solve. *Social jobs* are related to power and status and how

the user wants to be perceived in society. *Personal/emotional jobs* relate to emotional states of mind, for instance, gaining a sense of job security. (Osterwalder & Pigneur, 2014) Additional to these three categories, the authors stress the importance of Supporting jobs. Users, whether as consumers or as professionals, play supportive roles in the context of acquiring and receiving value. These positions are created by three separate roles: Buyer value, co-creator of value, and Transferrer of value. (Osterwalder & Pigneur, 2014) The buyer of value views jobs involving the purchase of goods or services, such as comparing offers, determining which things to buy, or receiving a product/service. Cocreators of value are professions that include co-creating value with your company, such as publishing product evaluations and comments or even helping to create a product or service. Lastly, the transferrer of value's tasks are connected to the outcome of the value proposition; for instance, terminating a membership account. (Osterwalder & Pigneur, 2014)

User pains

Pains are described as impediments that keep the user from getting their job done. Osterwalder & Pigneur (2014) identified three categories of customer pains and the severity with which they are experienced by customers. The first category is *Undesired outcomes, problems, and characteristics*. Here, pains are categorized as functional, social, emotional, or ancillary. (Osterwalder & Pigneur, 2014) The second category is *Obstacles*, representing the factors that either deter clients from starting a task or delay them. (Osterwalder & Pigneur, 2014) Lastly, the third category is *Risks* (undesired potential outcomes), which represent the uncertainties that have the potential to stand in the way of a user getting the job done. (Osterwalder & Pigneur, 2014) After analyzing the three categories, the severity of the pains can be assessed and later addressed.

User gains

Gains are the desired results and advantages for the users. The user demands, anticipates, or seeks certain benefits, while other benefits might arise without any specification made by the user. (Osterwalder & Pigneur, 2014) Just like pains, gains are also divided into four categories. *Required gains* are factors that the user sees as essential in a product or service and would not function without them. *Expected gains* are like the previous category. The difference is that now the product/service can work without the functionalities, but if perceived as basic requirements by the user, the offering needs to include them. *Desired gains* are elements that exceed the expectations of the users but which they would like to have. Generally, if the user would be asked certain questions, his answers would lead to desired gains. Lastly, *Unexpected gains* are described as radical factors that manage to exceed the expectations of the user. In this case, even the user would not be able to come up with such functionalities. Authors state that 'A customer gain can feel essential or nice to have, just like pains can feel extreme or moderate to them.' (Osterwalder & Pigneur, 2014)

2.2.2. Value Map

The second block is the Value Map. It is directly linked to the Customer Profile, and it is designed to address the above-mentioned subcategories.

Products and services

In this subcategory are listed the products or services that assist the user group in completing functional, social, or emotional tasks. It is critical to recognize that products and services don't produce value on their own—they only do so in connection to a certain audience's jobs, pains, and gains. Furthermore, the authors identify four different types of products/services:

physical/tangible (manufactured products), intangible (e.g., copyrights), digital (downloads, online service), and financial (insurance, investment funds).

Pain Relievers

Pain relievers highlight how the offering helps customers with problems. They expressly state how it is proposed to eliminate or lessen some of the factors that keep the user from getting their job done. (Osterwalder & Pigneur, 2014) As the authors state, great value propositions focus on particularly extreme pains. It is not realistic to think that every pain can have an associated pain reliever; no value proposition can achieve that. Great value propositions frequently concentrate on a small number of pains that they effectively alleviate. (Osterwalder & Pigneur, 2014)

Gain Creators

Gain creators explain how the offering benefits the customers. (Osterwalder & Pigneur, 2014) The subcategory is merely focused on how companies plan to provide results and advantages that the consumer expects, wishes, or is surprised to get, such as functional usefulness, social gains, and cost savings. Gain creators, like pain relievers, are not required to meet every gain listed in the Customer Profile but should be concentrated on the most important aspects. (Osterwalder & Pigneur, 2014)

After discussing the relevance of the Value Proposition, the notion of The Triple-Layered Business Model Canvas is introduced to establish the social context of the study. The Triple Layered Business Model Canvas is a tool for introducing innovative business models that are focused on sustainability. It adds two levels to the basic business model canvas: an environmental layer based on the lifespan and a social layer based on stakeholder perspectives. (Joyce & Paquin, 2016) This paper chose to focus on the latest as the value proposition is aimed at creating value for a specific target group.

The social layer expands the basic business model canvas by filtering an organization's business model and implications from the stakeholder's point of view. (Joyce & Paquin, 2016) The component of an organization's business model that concentrates on generating benefits for its stakeholders and society at large is referred to as social value. Probably a prominent aspect of a company that addresses sustainability challenges is creating social value. Even the most profit-driven businesses take into account their potential for value creation in addition to financial gain considering the long-term benefits. (Joyce & Paquin, 2016) Therefore, a business must balance the costs of services with the benefits to the consumer to define the value proposition, especially in the healthcare industry as it is a crucial service that everyone depends on. (What is a Value Proposition in Healthcare?, 2021)

Considering the factors outlined above, the following theoretical framework is proposed:

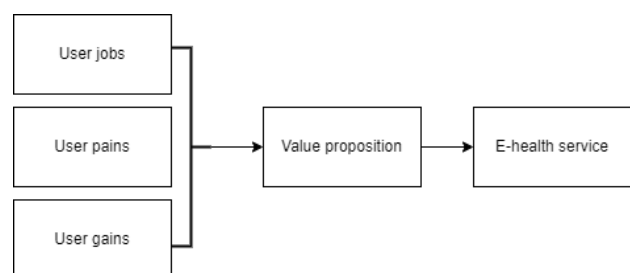


Figure 2: Influence of user's jobs, pains, and gains on developing value propositions in an e-health context

3. METHODOLOGY

The purpose of this study is to develop and analyze the customer profile of visually impaired young adults in Romania in order to gain an understanding of their needs and wants in a healthcare environment. The goal of this paper is to provide useful recommendations to businesses that are developing or intend to develop value propositions in form of e-health services. The following chapter will establish the research design, data collection and data analysis methods.

3.1 Research design

The research method and approach are qualitative and are conducted with original data gathering supported by additional information gained through desk research. In social sciences, qualitative research is often used to address questions about the participants' perspectives, values, and experiences. (Hammarberg, Kirkman, & de Lacey, 2016) In this case, a target group of 8 visually impaired young adults represent the participants of the study. The use of a sample group intends to collect data from a small group of people rather than a statistically random selection of the entire population. (Nyumba, Wilson, Derrick, & Mukherjee, 2018)

Primary data was collected from visually impaired participants by using a semi-structured interview format. According to Wengraf (2001), "A semi-structured interview is designed to have a number of interviewer questions prepared in advance, but such prepared questions are designed to be sufficiently open that the subsequent questions of the interviewer cannot be planned in advance but must be improvised in a careful way" (Wengraf, 2001) Thus, a preliminary topic outline was used for preparing the interview to assure the research question is addressed correctly. (see Appendix 1) A semi-structured design suits this research because it allows for a wider range of responses regarding participants' thoughts, feelings, and opinions about a rather personal and sensitive issue. Considering the primary data used in the report, ethical approval was required before the data collection process.

Furthermore, secondary data is used to support primary data and contribute to the data analysis process. Therefore, desk research was carried out using academic journals.

3.2. Data collection

To match the exploratory character of the study, semi-structured interviews and secondary data based on desk research are used.

3.2.1. Interview information

A total of 15 interviews were requested, but only 8 interviews were conducted, with an estimated length of 15 to 30 minutes. The participants were contacted via AMAIS, a Romanian organization established in 2015 that focuses on alternative methods of social integration through inclusive design. The interviews were conducted exclusively online, due to proximity issues. Platforms such as Microsoft Teams, Google Meets and Skype were used, depending on the preferences of the interviewee. To avoid any misinterpretation owing to translation issues, the interviews were conducted in Romanian, the interviewee's native language. Before starting the interviews, the researcher created a relaxed environment by introducing themselves and offering the interviewee some background information about personal and professional life. The topic was briefly discussed to create context before going on with the questions. The questions were designed based on an existing set of 27 trigger questions developed by Osterwalder and Yves Pigneur (2014), regarding the users' jobs, pains, and gains. (See Appendix 2) All participants were informed that they can withdraw at any time from the interview or refuse to answer any

question if they felt uncomfortable. Furthermore, the interviewee was asked for permission to record the conversation, with the mention that it will be used solely for research purposes.

3.2.2. Inclusion criteria

The inclusion criteria of the target group are merely geographical location and age. The first criteria is that the participants are Romanian citizens. Romania was chosen as a target country because people with impairments have restricted resources for achieving self-sufficiency. Disabled people's care is mostly focused on providing medical help rather than encouraging them to live independently and actively. (Gazibar & Giuglea, Inequalities in Romania, 2019) The criteria related to age was chosen because this research wants to focus on young adults. Studies show that age influences the adoption of online health. The frequency of utilizing online services for getting test results, renewing medical prescriptions, and making an appointment is decreasing with age, especially among older persons. (Heponiemi, Kaihlanen, & Kouvonon, 2022) Furthermore, the answers are to be separated based on the recency of the vision loss, considering that participants who were visually impaired since birth have different needs than people who lost their sight gradually.

All participants in this study were citizens of Romania, aged between 18 and 32 years old. Regarding the recency of vision loss, 4 out of 8 participants were diagnosed at birth, 2 out of 8 participants were diagnosed 4 months, respectively 1 year after birth, 1 out of 8 participants lost their vision completely at 15 years old and 1 out of 8 participants still has a low percentage of vision. Even though the last participant of this study does not suffer from complete blindness, sight abilities are so reduced that it still needs to resort to the lifestyle of a blind person.

3.2.3. Secondary data

Supportive information was retrieved as an outcome of desk research. Some of the keywords or phrases used to refine the data collection from other sources were: value proposition, healthcare, e-health, e-health in Romania, online medical services, digital services, customer profile, gains, pains, jobs, needs&wants, Romanian healthcare system for people with disabilities. The journals were limited to business and medical journals as presented in the table below.

Business journals	Journal of Business Ecosystems
	International Journal of Marketing Studies
	International Journal of E-Services and Mobile Applications
	Sage Journals
	Springer
	Journal of cleaner production
Medical journals	Journal of Medical Internet Research
	Journal of Multidisciplinary Healthcare,
	Journal of the International Society for Telemedicine and Health
	British Journal of Pain

Table 1: Academic journals used

3.3. Data Analysis

This research was qualitative in nature. According to Wong (2008), qualitative research focuses on information conveyed in form of words which are subjective to interpretation. To be able to analyze the data, the interviews were first transcribed using two online websites called Transkriptor.com and HappyScribe.com. To analyze the data, the researcher must read the transcripts and find similarities and differences, then identify themes and construct categories. (Wong, 2008) Qualitative research results cannot always be assessed accurately, but they must be evaluated and arranged into themes to make the outcome more reliable. (Soiferman, 2010) Excel was used to summarize and divide the answers into 4 spreadsheets based on general information about the participant, user jobs, user pains and user gains.

The type of reasoning that best matches with qualitative research is inductive, meaning that the researcher starts with observations and measurements, and then analyses the data to find themes and patterns. (Burney & Saleem, 2008) Even though the researcher based the interview questions on the 27 trigger questions established by Osterwalder and Yves Pigneur (2014), the categories used to group the results are still broad. Thus, inductive coding was used to look for underlying themes and patterns. The themes were considered based on this research's framework and include: 'e-health', 'user jobs', 'user pains', and 'user gains'. The overall themes were comprised of subcodes based on the trigger questions and the answers of the interviewees. The sub-codes: 'Healthcare system', 'available solutions' and 'customer experience' evolved post-interviews and were used for the e-health section of the theoretical framework. See the table below for the overall themes and sub-codes. It is noted that only the relevant codes and subjects of the debate were included in the Results chapter.

E-health

1. Healthcare system
2. Available solutions (of offline/online healthcare)
3. Customer experience

User jobs

1. Contexts
2. Activities that require interaction with others
3. Tasks and functional problems
4. Emotional and social needs

User pains

1. Frustrations & annoyances
2. Missing features of current value propositions
3. Main difficulties
4. Negative social consequences
5. Risks

User gains

1. Savings
2. Liked features of current value propositions
3. Positive social consequences
4. Desires
5. Likelihood of adoption

Table 2: Table of codes

4. RESULTS

This chapter displays the results obtained after extensive desk research and 8 semi-structured interviews. The findings are separated based on the literature review into two main subchapters: E-health and Value proposition. Considering that the focus of this study is to dive into the needs and wants of visually impaired individuals, the second subchapter only displays results regarding the Customer Profile.

4.1. E-health

4.1.1. Healthcare system in Romania

The public sector dominates Romanian healthcare, owning the majority of hospitals and providing national health insurance to practically all Romanians. In 2018, healthcare spending was predicted to be 5.8% of GDP, significantly lower than the 9.6% of GDP averaged by most European Union (EU) nations. (Healthcare Resource Guide- Romania, n.d.) According to a study commissioned by the Netherlands Enterprise agency in 2019, the Romanian health care sector was in bad shape. (Meijer, 2019) The main reasons associated with the undesired state of the system were the lack of funding and poor management. Prices for medical items and services are relatively high, reflecting a lower level of public sector services. Moreover, the emigration of doctors to more accomplished EU countries is common. (Meijer, 2019) The lack of staff issue was also mentioned by 2 out of 8 participants of this study, who considered that the benefits of foreign countries were consistent enough for specialists to emigrate.

The participants were asked to rate the public healthcare system on a scale from 1-5. The average result was 2, meaning that the participants are not satisfied. When asked to describe the system and its services, participants used words such as 'deplorable', 'unsanitary', 'slow', 'inferior' and 'corrupt'. Hospital conditions and medical facilities are considered underdeveloped and lack an inclusive design. All 8 participants agreed that institutions do not have the needed infrastructure for visually impaired individuals. For instance, most facilities do not have braille indications, or any other help provided for people with sight disabilities. Furthermore, half of the participants consider the system as not patient-friendly, which is why private healthcare is preferred, even if it comes with extra costs.

4.1.2. E-health solutions and usage in Romania

In the previous 30 years, Romania's health system has experienced several digital information system upgrades. Even though healthcare facilities are equipped with a variety of IT solutions as well as essential communication and information technologies, there is an insufficient sharing of patient status and treatment history due to a lack of standardization and interoperability. (Health Sector Reform - Improving Health System Quality and Efficiency Project, 2014) A 2010 study published by the European Commission showed that the low degree of eHealth adoption in Romania is due to the fact that this policy area was still relatively new back then. Only in 2005 was the first and most basic eHealth plan established. For instance, back in 2010, 66 percent of clinics had a computer, but only roughly half were connected to the internet. (Farcas, Artmann, Heywood, & Dumortier, 2010) Furthermore, e-health used by GPs in Romania is mainly focused on the storage of patient data and medical data, usage of computers during consultations and usage of a decision support system. A more detailed description of e-health usage in Romania is illustrated in Appendix 4.

Regarding mobile health, there are a few applications available in Romania. For instance, many apps are developed for healthy diets and fitness programs. There are also applications such as

MySugar, which was developed for patients with diabetes; and VIA, an app build for individuals with cancer that helps them connect in a secure online environment. However, only one app destined for people with visual impairment was found by the researcher, as one of the participants mentioned he is one of the creators. The AMAIS organisation, with the support of Accenture Romania, released the SeeYou application, which allows individuals with vision impairments to connect with volunteers who can assist them in a variety of activities. The program, which can be obtained at www.seeyou.ro, is now only available in Bucharest, but it is planned to extend throughout the country, according to AMAIS creator, Iris Popescu. (Cosman, 2020)

Based on participants' answers, 5/8 are using online medical services, 2/8 participants were not aware of e-health and 1/8 used e-health services before but because of bad experiences stopped using it. Among the services used are making online appointments, online consults, and online therapy. One participant mentioned receiving ePrescriptions. These services gained more awareness among participants during the pandemic. Lastly, it was mentioned by one of the participants that '*digital solutions are held back in some healthcare institutions because other institutions such as health insurance companies request physical documents.*'

4.1.3. Customer experience

Among the participants that used e-health, the overall experience was unpleasant. For instance, 3 out of 6 participants that used e-health found the websites of clinics as being inaccessible. To offer an example, some websites have images instead of text, thus, reader assistance cannot be used. However, one participant mentioned he is getting his prescriptions from the general practitioner by email and that his experience with this digital solution has been beneficial.

4.2. Customer profile

4.2.1. User jobs

Contexts

It was noticed that depending on the context the users were put in, their activities and goals would change. For instance, geographical areas (urban vs. rural) are an important factor to consider when taking medical decisions because of the proximity and availability of medical institutions. One participant mentioned living in a rural area and described his interaction with the health institutions as rather limited. Furthermore, 7 out of 8 participants discussed their approaches for seeking out medical assistance depending on the severity of their illness. For instance, if participants experience mild symptoms of a cold or a headache, they either do their research on the internet or take medicine on their own. Lastly, it was mentioned by 2 participants that due to the difficulty of finding information online or reading prospects, they sometimes seek assistance from a non-disabled person.

Activities that require interaction with others

Activities that require interaction with others are mainly the usual contacts with specialists, medical staff, and the general practitioner. The majority of participants stated that when symptoms of disease arise, they contact their general practitioner directly or make an appointment online. If the situation is significant, they seek treatment from a medical institution's specialist. It was indicated that if hospital visits are needed, they prefer to go accompanied since it is more difficult to get around due to the poor infrastructure and absence of an inclusive design.

Tasks and functional problems (functional jobs)

Regarding the functional jobs that the users want to perform, the following ones were common among participants: getting periodical check-ups, making appointments, renewing prescriptions, and accessing information and recommendations. Going from one place to another, such as moving from home to the hospital, can also be considered a functional job for users. People with visual impairment experience more problems with such tasks because it takes more time to get from A to B, it requires an additional effort, and they might be dependent on other individuals.

Emotional & social needs (emotional & social jobs)

All 8 participants of this study showed a strong desire to be socially involved and treated equally. Moreover, they wish to be perceived as self-sufficient and capable of speaking and acting on their own behalf. One participant even suggested that Self-satisfaction may come from taking care of their own medical difficulties, which is why he prefers to go unaccompanied when possible. Another topic tackled during the interviews was the participants' desire for a sense of security when coping with medical difficulties. They wish to be able to trust that the specialist they interact with will act in the patient's best interest.

4.2.2. User pains

Frustrations & annoyances

The most common sources of dissatisfaction were the general healthcare system and how patients are treated in public institutions. In terms of personal experiences, it was unanimously mentioned by the participants that they are not always being addressed directly. The physicians usually talk to the attendant first if they are accompanied by a non-disabled person. One participant remarked that the practitioner continued to address the attendant even after being corrected. Thus, it has been brought to the researcher's attention that there is a lack of efficient communication between practitioners and patients.

Missing features of current value propositions

The current value propositions considered for this study were mainly the physical institutions and medical services used by the participants. First of all, as mentioned before, medical institutions lack an inclusive design and are not always patient-friendly for all social groups. Furthermore, there are not many physical institutions that offer online solutions for basic activities that patients may perform on their own. For instance, most respondents can only book appointments with their general practitioner over the phone, not online. In addition, 6 out of 8 participants expressed interest in ePrescriptions. Even though a national e-Prescription system has been established in 2012, most GP's offices do not offer this feature. Out of the 8 respondents, only one receives his prescription online. Furthermore, not many of the institutions' websites have review sections concerning the institution or the specialists, which was an important aspect stated by 2 participants.

Main difficulties (obstacles)

Three main difficulties came across the participants' answers. First, as mentioned before, proximity to medical institutions represents an obstacle when physical presence of the patient is required. Secondly, reaching a clinic or institution is sometimes difficult since many times there is no one responding. In addition to this is the issue of the institution's information centre schedule, as mentioned by 2 participants. Some centres have a fixed timeframe when phone calls are answered (for instance, from

14:00 – 16:00). Lastly, a more recent obstacle that was discovered during the pandemic is filling out paper-based forms, such as Covid forms. However, this problem has also been encountered by the majority of the participants in situations such as completing annual medical test forms or having to deal with paperwork when changing practitioners.

Negative social consequences

Even from the first interaction with the participants, it has been indicated that they have the impression that others have a 'pitying' attitude toward them drawn from their disability. One participant shared their thoughts on this matter and believes that the personnel is not trained enough in communicating with different social groups. Half of the respondents (4/8) encountered situations where people in general, not specifically medical staff, did not know how to behave in different contexts, and even when they meant well, they made the situation more uncomfortable. Thus, negative emotions were brought to participants. Another significant issue is the fear of not being able to trust others, especially when it comes to entrusting their health.

Risks

When starting anything new, there are risks of all kinds, ranging from a lack of modern technology, expenditures, users' acceptance and so on. Because many participants are accustomed to dealing with medical concerns in a conventional manner, there is a risk that the user base will be insufficient, and hence few medical institutions will desire to deploy digital alternatives. In addition, 3 participants believe that face-to-face interaction is more efficient and showed a more trusting attitude towards physical treatment. When questioned about the establishment of a platform to assist visually impaired people, one participant voiced concern, fearing that the maintenance would be insufficient.

4.2.3. User gains

Savings

Considering the participants' impairment, it is significantly more difficult to move from one location to another in time and without the assistance of another person. Thus, 'time' and 'effort' are the main savings that the respondents would like to benefit from. Furthermore, 'money' was also mentioned by 3 participants, when indicated that they live a long way from their general practitioner, for instance, and that they need to find alternative transportation such as Uber rides.

Liked features of current value propositions

Unlike the missing features, there was little appreciation of the features of current value propositions. Only one respondent expressed his satisfaction with using his GP's website. The respondent stated that he arranged an appointment online and that the website was designed to be simple and clear, making the process easier for him. Another participant's GP is using ePrescriptions, which the participant appreciated greatly. ePrescriptions help visually impaired patients who want to renew their prescription by reducing the amount of effort and saving time, unlike physical prescriptions. Furthermore, one participant gave the example of a private institution practice that he liked: having an electronic format of viewing the order of the customers helps patients to keep track of their place in line. However, the downside of this functionality is that they only display pictures and cannot be used by blind people.

Positive social consequences

As mentioned before, all participants wish to engage in social interaction and be part of a community where there are 'no barriers between individuals.' Even though the participants' vision impairment may make it difficult at times, they believe that handling things on their own is essential for their sense of competence. Inclusion and equal treatment were also mentioned by 3 participants as possible positive consequences that more independence could bring them. Lastly, concerning the interaction with medical practitioners, they wish to be treated with more seriousness, without engaging in any special treatment.

Desires

As expected, participants express many desires that are not yet fulfilled. Regarding the physical institutions, they wish for a more inclusive design by introducing braille indications. In addition, they expect better patient care without the doctor being incentivized. In this direction, it was implied that differences in attitudes between private and public medical services. However, a stronger desire was towards the digitalization of several basic services such as accessing information online (reviews, prospects), receiving or renewing their medical prescription online, making appointments and completing medical forms. Thus, the accessibility of clinics' websites is essential. Also, participants need guarantees that any information they access is validated.

Likelihood of adoption

Every participant expressed an interest in using digital healthcare solutions. E-health solutions would make their lives simpler by reducing the amount of time and effort required to do specific physical tasks. Overall, the likelihood of adoption is considered high.

5. DISCUSSION

This chapter will discuss the relationship between the theoretical concepts presented in the 'Literature review' and the results obtained following the desk research and the interviews conducted with the participants of this study.

Overall, the findings revealed information-rich insights into the jobs, pains, and gains of visually impaired young adults in Romania and how these might influence the development of value propositions regarding e-health solutions.

The data obtained regarding e-health revealed that the public healthcare system dominates in Romania. It was stated by the participants that their level of satisfaction with the system is rather low. The reasons behind the underperformance of the system are the lack of funding and bad management. To highlight the state of healthcare spending, a comparison is made based on OECD data between Romania, which is 5.8% of GDP, and the Netherlands, which is 11.2% of GDP. Regarding e-health, even though Romania went through some upgrades, it is still facing some insufficiencies in terms of standardization and interoperability. As stated in the introductory chapter, the number of e-health solutions is growing worldwide. As Vassilakoupoulou (2017) argues, bringing together a diverse group of individuals in a public service environment is difficult. However, e-health stands as a solution aimed to ease the communication process across actors. (Vassilakoupoulou, 2017) For instance, Romania provides services such as making online appointments, online consults, and online therapy that the participants of this study perceive as helpful. According to Lindsberg (2015), e-health is a service that users engage in and then evaluate. The general experience of those who utilized e-

health was negative due to inaccessibility. Furthermore, while investigating the solutions offered in the Romanian healthcare system, it was discovered that they are indeed not always developed in accordance with the needs of visually impaired people. There are several digital services and mobile apps that deliver diet plans, workout programs or measure blood sugar for Diabetes people. One website called SEEYOU was also revealed during one of the interviews. The participant mentioned that he is one of the developers of this program that connects people with visual impairment with typical people. The reason behind the absence of more digital solutions could be the lack of funding. Therefore, further investigation is proposed with regards to Romania's funding strategies and how they can be adjusted to satisfy the needs of people with disabilities.

Furthermore, Osterwalder & Pigneur's (2014) VP framework proved to be a useful tool that provided guidance towards building a customer profile that afterwards can translate into a value proposition. Value proposition Canvas has two blocks that are interconnected: Customer profile and value map. This study elaborates on the first block as the focus of this research is to create a customer profile and determine its influence on value proposition design in a healthcare setting. The Value map is directly linked to the customer profile, but it was not discussed as part of the results. Thus, this study transcribes this part of the VP into a set of recommendations for further research.

While investigating the user jobs, the focus was on the tasks they are trying to solve, the challenges they aim to overcome and the needs they attempt to satisfy. Osterwalder and Pigneur (2014) enlist 3 types of jobs, which were all covered in this study. The results show that the main functional jobs the participants need to accomplish are getting periodical check-ups, making appointments, renewing prescriptions, and accessing information and recommendations. An important factor that affects how the users are carrying out the tasks is the context they find themselves in. For example, the geographical areas of participants' residence, or the severity of medical issues they encounter have an implicit influence on how the user decides to deal with the task. Furthermore, participants' desire is to be socially included, treated equally, and have a sense of security regarding their health conditions. Considering the above-mentioned user jobs and the need for alternative solutions to tasks that require physical presence, this study proposes a deeper investigation into digital services in the context of e-health is kept. The healthcare industry might gain from the widespread usage of the internet for various functions. Not only would patients' activities be made more convenient, but practitioners' work would also simplify.

By looking into user pains, it was revealed that dissatisfaction comes from an underdeveloped healthcare system and unsatisfactory patient treatment. The main obstacles that respondents mentioned are proximity to medical institutions, contacting institutions by phone because of bad schedules, and completing forms. In addition, many participants feel like they are getting a different treatment because of their disability. For instance, it was generally encountered the situation of not being addressed directly, but through their attendant, if one was present. As the participants state, this kind of behaviour brings several negative social consequences caused by 'untrained personnel. It was the case of several participants getting an undesired 'pitiful' attitude from others which made them unable to have full confidence in the practitioner. As Osterwalder and Pigneur (2014) state, great value propositions frequently concentrate on a small number of pains that they effectively alleviate. The 'pain reliever' recommended for this context is to maintain the focus on digital services. These can be developed as

online communication and training programs for specialists and non-specialists with the goal of introducing a generally, socially desired environment. Another topic that can be further investigated is the idea of introducing QR-based forms that visually impaired people could easily access. However, there are always risks that can arise, such as the lack of modern technology, expenditures, and users' acceptance.

Lastly, user gains were investigated. Three out of four categories of gains proposed by the authors will be now discussed. The 'required gains' most mentioned by participants were saving time and reducing effort. As for 'expected gains', they wish to also minimize the use of financial resources. Lastly, the 'desired gains' detected in the participants' answers were inclusive design, digitalization of basic services and independence. As a third recommendation, the following suggestions are made for future research. As participants wish to save time and effort and also desire the digitalization of basic healthcare services, more solutions such as ePrescriptions could be institutionalized by GPs offices. In addition, this could also bring users a sense of independence. Overall, the recommendations made in this section have great potential for further research and are enlisted as value propositions in chapter 6.1, as answers to the 6th sub-question of this study.

6. CONCLUSION

6.1. Main findings

The study was conducted in order to answer the research question:

'How do user's pains, gains, and jobs influence value propositions of e-health services for visually impaired young adults in Romania?'

To be able to answer the research question, several sub-questions had to be addressed. First, the concept of e-health was discussed in section 2.1. Current literature recognizes e-health as an emerging field, which Eysenbach (2001) believes to incorporate 'medical informatics, public health, and businesses. Furthermore, more recent studies by Belleflamme & Neysen (2021) showed that in order to create a set of interlocking value propositions, it is crucial to identify the wants and needs of all user groups that a platform connects. However, in the healthcare industry, the elements of user value as expressed by customers have not received much attention.

After introducing the notions of e-health and value propositions in healthcare, the second subquestion 'How are user pains, gains and jobs defined in the context of value propositions and e-health in existing literature?' can be addressed. In the context of value propositions, Osterwalder & Yves Pigneur's (2014) paper was carefully examined in section 2.2. The results showed that user pains, gains, and jobs can be described as instruments for assisting in the creation of a customer profile. More specifically, it talks about the end goal of the user, what keeps them from accomplishing it and what is their desired end state. In relation to this, a business can come up with solutions (value map). Joyce and Paquin's (2016) paper was used to indicate this study's focus on social value. As the target group was formed of visually impaired individuals, the topic of social inclusion emerged.

To answer the third and fourth sub-questions, 'To what extent are e-health services available and accessible for visually impaired individuals in Romania?', respectively 'What are the pains, gains, and jobs of visually impaired individuals in Romania?' the examined literature was used as guidance and helped at designing the interview guideline. Through the interviews conducted, dissatisfaction with the current healthcare system in Romania arose. The reasons were mainly related to the lack of an inclusive

design of public healthcare institutions and the unsatisfactory patient treatment. In Romania, the term e-health is still gaining recognition, but most of the participants in this study seem to have experience with making online appointments, online consults, and therapy. However, the overall experience was unpleasant due to the inaccessibility of the websites.

The information obtained during the interviews displays that this particular social group wants to complete basic jobs such as getting periodical check-ups, making appointments, renewing prescriptions, and accessing information and recommendations. According to their needs, the main difficulties appear to be proximity to medical institutions, inaccessible documents, and interaction with medical staff. In addition, many participants feel like they are getting a different treatment because of their disability, while they desire to receive equal treatment and be integrated into society. Lastly, the participants wish to be able to complete the necessary tasks efficiently by reducing the amount of time and effort and also minimizing financial implications.

The fifth sub-question 'What e-health services are needed among visually impaired people in Romania?' can also be addressed based on the answers regarding the customer profile. By knowing what the user wishes to accomplish, what are the stepstones and their expectations, it can be deliberated that digitalization of certain services such as making appointments, completing forms and renewing prescriptions are needed among the visually impaired community.

The last sub-question 'What potential value propositions are recommended for further research?' can be answered based on the suggestions made in section 5. Discussion. As indicated there, three value propositions are (proposed) for further investigation. First, the introduction of ePrescriptions in medical institutions would help visually impaired who want to get or renew their prescription by reducing the time and effort used for physically getting the same job done. Secondly, training programs can be offered to practitioners who want to deliver their best performance so that inequalities are reduced, and social inclusion is promoted. Lastly, QR codes can be placed on documents to help the visually impaired who want to read certain information or complete the form with personal data by avoiding their need to ask for help and thus increasing their sense of security and self-sufficiency.

Overall, this paper suggests that user's pains, gains and jobs have a direct influence on the way a value proposition is designed in a healthcare setting. Considering that Romania has limited resources every value proposition's feasibility must be examined carefully. To be able to deliver a service that is meant to be successful, the needs and wants of users should be emphasized, especially in the case of visually impaired young adults and considering the sustainability turn that businesses take.

6.2. Limitations

There are a few unavoidable limitations regarding this study that need to be discussed. A first stepstone encountered by the researcher was the lack of academic literature regarding the healthcare system and medical services in Romania. Thus, not every piece of information presented in the results chapter was retrieved from academic journals. However, the websites that were used as resources were verified. Furthermore, the lack of respondents and limited timeframe were the following implication that occurred. Initially, a target group of 30 people was proposed but it was not feasible to contact that many within the short span. Thus, only 15 people were contacted, out of whom 8 responded and agreed to the interview. In addition, qualitative

research is usually less concerned with facts and more concerned with judgment and opinion. This gives the researcher the power to translate the answers of the participants in a subjective manner. However, it makes it challenging to duplicate qualitative research because of its distinctive nature.

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Appendix 1: Interview guidelines

Introduction:

My name is Doris, and I am a third-year international business& administration student at the University of Twente in the Netherlands. I am currently writing my bachelor thesis about the influence of users' needs and wants on developing value propositions in a healthcare context. I want to focus on a specific target group: visually impaired young adults in Romania. I have decided on this topic while thinking about social inclusiveness. As my thesis had to apply the theory of social inclusion in a business context, I decided to use a framework called Value Proposition Canvas. To briefly tell you about it, the model was created to verify that a product/service and market fit together, by focusing on two main blocks of the business model: the value proposition segment (what you give to your users) and the consumer segments (how you understand your customers). In my research I would like to focus more on the second part, thus my goal is to understand the target group to be able to deliver a value proposition of e-health platform functionalities that could make the platforms more accessible to visually impaired people. To gather the data, I will be conducting interviews and then separating the results based on age and the recency of the diagnosis. I hope that after talking to the interviewees I will get an idea about their needs and wants and how they could be fulfilled by healthcare organisations. Before we begin, I would like to make sure that you know you can withdraw from the interview at any given moment. In case there is a question you do not feel comfortable answering, we will move to the next one.

0. Is it okay if I record this interview?

As mentioned before, the results will be separated based on age and the recency of the diagnosis. Therefore, I wish to ask you the following questions:

1. Could you please tell me what is your age?
2. When were you diagnosed with visual impairment (blindness)?

In this research, the focus is on the healthcare system in Romania and how medical services are offered for people with sight disabilities, more specifically healthcare that is being offered online (e-health).

1. When you encounter healthcare issues, how do you manage them?
2. How would you describe the current public healthcare systems in Romania in accordance with your general knowledge? (This question can be answered also by doing desk research because the interviewee might not be fully informed, or his answers might be unreliable)
3. What is your experience with the current public healthcare system considering your sight deficiency? (For example, you can talk about something concerning functionality, communication and interaction with practitioners and online/ offline services)
4. Usually, when you approach the health services in Romania, do you feel that you are treated differently from the typical people? If so, in what sense? (Positive or negative)
5. On a scale from 1 to 5, how satisfied are you with the current online and offline public healthcare services?
6. Are you using any medical service online?
 - If yes, what online medical services have you tried? (e.g., making appointments with the general practitioner, online therapy, medication reminder etc.?) How often do you use medical online services?
 - If not, what is the reason? (Did not know they existed, are not accessible, are not interested)
7. Are there any tasks related to medical issues that can be done online? Would that help you?
8. Are there any advantages of using online services instead of physically or through other methods (e.g., phone calls)? Do you believe that an accessible online healthcare platform could help you save time, money, or effort? (Could be that the respondent chooses 0, 1 or more leads to follow-up questions)
9. Regarding your sight disability, do you consider that the medical services in Romania are inclusive? (Depending on the accessibility of the approach specific to the type of disability and the interaction with the medical staff)
10. What problems does the current public system solve for you?
11. Are you looking for alternative ways to solve certain medical-related problems?
12. How can the healthcare services be improved to bring you additional benefits and better fit your needs?
13. Regarding your health and that of your loved ones, would you be interested in using a healthcare platform that provides services specifically to people with visual impairments?

Appendix 2: Trigger Questions

Customer jobs

1. What is the one thing that your customer could not live without accomplishing? What are the steppingstones that could help your customer achieve this key job?
2. What are the different contexts that your customers might be in? How do their activities and goals change depending on these different contexts?
3. What does your customer need to accomplish that involves interaction with others?
4. What tasks are your customers trying to perform in their work or personal life? What functional problems are your customers trying to solve?
5. Are there problems that you think customers have that they may not even be aware of?
6. What emotional needs are your customers trying to satisfy? What jobs, if completed, would give the user a sense of self-satisfaction?
7. How does your customer want to be perceived by others? What can your customer do to help themselves be perceived this way?
8. How does your customer want to feel? What does your customer need to do to feel this way?
9. Track your customer's interaction with a product or service throughout its lifespan. What supporting jobs surface throughout this life cycle? Does the user switch roles throughout this process?

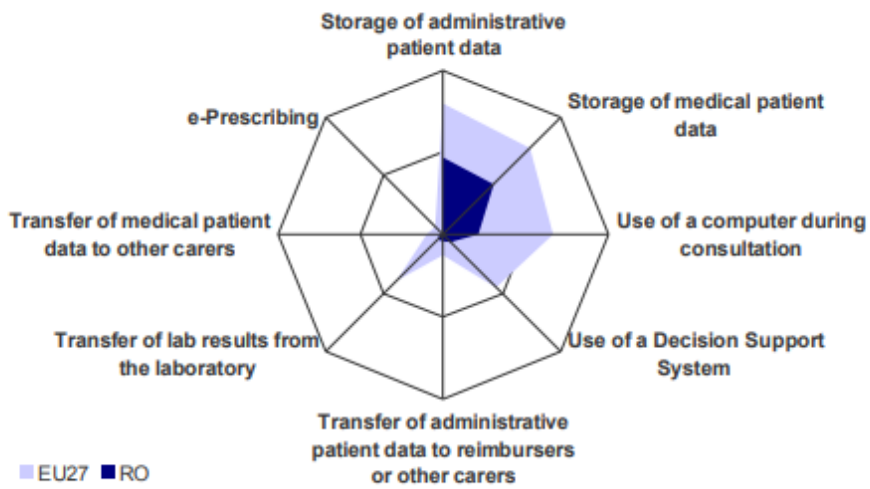
Customer pains

1. How do your customers define too costly? Takes a lot of time, costs too much money, or requires substantial effort.
2. What makes your customers feel bad? What are their frustrations, annoyances, or things that give them a headache?
3. How are current value propositions underperforming for your customers? Which features are they missing? Are there performance issues that annoy them or malfunctions they cite?
4. What are the main difficulties and challenges your customers encounter? Do they understand how things work, have difficulties getting certain things done, or resist particular jobs for specific reasons?
5. What negative social consequences do your customers encounter or fear? Are they afraid of a loss of face, power, trust, or status?
6. What risks do your customers fear? Are they afraid of financial, social, or technical risks, or are they asking themselves what could go wrong?
7. What's keeping your customers awake at night? What are their big issues, concerns, and worries?
8. What common mistakes do your customers make? Are they using a solution the wrong way?
9. What barriers are keeping your customers from adopting a value proposition? Are there upfront investment costs, a steep learning curve, or other obstacles preventing adoption?

Customer gains

1. Which savings would make your customers happy? Which savings in terms of time, money, and effort would they value?
2. What quality levels do they expect, and what would they wish for more or less?
3. How do current value propositions delight your customers? Which specific features do they enjoy? What performance and quality do they expect?
4. What would make your customers' jobs or lives easier? Could there be a flatter learning curve, more services, or lower costs of ownership?
5. What positive social consequences do your customers desire? What makes them look good? What increases their power or their status?
6. What are customers looking for most? Are they searching for good design, guarantees, specific or more features?
7. What do customers dream about? What do they aspire to achieve, or what would be a big relief to them?
8. How do your customers measure success and failure? How do they gauge performance or cost?
9. What would increase your customers' likelihood of adopting a value proposition? Do they desire lower cost, less investment, lower risk, or better quality?

Appendix 3: E-health usage by GPs in Romania



Indicators: Compound indicators of eHealth use (cf. annex for more information), % values. Source: empirica, Pilot on eHealth Indicators, 2007.