

Designing an Offer Tool for B2B Salespeople of Salt Business

Realized by

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ABSTRACT

Pour répondre au changement continu et à la concurrence incessante, les entreprises doivent constamment améliorer leurs processus internes afin de créer ou de maintenir un avantage concurrentiel. L'optimisation des processus de l'entreprise repose sur l'amélioration de chaque processus, du plus global à chacune des étapes et à chacun des éléments qui les composent. Les technologies de l'information offrent aujourd'hui une multitude de solutions efficaces et évolutives pour soutenir la mise à niveau des processus de l'entreprise et augmenter la performance interne. Si certaines entreprises considérées matures sur le sujet, d'autres sont encore en progression. L'objectif de ce document était de concevoir un outil de création d'offre pour les vendeurs B2B de Salt Mobile en appliquant une méthodologie de développement centrée sur l'utilisateur. Pour y parvenir, le projet a commencé par une phase de recherche et d'analyse contextuelle qui a permis d'acquérir une connaissance clé du processus actuel, suivie d'une analyse des besoins pour définir les objectifs du nouvel outil. Sur cette base, des maquettes ont été créées puis testées par les utilisateurs afin de les évaluer et de fournir des commentaires.

To face the change and increased competition, companies must continuously improve their internal processes in order to gain or maintain a competitive advantage. Optimizing the company's processes is based on the improvement of every existing process, from the most global to each of the steps and each of the elements that compose them. Information technologies nowadays provide a multitude of efficient and scalable solutions to support upgrading company's processes and increase internal performance. While some companies are considered mature on the subject, others are still progressing. The objective of this document was to design an offer tool for the B2B salespeople in Salt Mobile by applying a user-centred development methodology. In order to achieve this, the project started with a research and contextual analysis phase that allowed to gain a key knowledge about the current process followed by a requirement analysis to set the objectives of the new tool. Based on that, wireframes were created then tested by real users to evaluate and provide feedbacks.

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1. INTRODUCTION

The use of digital technology is becoming omnipresent and increasingly interfering in various fields. Integrating digital into every dimension and service of the company has become one of the main productive resource to develop their growth, offer customers a better experience and stand out from their competitors.

The area of technological development has also influenced the traditional functioning of the company. Taking advantage of technology to improve employees experience started to present a high priority at organizations. Providing them with effective, user-friendly and operational tools will help them become more motivated, more productive and increase their engagement. In fact, making the right tools available for employees will lead to completing their tasks successfully, improve their operational performance and develop their capabilities. Moreover, companies with the best employee experience had an average of 20.1% on a three-year revenue increase rate (Schaufenbuel, K.,2013)

Taking the case of Salt Mobile SA that seeks to improve its internal work processes, this project was realized in the context of an internship related to a Master in Information Systems at the University of Lausanne. It was initiated by the team “Projects, Tools & Processes” of the B2B division of Salt Mobile. The goal was to design an offer tool for B2B salesperson.

2. CONTEXT

2.1 Enterprise Presentation

Salt Mobile SA with its headquarter located in Renens Vaud is a Swiss limited company in the field of telephone and telecommunication. It was created on the 26th of January 1998. Formerly named Orange Communications, the company was renamed and its new identity became Salt on 23rd of April 2015 after its acquisition by the French entrepreneur Xavier Niels. Salt Mobile is considered one of the main telecommunication providers and leaders in Switzerland with a turnover of CHF 1,022 million (2019) and approximatively 16% market share against Swisscom 56% and Sunrise with 25% in December, 2020 (Federal Communications Commission, 2020) It is also on the top 3 of network mobile in Germany and Austria. It possesses 103 stores all over Switzerland with 4G network coverage of 99% of the Swiss population (Salt press office, 2021)

Salt has a wide variety of products and services and it is expanding in three strategic segments. First is Mobile with a complete range of products. Second is Home, thanks to the Salt fiber launched on the 20th of March 2018, customers can benefit from fast network connection of 10 GB/s. Salt is considered the first telecom company that offers B2C customers this type of technology connection and succeeded to be the first fastest Fixed Internet connexion worldwide (Ookla, 2021). And finally, Business with tailored solutions for SoHo, SMEs, and large companies in Switzerland.

2.1.1 Salt Business

Salt Business is the B2B division dedicated to manage business customers of Salt Mobile and focuses on providing them with customized experiences. Above 100,000 enterprises have decided to collaborate with Salt and selected it to be their mobile provider (Salt press office, 2021). The company's goal is to carry on the growth in B2B market by creating product portfolio containing multiple solutions with the goal to achieve fitting the needs of various business customers and offer them a first-class service. Figure 2.1 presents example of Salt business customers are presented.



Figure 2.1: Example of Salt Business customers

2.1.2 Salt Business Team

B2B Operations is the team that is managing business customers and it is constituted of:

- Lead generation team: Responsible for reaching enterprises potentially interested in the services of Salt Business.
- Sales team: responsible for meetings with prospects, preparing offers, negotiation and signing contracts.
- Onboarding team: Responsible for contract creation (specific contracts with special clauses), management of lines activations and test SIM management.
- Customer care team: responsible for In-life management

2.1.3 Problem Statement

To achieve the goal of providing the business customers with the solutions and the experience they expect, same level of attention must be devoted to the internal digital experience of employees, systems, processes, as to the one offered to external customers. Therefore, changing the traditional ways that the B2B Operations team work with and improve the current processes that are not considered efficient enough became a priority. In this context, with the coordination of the Projects, Tools & Processes team and the BID Management, it was decided to develop a new sales enablement platform named “Pamela Sales Tool”. The goal of switching into this platform is to improve the sales process by including the features that enable the 4 teams to perform and track their daily activities. Having a platform with better-structured information

and processes will enhance relationships alignment across the 4 teams will make the B2B Operations jobs more efficient, enjoyable and engaging.

This sales platform will include:

- A Call tool: provided for the lead generation agents in the goal of managing a large volume of calls.
- An Offer tool: dedicated for the salesperson to allow them create and manage offers/contracts.
- An Order tool: dedicated for the Onboarding and customer care teams for the major goal of mass activation of lines.
- A Ticketing tool: to be used by all teams for internal communication.

All of the mentioned tools will belong to the “Sales Tool” component highlighted on Figure 2.2.

The screenshot shows the Pamela Sales Platform interface. At the top, there's a dark header bar with the text "PAMELA SALES TOOL" on the left and "You are already signed in." on the right. Below the header is a navigation menu with several items: "Home - Sales Tool" (which is highlighted with a green border), "Sales case management", "Company management", "Sales forces", "Waves", and "Employer companies". The main content area is titled "Users". It features a search bar labeled "Search users" and dropdown menus for "All roles", "All teams", and "Enabled". Below these filters, there are columns for "Name", "Username", "External dealer sales rep code", and "Team".

Figure 2.2: Future components of Pamela Sales Platform

The project that will be studied in this document concerns the Offer tool. The first objective was to find out how the B2B sales person achieve creating the offer for their prospects, the steps and the daily working habits. The second objective was to improve the user experience of this team and provide them with a satisfying solution that would allow them to organize and perform better their tasks. The following research questions have been defined:

- **RQ1:** How are the B2B salespeople currently working to create offers?
- **RQ2:** How to optimize the process of offer creation and achieve contract signature?
- **RQ3:** What are the functionalities that need to be included in the new Offer tool?

3 LITERATURE REVIEW

The purpose of beginning with literary review is to comprehend concepts and terms relevant to the problematic and the solution to be developed. For instance, this project concerns the salesperson of the B2B division of the telecommunication provider Salt Mobile. Therefore, the literature review starts first with gaining knowledge about the B2B business model, then understand the sales in B2B and how it varies from the B2C. Moving forward to the sales process in a B2B context and how it has evolved. Also, highlight what is an offer in B2B sales and how it is created according to what exists in the literature. Second part aimed to have an overview of B2B applied in the telecommunication industry and finally understanding how Switzerland is involved in it.

3.1 B2B Business Model

To create market values, companies and industries follow different business models. The B2B business model focuses on sales that are intended for firms or organizations. This model includes exchange and involves relationships between and among business entities only. It mainly refers to one company that develops products or services then sell them to other companies to fulfil its needs. This model operates in different industries like retail and telecommunication Walaszczyk, et al (2016). B2B business model varies from the B2C. In B2C, a company addresses directly to a particular customer therefore it focuses on the needs of an individual consumer who is mostly the end user of the product or service making its selling relatively easy and short. This model is known for package goods like. The B2B segment market is composed of: small, medium and corporations. The needs of companies depend on their size and vary widely. Small ones can be a bit similar to the services addressed to general public whereas medium and large companies (corporate) are more presumably to require a higher level of quality and customization as they manage larger operations. (Chernev, 2017)

3.1.1 B2B Sales

B2B sales are challenging and distinctly different from B2C at various levels. Companies that makes their revenue by selling to particular customers provide standard product offerings with narrowed options. When Targeting B2B customers, the sales volume is lower but a more

important degree of customization is needed and the “one fits to all” approach does not work (Grafmüller et al., 2017). These type for customers is seeking for a combined solution that may include extremely tailored offerings. In addition, and since B2B deals are conducted with professional buyer, different decision makers belonging to one organization are involved, contrasting to B2C where one person is concerned and responsible for taking the decision of buying. The reason behind this, is that the decision of adopting new solutions requires the approval of different members of an organization. (Yadin, 2014). Therefore, B2B sales are characterized to be more strategic than B2C but also more complex to conquer and generally longer to close. The average of immersed people in a B2B deal is between 6 and 10. (Gartner, 2019) while the time needed to conclude the B2B deal is 7 months for half of B2B seller (CSO Insights, 2019).

3.1.2 B2B Sales Process steps

Sales process can be defined as “*the phenomenon of human-driven interaction between and within individuals/organizations in order to bring about economic exchange within a value-creation context*” (Dixon & Tanner, 2012, p.10). A sales process is often illustrated as a funnel which consists of several steps or phases that needs to be followed in order to sell a product or a service (Nilsson, 2019). At first the prospective customers are captured at the top. Then, part of prospects is favourably transformed and move forward to the next step. As the process carries on, the funnel becomes more and more narrowed (Skok, D, 2010).

In B2B sales, buyers and supplier collaboratively proceed for a value co-establishment process for business exchange (Dixon & Tanner, 2012). B2B selling attempt to develop a relationship with a business prospect until transforming him into a customer. It implies various practices and following a sales process is one of them. The B2B sales process implies a sequence of steps through which a new B2B opportunity evolves until it is converted. Age (2011) explained that this process aims to qualify evaluate and acquire a sales opportunity.

(Moncrief & Marshall, 2005, p. 13) suggests a 7-step model ad it includes:

- 1) “Prospecting”: which is the first step of the B2B selling process and it constantly implies looking and identifying business customers that could be interested in the product/service of the buyer firm. In order to reach prospective customers and create opportunities, selling strategies that are relational based are recommended. (Sheth & Sharma, 2008; Inks and al., 2019)

- 3) “Pre-approach”: It implies putting in place the tasks needed prior to approaching the prospect and verifying that his needs and the offered solution are matching. Also eliminate the prospect who do represent an appropriate fit.
- 4) “Approach”: It implies the strategies that the salesperson follows to establish a first contact and get in touch with the wished to be customer.
- 5) “Presentation” After analysing the needs, salesperson demonstrates the proposed solution with a key focus on how it can contribute in creating value into the prospect’s business. (Sheth & Sharma, 2008, p. 266)
- 6) “Overcoming objections”: It is part of the negotiation, another major step in the process. It occurs after the presentation and service demonstration (Niemi& Hirvonen ,2018). In this phase the salesperson goal is to eliminate the doubt by building trust with his prospect.
- 7) “Close”: it implies finalizing the solution and reaching to make the deal concreted.
- 8) “Follow-up”: It is considered relatively new step in the sales process. It aims to nurture a long-term customer relationship and it is based on a continuous gathering of clients’ feedback and improvement suggestions (Kotler & Armstrong 2012, 504).

Influence role of Technology in the Selling Process

During the last 20 years, while the basis of the steps of selling process stayed consistent, the methods have begun to develop contingent on different factors. The most important are technology, the additional new approaches of selling (such as team-based interaction thanks to interactive tools) and also the purchasers that became more informed (Moncrief & Marshall, 2005, p13-22). Every step started to incorporate more cooperation between salesperson and the buyers with the emerging communication tools. This enables the salesperson to discover more about their customers from one transition to another in the selling process therefore provide a more advantageous solution (Kimberly K. Richmond, 2012). The transformed selling process has begun to be called “Evolved sales process” presented in figure 3.1. The traditional model, requires the salespeople to follow all the 7 steps and was considered unfavourable for their productivity. It is due to the major focus on the sales rather than the customer experience. As opposed to this model, the evolved one does not require the salesperson to perform all the steps defined and no order is mandatory and it is oriented more on the customer experience and relationship. Furthermore, steps can be done by the salesperson and other team members (Moncrief & Marshall, 2005).

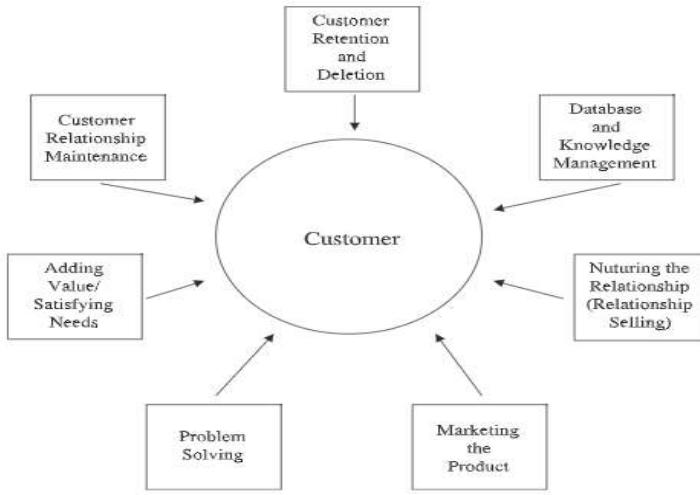


Figure 3.1: Moncrief & Marshall 2005, The Evolved Sales Process

3.1.3 The Offer in B2B sales

An offer also referred to as business proposal, is an ultimate element in the step number 4 precedently presented. Transferring an adequate business proposal to a prospective customer is crucial to the success of the sales process. An offer can be defined as a formal document created by a B2B supplier and presented for a B2B buyer with the purpose of providing him with the appropriate solution. Through the business proposal, the supplier should propose value rather than product or service he is selling and the delivered solution should fit the customer's requirements and alleviate his problems (Sant, 2012). The proposed solution should be based on targeted content and not just a bare-bones description. Its success should rely on a real understanding of the prospect needs. It can include technical part, financial part, legal contractual part and will be read by people with different profiles in the Organizations (Sinha, 2016). Jean Wilson Murray (2008) proposed The following steps for a developing a persuasive and effective business proposal:

1. “Yes/No analysis”: It implies an analysis that allows the salesperson to decide whether he is able to deliver the desired products or services.
2. “Client Analysis”: Includes Gathering and classifying requirements and identifying potential problems.

3. “Proposal Analysis”: Implies elicitation of the possible solutions to address the problem(s) identified.
4. “Strategy creation and Outline”: To finalize the preliminary analysis, a summary is created in this step in order to compare it with key objectives defined.
5. “Practical Considerations”: it mainly concerns large companies were specific sections are required to be in the proposal so specific teams need to be involved.
6. “Timeline”: Based on the deadline set by the prospect, the salesperson creates the overall timeline from the start date until the end date.
7. “Proposal creation”: it concerns the redaction of the different sections and parts of the offer.
8. “Review and Edit”: revision of the written text with different stakeholders. (Example: verify if the terms used in the technical part are clear enough for the prospect).
9. “Final review and Preparation”: It implies final checking the content of the offer with the rest of the team.
10. “Presentation Creation and Preparation”: includes preparing a presentation and rehearsing.

Offer creation has evolved too based on the factors mentioned on the previous section. First, and with the new team-based approach, salesperson gave up the tradition way where they do individual presentations and moved towards more collaborative approach by making team presentations. Moreover, the salesperson started to make their proposals using PowerPoint. This way makes it simpler for them to adapt it from one case to another (Moncrief & Marshall, 2005, p16).

Although this step represents a crucial one, having to proceed with the same steps for every proposal can be seen as time consuming and needs a considerable effort by salespeople. Therefore, establishing a clear and streamlined processes for offer generation can help in minimizing the errors and delays but also in discovering the bottleneck and defining the appropriate solution to deal with it. As a matter of fact, 90 percent do not succeed in providing the prospect with what he is looking for because of the non-suitable processes followed that do not come up with needed material. Companies who invest to provide an effective offer generation can reach between 40 and 50 more in new account possessions and sales increase rates (Sales Management Association, 2013).

3.2 B2B in telecommunication services

3.2.1 Overview

B2B telecommunication can be referred to the business where telecommunication providers sell telecommunication products and services to other companies and serve them with a digital infrastructure of devices, applications and network that allow fast and efficient information transmission and routing. Information can have different forms: voice, data, text and video. These services can be used by different businesses and contribute in the development of different fields (example: health, trading) as information transmission is becoming the backbone of their core activities (Beers, 2004). In the past, telecommunication companies targeted mostly growing the B2C segment. But with the market saturation and the non-willingness of customers to pay more for services like voice and SMS, telecommunication companies turned the focus on the B2B market and conveyed from particular consumer to business customer. Therefore, B2B telecommunication global market is continuously increasing across different industries as well as the needs of companies (Chandra et al.,2019) and it is expected to reach \$181.35 billion by 2030 (B2B Telecommunication Market, 2021). With a greater reason, telecommunications nowadays play an important role in the business operations of organizations. Data access and Information technology are needed by a variety of businesses that they are continually trying to adapt these services to their needs.

Furthermore, with unprecedented Covid 19 pandemic that put different restriction including social distancing and reducing human to human contact obliged organization to re-emphasized the way they hold meetings and other activities making them shift to remote working (Mckinsey, 2020) which created a witnessed demand on telecommunication services in order to develop a solid network infrastructure allowing the continuous functioning of organizations. (Katz, 2020). In response to this demand and to capture this opportunity, telecommunication providers must adapt to these needs and become key partners for enterprises in supporting them through their changes.

3.2.2 In Switzerland

Swiss Telecommunication providers are penetrating the B2B market and aiming to support the different organizations of different fields in creating their business value. In fact, 99% of enterprises in Switzerland are SMEs (Federal Statistic Office, 2021) and to remain competitive on the European and international level, Swiss enterprises are taking the challenge and turning to digital technology to manage their customer relationships and improve their internal processes. In January 2016, only 45% of Swiss industries surveyed by Ernst & Young (EY) announced that digital technologies are involved in their business model, two years later they were 66% to verify it. Furthermore, 76% of the companies surveyed believe that digitalization will radically change the market in the next five years. Finally, the pandemic was a catalyst for taking the step into digitalization. Therefore, future investments in this area are expected to increase, and successful SMEs will be those that are able to seize the opportunities of digitalization. This creates a business growth opportunity for Swiss telecommunication.

The emerging of the fifth mobile network generation 5G, a successor of the 4G but with radically improved performance. It will bring a range of benefits by creating entire new technologies, increase business productivity, improve lifestyle and bring new businesses opportunities (Favaro 2020). Considered a European leader for 1 GB/s fibre broadband, Switzerland has provided its population with 5G network coverage FOR the first time April 2019 (European 5G Observatory, 2019) According to a research conducted by the Swiss Telecommunications Association in 2019, By 2030 5G technology will have developed 137,000 jobs and will generate a production of CHF 42.4 billion. In the B2B sector and with the emerging of 5G, potential new business opportunities such as the Internet of Things (IoT) will open up to various fields contributing. Swiss telecommunication providers should partner up with Tech firms in the development of a more connected future.

4 METHODOLOGY

For designing the offer tool, it was decided to apply the User Centred Design (UCD) method. The term user-centred design was used by Norman in 1986. As its name implies, UCD is an approach that places the user at the centre of the design and development of interactive systems. It is an iterative approach that implies working closely with the different stakeholders and values their contribution by actively involving them and considering them as partners. They participate in planning, monitoring and achieving the best results. Organized according to the needs, preferences and expectations of end-users and stakeholders, UCD helps to improve the way services are delivered making them more intuitive, easier to learn, free of user error and finally increase the user's satisfaction (Maguire, 2001).

The ISO 9241-210 standard of 2010 provides the main principles of UCD:

- The design is based on a clear comprehension of the users, tasks and environments.
- Users are continually engaged in the design process and development.
- The process is iterative through which a prototype is created, tested then evaluated.
- The design covers the whole experience of users.
- The design team combines multiple abilities and viewpoints.

The UCD process compromises four successive phases (ISO,2018). First is to define the context of use: identify who are the users that the system is intended for, study them in their social and cultural environments and the goals they try to achieve in order to highlight the context in which they will use the system and under what conditions. Second is specify the requirements: identify the users' needs so that the solution will be suitable for the them. Third is to produce design solutions. This phase of the process can be done in stages to reach a complete design. Finally evaluate the designed solution which should ideally be done with usability tests including real users.

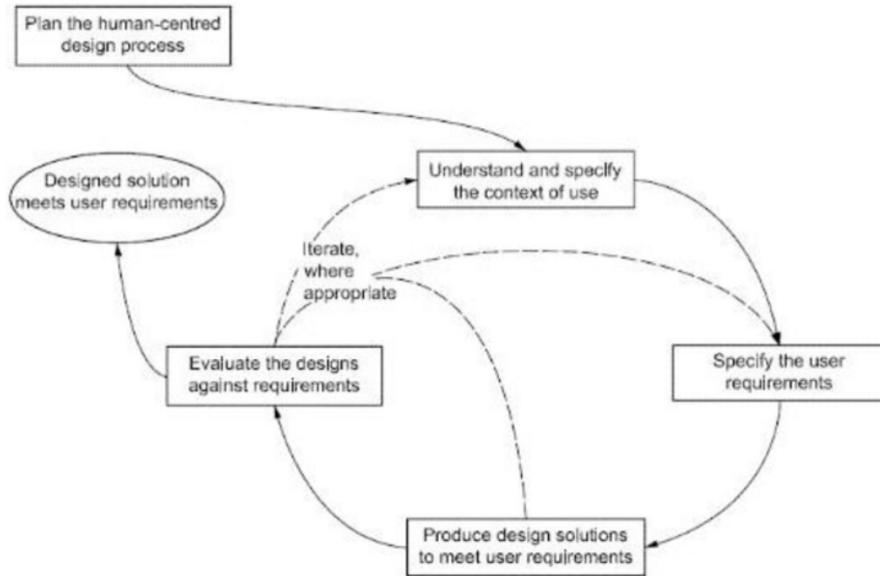


Figure 4.1: ISO 9241-210:2010: The UCD 4 phases

Table 4.1 represents the four phases that have been applied for the project and the methods chosen for each one in the goal of designing a usable and sustainable tool.

Table 4.2: The 4 phases and methods applied for each

Order	Phase Name	Methods Applied
1	Context analysis	<ul style="list-style-type: none"> ▪ literature review ▪ Interviews ▪ Contextual Observations
2	Design goal definition	<ul style="list-style-type: none"> ▪ Requirement analysis
3	Design phase	<ul style="list-style-type: none"> ▪ Wireframing prototype
4	Evaluation	<ul style="list-style-type: none"> ▪ Usability testing ▪ Interviews

5. OFFER TOOL PROJECT

5.1 Context analysis

For a targeted co-design of the tool, this step of the UCD process is conducted prior to the tool development and consists of collecting data needed for the project to support the first definition of requirements. It represents an effective way to discover and learn more about existing context and domain by involving and engaging key stakeholders early in the design process. It aims for various purposes, essentially understanding the characteristics, behaviours, needs, and current practices and interactions of future users. Moreover, it helps in revealing significant topics, the issues to be addressed and how they relate to each other. Furthermore, it allows uncovering the possible changing barriers that future users might face. These findings would sharpen the planning and development of the tool design and determine the best ways to complete it. Therefore, different activities have been realized to gather the qualitative data including both primary and secondary data collection methods. It has begun with a brief literature review, simultaneously semi structured in-depth interviews and observations have been realized. The objective was to mainly understand how salespeople proceed with offer creation in the B2B division of Salt Mobile.

5.1.1 Interview

Interview Sample

The target population of the interviews were the salesperson working in the B2B Division of Salt Mobile. They represent the most concerned and interested party as they will be the main future users of the tool. In total, the number of salespeople in the B2B division is 21 and are divided according to 3 different positions: 13 Account Managers responsible for managing medium companies with number employees between 20 and 199, 6 Key Account Managers responsible for managing large companies with number of employees more than 200 and 2 Head of regions to manage teams. In order to identify what is common and highlight differences between participants, interviews were conducted with salespersons having the various mentioned positions. Furthermore, it was important to select participants having different working seniorities as there are salespeople that have been working in Salt Business for years

and others that have recently joined. So, it was interesting to investigate the experience of each. It was also important to select participants located in the different headquarters of Salt Mobile in Switzerland (Zürich and Renens).

In total 6 participants aged between 32 and 49 were chosen according to the following: 3 salespeople from the French part of Switzerland (located in Renens) and 3 from the Swiss German part of Switzerland (located in Zurich). As there are no key account managers in the French part and among the participants, 2 participants were account managers and 1 was the head of the region. The 3 participants from the Swiss German part were: 1 account manager, 1 key account manager and the head of region. Participants were 5 males and one female as she is the only female working as salesperson in the B2B division of Salt Mobile. Table 5.1 represents the demographics the of sample chosen.

Table 5.1: Demographics of interview sample

Participant ID	Position	Number of years /months working in Salt Business	Gender	Age	Location	Languages spoken
P1	Account Manager	12 years	Male	49	Renens	French English
P2	Account Manager	5 years	Male	40	Renens	French English
P3	Head of Region	3 years	Male	32	Renens	French English
P4	Key Account Manager	6 months	Male	35	Zurich	Swiss German English
P5	Account Manager	5 years	Female	34	Zurich	French Swiss German English
P6	Head of region	2 years	Male	35	Zurich	Swiss German English

Semi-structured in-depth Interviews

Data collection has first pursued a semi-structured in-depth interviews method. In qualitative data research, there exists 3 types of in-depth interviews that allow reaching rapidly a large amount of data: structured, unstructured and semi-structured interviews. Unstructured interviews are more comparable to a conversation between the two parties. They discuss a specific topic but without referring to a set of prepared questions. The interview is guided by

the areas that the interviewee believes important. A structured interview is where the interviewer asks predefined questions and does not waver from the interview guide precedently defined. Finally, semi structured interview is where the interviewer has a prepared set of open-ended questions to cover different topics but he also allows the participant to address other subjects.

The reason behind choosing semi-structured in-depth interviews as one of the research methodologies, is that it represents an efficient way to get a better insight about each participant independently, learn in depth about their experiences, the way they perform their tasks, and delve into their individual opinions and perspectives. Moreover, the sample size for this project is a small one which makes this method more convenient to build cooperation with participants as they will be involved all along the project. Another characteristic of this method is flexibility as it enables the participant to express himself without restraint and open up about other topics he finds significant, which gives the interviewer the opportunity to explore more useful data. Therefore, this method allows providing an important amount of data through a fluid structure. It is constituted of three phases: preparing the interview guide, conducting the interviews and finally analysing results.

Interview guide

In order to conduct a fluent interview, preparing a guide was crucial. This guide helps the interviewer to structure the topics to be covered and list the questions to be asked. Nevertheless, and with the semi-structured aspect of the interview, it is acceptable if participants raise topics that were organized to be covered later according to the questions order. This would let them express more themselves and mention other ideas and opinions. So, the guide serves more as a support tool to make certain that all topics have been discussed but does not block the interviewer from investigating the topics that might get raised during the interview.

As participants spoke different languages and to avoid lack of understanding that leads to communication failure and nonresponse biases, a bilingual interview was important. Therefore, questions have been prepared both in French and English. Before starting the interview, participants were asked to choose the language they prefer to communicate with, which allowed them to answer more restfully. Appendix I presents the interview guide is prepared.

Main questions

The questions of the semi-structured in-depth interview addressed various topics related to offers. The First one focused on understanding at which stage of the sales process, the sales person can start preparing an offer for a specific potential client. Reviewed literature proved that conquering new clients or retaining existing ones represent a major challenge for companies. In such context and to build a favoured relationship with potential clients, understanding their expectations and needs is essential to build a customized offer for every prospect. It is considered one of the most principle roles of sales representatives. So theoretically, the salesperson cannot move forward to this step unless he analysed his client's needs and identified his requirements. Additionally, clients often do not fully recognize their needs so the salesperson has to reveal them. This step is a crucial one as creating an offer that reflects exactly what the customer looking for increases its chances to be likely accepted and makes the service more desired.

Second question focused on understanding the difference between the 2 existing types of offers: retention and acquisition. An acquisition offer is dedicated for potential customers in order for the company to grow. With the increase of digitalization in Switzerland with an overall level of 45% in all industries based on scorecard provided by digital Switzerland, the need of tailored and robust telecommunication infrastructure has increased which makes business clients the centre of interest and incites the telecommunication providers to explore the B2B market. Therefore, to gain business byers, they need to move from the “one-size-fits-to-all” approach to more scalable telecommunication solutions with high quality services by providing tailored acquisition proposals. Retention offer is dedicated for the existing customers. Telecommunication companies are not only focusing on acquiring new customers but also competing to keep most of their acquired ones. Unlike B2C, where a telecommunication provider will try to retain a customer by focusing on an individual customer experience. For the business customers, the telecommunication provider has to manage multiple satisfaction factors of different individuals belonging to the same organization therefore provide the most engaging retention offer.

A question concerning the information needed before starting to create an offer and how they are gathered was included. An offer should be utterly prospect centred. Existing literature explained that the goal is not to prove to the customer that you have the best services in the

market but to prove why your offer represents the most adequate solution for him. For this, the sales need to gather all information needed and a meeting with the client is not sufficient. Prior research about the prospect has to be led. “*At its best prospect research is a method of one-to-one marketing. It demands high input, justified by the hope of a high return. The first stage involves in depth investigation, whether into a person, company, charitable foundation, or other body (the prospect)’*” (V Hack – 2013). Hence, the sales have to make a research about the company’s field, activity, turnover, accurate contact of primary decision makers. Once information is gathered about the prospect, it should be analysed with the goal of extracting his possible needs and current gaps. This would allow the salesperson to contact the prospect with global understanding and recommendations. Therefore, the more prepared the salesperson is, the more able he will be to meet his prospect’s expectations. The second stage consists of gathering information by directly exchanging with the prospect. The previous stage and the knowledge gathered about the company would allow the salesperson to meet the client with targeted prepared questions and get the answers needed to constitute an ideal offer for him.

Another question about revealing the number of offers created per week for both retention and acquisition cases was addressed to participants. This question aimed to understand which type of offers each participant creates more than the other among the two existing types per week and why. Reviewed literature suggests that gaining a new customer can be at least 5 times harder than retaining the current ones (Keiningham et al.,2005). Moreover, Carl Sewell (2005) has explained that a customer who has signed for the first dealership represents a potential lifetime value. Therefore, salesperson rely more on retaining the existing customers to maximize the company’s profit and prove a successful customer relationship management.

Furthermore, another topic to highlight was the versioning. A first question about how many versions of one offer do the participants create before reaching the most suitable one for the prospect was asked. Document versioning invokes the creation and management of several versions of one specific document (Wiggins, 2012). To achieve the deal closing and since the prospect’s needs might change during the sales process, an offer might go through multiple versions before attaining the final one. Therefore, the salesperson has to be able to prove a good management of these changes by creating multiple offers to ensure recommending services that meet his prospect’s expectations and prove a good understanding of his requirements. A second question about keeping the record or not of the multiple versions has been asked. Reviewed literature proved that keeping the saving of the different versions and having easy access to

them helps in managing the evolution of the document, preventing the previous version from being deleted hence maintaining the changes applied and allowing comparison between the versions. (Maguire, 2017).

5.1.2 Conducting the interview

The interview lasted about 35 minutes and was composed of three stages. The first was the introduction. It consisted of greeting the participant and introducing the goal of the research and the structure of the interview. The second was about conducting the interview by asking the prepared questions and allowing the participant to answer. Because of the Covid situation, the salespeople were not able to be present in the office hence interviews were conducted online via Microsoft Teams. All participants had access to this tool and use it for both internal and external communications since March 2019 which established a good level of experience. This videoconference tool enables both verbal and non-verbal real time exchange which gives the conversation an aspect similar to the face-to-face communication where you can see the participant's expressions and reactions so this interaction increases the shared understanding.

It was allowed for the sessions to be recorded with the participants consent.

The online interviews were planned in advance according to the participants' availabilities. Once the participant confirmation was given, a Microsoft Teams meeting invitation was sent to him.

5.1.1 Interview findings and analysis

Once interviews were completed, the next step was to explore the data gathered from participants. It started by translating the interviews conducted in French to English. Then transforming the video recordings into a written document through transcription. Rereading transcripts several times provided a profound understanding of what interviewees explained. Afterwards, every interview was explored and data was summarized according to the topics defined in the interview guide with extraction of key points. Finally, a synthesis of the findings.

Step during which sale person start creating an offer

All participants agreed about when they can start creating an offer for their prospects as they all follow the SPANCO method. SPANCO is a sales method developed by Rank Xerox, that aims to converting a suspect into a qualified prospect, and then into a customer. It is based on six steps that participants briefly explained. first “Suspect”: during this phase the target is defined. Second is “Prospect”, during this phase qualified leads are identified and contacted for an appointment. Third is “Approach” during which prospect’s needs analysis is conducted. Fourth, “Negotiation “during which the offer is created. Fifth, “Closure” where the deal is closed as won and the customer accepts to sign an agreement and finally “Order “during which the purchase order is given and the salesperson proceeds with its execution. (Comiti et al.,1994) Although the names of the method applied for sales in Salt Business differ from the steps found in literature review (section B2B Sales Process steps), the basis remain the same.

Participants claimed that the “Negotiation” step represents one of the most significant stage of the B2B sales process as it will define if the customer would move to the “Closure” or not. Therefore, the salesperson can move forward to this step only if the need’s analysis of the prospects is concluded i.e. “Approach” step is completed. P4 indicated that one simple communication with the prospect via email or phone is not enough to understand his needs and extract requirements so he cannot start creating an offer. P5 mentioned that after the meeting with the prospect they should wait approximately 7 days for the prospect’s answer. If during this period the prospect contacts the salesperson and expresses his willingness to start a project, the sales start making an appropriate offer for him based on the requirements analysis. In case where the prospect does not contact the salesperson, he takes the initiative to recontact him by email or directly calling him in order to get an answer. According to P3, there are some cases where the prospect confirms his interest in Salt services after the meeting, but the project cannot be launched right away and can only be possible in 2 years. In this case, no offer will be created, the sales case is closed and will be reopen in 2 years.

Differences between acquisition and retention offers

Participants explained that the difference between retention and acquisition offers is the goal of each. For retention offers the purpose is to maintain an existing client and nurture a long-term relationship with him.” *The goal is to create a Salt addiction!*” as indicated by P5. One of the criteria that clients take into consideration before deciding to stay or change their telecommunication provider is the price. Thus, in retention offers, the goal is to propose interesting prices while making sure to minimize the ARPU loss according to P3. ARPU is the

Average Revenue Per User and it is a standard measure used by telecommunication operators to calculate the income per subscriber during a fixed period of time. It is calculated by dividing the total monthly income per the total number of active users. Explained by P3.

Moreover, P4 indicated that they should not create an offer with more than 6% less of what the client precedingly paid. Nevertheless, some cases could be accepted but need manager validation. For acquisition offers, the challenges faced are different from the retention ones as the goal is to win the prospect as explained P3. Consequently, the salesperson follows a strategy that consists of proposing an offer that includes the most suitable services with the best prices compared to competitors. Also, in acquisition, more financial efforts could be set out to gain the prospect. Therefore, volume discounts are proposed. “*For acquisitions, we have quite aggressive prices*” P1 claimed. P3 explained that these volume discounts are proposed to prospects to encourage them or reward them for buying a large quantity at once. Salesperson have to follow discount schemes defined by finance.

Information needed for the offer and how are they gathered

All participants agreed that they need specific and relevant information in order to recognize customer needs and prepare a proposal. Contrary to what was expected, participants interviewed mentioned getting most of this information during the meeting with the prospect and did not indicate conducting a complete prior research phase but just a simple research about the company. Information that needs to be gathered relies on whether it is a retention or an acquisition case.

Acquisition case

In this case, the prospect represents a new potential customer that the sales person tries to win. Different information has to be investigated and englobes: First the segment type of the enterprise (small between 6 and 19 employees, medium 20 and 199 employees or large more than 200). Salespeople must respect the segmentation. If a salesperson wants to go beyond his segment he has to contact his manager. The segment type is important as it will define the contract durations possible (12/24/36) the price plan and the options the company can benefitiate from. Second, the salesperson has to investigate more about the activity of the company, location of headquarter(s), the number of employees and where are they based i.e. if they are mainly located in Switzerland or often travelling in Europe or all over the world. Also, the telecommunication numeric usage of the company: data or mobile one and the machines

used (mobiles, tablets, laptops). Furthermore, it is important to know whether the company is interested in services only or is also looking for financing solutions for telecommunication equipment. In Salt business they refer to this funding as “Technology Fund”. Additionally, the salesperson needs to have legal information i.e. the legal documents such as the commercial register of the company, contact details (email, phone number, ID) of company legal person(s) and the fleet manager that would manage the telecommunication of the company. Besides, an important information to know is whether the prospect is currently engaged with another telecommunication operator or not.

Depending on the answer, 2 types of acquisitions are possible:

a.) Acquisition with new lines

In this case, the company is not engaged with another telecommunication operator and does not have any ongoing contract. All the lines will be new ones and will belong directly to Salt Business at the activation. In addition to information mentioned above, the wished activation date should be defined.

b) Acquisition with migration of existing lines

In this case, the company has already an ongoing contract therefore there exist number of active lines with another telecommunication provider. Thus, the lines will be migrated from the competitor to Salt. In this case and in addition to information mentioned above, current contract details, reciliation conditions, current number of subscriptions and services, wished migration date should be indicated.

Retention case

In retention cases, the client is already existing. All information has been gathered during the acquisition phase. So, the salesperson refers to the information in the ongoing contract with the enterprise. Mainly the sales turnover, monthly MRC (Minimum Recurring Charges) that represents the minimum amount the client has to pay for benefiting from telecommunication services, amount of Technology Fund if existing, contract duration, date and services.

Once all this information is obtained, the salesperson can proceed with requirement analysis, then creates a proposal to be sent to the prospect (or client if it is existing) for validation.

Number of offers created

The number of offers created varies from one salesperson to another for both acquisition and retention cases. When answering this question, none of the participants gave an exact number and they all gave intervals represented in Table They all claimed that it varies and depends on many factors which are the number of meetings with clients, the lead generation and the sales seniority. P3 and P6 (French and Swiss German head of regions) explained that the target that has been settled is 5 offers per week for acquisition per salesperson. But this target cannot be achieved every week as it depends on the number of meetings with clients. Adding to that, for acquisition cases it depends on customer portfolio of the account/key account manager. The salespeople that have been working in Salt Business for 2 years or less are still creating their customer portfolio. Therefore, they are more focused on acquiring new customers to be able to renew them later.

Thus, they generate more acquisition offers than retention ones. P4 who joined Salt in the last 6 months creates as minimum 2 offers and can reach 8 offers per week but still does not have any retention ones. P3 (French head of region) claimed that for the salespeople that have been working in Salt for more than 5 years, they have developed a customer portfolio. Therefore, they have more retentions than acquisitions. He has also confirmed that they have between 50 et 60 clients in their portfolio with approximately 25 retentions to sign per year. Therefore, they highly rely on retaining the existing clients. For example, P1 that has been working in Salt for 12 years has more retention cases than acquisitions. He explained that between January 2021 and July 2021, he has signed 12 retentions. For P2 who has been working in Salt for 5 years, he has more retentions than acquisitions as well. To conclude, the seniority factor has an important impact on the type and number of offers created per week.

Table 5.2: Intervals representing the number of offers created per week

Participant ID	P1	P2	P3	P4	P5	P6
Interval of offers created b	[2,3]	[2,4]	[2,4]	[2,8]	[2,3]	[2,4]
Seniority	12 years	5 years	5 years	6 months	2 years	2 years
Main focus	Retention	Retention and Acquisition	Retention and Acquisition	Acquisition	Acquisition	Acquisition

Versioning*Number of versions created*

“Quite many! Because often during negotiation, I need to make a change in the offer or my manager asks to add something” as P1 claimed. Participants agreed that the number of versions of an offer varies and heavily depends on the prospect's needs and the negotiation held with him. None of them gave an exact number but rather an interval. Table 4.3 represents the number of versions created per participant for both retention and acquisition.

Table 5.3: Intervals representing number of versions created per offer

Participant ID Type of offer	P1	P2	P3	P4	P5	P6
Acquisition	[1,4]	[2,3]	[2 ,3]	[2, 3]	[2, 3]	[2 ,3]
Retention	[1,2]	[2,3]	[1,2]	[1,2]	[1,2]	[1,2]

a) Acquisition case

In acquisition cases, the main reason is the long negotiation with a decision process that takes 3 months but can reach 6 months as explained P2. This is due to modifications that can be requested by the prospect, and to adapt to his needs a new version has to be created for each

modification. Another reason is when a competitor has been solicited, the sales has to adapt to this competitor's offer so a new version is needed. P4 affirmed that he keeps generating versions until reaching the valid one. P3 confirmed that for an average, 3 versions are quite representative for the number of versions to create for an acquisition offer and can be more than 3 in some specific cases. Nevertheless, it can be fast with one version validated by the prospect but it is rare.

b) Retention case

In a case of retention, all participants confirmed that it needs less versions than an acquisition case to achieve the valid one. This is due to the reason that the salesperson anticipates the different adaptations before proposing an offer. "*For retention offers, I know quite well my customers!*" as P1 claimed. P3 confirmed that for an average, 2 versions are quite representative for the number of versions created for a retention offer.

Keeping the record of versions

For the sales cases where more than one version is created for an offer, all salespeople confirmed that they retain all versions to keep traceability of what they did. This would allow them to find easily what has been presented previously and compare it with the new version they are creating. Therefore, according to them keeping the history is crucial. As long as the sales case is open, all versions are kept in a folder created for the company. In case of a lost deal, the last version is kept as the goal is to go back to this client in one or two years as explained by P3. This could be also beneficial in the case where the salesperson responsible for a sales case leaves the company, the new salesperson will find the record of what has been done for the prospect thus know what to propose for him.

Version used in case of a modification

In the case where the prospect asks for certain modification, in most cases the last version is the one to modify as it is the closest to match what the client requests. This was confirmed by all participants. Nevertheless, there are certain cases where the prospect checks two alternatives of one offer at the same time, analyses both and chooses one of them. So, the last version is the one that the salesperson chooses to change but can also go back to specific previous versions to satisfy the prospect's needs according to P3.

Offer validation by the manager

Participants were asked how to validate an offer by their head of region. They confirmed that the necessity of validation depends on whether it is a standard or non-standard offer for both retention and acquisition cases. A standard offer includes prices that are conformed with minimum prices defined of Salt products, while a non-standard offer contains prices that are below these minimum prices. If it is a non-standard offer the validation of the head of region is mandatory before proposing this offer to the prospect. P3 explained that in acquisition cases, it primarily concerns when the prices proposed by the sales are not conformed to the discount scheme. In this case, the discount scheme is not allowing to be sufficiently competitive in the market, mainly against Sunrise. Therefore, the salesperson prepares an email explaining the case with all important information and indicating the necessity of lowering the price to win the sales case and send it to the head of the region. The head region has the possibility to validate the offer without checking with the finance department as long as it respects the price limit set by the financial control management, otherwise a business case is opened for profitability analysis.

5.1.4 Contextual Observation

The second method of gathering qualitative data consisted of direct contextual observation of the participants. The goal behind choosing this method is that it allows to understand how users currently perform the process and workflow of creating an offer and recognize how they perceive to achieve this goal in their natural work environment. Like interviews, observations are employed early in the design to gather design opportunities and importantly identify what can be helpful by highlighting the pain points and getting a broad picture about the current task performance.

Conducting interviews was prior to observations because it was important to gain a key knowledge about the different topics related to offers first to be able to understand better how salespeople perform their tasks.

The objective of conducting observations was to observe how the participants create an offer step by step using the current tools with the existing functionalities, how comfortable they are performing these steps and reveal their pain points.

The sample chosen to conduct the observations was the same as interviews. No specific guideline was prepared. The observation has been conducted remotely via Microsoft Teams. It lasted about 20 min. The participant shared his screen and performed the tasks while explaining

each one. For the observation and with participant consent, video recordings were allowed to record the process and workflows.

Findings

It was observed that, all users follow the same steps. They start by creating a folder with the company name in a shared drive where they save all the documents related to this company. Then, the user launches an excel tool named The Offer tool. All the salespeople of Salt Business use this tool to generate the offer. Figure 5.1 represents the different sections that the users fills in.

Figure 5.1: Current Excel tool

Participants proceeded with the following ordered steps for an acquisition case:

1. User fills in the company details. (Name, Address, UID, Fleet manager information) (section 1)
2. User fills in his information. (Name, email, address, phone) (section 2)
3. User fills in Contract details (Discount Scheme, Type and Contract Duration) (Section3)
4. User selects the subscription(s) type(s). (section 5)
 - ➔ The tool gets updated according to the choices selected in section (5)
5. User select the “Combo option” *. (section 6)
6. User fills in the subscription quantity. (section 7)
 - ➔ The tool gets updated with the minimum prices to propose to the prospect for each subscription type. (“Minimum” in section 8).
7. User enters the prices he wants to propose to the prospect (“Proposed” in section 8)
 - ➔ The tool gets updated with the quality colour according to the prices that have been entered. (“Quality” in section 8)
8. For this step 2 possibilities exist:
 - If the quality colour is green, it means that the prices proposed are conformed with the discount scheme selected. It is a standard offer.
 - 8.1 User checks the “Contract Approval quick Decision Tool” that is updated according to all information entered. (section 9)
 - 8.2 User copies the table of section7 into a PowerPoint template to be edited then sent to the prospect.
 - If the quality colour is red or orange, it means that the prices proposed are not conformed with the discount scheme selected. It is a non-standard offer.
 - 8.1 User checks the “Contract Approval quick Decision Tool” that is updated according to all information entered. (section 9)
 - 8.2 User sends the excel file via email to his manager for validation before sending it to the prospect.
 - 8.3 User (Head of region) validates the offer in section 10.
 - 8.4 User copies the table of section 5 into a PowerPoint template to be edited and sent to the prospect.

Once validation is given by the prospect:

If it is a standard offer:

1. User opens the excel file.
2. User clicks on “Create Contract & Annex” button.
→ Tool generates the document in PDF format.
3. User sends the documents to the customer for signature.

If it is a non-standard offer:

1. User requests contract creation via Email from Onboarding team
2. User (Onboarding team member) creates contracts using Word then sends it to the salesperson.
3. User sends contract to prospect via email.

For the retention case and in addition to following the same steps of the acquisition case, the user fills section 4 related to the previous contract duration info. It is representing step 4 of a retention case.

Usage of the Excel tool

It was observed that all participants were overall comfortable with the use of the excel offer tool. Concerning the contract creation, they explained that in the case where it will include specific clauses defined by the prospect, they cannot create it via the tool as it does not allow them to add these clauses so they have to refer to another team responsible for this: “Onboarding” team. Furthermore, it was observed that the button “Create offer” that should generate a PDF document with the information entered is not used by none of the users. Instead they copy the table of section 5 into a PowerPoint presentation and send it to the prospect. This PowerPoint presentation represents the template that they edit for each offer. None of them use the template of the excel tool. Furthermore, it was also noticed that in the case where the user needs to create a new version of an offer, he has to proceed with the same steps on the tool. Also, it was perceived that if the price colour (“quality” in section 7) is not green i.e. orange or red, the offer is blocked.

Pain points

Even though participants agreed that the Excel tool they are using to generate an offer is simple and easy to use and while explaining the process steps they revealed various pain points. P1 claimed that it is not allowing them to be enough autonomous in the sense that the tool does not allow them to generate non-standard offers that contains specific clauses. The user needs to request validation via email, wait for validation and then request contract creation from the responsible team. “it is more practical to have a tool where we can request both validation from the head of region and contract creation thus be able to generate non-standard offers” P2. Moreover, P5 claimed that the tool is not flexible. If there are updates in the sales protocol of B2B, they have to wait a few days until they get the most updated version. Which is not practical as they need to wait several days before being able to send an offer for a prospect. P2 indicated that it is beneficial to have a tool where everything is centralized. So, salespeople can generate offers but also keep and find his documents easily in the same tool. Moreover, he claimed that when he needs to create a new version, the tool does not allow modifying the last version of an offer so he has to redo all the steps to generate a new one. Adding to that, P4 indicated that they do not have the possibility to track the status of every offer neither have an overview of all proposals created.

5.1.5 Findings Synthesis

The interview part of the research covered the key knowledge about the offers created by the salespeople of Salt Business. The perception of the participants and their proper attitude towards the topics addressed emphasized the elements that will constitute the tool for them.

First it was confirmed that the offer creation is at the negotiation stage of the SPANCO method. This proposal should represent the success of B2B interactions held with the prospect and concretizes the requirement analysis in response to his needs. Thus, it can either lead to the success or failure of transforming the prospect into a customer. Second, all Participants confirmed that they create both types of offers, acquisition and retention, as the goals are to keep existing clients and acquire new ones. Both of these offers can be standard or non-standard depending on the conformity of proposed prices with discount schemes. According to the findings, number of offers created vary from a salesperson to another and highly depend on the sales seniority and customer portfolio. Moreover, all of the participants confirmed that they

create more than one version for every offer when a modification of one of the attributes is needed mainly for acquisitions.

Third, all participants confirmed that without relevant information they cannot start creating an offer. This information depends first on the type of the offer. For an acquisition, the client does not exist yet so the salesperson needs to gather more information than in the retention case. It mainly concerns the company's and telecommunication's information. For the retention the details needed are related to the previous contract. Once this information gathered the sales starts the requirement analysis for a custom-designed offer. This was relevant to design as they will represent the attributes that the user should be able to fill-in the new tool to create the template.

The contextual observation method helped to understand the offer creation process and workflow, the functionalities of the existing Excel tool and the pain points of the users. Participants agreed about the most common pain point which is that the global process of creating an offer is not centralized. They have to use different tools and refer to different information sources to achieve their goal.

5.2 Defining design goals

The first phase allowed to understand the context and know the ecosystem in which the tool will be deployed including the people and the culture. The purpose of second this part of the user-centred design process is to define the objectives of the new tool and determine the users that will be using it. This was rooted from the understanding of their characteristics, needs and problems. In this regard, requirement specification has been elaborated. The data collected from the interviews and the observations have been used as an input for this phase.

In a first step, and to outline how the salesperson proceed in collaboration with other stakeholders that they mentioned in the previous step, a BPMN chart was prepared to get a clearer overview, set up the functionalities to keep and the ones to improve. Second, personas have been created to represent the typical users of the future offer tool. Third, requirement specification was done based on what participants revealed and the feedback provided. It includes user requirements and solution requirements which in turn divided into functional and non-functional requirements. Finally, design goals have been set up.

5.2.1 Presentation of the current process of offer creation

Context analysis helped in revealing how the salesperson are currently working and how they collaborate with other members belonging to different teams. The process of offer creation until signing the contract is a business process that involves a set of different tasks and activities performed by different actors (salesperson, the head of region, the financial analyst and the onboarding team member). It involves also using different equipment mainly Excel, Word and Power point. The main output of executing this process is to provide the prospect with tailored offer. Identifying and modelling the current process as in Figures 5.2, 5.3 and 5.4 helped in learning more what actors are doing. It consists of graphically representing the actual process as close as possible to reality using BPMN (Business Process Modelling Notation).

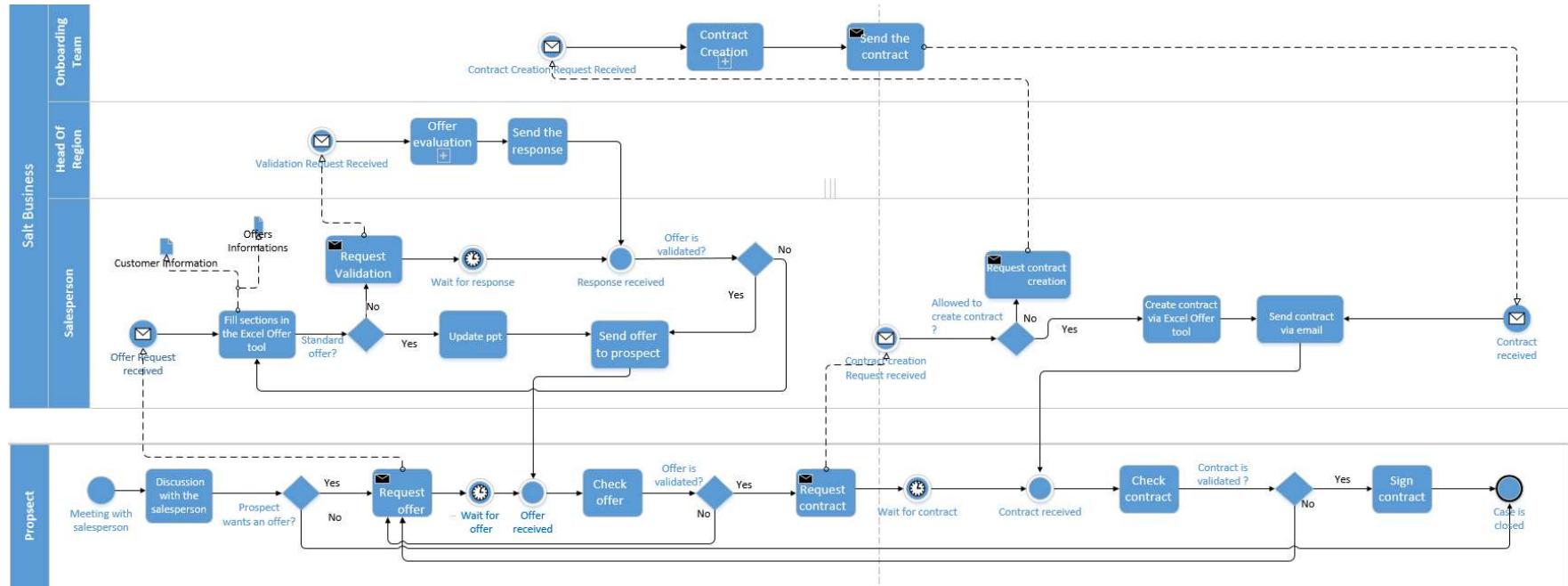


Figure 5.2: BPMN chart of the current process

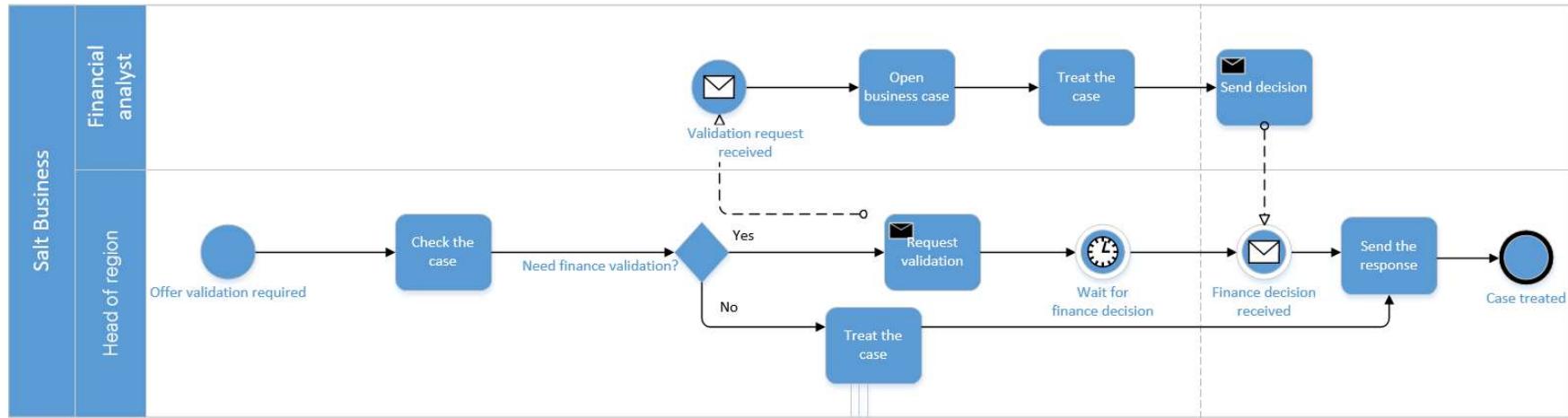


Figure 5.3: BPMN chart of the current non-standard offer validation sub-process

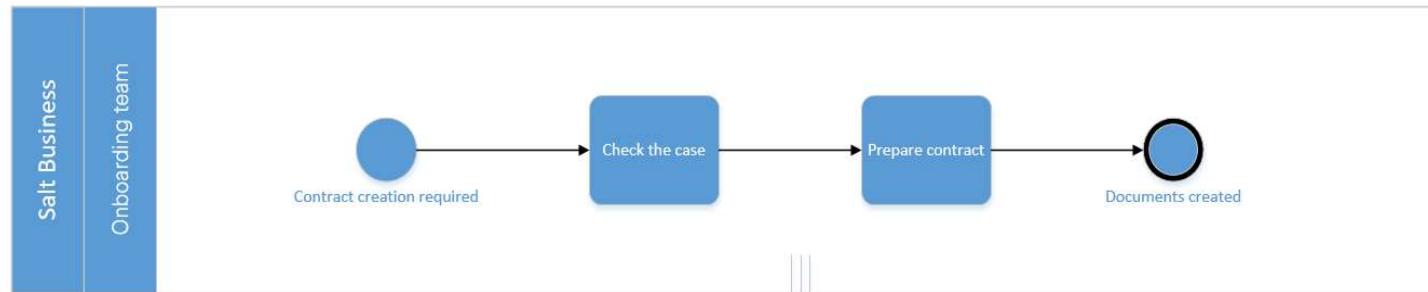


Figure 5.4: BPMN chart of the current contract creation sub-process

5.2.2 Personas

A persona is an archetype that illustrates a group of individuals who share common behaviours, motivations and goals. Personas are used to help the designer determine what the product or service to be developed should do and the way it should work. They help as well in guiding decisions about functionality and design. Even though personas are considered fictitious representations of target users', they derive from the knowledge of real users. (Pruitt & Adlin, 2006, p 11). The first phase mainly interviews yielded enough information to define the group of users of the new tool. Based on that, personas representing the teams salesperson, head of region, finance and onboarding have been created as they are collaboratively responsible for the proposal creation until contract signature. In addition, another other persona has been created to represent the management board as they are considered target users as well.

Personas are illustrated in Figures 5.6, 5.7, 5.8 and 5.9. Every persona is illustrated with a fictional name and surname, goals and challenges.



Figure 5.6 : Persona representing salespeople team

James William



Goals

- Sales planning.
- Customer portfolio and product/service analysis.
- Market, competitors and industry studies.
- Strategic sales plan establishing and identification of sales targets, revenues and market share.
- Boost teams and motivate sales people.

Demographics

- Age: 40
- Position: Head of region
- Location: Zurich

Challenges

- Build on collaborative work in the sales team to reach, and especially to exceed the objectives.
- Analyze the individual performance of sales people.
- Use tools that enable real-time monitoring of the sales productivity of the team.
- Ensure customer satisfaction.

Figure 5.7: persona representing head of region team

Jim Martin



Goals

- Realization of financial analysis.
- Financial and economic advice.
- Establishment of economic forecasts.
- Support of the financial controller/accountant.

Demographics

- Age: 35
- Position: Financial Analyst
- Location: Renens

Challenges

- Provide the management with up-to-date information that reflects the exact position of the company.
- Use the appropriate tools that help in financial decision taking.

Figure 5.8: Persona representing finance team



Figure 5.9: Persona representing management board team



Figure 5.10: Persona representing onboarding team

5.2.3 Requirements specification

One of the reasons leading to systems non-success are the errors arising from the straightforward programming and the non-identification of the correct requirements (Michael J Jackson, 1995). In addition, it can reach 100 times of more costs to correct a product that is in production than doing the necessary changes before starting to code (Nielsen 2002). Thus, this step consists of translating the information gathered during the first phase, analysing it to achieve the definition of the problem domain and the requirements that should meet stakeholders' expectations.

User Requirements

User requirements consist of capturing requirements from the user's point of view. They describe the needs, primary activities that they should be able to fulfil and the interactions they should have while using the tool. Referring to ISO 9241-220 "Ergonomics of human-system interaction", defining relevant user requirements is fundamental as the goal is to achieve a design of a system that allows users to attain a level of usability, accessibility, user experience and meet their needs. High level user requirements have been defined as in Table 5.4. For Target users in the table: "SP" refers to Salesperson, HOR refers to Head of Region, OB refers for Onboarding, "MGT" refers to Management Board and "FA" refers to Financial Analyst.

Table 5.4: User requirements

Target users	User Requirements
SP	Create Offer (all types)
SP	Edit offer
SP	Manage offers
SP	Send offer to prospect
SP/OB	Create contract
SP	Edit contract
SP	Manage contracts
SP	Send contract to prospect
HOR	Manage all offers
HOR	Manage all contracts
HOR	Generate reports
HOR/ FA	Evaluate offers
MB	Manage reports

Solution Requirements

These requirements beget from the user requirements and should be aligned with them in order to satisfy their needs and enable a proper design definition. Solution Requirements englobe the capabilities and qualities that a system should have. “*They provide the appropriate level of detail to allow for the development and implementation of the solution*”. (Babok ,2015, p 16). Certain functionalities of the existing Excel tool have been maintained and new ones have been added. Solution Requirements are classified into two types:

- a) Functional requirements

They define the capabilities a system must carry out to enable the user to achieve intended tasks. Table 4.2.3 represents the functional requirements that have been defined for the new offer tool. Every set of requirements belonging to the same high-level requirement was grouped together in order to make them more manageable. For target users, notations are the same as in table 5.5. Concerning the rest of notations, target offer type, “AQT” refers to Acquisition, “RT” refers to Retention and “NS” refers to Non-Standard. Finally, the priority has been defined for requirements: “H” for High and “M” for Medium.

Table 5.5: Functional Requirements

1. Offer creation				
Req ID	System must allow user to	Target User(s)	Target offer type	Priority
FR 1.1	Access to all products and services of Salt B2B	SP	AQ/RT	H
FR 1.2	Upload documents to the tool	SP	AQ	H
FR 1.3	Enter the company details	SP	AQ	H
FR 1.4	Enter salesperson details	SP	AQ	H
FR 1.5	Extract information from previous contract	SP	RT	H
FR 1.6	Update extracted salespersons information	SP	RT	H
FR 1.7	Update extracted company's information	SP	RT	H
FR 1.8	Choose the contract duration of the offer	SP	AQ/RT	H
FR 1.9	Select the price plan of the offer	SP	AQ/RT	H
FR 1.10	Select discount scheme of the offer	SP	AQ/RT	H
FR 1.11	Get recommendations of offer's attributes	SP	AQ/RT	H
FR 1.12	Select subscription type	SP	AQ/RT	H
FR 1.13	Enter subscription quantity	SP	AQ/RT	H
FR 1.11	Get the minimum prices of the subscriptions selected	SP	AQ/RT	H
FR 1.12	Enter the prices to propose of subscriptions	SP	AQ/RT	H

FR 1.13	Select options of the offer	SP	AQ/RT	H
FR 1.14	Select SIM cards type	SP	AQ/RT	H
FR 1.15	Enter amount of Tech-fund	SP	AQ/RT	H
FR 1.16	Add a device to the offer	SP	AQ/RT	H
FR 1.17	Select payment method	SP	AQ/RT	H
FR 1.17	Save entered information	SP	AQ/RT	H
FR 1.18	Generate PDF document	SP	AQ/RT	H
FR 1.19	Send offer link to the prospect directly from the tool	SP	AQ/RT	H

2. Offer Evaluation

Req ID	System must allow user to	Target User(s)	Target offer type	Priority
FR 2.1	Get quality colour of the proposed prices	SP	AQ/RT	H
FR 2.2	Get the type of the offer (standard/nonstandard)	SP	AQ/RT	H
FR 2.3	Request validation of the offer	SP	NS AQ/RT	H
FR 2.4	Receive validation request notification	HOR	NS AQ/RT	H
FR 2.7	Approve an offer	HOR	NS AQ/RT	H
FR 2.8	Reject an offer	HOR	NS AQ/RT	H
FR 2.9	Get offer validation decision	SP	NS AQ/RT	H
FR 2.10	Request financial approval	HOR	NS AQ/RT	H
FR 2.11	Receive financial approval request notification	FA	AQ/RT NS	H
FR 2.12	Give financial approval	FA	AQ/RT NS	H
FR 2.13	Reject financial approval	FA	AQ/RT NS	H
FR 2.14	Get financial approval decision	HOR	AQ/RT NS	H

3. Offer edit

Req ID	System must allow user to	Target User(s)	Target offer type	Priority
FR 3.1	Edit sections of the offer	SP	AQ/RT	H
FR 3.2	Update power point template	SP	AQ/RT	M
FR 3.3	Update the status of the offer	SP	AQ/RT	H
FR 3.4	Generate a new version of the offer	SP	AQ/RT	H
FR 3.5	Access to the latest version of an offer	SP	AQ/RT	H
FR 3.6	Add image on power point template	SP	AQ/RT	H

4. Offer Management

Req ID	System must allow user to	Target User(s)	Target offer type	Priority
FR 5.1	View his offers	SP	AQ/RT	H
FR 5.2	View offers of all salespeople	HOR	AQ/RT	H
FR 5.3	Search for an offer	SP/HOR	AQ/RT	H
FR 5.4	Apply filters to offers	SP/HOR	AQ/RT	H
FR 5.5	Track his offers	HOR	AQ/RT	H
FR 5.6	Track offers of all salespeople	SP	AQ/RT	H
FR 5.7	Generate offers report	HOR	AQ/RT	H
FR 5.8	Send offers report	HOR	AQ/RT	H

5. Contract Creation

Req ID	System must allow user to	Target User(s)	Target offer type	Priority

FR 4.1	Create contract	SP /OB	AQ/RT	H
FR 4.2	Request contract creation	SP	AQ/RT	H
FR 4.3	Generate PDF document of the contract	SP /OB	AQ/RT	H
FR 4.4	Add electronic signature to the contract	SP	AQ/RT	H

6. Contract Management				
Req ID	System must allow user to	Target User(s)	Target offer type	Priority
REQ6.1	View his contracts	SP	AQ/RT	H
REQ6.2	View contracts of all salesperson	HOR	AQ/RT	H
REQ6.3	Search for a contract	SP/HOR	AQ/RT	H
REQ6.4	Apply filters to contract	SP/HOR	AQ/RT	H
REQ6.5	Track his contracts	SP	AQ/RT	H
REQ6.6	Track contracts of all salespeople	HOR	AQ/RT	H
REQ6.7	Generate contracts report	HOR	AQ/RT	H
REQ6.8	Send contracts report	HOR	AQ/RT	H
7. Report Management				
Req ID	System must allow user to	Target User(s)	Target offer type	Priority
REQ7.1	view reports	MGT	AQ/RT	H
REQ7.2	Approve reports	MGT	AQ/RT	H
REQ7.3	Reject reports	MGT	AQ/RT	H

a.1) Use cases

With only declarative functional requirements, it is hard to have a description of steps and sequences. That's why use cases have been created to provide a description of the sequence of events that when assembled collectively lead to a performing system using UML (Unified Modelling Language).

Offer creation

For offer creation 3 main use cases have been defined where the primary actor is the salesperson. Figure 5.11 represents “Company details completion” use case. It allows him to complete company’s information for both acquisition and retention offers. If it is an acquisition, the customer does not exist yet, therefore the use case allows the user to add company’s details. In case of a retention, the customer already exists, therefore the use case allows the salesperson to extract previous contract information so the company details will be pre-filled. The user can still update them. Moreover, the user can enter his details as well upload documents to be stored in the tool.

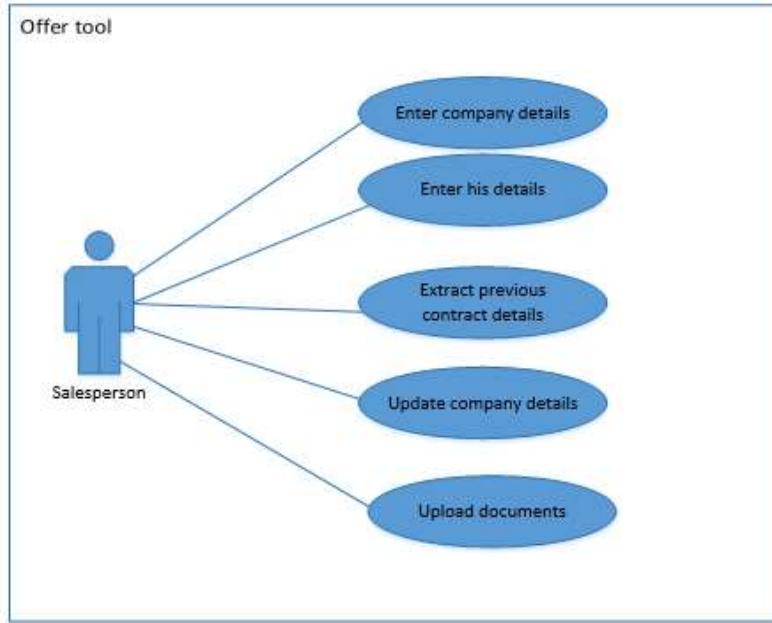


Figure 5.11: Company details completion use case

Figure 5.12 represents “Offer details completion use case” diagram. The use case enables the salesperson to complete the details of his offer for both acquisition and retention types. He can select the contract duration, the price plan, the discount scheme, subscription type and subscription quantity. Concerning subscriptions types, the system should provide recommendations for the salesperson.

Based on the discount scheme, subscription types selected and subscription quantities entered, the system should calculate the minimum price of each subscription. Next, the salesperson enters the prices to propose for each subscription. Here it is important to mention the following business rule that should be applied:

By comparing the minimum price of a subscription and the proposed price entered, the system updates the quality colour of the proposed price and gives the offer type (standard/nonstandard):

- If proposed prices > minimum prices then the quality colour becomes green and the offer type given is standard.
- If proposed prices < minimum prices then the quality colour becomes red, the offer type is not standard and the system blocks it so the user can not send it to the prospect.

Figure 5.13, a sequence diagram, illustrates the interaction between the user and the system in order to get the offer type.

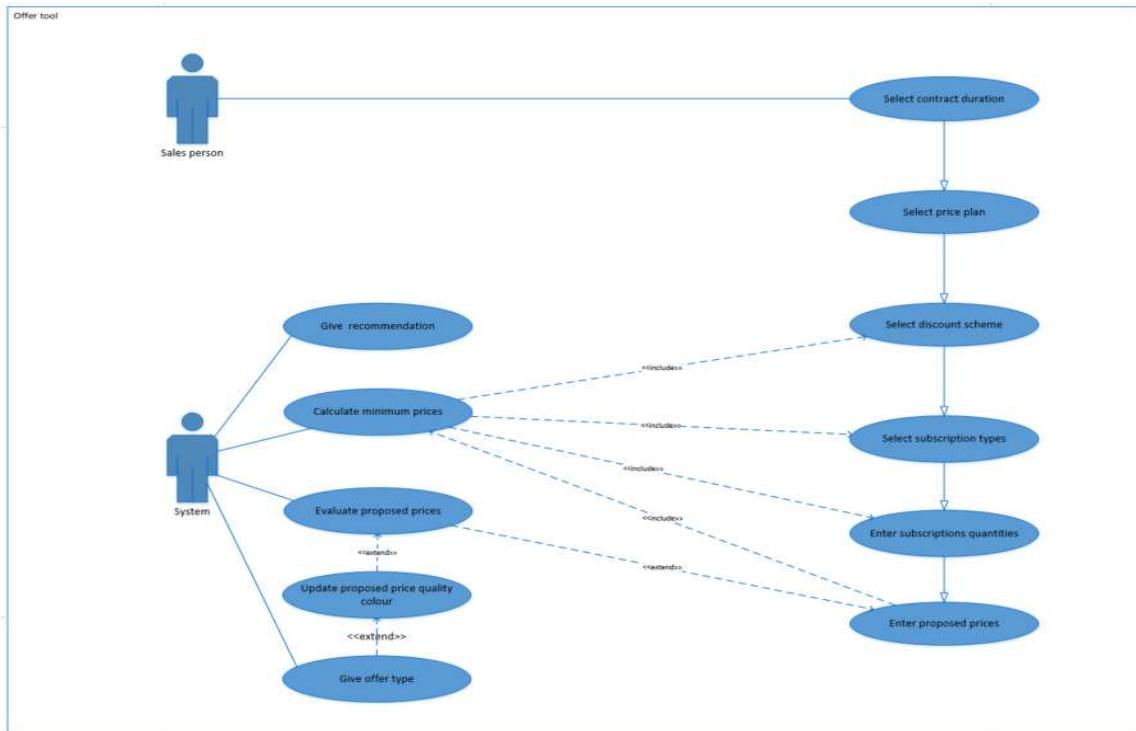


Figure 5.12 Offer details completion use case

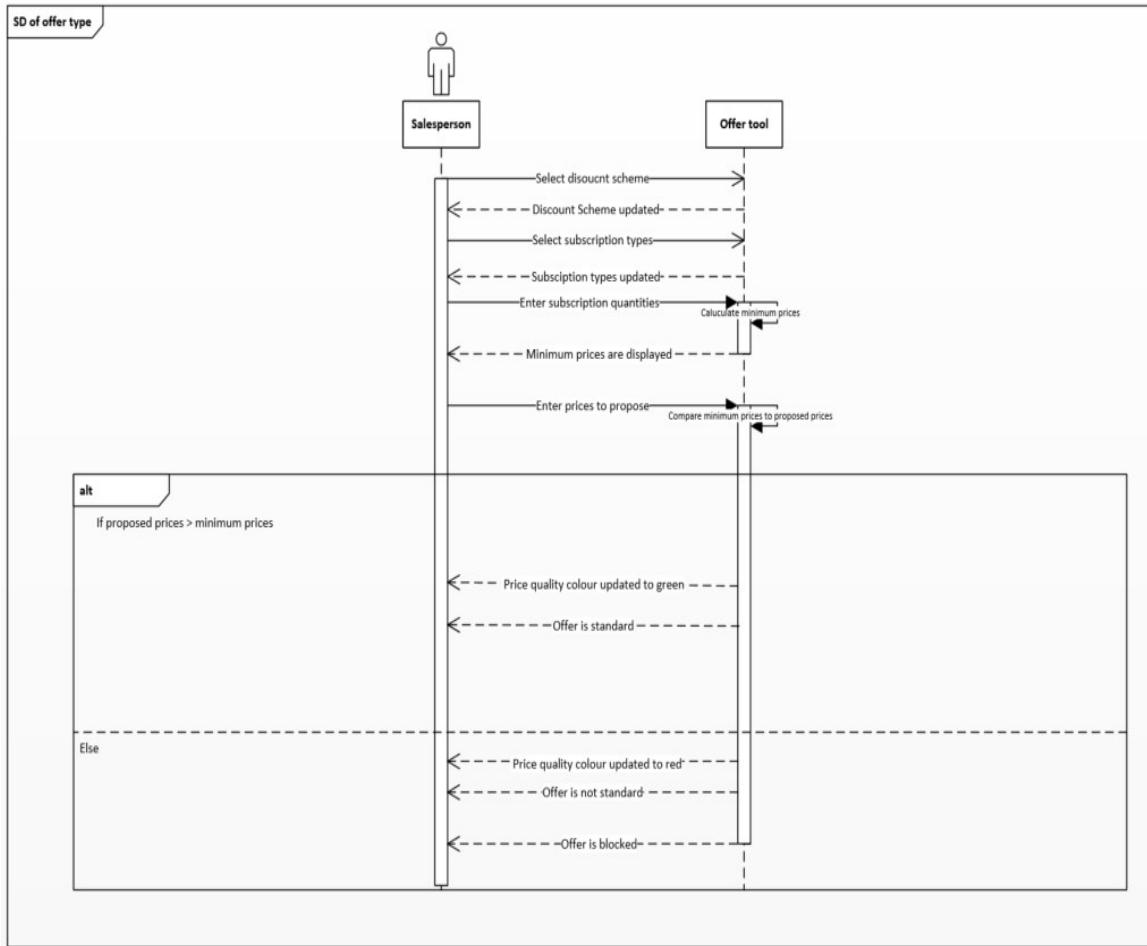


Figure 5.13: Sequence diagram to get offer type

Finally, Figure 5.14. represents “offer options completion” use case diagram. This use case enables the salesperson to select options of the offer for both acquisition and retention. The salesperson enters the amount of Technology Fund (as explained in the formative research findings this amount is dedicated for companies who are interested in hardware mainly mobile phones in addition to mobile telecommunication services). The use case also allows the salesperson to access to the list of available devices and select the wanted ones. The system should control the amount of technology fund. The total price of the selected devices should not exceed the amount of technology fund entered.

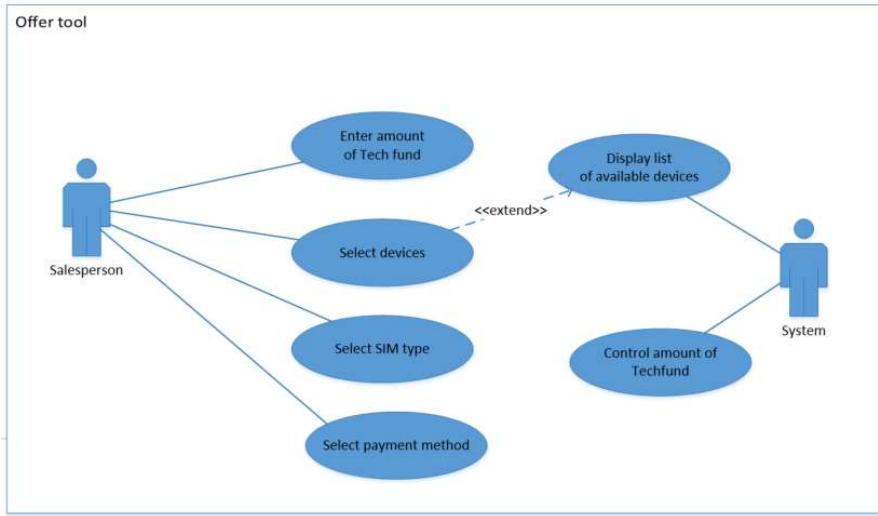


Figure 5.14: offer options completion use case

Offer edit

Figure 5.15 represents “Offer edit” use case diagram. This use case allows him to edit any section of his offer. As a result, the system will automatically generate a new version that will automatically be stored in the tool. In the case where an offer has more than one version, the user will always have access to the last one as it represents the version with the most updated information.

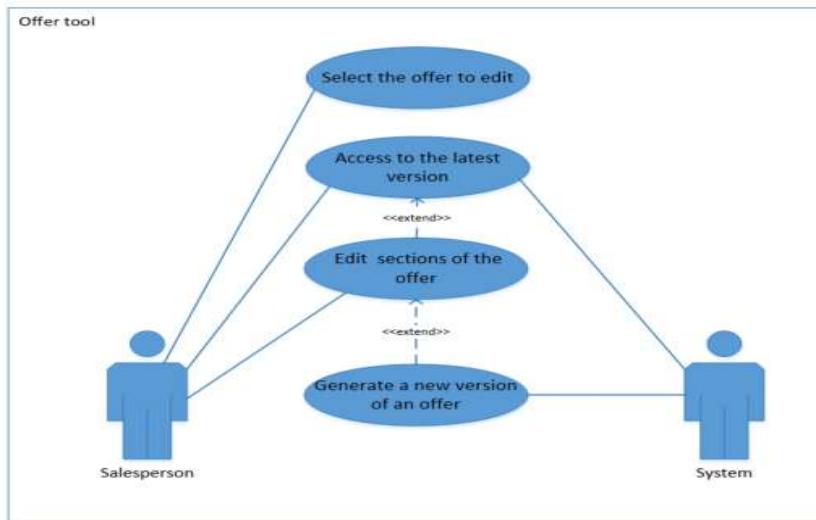


Figure 5.15: offer edit use case

Offer validation

Figure 5.16 represents “Offer validation” use case diagram. Here 3 actors are involved. The primary is the salesperson and the secondary are head of region and financial analyst. This use case concerns non-standard offers only for acquisition and retention cases. For standard offers no validation request is needed. This use case allows the salesperson to request validation from the head of region that can evaluate it then approve or reject it. In case of required financial evaluation, the use case enables the head of region to request financial approval. Finally, the financial analyst can also evaluate the offer then provide a decision. The salesperson can send the non-standard offer to the prospect only if it is approved. Figure 5.17, sequence diagram, illustrates the interaction and workflow between the different actors and the system for offer evaluation.

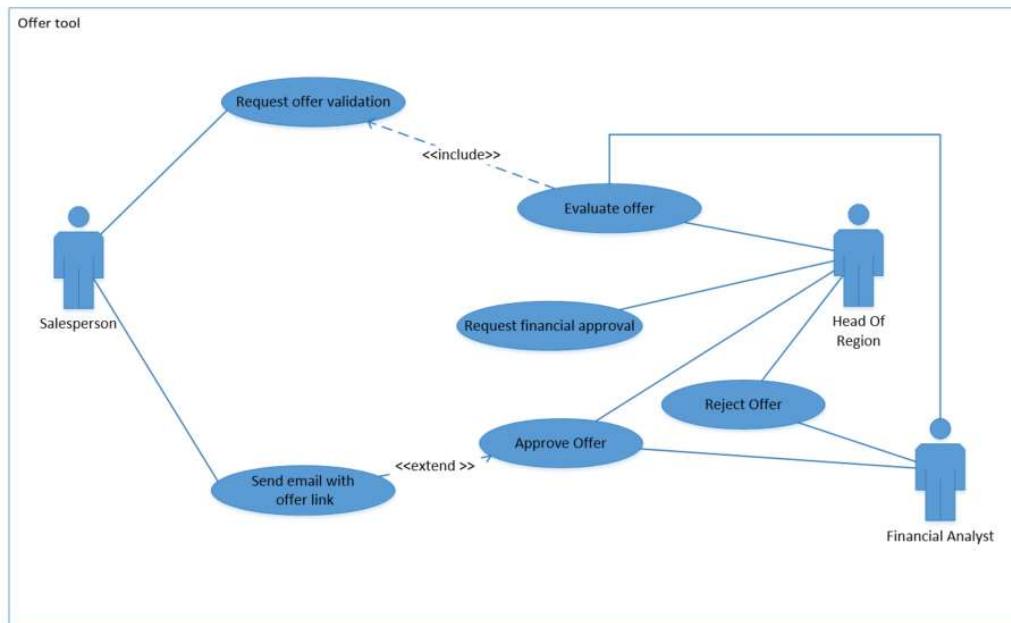


Figure 5.16: Offer validation use case

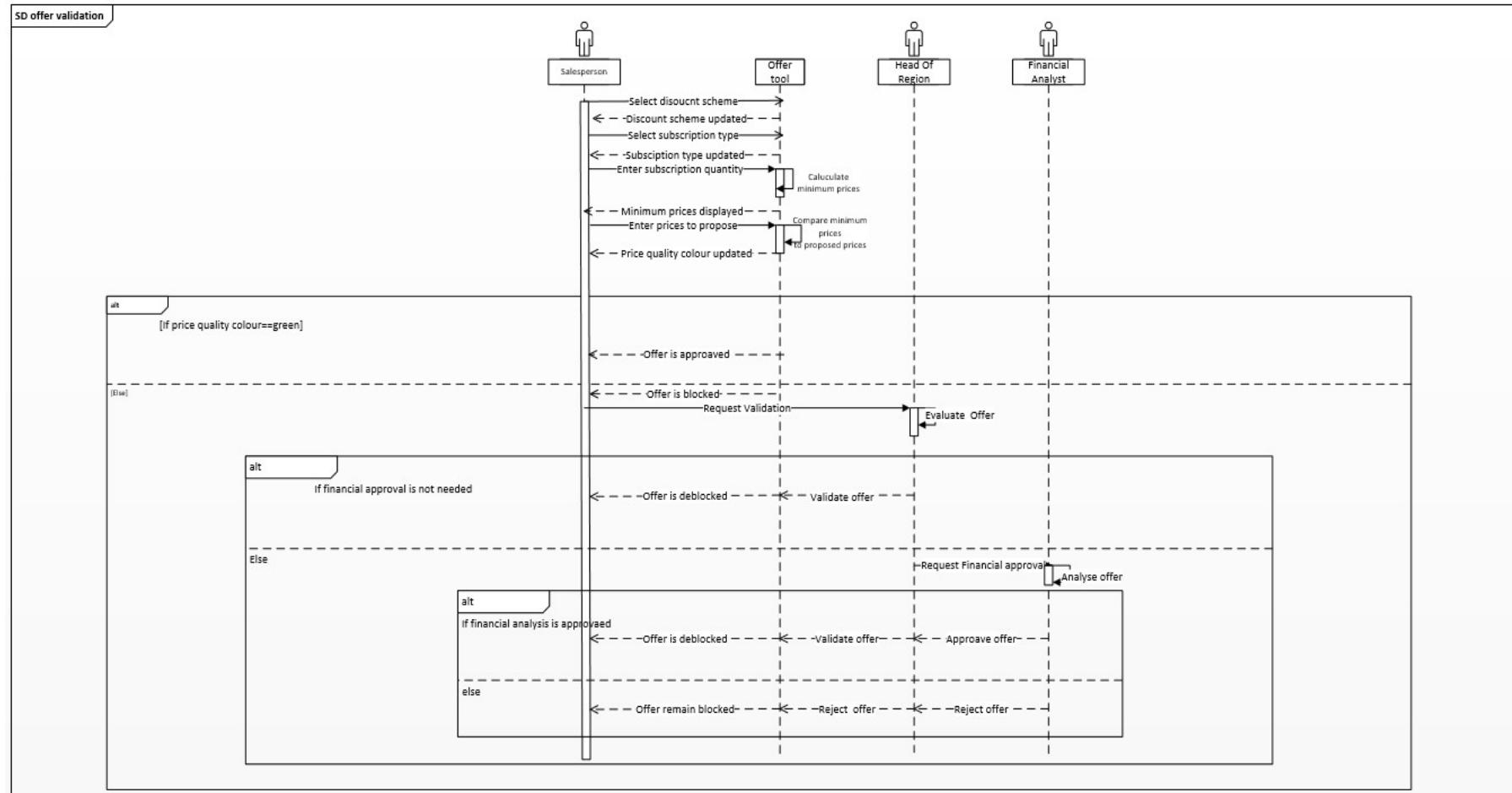


Figure 5.17: Sequence diagram of offer evaluation

Offer options

Figure 5.18. represents “Offer options” use case diagram. The use case allows the select options of the offer for both acquisition and retention cases. The salesperson can enter the amount of Technology Fund then access to the list of available devices and select the wanted ones. System should control the amount of technology fund. The sum of device prices should not exceed the amount entered.

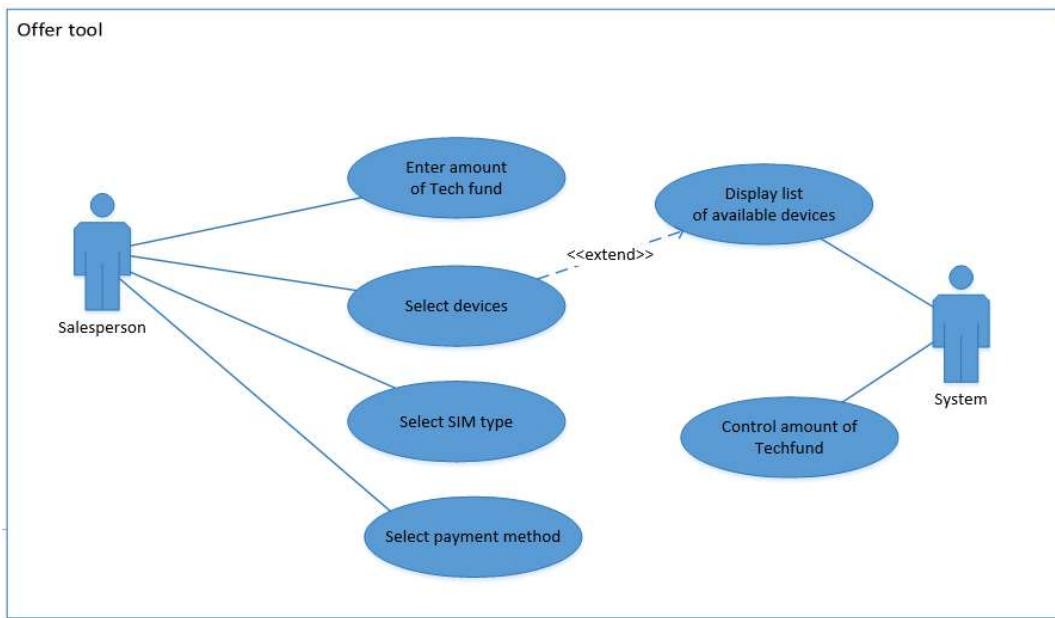


Figure 5.18: Offer options selection use case

Contract creation

Figure 5.19 represents “contract creation” use case diagram where 2 actors are involved. This use case allows the salesperson to create the contract. The salesperson can also request contract creation form onboarding team when special clauses defined by the prospect need to be added. Finally, the use case allows also to generate PDF document of the contract.

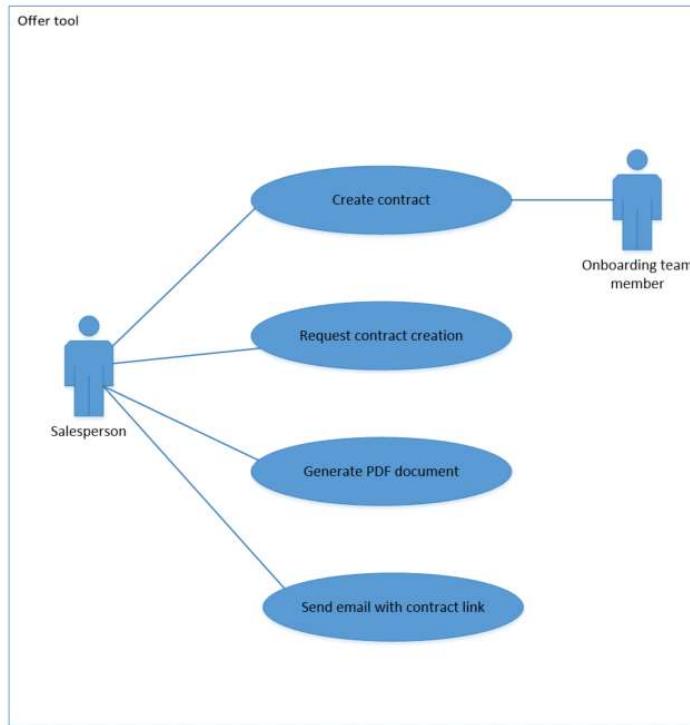


Figure 5.19: Contract creation use case

Offer management. Contract Management. Report management

Figure 5.20, Figure 5.21. and Figure 5.22 illustrate respectively offer management, contract management and report management use cases diagrams.

Offer management use case allows the salesperson to view his offers, track them, search for a specific offer and apply filters to display only offer(s) matching specific criteria. The use case allows the head of region to view all offers of his team, track them and search and apply filters and finally generate offers' report.

Contract management use case allows the salesperson to view his contracts, track them, search for a specific contract and apply filters. The use case allows the head of region to view all contracts of his team, track them all, search and apply filters and finally generate contracts' report.

Finally, report management use case allows head of region to send the reports of offers and contracts to the management board. The Management board can either reject or approve these reports.

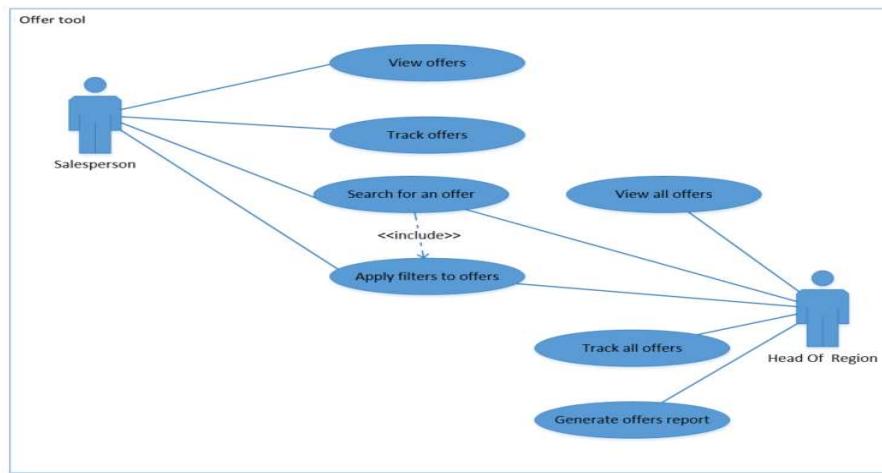


Figure 5.20: Offer management use case

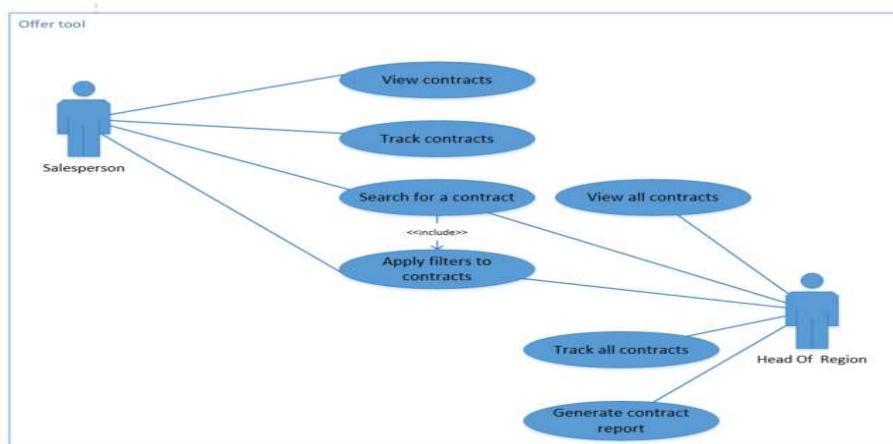


Figure 5.21: Contract management use case

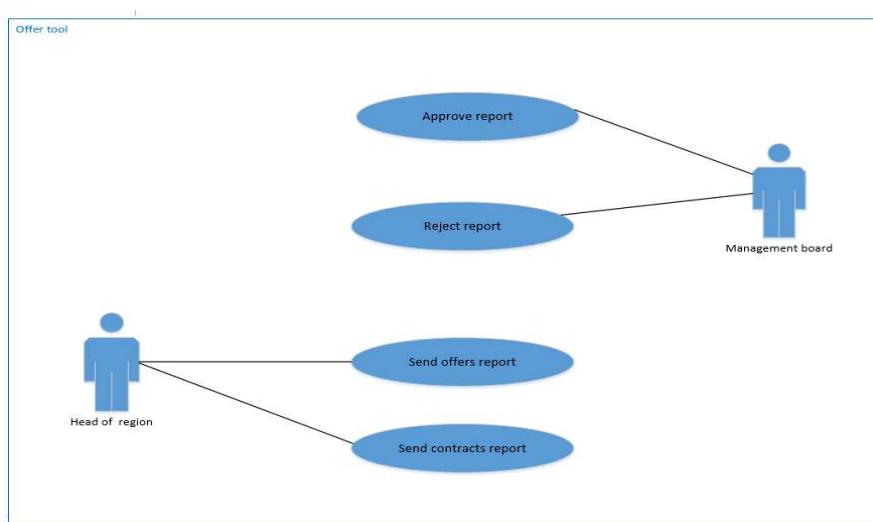


Figure 5.22: report management use case

b) Non-functional requirements

These requirements are not directly related to the features of the system, they rather define the systems attributes that allow the usability and effectiveness of the solution such as security, reliability, performance and maintainability. Serving as indicators of the system's qualities, non-functional requirements have the same importance as the functional ones and aligning both of them is crucial for a successful system. (Chung and Leite, 2009). Table 5.6 represent the NFR requirement defined for the offer tool. First, security that can define the possible levels of access controls to the system for internal as well as external users to ensure secure communication. Second is performance which describe the performance of the system, usually in terms of response time. Finally, capacity which is the ability of the system to scale up to deliver enough functionalities for the end users. (Bashar Nuseibeh, Steve Easterbrook,2003)

Table 5.6: Non-Functional requirements

1. Security	
NFR 1.1	The system should allow access to authorized users only
NFR 1.2	The system should allow offer creation for authorized users only
NFR 1.3	The system should allow the salesperson to access only to his offers
NFR 1.4	The system should allow the salesperson to access only to his contracts
NFR 1.5	The system should allow the financial analyst to access only to offers requiring evaluation
NFR 1.6	The system should allow onboarding team to access only to contracts they created
NFR 1.7	The system should allow the head of region to access to the all offers of his team
NFR 1.8	The system should allow the head of region to access to all contracts of his team
NFR 1.9	The system should allow only the head of region and the financial analyst to validate/reject offers
NFR 1.10	The system should allow only the management board to validate/reject reports
NFR	The system should ensure Secure link sharing
NFR	The system should ensure encrypting email messages
2. Performance	
NFR 2.1	Any interaction with the system should not overpass 2 seconds
NFR 2.2	The system should load the minimum prices in 3 seconds
NFR 2.3	The system should update the price quality colour in 3 seconds.
NFR 2.4	The system should load the subscriptions list in 3 seconds
NFR 2.5	The system should load the devices list in 3 seconds
NFR 2.6	The system should provide the offer type
3. Capacity	
NFR 3.1	The system should store all the offers created
NFR 3.2	The system should store all the versions of offers created
NFR 3.3	The system should store all the contracts created

NFR 3.4	The system should store all documents uploaded by users
NFR 3.5	The system should support simulations of all users

5.2.4 Design goals

On the basis of the elements presented in the previous chapters, the design objectives have been settled to lead the design process:

The first design goal is to centralize the process of creating well-defined and customized proposals. The design should enable the accomplishment of all the required steps from the creation, validation to signature of the contract using the same tool. Also, the design should allow users to access to all documents easily and quickly in order to eliminate potential wastage of time from finding the information distributed in various sources. This would enhance the collaboration as having everything in one tool will improve the communication between team members as well as enable salespeople to focus more on sales activities.

The second design goal is a design that will help in monitoring offers and contracts. The design should allow to track number of offers and contracts created, their status as well as their evolution in order to have a precise vision. This would allow leadership to analyse the performance of each salesperson and enhance

Finally, the third goal is a design that will automate the outputs of the offers and contracts. New company information, the custom details and options entered will be automatically added into the power point proposal template. Concerning contracts, information of the validated offer by prospect will be automatically included in the agreement template. This would eliminate redoing the same tasks again. Also, a design that automates the status update of offers and contracts according to their progress in the process.

5.3 Wireframes prototyping

Once the design objectives have been defined, the next step was to create wireframes. Wireframes are 2 dimensional visual representations that express the relevant content and functionalities of a tool (Oscar Sánchez Ramón, 2013). The goal of this step of user centric design is to review the structure of the different pages of the tool and make sure that they are aligned correctly with the design goals settled. Before proceeding with wireframing it is important to mention that sketching was done first in order to put a legible shape to the design ideas and get a first basic concept of how it would look. Sketching helps in developing options and set a direction to guide the design. Blueprints allowed to have first synoptic visual representations of the design.

5.3.1 Creating Wireframes

Taking into consideration the objectives to achieve with wireframes, they are not very detailed from an aesthetic point of view but rather more functional. Wireframes have been created based on the different group of users, the views they will have and functionalities they will perform in the offer tool based on their tasks.

Group 1: Salesperson

Figure 5.23 represents the home page that the salesperson will be taken to when he connects into the offer tool. It will be the landing page anytime he opens it. On this page, the name of the platform “Pamela sales tool”, the logo of the company as well as the Spanco state are shown. According to the research findings, the salesperson can start creating an offer when the Spanco state is “Negotiation”. Furthermore, the salesperson can access to the list of his created offers as well as his created contracts. Total sum of offers and contracts will be indicated under “My Offers” and “My Contracts” buttons. Other relevant information regarding every offer and contract are clearly communicated to the user mainly creation date and number of versions. For more precise results, the salesperson can apply filters located on the left side of the page as represented in Figure 5.24 and Figure 5.25. It is also possible to display offers/contracts according to the date of modification with the button “Last updated”.

The screenshot shows the homepage of the 'Pamela sales tool' at <https://sales-b2b.salt.ch/>. At the top right, there are language ('EN'), notifications ('Notifications(3)'), and user ('Salt.') icons. Below the header, there are three main tabs: 'My Offers' (selected), 'My contracts', and 'Spanco State: Negotiation'. A '+ New Offer' button is also present. On the left, there's a sidebar with a 'Filter Results' dropdown set to '10 results', followed by dropdown menus for 'Status', 'Company', 'Type', and 'Version number'. To the right, there are four large rectangular boxes representing offers, each with a timestamp and version count: 'created // /' (2 versions), 'created // /' (2 versions), 'created // /' (3 versions), and 'created // /' (1 version). A vertical scroll bar is visible on the right side of the main content area.

Figure 5.23: Home page of the offer tool

This screenshot displays two separate filter panels side-by-side. Both panels have a header with a back/forward button, a search bar, and the URL <https://sales-b2b.salt.ch/>. The left panel is titled 'My Offers' and shows '50 results'. It includes a 'Filter Results' dropdown set to '10 results' and dropdown menus for 'Status' (with options like 'In progress', 'Waiting for prospect validation', etc.) and 'Type' (with options like 'Acquisition', 'Retention', etc.). The right panel is titled 'My Contracts' and shows '50 results'. It also has a 'Filter Results' dropdown set to '10 results' and dropdown menus for 'Status' (with options like 'Waiting for contract creation', 'Waiting for prospect validation', etc.) and 'Type' (with options like 'Acquisition', 'Retention', etc.). Both panels feature a grid of four large, light-gray rectangular boxes representing individual offers or contracts.

Figure 5.24: Filters that the salesperson can apply on offers

Figure 5.25: Filters that the salesperson can apply on contracts

In order to create a new offer, the user can click on the button “New Offer” and he will be redirected to the page illustrated in Figure 5.26. On this page, 4 different sections are presented: “Company Details”, “Customer Team”, “Offer Details” and “Offer options”. Splitting then grouping related elements into a collapsible and expandable widget will be beneficial for the user by saving his time and providing him with an intelligible well-organized map of the offer creation. All sections should be filled-in for a complete offer. Same layout was applied for these 4 sections with a vertical collapse/fold display of the content. On this first view, the salesperson can see relevant information like the type of the offer, the sales case ID and the number of versions.

For all the fields of all sections of the offer, they were defined based on the results of the first phase more precisely on what participants revealed about information needed to start creating an offer and the results of observation conducted. Also, other relevant fields have been added.

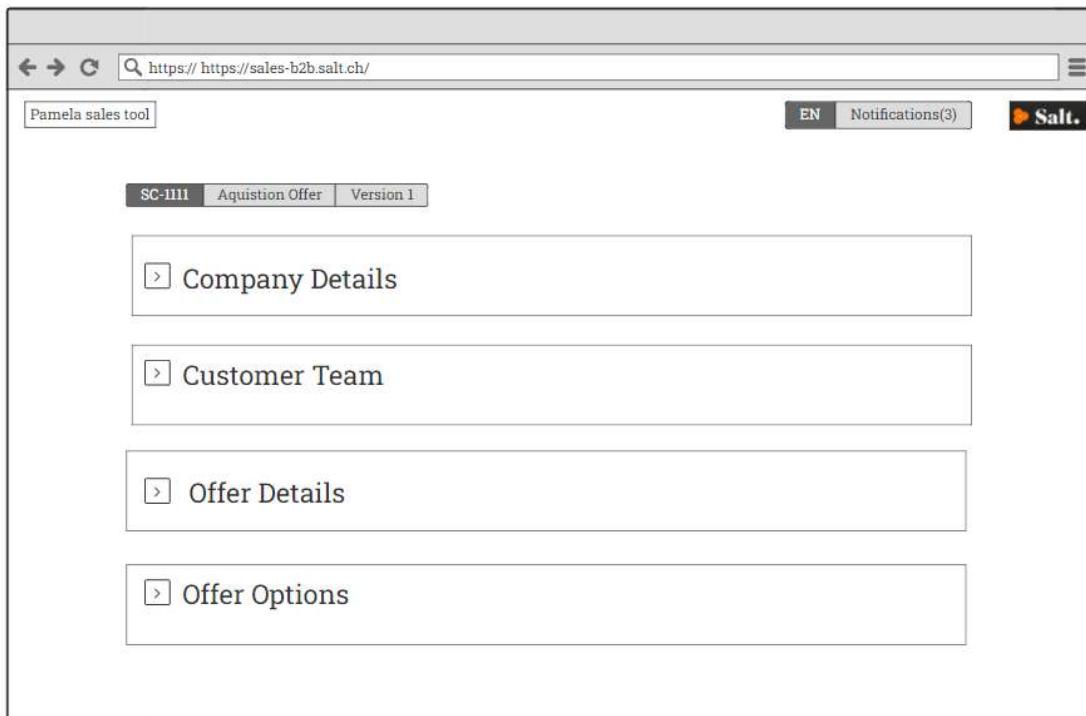


Figure 5.26: the 4 sections of an offer

Company Details

The first section “Company Details” is constituted of 3 subsections: “Company Overview”, “Telecommunication Information” and “Customer Team” as illustrated in Figure 5.27. The salesperson can access to these subsections by simply clicking on the corresponding widget he wants to open. For an acquisition case, the customer does not exist yet therefore the salesperson begins with creating the company profile. He can start with “Overview” subsection illustrated in Figure 5.28. This view allows him to fill-in the different fields related to the main information of the company (legal name, business UID, trade registry number, company segment, language, email, phone number, web address, legal address, industry branches, Sales turnover and employees).

Second, the page represented in Figure 5.29 allows the salesperson to complete the details related to telecommunication. (current provider, current active lines, current hardware manufacturer, current monthly fees, current contract duration, current contract end date and wished transfer /activation date). Entered information can be saved and edited by clicking on the buttons “Save” and “Edit”. The Salesperson can as well upload documents with the button “Add Attachments” that will be automatically stored. Finally, the subsection “Contact person” illustrated in Figure 5.30 represents the contact form that the salesperson should fill-in to add contact persons of the company in question which are name, family name, date of birth, job title, phone number, email, ID document number and ID document type. The primary contact persons are the owner of the company and the fleet manager responsible for managing the telecommunication of the company. Information added are then displayed as in Figure 5.31 where the salesperson can edit them as well as add another contact.

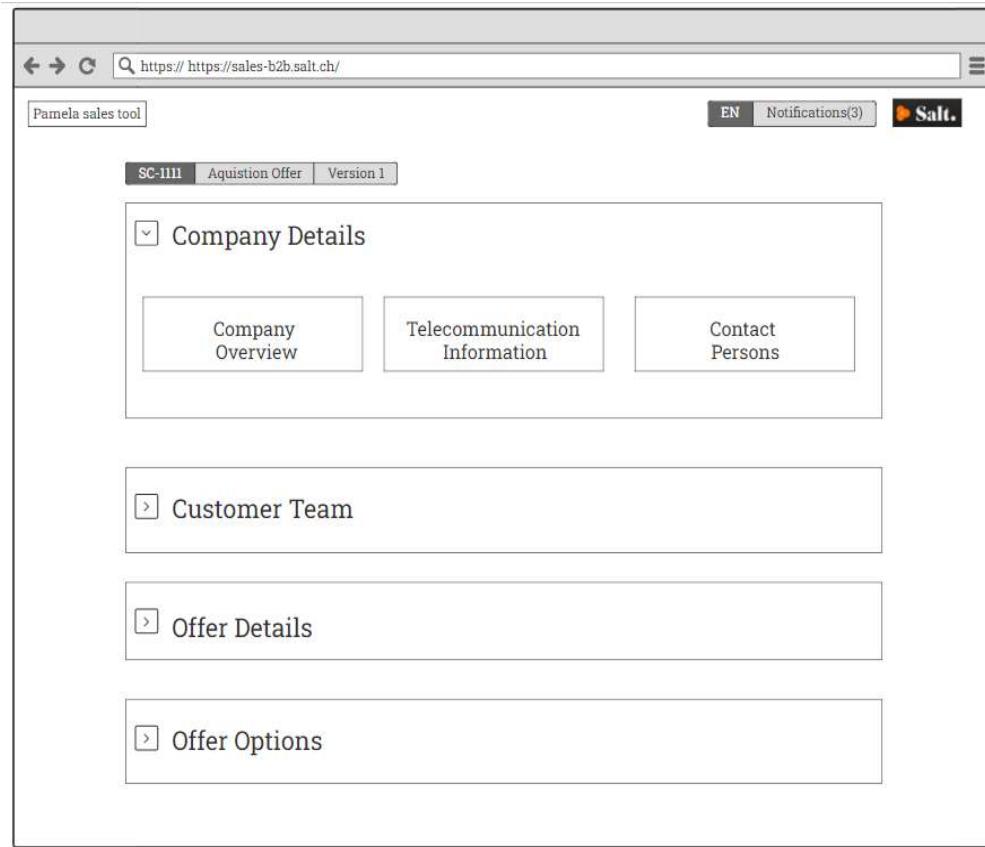


Figure 5.27: Company details subsections

The screenshot shows the "Company Details" subsection expanded. The "Overview" tab is selected. The form fields include:

- Legal name:** [Text input]
- Email:** [Text input]
- Industry:** [Select dropdown]
- Business UID:** [Text input]
- Phone number:** [Text input]
- Branches:** [Text input]
- Trade Registry Number:** [Text input]
- Web address:** [Text input]
- Sales turnover:** [Text input] (with "CHF" suffix)
- Company segment:** [Select dropdown]
- Legal address:** [Text input field with location pin icon]
- Employees:** [Table with two rows for "Number" and "Location"]
- Language:** [Select dropdown]
- Add Attachment:** [Button]
- Edit:** [Button]
- Save:** [Button]

Figure 5.28: Company overview subsection

Pamela sales tool

SC-III Aquisition Offer Version 1

Company Details

Telecommunication Information

Add Attachment | Edit

Current Provider	Current monthly fees
Quantity	Type
Current active lines	Current contract duration
Current Hardware manufacturer	Wished transfer date/ Activation date

Save

Figure 5.29: Telecommunication information subsection

Pamela sales tool

SC-III Aquisition Offer Version 1

Company Details

Contact person details

Edit

Name	Phone number
Family name	Email
Date of birth	ID document number
Job title	ID document type

Add

Figure 5.30: Contact person details form

The screenshot shows a web browser window for the URL <https://sales-b2b.salt.ch/>. The title bar says "Pamela sales tool". The top right corner has "EN", "Notifications(3)", and the Salt logo. Below the header, there's a navigation bar with "SC-III", "Aquisition Offer", and "Version 1". A section titled "Company Details" is expanded. Under "Contact persons", there's a table with columns: "Job title", "Name", "Last name", and "Phone number". The table contains three rows of empty input fields. To the right of each row are edit and delete icons. At the bottom right of the table area is a button labeled "+Add contact person".

Figure 5.31: Contact person list

Concerning a retention case, and as the company already exists, all 3 subsections should be prefilled by extracting information from the previous contract. The salesperson can see the retrieved information once he is redirected to the offer tool. He can still update them or complete missing information if any.

Customer Team

This section has been defined to allow the salesperson to complete the details of agents that will manage the prospect in question. This team includes the salesperson himself and a dedicated care agent for after-sales service as illustrated in Figure 5.32. When the user clicks on the button “Add salesperson”, the view represented in Figure 5.33 appears. Here, the salesperson can fill-in the form fields with his information (user, user code and the team he belongs to). Figure 5.34 is displayed when the user clicks on “Add customer care”. Here, the salesperson can as well fill-in the form with required information of the chosen customer care agent. Added information will be then displayed as in Figure 5.35. The user can delete his choices or edit them however he cannot add other users since one salesperson and one dedicated care are allowed per offer.

The screenshot shows a web browser window for the URL <https://sales-b2b.salt.ch/>. The title bar says "Pamela sales tool". The top right corner has "EN Notifications(3)" and the Salt logo. The main content area has tabs "SC-1111" and "Aquisition Offer Version 1". Below the tabs are four expandable sections: "Company Details", "Customer Team" (which is expanded, showing "Add a salesperson" and "Add customer care" buttons), "Offer Details", and "Offer Options".

Figure 5.32: Customer team first view

The screenshot shows the same browser window as Figure 5.32, but the "Customer Team" section is expanded. It displays fields for "Salesperson": "User" (with a text input field), "User code" (with a text input field), and "Team" (with a text input field). A "Save" button is located at the bottom right of the form.

Figure 5.33: Customer team – salesperson details form

The screenshot shows a web browser window for the Pamela sales tool at the URL <https://sales.b2b.salt.ch/>. The page title is "SC-1111 Aquisition Offer Version 1". The top navigation bar includes "EN", "Notifications(3)", and the "Salt." logo. The main content area is titled "Customer Team" and contains a section for "Customer care". This section includes three input fields: "User" (with a placeholder), "User code" (with a placeholder), and "Team" (with a placeholder). A "Save" button is located in the bottom right corner of this section.

Figure 5.34: Customer team – dedicated care details form

The screenshot shows the same web browser window as Figure 5.34, but the "Customer care" section has been filled with data. The "User", "User code", and "Team" fields now contain the text "Pamela", "Pamela", and "Sales", respectively. The "Save" button is no longer visible. Below this, the page displays sections for "Company Details", "Customer Team" (which now includes two sub-sections for "Salesperson" and "Customer care"), and "Offer Details" and "Offer Options" sections.

Figure 5.35: Customer team view after filling forms

Offer Details

Offer details pages will lead the salesperson in adding the details of his offer based on the prospect needs. Concerning this step of the offer creation the experience changes significantly and the salesperson is required to follow a specific order to complete all details correctly. The order was kept the same as what currently exists in the Excel tool so that the user feels more comfortable in fulfilling this step. The content and the fields names of this section are also defined based on what currently exists. The design consideration of this section's pages is mainly scalability since it will contain different amount of data comparing to the pages of the sections previously presented. That being explained, Figure 5.36 is the first page displayed when the salesperson clicks on “Offer Details” widget. He can start by selecting the “Discount Scheme”, “Contract Duration” and the “Price Plan” from the drop-down lists.

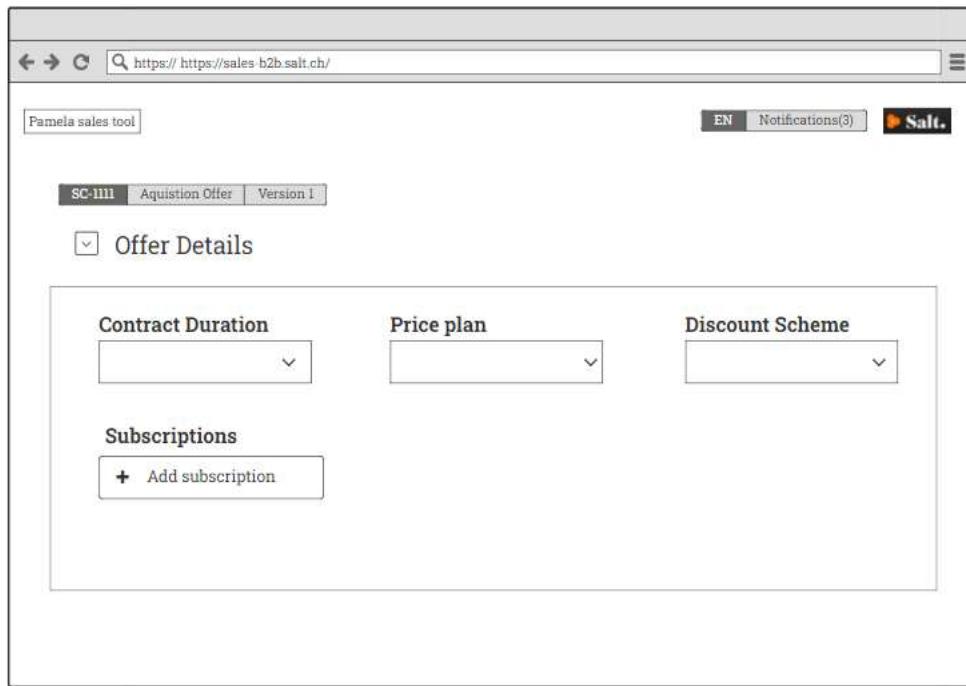


Figure 5.36: Offer details first view

Figure 5.37 represents the subscriptions catalogue view displayed when the user clicks on the button “Add subscriptions”. Here the salesperson is able to check details regarding each subscription by simply hovering over the box as illustrated in Figure 5.38. The purpose is to

help the salesperson recall what is included in the different subscriptions before deciding what to select.

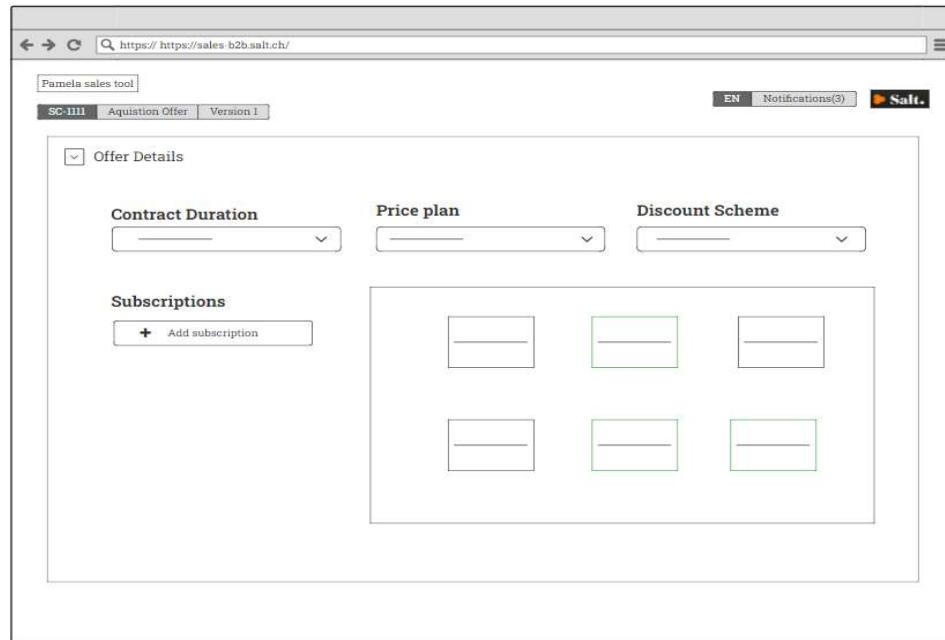


Figure 5.37: subscriptions first view

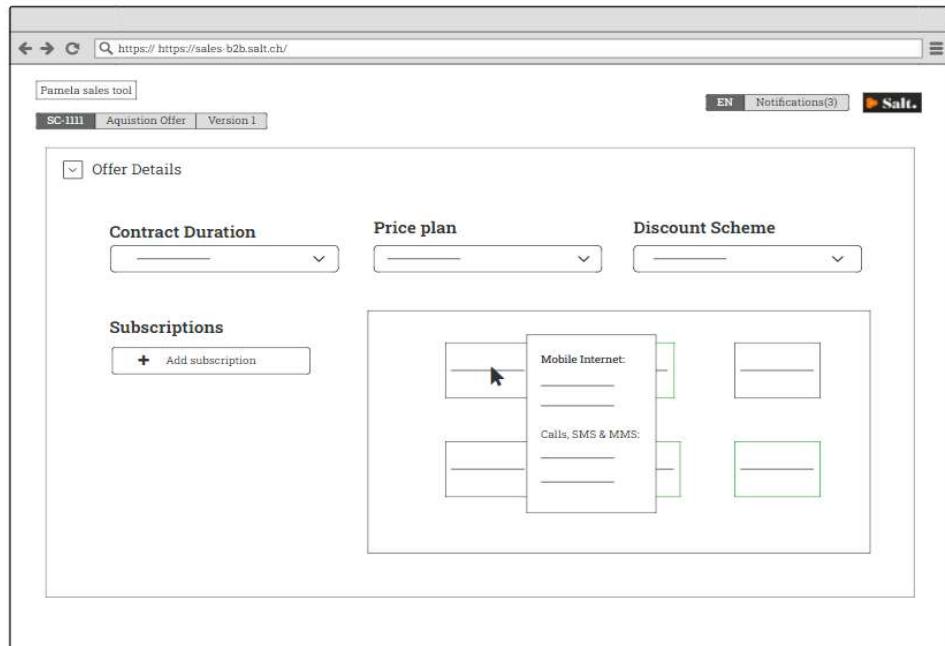


Figure 5.38: subscriptions on hover view

Based on the information entered in “Company Details” primally “Overview” and “Telecommunication Information”, the tool will provide the user with subscriptions recommendation for a personalized proposal. The salesperson has the possibility to choose from the recommended ones that will be displayed in green to draw his attention or from the rest of subscriptions available. Next and for every selected subscription, a “Quantity” box appears as illustrated in Figure 5.39 that allows the user to enter the desired number of each. Finally, the user can save entered details with the button “Save” that resides below the last quantity box on the right. As a result, the view of Figure 5.40 appears and allows the salesperson to have a table that summarizes the details of his choices.

Figure 5.39: Subscriptions view with boxes of quantities

Basically, the salesperson can see the list of chosen mobile subscriptions and quantities, their standard price (the initial price) and the minimum calculated price that he can propose. The last column “Enter proposed prices” will appear with a different colour (Orange) to catch the user’s attention and induce him to complete it. For every proposed price entered, the colour will change to inform the user about the quality of the price he wants to put forward: Green colour for good quality and red for bad quality according to the business ruled defined. He can also see the monthly fees of all subscriptions.

The screenshot shows a web-based sales tool interface. At the top, there's a header with a search bar, language selection (EN), notifications (3), and a Salt logo. Below the header, the page title is "Pumelin sales tool". A breadcrumb navigation shows "SC-1111 - Aquisition Offer | Version 1". A section titled "Offer Details" is expanded, showing fields for "Contract Duration", "Price plan", and "Discount Scheme", each with dropdown menus. Below this is a "Subscriptions" section with a button "+ Add subscription" and three input fields for "Quantity" with up/down arrows. A "Save" button is located at the bottom right of this section. At the bottom of the page, there's a "Recapitulative table of offer details" with columns: "Subscription", "Quantity", "Standard price", "Minimum price", and "Price to propose". The "Price to propose" column has a yellow border. A note at the bottom says "Monthly fees: -- CHF".

Figure 5.40: recapitulative table of offer details

When the column is filled in and the user clicks on the button “Save”, a pop-up message will appear to indicate to the salesperson the type of his offer. Figure 5.41 represents the standard offer. In this situation, the salesperson can continue and move to all next steps without asking for validation. Figure 5.42 represents the pop-up message that indicates the non-standard type. In this case, the user can click on the button “Request manager validation?”. As a result, the status of the offer will be updated automatically to “Waiting for manager validation” as illustrated on Figure 5.43 Moreover, and on this same page, the salesperson will be provided with feedback regarding his offer status through a notification (Figure 5.44). When the offer is

approved the status will be as well updated automatically to “Offer validated” as represented in Figure 5.45.

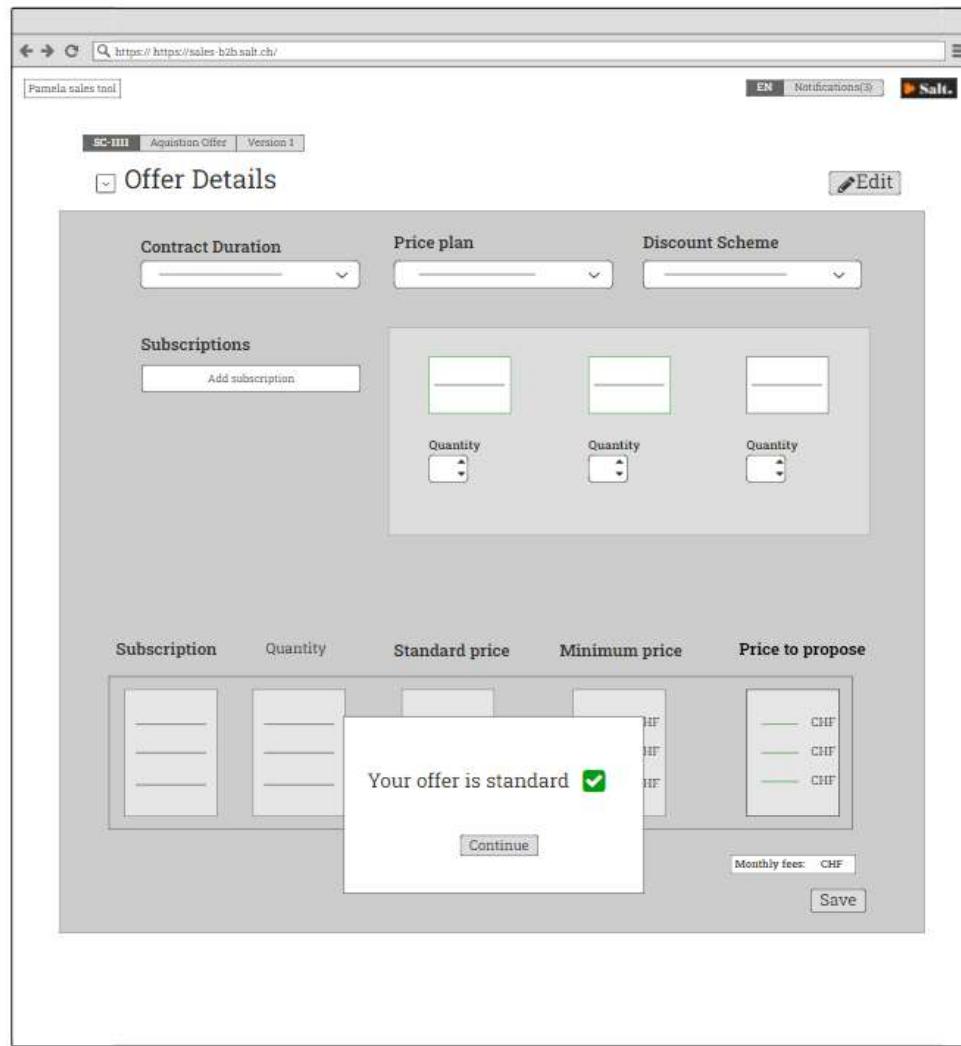


Figure 5.41: Pop-up message indicating the standard type of the offer

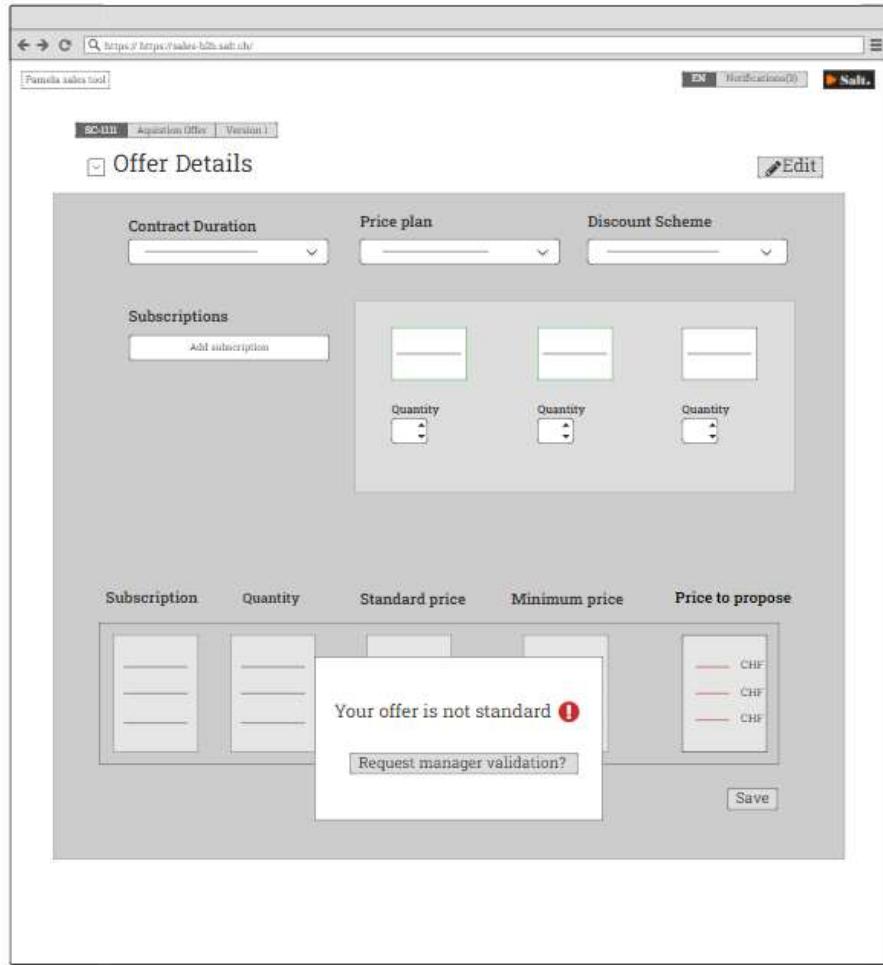


Figure 5.42: Pop-up message indicating the non-standard type of the offer

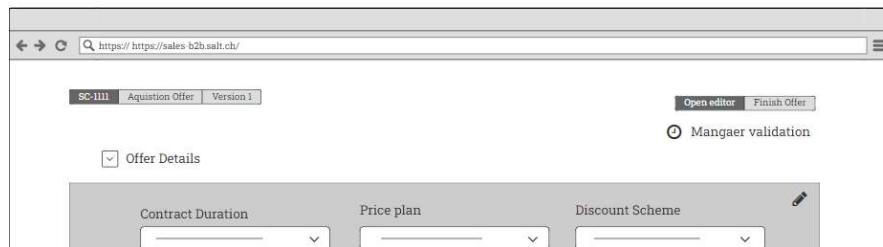


Figure 5.43: Status update “Waiting for manager validation”



Figure 5.44: Notification to inform the salesperson about offer validation

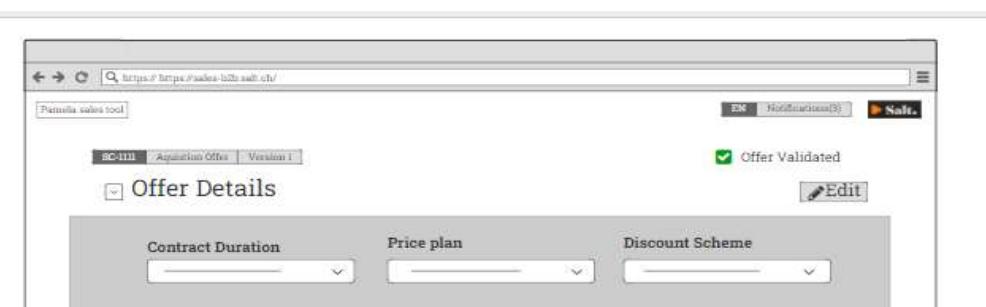


Figure 5.45: Status update to “Offer validated”

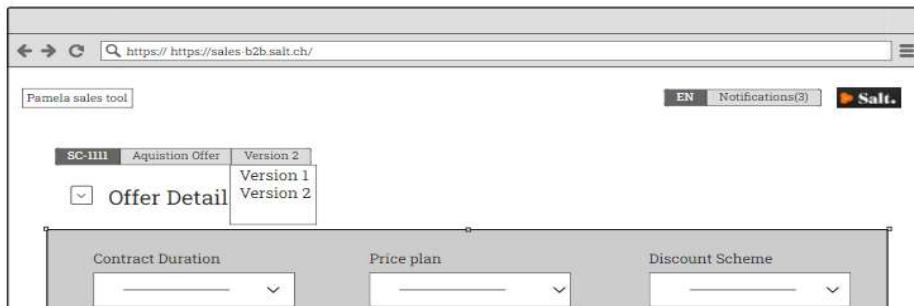


Figure 5.46: versions of the offer

Furthermore, in the offer details the salesperson has the possibility to edit what he entered by clicking on the button “Edit” located on the top right of the page then save his changes. This will result the automatic generation and storage of a new version of the offer modified. The number of versions will be automatically updated, example from “Version 1” to “Version 2” and will be shown on the top left of the page (see Figure 5.46). The salesperson will access to the latest one but still has the possibility to go back to a precedent version whenever he needs to.

Offer options

The pages of this section allow the salesperson to complete the options he wants to propose to his prospect. The view of Figure 5.47 is displayed when the user clicks on the widget “Offer Options”. Here, he can enter the amount of Tech fund, choose the SIM type and payment method from the drop-down lists.

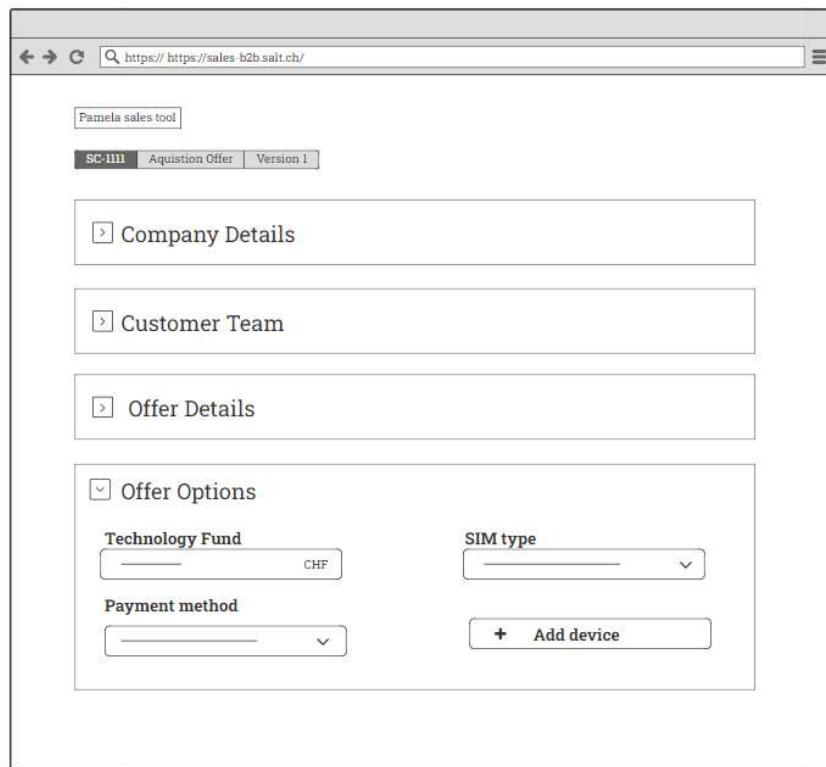


Figure 5.47: Offer options first view

Figure 5.48 illustrates the view of devices catalogue that the salesperson will get after clicking on “Add a device” button. At this step, indicating the devices that are available in the inventory would be beneficial to the salesperson. Therefore, widgets that will be displayed with the colour

Green represent the available gadgets. The user can still get details about the unavailable ones by hovering over the widget of the wanted device as illustrated in Figure 5.49. For every device selected, quantity box appears as in Figure 5.50 where the salesperson can enter the desired number of each gadget. The user can save quantities and devices chosen by clicking on the button “Save”. The tool allows him to get informed if the sum of devices has passed the amount of Tech fund entered as well as editing his selection as in Figure 5.51.

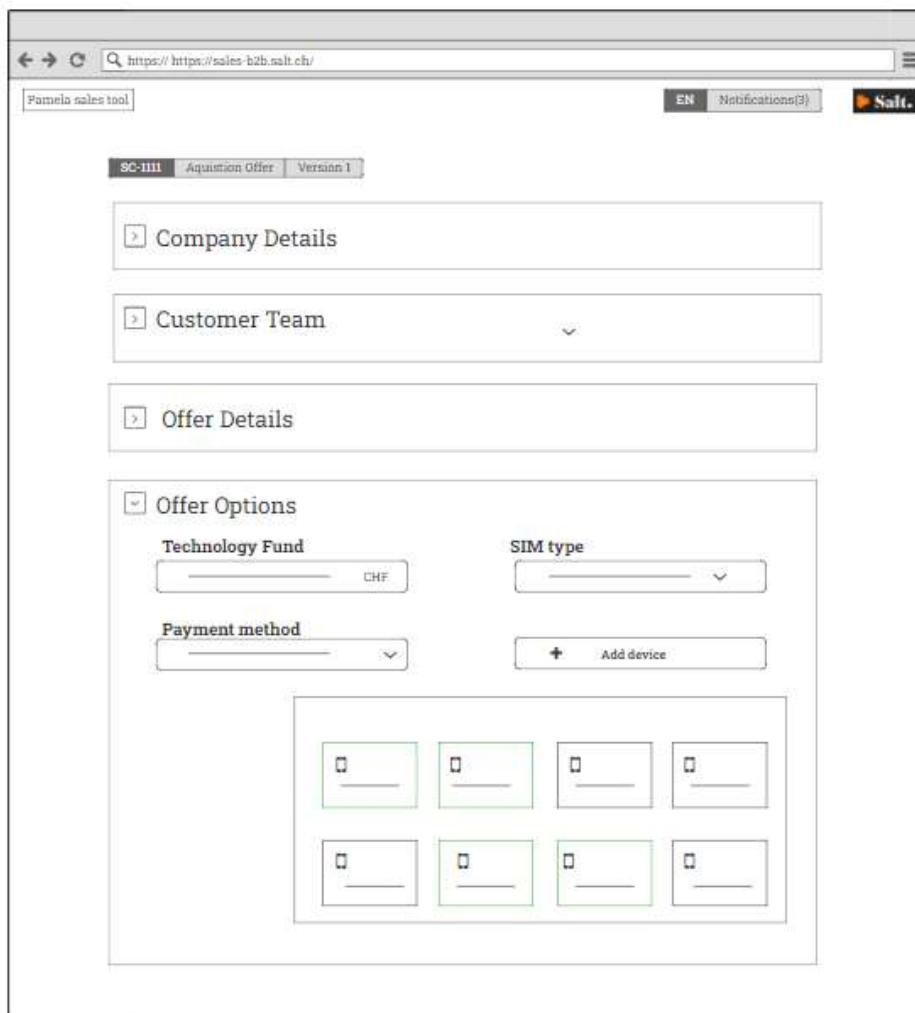


Figure 5.48: View of devices catalogue

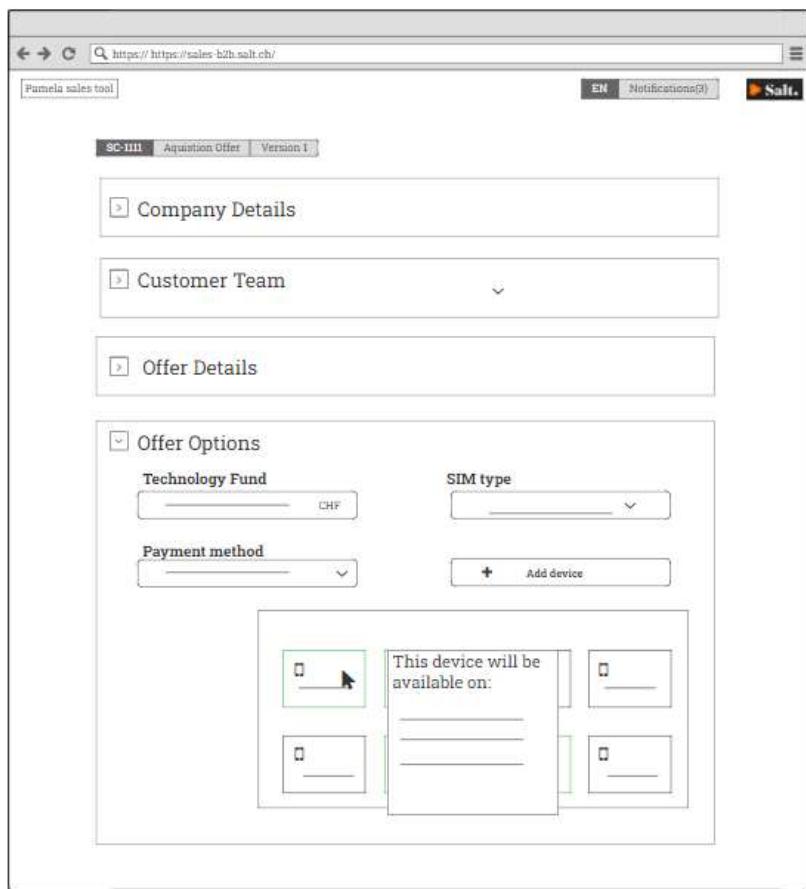


Figure 5.49: on hover devices view

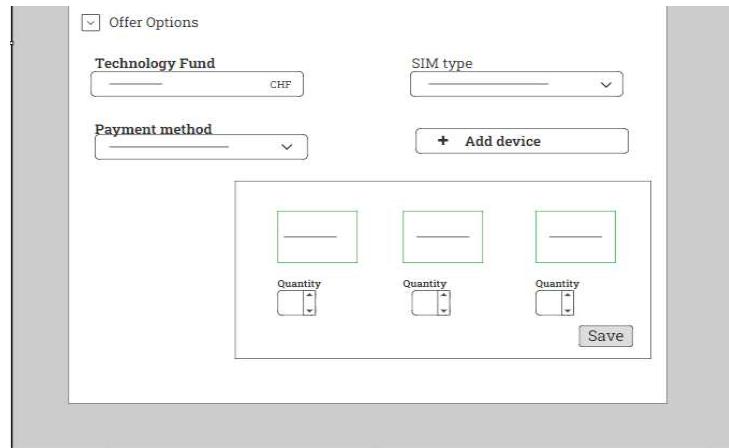


Figure 5.50: devices with quantity box view

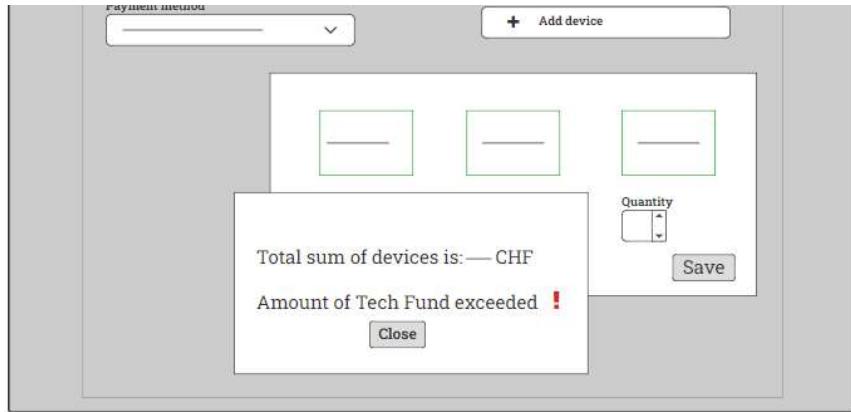


Figure 5.51: Pop-up message that indicates exceeding the Tech fund amount

Once the salesperson completes filling the 4 different sections, the button “Finish presentation” appears as illustrated in Figure 5.52 that allows him to open a text editor and finish his power point presentation before sending it to the prospect. On this page represented on Figure 5.53 he can see the slides pre-filled with information previously entered.

After finishing the presentation, the salesperson can create a PDF file. Figure 5.54 represents the PDF file view displayed for the salesperson when he clicks on “Generate PDF” and the user has the possibility to scroll through the document to revise it. Finally, on this page the salesperson can send the presentation for the prospect by clicking on “Send to prospect” button. New email dialog window will be opened with an email template as well as a link of the proposal included and the user can send the email directly from the tool. As a result, the status of the offer will be updated to “Waiting for prospect validation”. Once the prospect opens this link the salesperson will be notified as in Figure 5.55 to help him track more his proposal and plan when to recontact the prospect.



Figure 5.52: View when the button “Finish presentation “appears

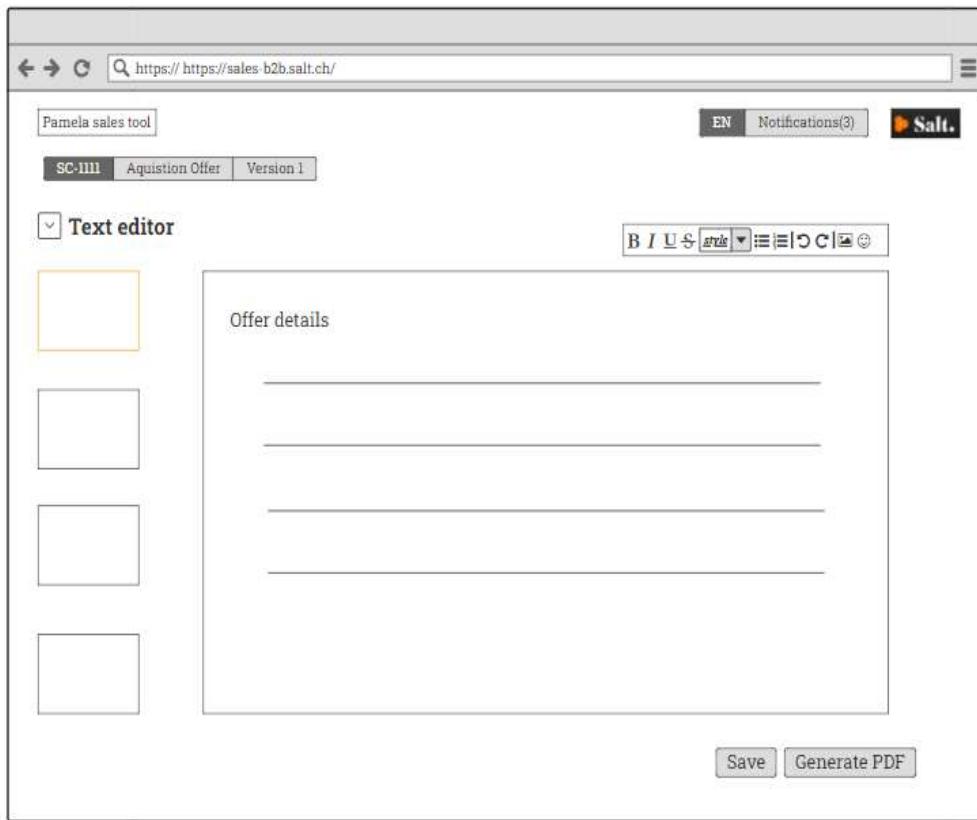


Figure 5.53: Text editor view

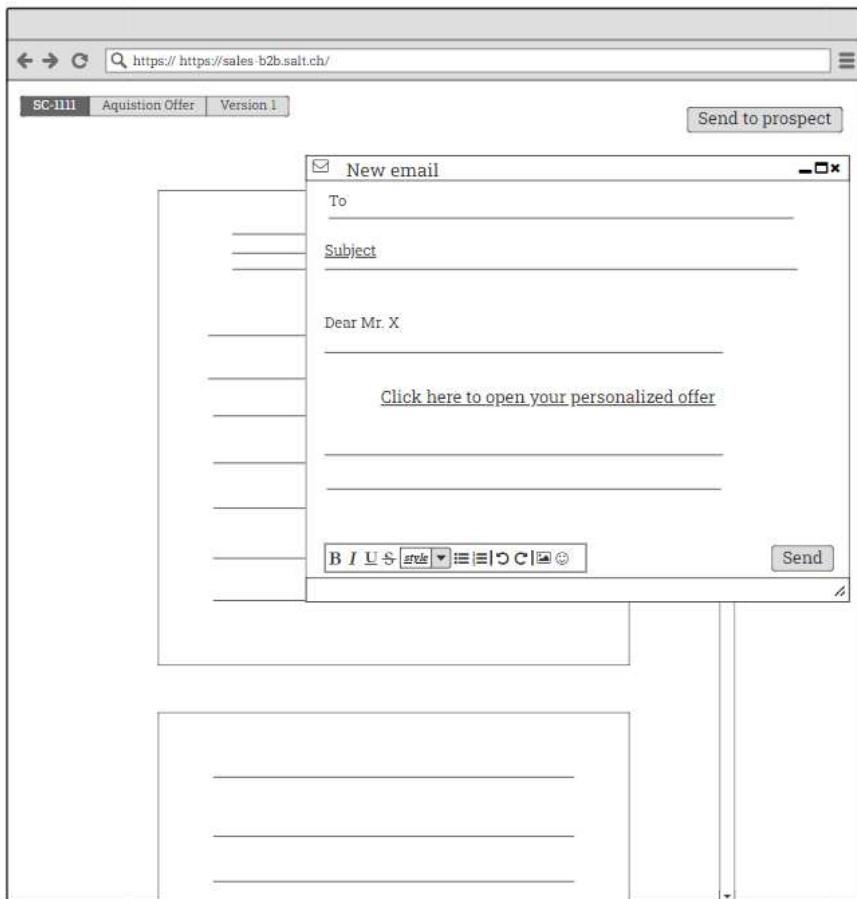


Figure 5.54: window for sending Email to prospect



Figure 5.55: Notification to inform the salesperson about link opening by the prospect

Once prospect validation is received, the salesperson can create the contract. For this he has the possibility to click on “Create contract” button (Figure 5.56) and he is redirected once again to the text editor page where he can finalize the contract and generates the PDF. Finally, the salesperson can send it by clicking on the button “Send to prospect”. Same for offers, the email window appears that includes an email template and the link of the contract. The salesperson will be notified when the prospect opens it. In the case where the contract includes specific clauses, the user can request contract creation from the responsible team (Onboarding).

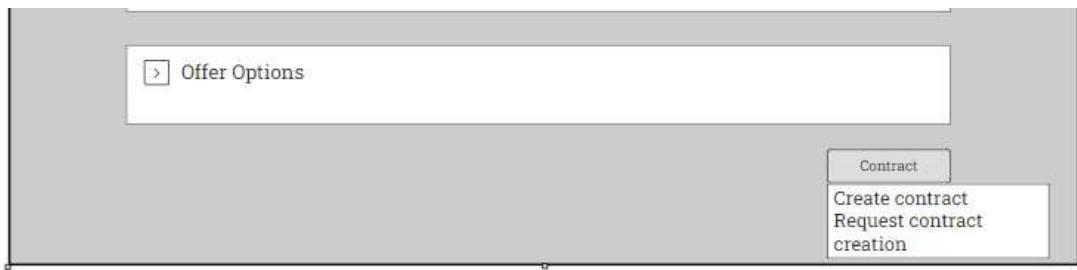


Figure 5.56: view when "Contract button appears

Group 2: Head of region

Once the head of region connects to the offer tool, he will be led to the same home page. The difference for the head of region is that on this page, he is allowed to see all the offers and contracts created by clicking on the button “All Offers” or “All Contracts” positioned at the top of the page as illustrated in Figure 5.57. Relevant information will be as well communicated to the head of region regarding every offer and every contract. By clicking on an offer, the head of region will be redirected to the 4 sections of the proposal that he can check whereas clicking on a selected contract, the view of a PDF document will be displayed. Search functionality is also existing but with more filters than the ones the salesperson can apply mainly filters team and salesperson (Figure 5.58). This page allows the head of region to generate reports based on the filters applied by clicking on the button “Generate Report” located at the bottom right corner.

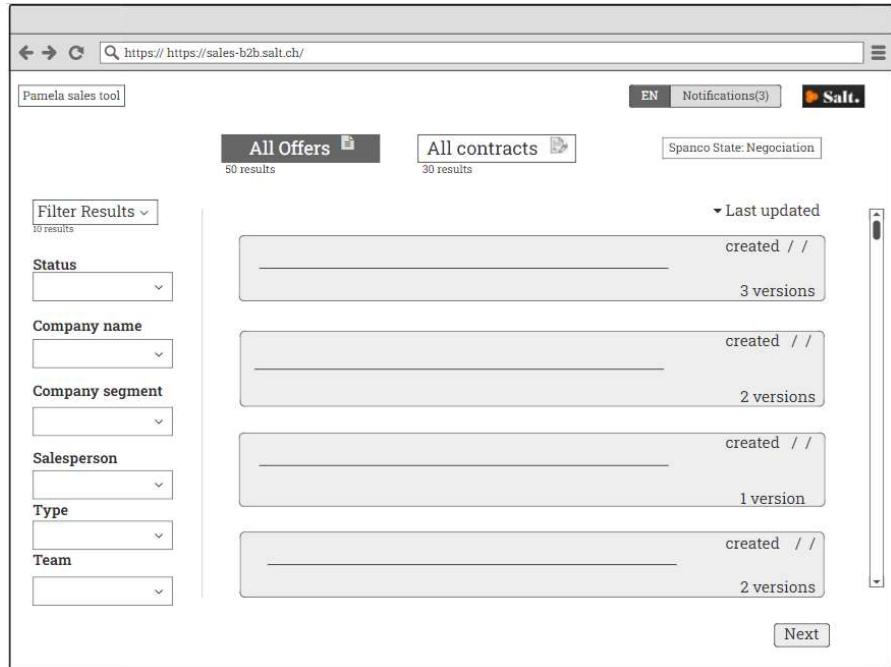


Figure 5.57: Home page of the offer tool for the head of region

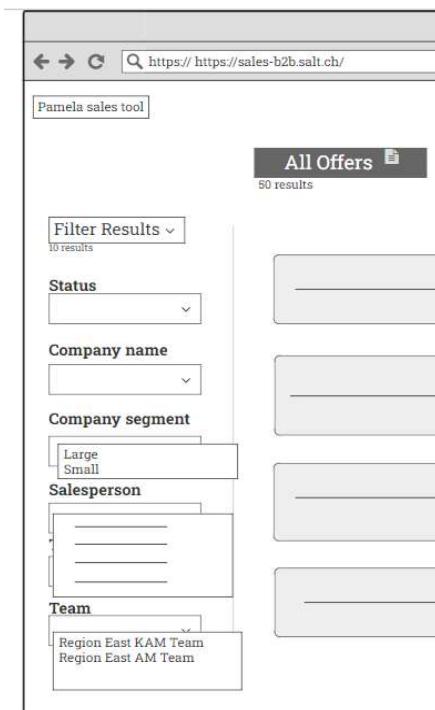


Figure 5.58: Filters that the head of region can apply

List of generated reports can be then shown on the page represented in Figure 5.58 where the head of region can scroll down and customize the results he wants to display by applying filters. Clicking on a selected report redirects the head of region to the view represented on Figure 5.59. On this view, he can have access to the details of the report and send it to the management board by clicking on the button “Send to management board” positioned on the bottom right corner.

The screenshot shows a web-based application interface titled "Pamela sales tool". At the top, there is a navigation bar with back, forward, and search icons, followed by the URL "https://sales-b2b.salt.ch/". To the right of the URL are language ("EN"), notification ("Notifications(3)"), and user ("Salt.") buttons. Below the navigation bar, the main content area is titled "My reports" with a bar chart icon. On the left side, there is a "Filter Results" button. The main body contains six filter fields, each with a dropdown menu and a placeholder text "created / /": "Week", "Salesperson", "Team", "Company segment", "Offers/Contracts", and "Type". At the bottom right of the filter section is a "Next" button, and at the bottom center is a "Back" button. The entire interface is contained within a web browser window.

Figure 5.58: Reports list view

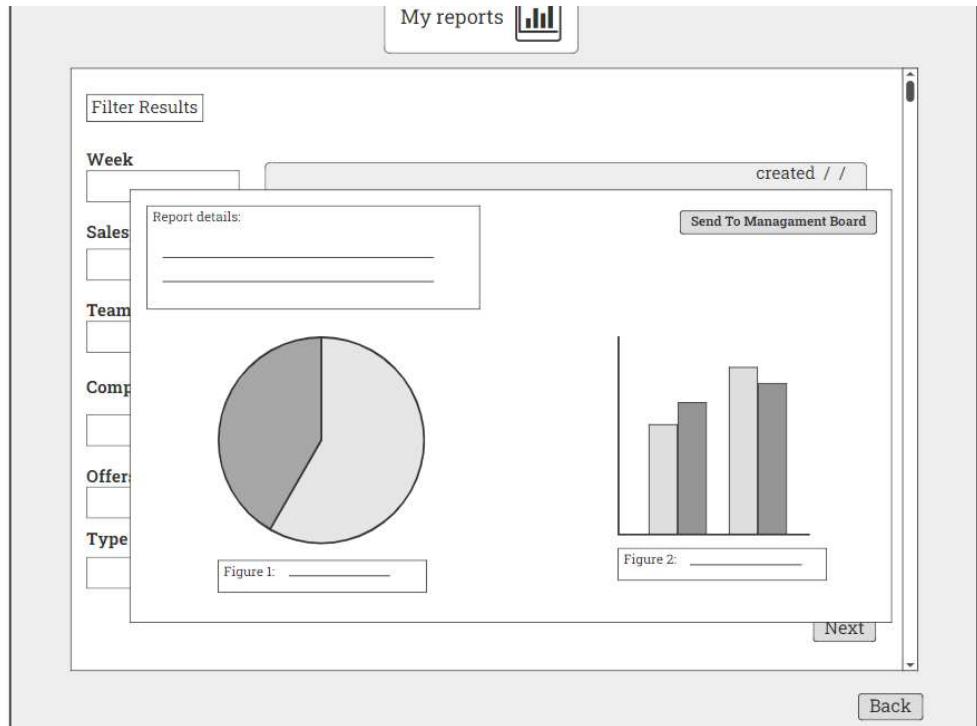


Figure 5.59: view after selecting a specific report

Finally, and as explained for group of users 1, the salesperson is allowed to request validation for a non-standard offer (Figure 5.42) so the head of region can evaluate it. First, he can access to the 4 sections of the offer and the information entered by the salespersons. He can either validate the offer by clicking on “Validate” or reject it by clicking on “Reject” button located on the top right bottom of the page represented in Figure 5.60. Depending on the decision of the head of region, the proposal status will be updated to “Offer is validated” or “Offer is rejected”. If financial approval is required, the head of region can click on “Request finance approval”.

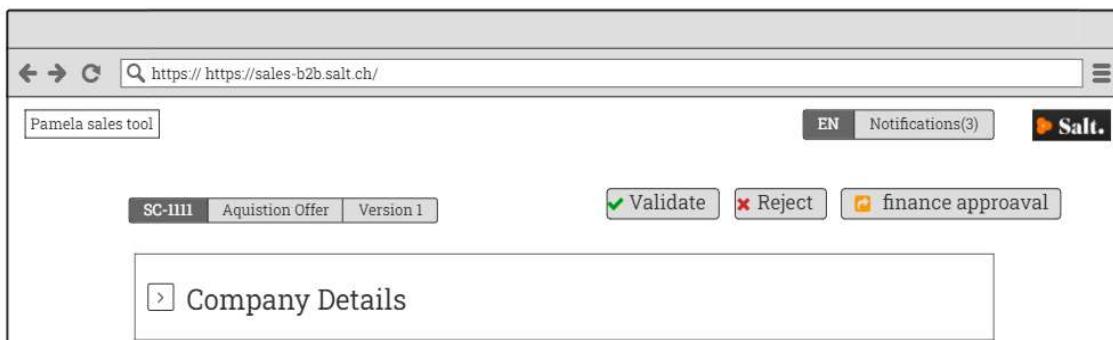


Figure 5.60: Offer view with validate, reject and request finance approval buttons

Group 3: Finance

After connecting to the tool, the financial analyst will first access to the same home page. The difference is that he will be allowed to see only the offers he needs to evaluate or has evaluated as in Figure 5.61. On this view he can scroll, filter results and access to the offer by simply clicking on it. In order to evaluate the offer based on the head of region request, the financial analyst has access to the 4 sections of the proposal and information included as in page of Figure 5.26. “Validate” and “Reject” buttons are also available as in Figure 5.60. Depending on the decision of financial analyst the status will be updated to “Offer is validated” or “Offer is rejected”.

The screenshot shows a web-based application interface for a sales tool. At the top, there's a header with a search bar containing 'https://sales-b2b.salt.ch/' and a logo for 'Salt.'. Below the header, the title 'Pamela sales tool' is displayed. The main content area is titled 'Offers' and shows '50 results'. To the left, there's a sidebar with several dropdown menus for filtering: 'Status', 'Type', 'Company', 'Company segment', 'Salesperson', and 'Team'. To the right, there's a sidebar showing 'Spanco State: Negotiation' and a dropdown menu for 'Last updated'. The main list area displays four offer cards, each with a status indicator like 'created //', a 'Details' button, and a small icon. A 'Next' button is located at the bottom right of the list area.

Figure 5.61: Home page for financial analyst

Group 4: Onboarding team

Similar to the last two group of users, the onboarding team member will have access to the home page of Figure 5.62 after connecting to the tool. This view allows him to scroll down and check the contract list and can access to a selected one by clicking on it. Filters are also available on this page.

The onboarding team member is notified about contract creation request as in Figure 5.63. Clicking on the notification will redirect him the 4 sections of the validated version by the prospect where he can check details related to the contract to create. In order to begin creating the contract, the user can click on the button “Open editor” and the same view of figure 4.3.27 is displayed where he can add, edit text and finally click on “Save”. Furthermore, the user is allowed to generate a PDF document by clicking on the button “Generate PDF” on the same view which he can send to the salesperson by clicking on “Send to salesperson” as in Figure 5.64.

The screenshot shows the Salt platform's home page for the onboarding team. At the top, there is a navigation bar with a search field containing 'https://sales-b2b.salt.ch/' and a logo for 'Salt.' with a notification count of 'Notifications(3)'. Below the navigation bar, the page title is 'Pamela sales tool'. The main content area is titled 'Contracts' with a sub-label '50 results'. To the right of the title, there is a filter 'Spanco State: Negotiation'. On the left side, there is a sidebar with dropdown menus for 'Status', 'Type', 'Company', 'Company segment', 'Salesperson', and 'Team'. On the right side, there is a list of contracts, each represented by a card with a 'created' timestamp. A vertical scrollbar is visible on the right edge of the content area. At the bottom right of the content area, there is a 'Next' button.

Figure 5.62: Home page view of onboarding team



Figure 5.63: Notification that informs Onboarding team member about a new request

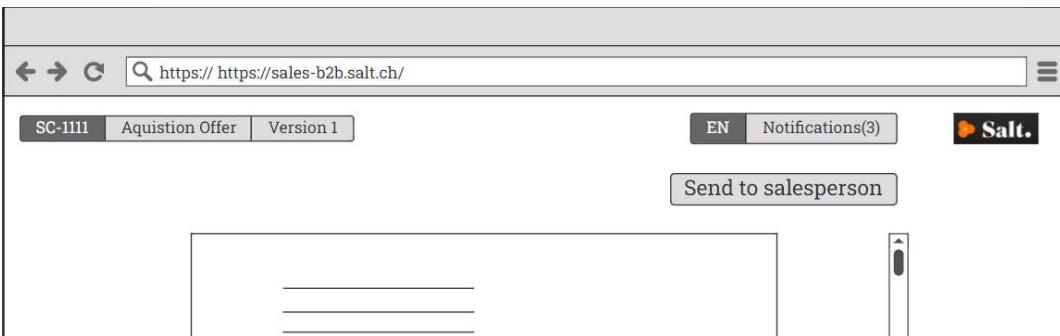


Figure 5.64: PDF contract view with send to salesperson button

Group 5: Management Board

The management board are allowed to first check the list of reports available on the home page as in Figure 5.58 after connecting to the tool. On this view the user can scroll down and apply filters of the search functionality. By clicking on a chosen one, same view of Figure 5.59 providing will be displayed. and provide the manager with details about the report. Buttons “Validate” or “Reject” are included on this page so the manager can approve the report or decline the report as Figure 5.64.

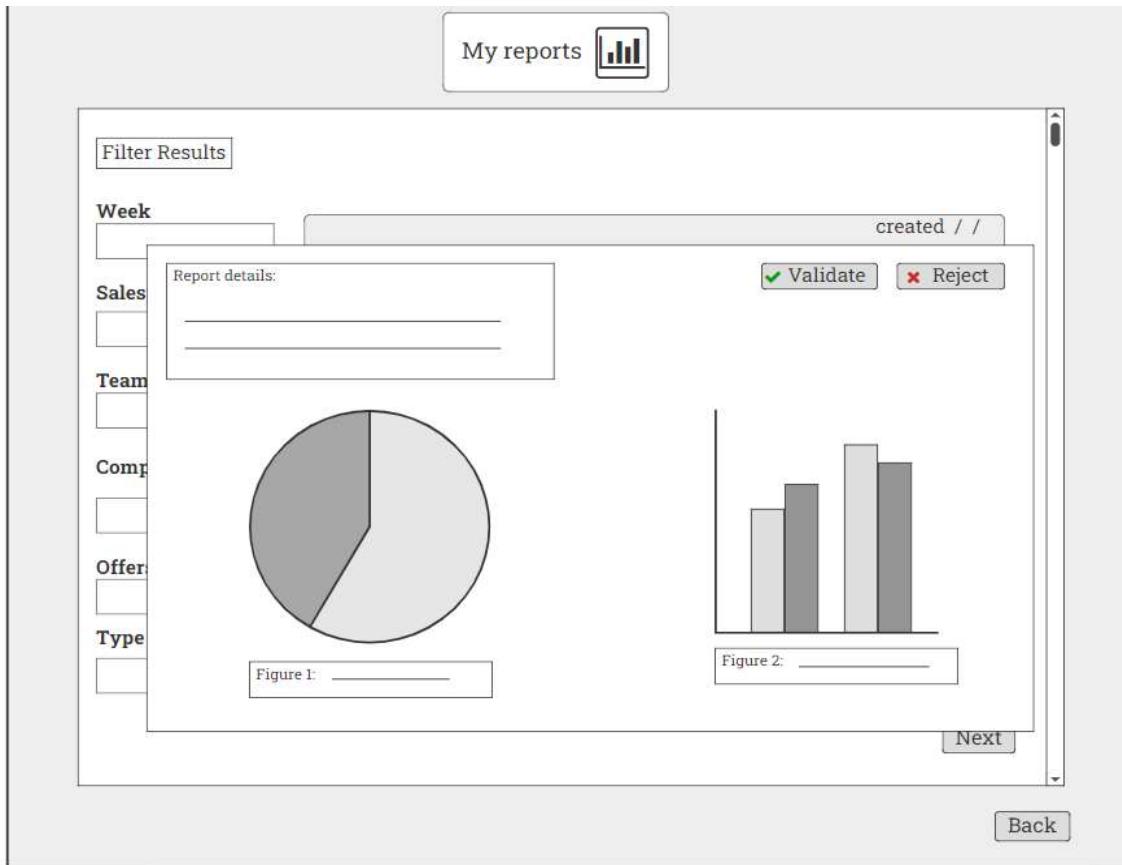


Figure 5.64: Report view with validate and reject buttons

5.3.2 Usability testing

After creating the wireframes for the different group of users, the next step was to study how actual users would interact with the tool in a real situation and context. Therefore, a usability testing has been realized.

The first objective of the usability testing was to get an evaluation about the design by real users after performing a set of tasks and discover valuable insights directly from them. The second objective was to refine the functionalities by revealing the parts where users struggle and improve the design to guarantee their satisfaction.

To collect the needed data and meet the objectives set, the usability testing was conducted as the following:

- One test and interview were done in person. Before the session a room in Salt office was booked for the test. The remaining tests and interviews were carried out remotely via Microsoft Teams. This was optimal for participants that could not be present in the office. The moderator shared his screen then gave control to the participant.
- Every user tested the tool depending on the group of users he belongs to and the tasks he can perform. Users followed the following steps:
 - After presenting the tool, 5 minutes were given to every user to explore the tool by himself and get familiarized with it. They were also allowed to ask questions.
 - Users were solicited to complete a set of tasks according to the usability test protocol they received. This part mainly corresponds to the usability testing.
- At the end of the test, users answered open ended questions mainly about the user experience of the tool.

In total, 9 participants performed the usability testing. The sample was comprised as follows:

- 5 salespersons (1 key account manager and 4 account managers) representing group 1.
- 1 head of region representing group 2.
- 1 B2B manager representing group 5.
- 2 onboarding team members representing group 4.

The intended goal was to test the tool with all group of users defined but could not be achieved because of the lack of availability of the financial analyst representing group 3.

The methods applied allowed to gather different types of data. Thereby, Quantitative data was extracted from the usability testing primarily from the tasks performed by participants. They were applied to calculate measures of efficiency mainly the time spent to complete a task. It was calculated from the time the participant started performing the task until he finished it. Second, this data was applied to calculate measure of effectiveness by completing the task success. The goal of these measures was to reveal how easy was the usability testing of the tool for users and uncover potential problems.

Concerning qualitative data, it was collected from the feedback given by participants after completing tasks and the interview of debriefing. This data allowed to get an insight about user satisfaction regarding the tool tested and get suggesting of improvements.

Appendix II presents the test protocol that was followed as well as the tasks and questions that were addressed to users.

5.3.3 Usability testing findings

Before detailing the major results of the usability testing conducted, it is important to indicate that none of the participant experienced a particular problem that affected their performance. As mentioned in the previous section expect one participant, the rest participants conducted a remote usability testing. They all had good hardware setup therefore they were comfortable during the test. After the brief introduction and explanation of the testing process, participants used the 5 minutes of the tool discovery for asking more questions and ensure understanding the testing process.

Furthermore, the metrics that were tracked to evaluate the success of the different tasks are the following:

Task Time = End Time – Start Time (efficiency measure).

Task success = the success of completing a task (effectiveness measure).

Scores were assigned as the following:

- 1: for a complete success of the task.
- 0.5: for a partial success achieved with assistance.
- 0: for failure

The results will be presented per group of users.

Salesperson

In total the 5 users attempted the completion of 10 tasks during the usability testing session. For the first 4 tasks presented to salespersons the metric calculated was the task time. Concerning the first task, it was asked to participants to complete company details section using the same example of an enterprise. This task is divided into 3 subtasks. The first was to complete company overview, second was to complete telecommunication information and finally complete customer team. It was noticed that the first subtask was the one that took the most time to finish for an average of 181.98s comparing to the 2 other subtasks 76.23s, 66.26s respectively. This is potentially due to the fact that this page has more fields than the others. Also, to the time of adaptation and discovery needed before starting to test. Overall, the average of time spent on Task 1 is 323.63s. (equivalent to 5.39min). Results are presented on table 5.7

For Task 2 that is constituted of 2 subtasks, the average time that users spent on subtask 1 and 2 are quite similar (30.08s for subtask 1 and 28.96s for subtask 2). Overall the average of time that took the users to complete this task is 59.04s. Results are presented on table 5.8

Regarding, Task 3 where participants were asked to fill in the offer details, the task was also divided into 3 subtasks. The first consisted on selecting the contract duration, price plan and the discount scheme. Second was to select subscriptions and their quantities and finally the third was about to enter the proposed prices. The second subtask took the most time with an average of 57.16s comparing to 52.6s for subtask 3 and 36.74s for subtask 1. The average of time spent on this task was 146.5 s (equivalent to 2.44 minutes). In order to fill in the offer details, fields names and the order of steps was maintained the same, participants recognized these steps which helped in not spending a lot of time to complete this task. Results are presented on Table 5.9.

Finally, and for Task 4 participants were asked to complete the offer options, and the average time spent on this task was 185.06s (equivalent to 3min). Results are presented on table 4.10.

Table 5.7: Results of Task 1

Task 1						
Task ID	P1	P2	P3	P4	P5	Average
T 1.1	173.4	229.8	180.6	160.7	165.4	181.98
T 1.2	82.10	84.6	72.6	60.54	81.33	76.23
T 1.3	69.6	70.2	52.6	70.89	68	66.26
Sum(s)	325.1	384.6	305.8	292.13	310.5	323.63

Table 5.8: Results of Task 2

Task 2						
Task ID	P1	P2	P3	P4	P5	Average
T 2.1	31.8	33.3	30	27	28.3	30.08
T 2.2	29.7	29.2	28.1	25	32.78	28.96
Sum(s)	61.5	62.5	58.1	52	61.08	59.04

Table 5.9: Results of Task 3

Task 3						
Task ID	P1	P2	P3	P4	P5	Average
T3.1	35	43	42	35.4	28.3	36.74
T3.2	72	67.4	52	41.2	53.2	57.16
T3.3	50	55	54.5	52.1	51.4	52.6
Sum(s)	157	165.4	148.5	128.7	132.9	146.5

Table 5.10: Results of Task 4

Task 4						
	P1	P2	P3	P4	P5	Average
T4	120.6	201	231	150.7	222	185.06

For the rest of tasks presented to salespeople, task success was measured. Starting with Task 5 that consisted on editing the power point presentation of the offer, 3 participants succeeded to do this task without asking for assistance. The 2 others needed some assistance mainly in finding the “Edit” button. Regarding Task 6, The goal was to send offer to the prospect. Only one participant succeeded to complete the task without assistance whereas the rest needed additional clarification. They seemed confused and wanted to make sure that the offer will be sent directly from tool and they do not need to use Outlook for that. For Task 7 that consisted on creating the contract and except one participant, the rest could accomplish the task and found the button “Create Contract” easily. Moving to Task 8, also most of participant succeeded to do it. This is due to understanding that this task requires simply clicking on the button “Send Contract to prospect”. (which is similar to Task 6: send the offer to prospect). Concerning Task 9 and upon being prompted to display offers with the criteria type acquisition, the goal was to verify whether the search functionality that gives users possibility to apply filters is clear or not. None of the participants could fulfil the task without asking for assistance. They could not figure out that this task requires applying the filter. Finally, the goal of Task 10 is similar to Task 9 but for contracts. Participant were asked to display contracts matching 2 search criteria (first is acquisition contract and second is status waiting for customer validation). For this task, 4 participants quickly understood that they need to apply 2 filters and succeeded the task. 1 participant hesitated about the second criteria (status of contract).

Scores attributed are presented in Table 5.11. As the data is ordinal no average was calculated. Rather, the percentage of participants belonging to the same category was determinate and presented in the stacked bar chart illustrated in Figure 5.65.

Table 5.11: Results representing scores of tasks 5-10

Participant ID	Task 5	Task 6	Task 7	Task 8	Task 9	Task 10
P1	0.5	0.5	1	1	0.5	0.5
P2	0.5	0.5	0.5	1	0.5	1
P3	1	1	1	1	0.5	1
P4	1	0.5	1	0.5	0.5	1
P5	1	0.5	1	1	0.5	1

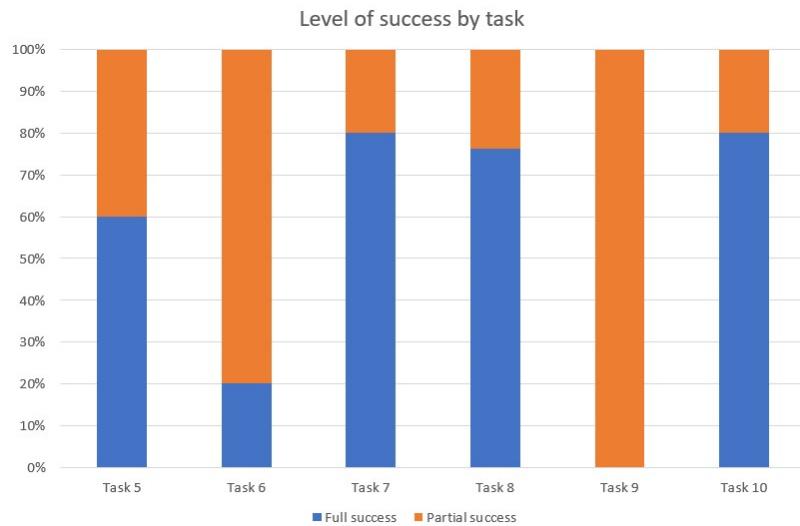


Figure 5.65: Stacked bar chart representing the levels of success

based on task fulfilment

Head of region

As explained in the introduction, for the time being and due to organizational change in Salt Business only one head of region is available. Therefore, the results that will be presented are based on one usability testing conducted with him. For the tasks presented to this participant task success was measured. In total, participant undertook 7 tasks. First, it was asked to the user to display only offers with status “Waiting for head of region validation”. As for salesperson, the goal of this task was to check whether the search functionality is clear for the head of region or not. Participant needed assistance mainly in verifying the type of filter to apply. Concerning the second task that consisted on selecting an offer to display, participant could fulfil it. It was

clear for him that he can scroll down to check all offers and click on the wanted one to display it. Moving forward to Task 3, it was asked to participant to validate the selected offer. Accomplishing this task implies first to navigate through the different sections of the offer then click on “Validate”. Participant managed to check the sections as well as clicking on the right button. Moving to Task 4, participant was solicited to request validation from financial analyst. He also succeeded and clicked on the button “Request financial validation”. Next, Task 5 consisted on displaying contracts with status “Signed contracts”. Participant understood that a filter needs to be applied but was trying to apply the filter on the offer page instead of the contracts.

The final 2 tasks concerned reports. In Task 6, it was asked to participant to generate report of the previous displayed contracts. He succeeded and clicked on the button “Generate Report”. Finally, and for the last task participant was asked to select a report and send it to the management board. This implies to navigate through the generated reports, select one then send it. Participant had to ask for help to find the reports page. Once on this page participant managed to select a report and send it to the management board. Scores attributed to the user are presented in figure 6.

Table 5.12: scores of tasks 1-5 of participant 6

Participant ID	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7
P6	0.5	1	1	1	0.5	1	0.5

Onboarding team

For users belonging to onboarding team, task success was also measured. In total they intended accomplishing 4 tasks. For the first one, participants were asked to select a request for contract creation and display it. Users were able to complete this task without assistance. Second, it was asked to them to create the contract of the selected request. Executing this task requires navigating through the offer’s sections then opening editor that allows to create the contract. Participants were not able to realize the task without asking for help mainly in understanding the purpose of the text editor button. For the third task, participants were asked to edit the contract created. One participant could fulfil whereas the other could not find the edit button. Finally, and for the fourth task participants were requested to send the contract to the salesperson. Participants were also able to accomplish this task easily.

Table 5.13: Scores of participants 7 and 8

Participant ID	Task 1	Task 2	Task 3	Task 4
P7	1	0.5	1	1
P8	1	0.5	0.5	1

Management board

Results that will be presented are based on one usability testing conducted with a B2B Manager. In total the user was asked to perform 4 tasks. The first one consisted on displaying the reports with the status “Waiting for validation”. Accomplishing this task requires applying the appropriate filter. The user needed assistance in the type of filter to select. Second, the user was asked to select one of the reports. Participant could fulfil this task. Next and for Task 3 the user was asked to reject the report. He found the button “Reject” easily and accomplished the task. Finally, it was asked to the user to check the contracts and display one. He needed assistance in finding the page of contracts. Once on the page, he could select and display a contact.

Table 5.14: Scores of participant 9

Participant ID	Task 1	Task 2	Task 3	Task 4
P9	0.5	1	1	1

5.3.4 Results of the debriefing interviews

User experience

Overall participants were satisfied from the experience they had testing the wireframes of the offer tool. They found them clear and relatively easy to use as claimed by certain users:

« *Globally it is clear enough and simple to use.* »P4

« *Honestly it looks quite simple and complete*» P2

« *It is quite clear. Just In company overview there are supplementary information than the ones we are used to enter. We need to check if we succeed to have all this information to be able to enter them*» P3

Quote of participant 3 brings up an additional element comparing to the others. In fact, the participant stated that the fields that need to be filled-in in company overview section are understandable but, in case, he doesn't get to have the correct information he assumed that he would not be able to continue to the other sections. This point was mentioned by another participant. They both seemed concerned and stated this remarque while filling the section. They did not notice the non-existence of the mandatory star next to these fields. In fact mandatory fields were not defined yet and they will be decided based on the users feedback. Therefore, it was explained to participants that these fields will not be mandatory ones. It will be beneficial to fills them all in order to get the subscription's recommendations in a future step but it is still possible to continue the offer creation even if the fields are kept empty.

Apart from this point, the only other negative element raised by participant 5, the head of region is "*So we will be obliged to regularly check notifications about validation requests sent by a salesperson to ensure that his offer evaluation will be done as soon as possible*". Indeed, the participant has to always check his notifications otherwise he will miss or have delays in offers validation.

On a more positive side, participants perceived the tool as an "*interesting new way of creating offers*" P5 and "*complete and pertinent*". P2

Functionalities

Users were satisfied with the functionalities available in the tool. The highlighted ones below were particularly appreciated.

First of all, the fact that the tool will be integrated in the sales platform and would allow to complete all steps required for offer creation was highly valued by participants.

The following quotations emphasize this point:

*"We have all functionalities in one tool. we can create, edit and send offers. It is excellent!"*P3

"It seems complete to me. You took the functionalities that work good today in the Excel tool and maintained them which is a good idea. There are new functionalities that would provide added value for the team". P5

Completing the process of offer creation on the whole is easy as it is similar to what we currently doing in the excel file but in a simpler way". P2

Providing an offer tool that recommends subscriptions types to the users was considered a strength according to P4 and P5. Especially because it would help salesperson that have recently joined Salt business and do not know yet the products very well. Therefore, it would support them in choosing the right ones for every company for more personalized offers.

Furthermore, according to P4, the functionalities send offers and contracts directly from the tool is was appreciated.

“The advantage is that once my proposal is ready I can send it directly from the tool with a click!” P4

Moreover, the functionalities to validate/reject an offer and request financial approval were highly approved by P5 the head of region. This would allow to “centralize more offer validations and make it more efficient”.

In addition to these various elements, the home page where the user can choose to display his list of created offers or contracts was judged “very good” by P2 and P5. Having an overview of created offers and contracts can be very beneficial in monitoring them.

Just by scrolling user can check his offers/contracts, date of their creation, number of versions and status. Also having the possibility to apply filters make it easier for users to find the offers or contracts they need faster, according to these participants.

Finally, a least positive feedback was given by participant P1 concerning sending the offer or contract through the tool by revealing:

“The functionality that allows us to send a link with the offer or contract is good. But we know that today there exists a lot of phishing and other security problems and I am personally scared of links, really! I would not open a link that I receive directly. I would rather propose that they receive the pdf document on the email because it is a bit risky to send a link to the prospect”.

5.3.5 Findings Synthesis

Synthesis of usability tests and debriefing interviews

In general, the results of the various actions taken to conduct the usability testing are good. No critical issues have been pointed out and users are satisfied. Furthermore, the user experience

was interesting and engaging. The main corrections to be made concern the design of the visual interface but no radical changes on the process nor the functionalities.

It is important to note that users took some time to discover and familiarize with the tool and then they quickly understood the process steps.

Evaluation against usability criteria

Effectiveness

As detailed in the previous sections, users generally did not fail none of tasks and were able to complete them successfully (although some needed a little assistance for certain tasks) but this does not preclude considering the tool effective.

Efficiency

The realization of the different tasks did not require much time from the users. Indeed, each task was completed in a little more than minute at most except for sub task 1 due to the fact that it contains more fields than the others. This was already taken into consideration for improvement. Globally, the results demonstrate that the use of the tool is quite efficient.

Satisfaction

Overall users are satisfied with the functionalities and design of the tool. The extrapolated data from the feedbacks and the debriefing interviews support this statement.

5.3.6 Improvements

Participants feedbacks and requests allowed to identify improvements areas in the design of wireframes. Updates were effectuated after the usability testing. All of the updated views are in Appendix III

User interface

- Change of the field name “Family name” to “Last name” in company overview of company information.

This recommendation of P1 as these fields’ names should be kept identical as what exists to make it easier for the user to recognize them. Updated view is in Figure 4.66.

- Move the button “Request manager validation” from “Offer Details” section to “Offer Options” section.

This update was based on the recommendation of P2 and P5. In case of a non-standard offer, in the details section the pop-up message should only indicate the type of offer and the request validation should be the last action that salesperson should do i.e. in the options section. This way, the salesperson makes sure that he has been through all sections and filled them all with information needed for evaluation including the options. It would also avoid time wasting an process block because the head of region will not be able to evaluate an offer if an information is missing especially in the offer details and options. Updated view is in Figure 5.68

- Moving “Tech fund” from “Offer options” to “Offer Details”.

This update was effectuated based on the request of P5. In order to evaluate an offer, the head of region needs to check if there is a Tech fund provided not. Therefore, it is more practical to display this information with the other details of the offer and not having to open another section to verify it..

- Add quantity box below SIM type

This update was the result of feedback given by P3. This user claimed that it is possible to have more than one SIM type for a single offer. So, adding quantity box where the user can enter for each SIM type the quantity is important. Updated view is in Figure 5.69

- Add a text field in the validation request

The addition of this text field was based on the recommendation of P4. It is possible that the user has other details to mention in addition to what exists in the different section. Thus, a text field that allows the user to enter these details was included. Updated view is in Figure 5.71.

Added features

- Link to Money house* in “Company Overview” subsection.

This feature was built based on the feedback provided by various users (P1, P2 et P5). Participant were overwhelmed by the quantity of information they need to enter in this subsection. But mostly, they were uncertain about the possibility to gather them all for all the companies. Therefore, the idea was to include a link to the Moneyhouse API in order to get information about the company. This will allow the salesperson to first verify the information he entered and second to retrieve and pre-fill the missing ones. This enhancement is important

*Money house is an online platform that provides information about companies in Switzerland. Data is extracted from sources like cantonal commercial registers and the Swiss Official Gazette of Commerce.

as it will improve the data quality of this section and allow the system to provide better recommendation of subscriptions in “Offer Details” section. Updated view is in Figure 5.67.

- Add apply button to filter

It was not clear for users that filters in the different pages will be processed in real time so a button “Apply” was added so that users will be sure that they will get a curated content based on the filter’s selection. A “Clear” button was added as well to allow the users reset the search.

- Make the recommended subscription more prominent

The goal of this update is to improve the visibility of these boxes. They should be sized up with a blinking monochromatic background to draw more the user’s attention and explain the importance of the highlighted subscriptions. This would make the experience more enjoyable with a clear content. Updated view is in Figure 5.70.

Recommendation system

One of the added functionalities to the tool consists on automatically providing the salesperson with helpful subscriptions recommendations of the various products existing for the client’s inquiry and retaining. Achieving this complies integrating a personalized recommender system for the existing products into the tool. By definition “*Recommender systems provide users (businesses or individuals) with personalized online recommendations of products or information* “. F.O. Isinkaye, Y.O. Folajimi, & B.A. Ojokoh (2013). Recommendation systems can solve the problem of the excessive amount of information and contribute in providing more customized services.

Basically, and based on the information entered in the section company overview (mainly the staff size, headquarters locations and industry) and telecommunication information the system should provide the salesperson with suggestions relevant to the needs of the company in question based on the services used by alike existing customers.

After discussing the idea with the IT project manager and the developer they confirmed the feasibility of this solution. In fact, the large number of users’ data available could be a good start for applying various analysis to understand customers’ behaviours then suggest the most matching services to a target customer. Therefore, this solution implies machine learning via collaborative filtering algorithm. This algorithm is used to recommend products to a target

customer by comparing his historical purchasing data to the ones of others customers and find similarities between them.

There exist two types of collaborative filtering:

- User-based Collaborative Filtering which computes item recommendations for a target user on the basis of items that similar users rated.
- Item based Collaborative Filtering which computes item recommendations for a target user based on similar items he has interacted or purchased them.

Concerning B2B existing customers, there is a large amount of data that could be analysed and used by the recommender system but is not the case for new customers. In order to handle problem of lacking sufficient data for the recommendation process, combining both of the mentioned collaborative filtering could overcome this problem and enhance the new customer profile.

Achievement of design goals

In general, most of the objectives defined in section were met. The tool optimized the process of creating offers since it made it more centralized, all the steps performed by not only salesperson but also most of team members involved can be achieved via one tool unlike the current situation. Nevertheless, it still needs to be confirmed by group 3 (finance) as it was not possible to conduct a usability testing with the financial analyst. For the second DG, the tool will support supports in monitoring and tracking offers as well as contracts. Finally, for the D3, users appreciated the automatization of offers status and the prefilled output of proposal and contracts templates ensuring that it will contribute in making them gain time.

6. DISCUSSION

Choosing to follow a user centric design approach in this project was beneficial in many ways. First in answering the 3 research questions set in the context. In fact, the different tools and methods applied enabled to understand the context of use by focusing on the user's needs and goals, specifying the requirements for a desirable and viable tool, develop a design and finally test it with actual users to refine the solution.

Even though the results of applying user-centred design principles were overall positive, several difficulties were encountered during the project. Firstly, user-centred design requires a lot of time and availabilities from the users. This was particularly discovered when trying to schedule meetings with busy people. As a result, it was not possible to plan more than 1-hour appointments and dates were moved few times, which made the initial research phase last longer. This affected also one of the usability testing and 1 interview that had to done on two times because of availability constraints. Mentioning the usability testing, other difficulties were revealed. It mainly concerns the remote characteristic of it. For example, during face-to face session, participants may carry on the discussion in an informal way and share other views after finishing the test which what occurred during the only usability testing conducted on site. The participant continued the discussion for few minutes after completing the tasks but this was not possible of the rest of users that conducted online. Moreover, the feedback gathered during the remote session can be less detailed and some valuable comments could be missed as participants were not able to think out loud as it was requested. Second, and as explained in section. it was not possible to conduct a usability testing with all group of users defined because of lack of availability. So, it could have been better if a test the wireframes created was held with the financial analyst to gather more feedback.

The management, in particular the head of B2B operations and IT consultant who initiated the project, were conversant about principles of with UCD design and the methodologies that requires. Therefore, the methodology had to be adapted to meet their requirements and focus more on the usability of the tool. For example, the wireframes created were not enough sufficient to be presented to the developer as they lack the technical aspect. Therefore, and as a next step it could be interesting to prepare wireframe more tangible that would allow them to

grasp more into the tool's functionalities and get an explicit view of the components that will be coded.

On a more general level, the principles of user-centered design can be integrated and applied for the rest of the tools that will be developed for the Pamela sales platform. the methodology and tools can be easily used for other projects in Salt business that involves different users, from various teams and having different needs. In such projects, the User-Centred Design can be beneficial by taking all stakeholders into account.

Presenting the design goals to the different users is particularly interesting; it allows them to feel engaged and realize that the tool will be developed to meet the different expectations and needs they have.

On the other hand, the use of usability tests similar to those performed in this project are quite interesting as in Salt business the tests are limited to just sowing and asking to business owner if the tool is suitable for the team he is managing whereas deeper testing might identify potential issues and solve them before the development process. This would provide users with a viable and desirable tool.

7. CONCLUSION

The purpose of the present thesis was answering questions related to how the salesperson of Salt business are currently working for creating offers, their need and pain points in the goal to design a new offer tool that includes the functionalities needs that would optimize the process.

To maximize the chance of delivering the salesperson and all other team members involved in the process of proposal creation with a tool that meets their needs, it was decided to apply the User Centred Design approach. This approach that began with a formative research to gain a key knowledge about offers, provided an interesting amount of qualitative data to specify and set up the requirements and design objectives to be achieved for the new tool. On the basis of what have been defined, wireframes have been designed then tested with actual users. The resulting data of tests was applied to refine the wireframes to increase users' satisfactions. Users feedbacks were overall positive and they expressed their willingness to start using this tool.

This project has also proved that applying UCD to build new technologies with the contribution of future users will lead to equipping them with the right tools that they trust. Therefore, it will be interesting to also apply this method for the development of the rest of the tools of the sales platform.

BIBLIOGRAPHY

Alexander Chernev “Strategic Business Model Archetypes” In *the Business Model: How to Develop New Products, Create Market Value and Make the Competition Irrelevant*. Cerebellum Press, 2017. Retrieved from: https://books.google.ch/books?id=DzaZDgAAQBAJ&hl=fr&source=gbs_navlinks_s

Bob Wiggins “Manage Information” In *Effective Document and Data Management: Unlocking Corporate Content*. 3rd ed. Routledge, 2016. doi: <https://doi.org/10.4324/9781315578910-18>

Comiti, A., Laffin, T., & Pillon, F. « Le cycle de vente » In *Informatiser sa force de vente*. STYLUS, Paris, 1994. Retrieved from: <http://pragmatic-consulting.fr/medias/ExtraitdulivreInformatisersaForcedeVente.pdf>

Keiningham T., Vavra T., Aksoy Le., & Wallard H. “The Right Way to Manage for Customer Loyalty” In *Loyalty Myths: Hyped Strategies That Will Put You Out of Business and Proven Tactics That Really Work*. Wiley; 1st edition (2005). Available at:

Carmit Yadin “Understand your customers” In *How to Boom B2B Sales*. Archway Publishing, 2015. Available at: https://books.google.ch/books?id=cxhHBgAAQBAJ&dq=How+To+BOOM+B2B+SALES&hl=fr&source=gbs_navlinks_s

Owusu R., Hinson R., Adeola O., & Oguji N. “Buying from B2B sellers” In *Business-to-Business Marketing*. CRC Press, 2021. Available at: <https://books.google.ch/books?id=cggqEAAAQBAJ&hl=fr>

Moncrief W., & Marshall G. (2005) “The evolution of the Seven Steps of Selling”, *Industrial Marketing Management*, vol.102, n 34(1) p13-22. doi: 10.1016/j.indmarman.2004.06.001

Gaurav Sinha “Developing a Client-Centered Message” In *A Beginner's Guide for Business Proposal Management*. Notion Press, 2016. Available at: https://books.google.ch/books?id=IIWbDAAAQBAJ&dq=Beginners-Guide-Business-Proposal-Management&hl=fr&source=gbs_navlinks_s

Jean Wilson Murray. The Complete Guide to Writing Effective and Award-Winning Business Proposals Step-by-Step Instruction, Atlantic, Publishing Group Inc (2008), pp: 111-117. Available at: [https://books.google.ch/books?id=_fxQbGAggboC&pg=PA2&dq=Jean+Wilson+Murray+\(2008\)+steps+to+create+business+proposal&hl=fr&sa=X&ved=2ahUKEwiPzY-bhbb1AhUkgv0HHdDtDTAQuwV6BAgKEAk#v=onepage&q=Jean%20Wilson%20Murray%20\(2008\)%20steps%20to%20create%20business%20proposal&f=false](https://books.google.ch/books?id=_fxQbGAggboC&pg=PA2&dq=Jean+Wilson+Murray+(2008)+steps+to+create+business+proposal&hl=fr&sa=X&ved=2ahUKEwiPzY-bhbb1AhUkgv0HHdDtDTAQuwV6BAgKEAk#v=onepage&q=Jean%20Wilson%20Murray%20(2008)%20steps%20to%20create%20business%20proposal&f=false)

Tom Sant “Developing a Client-Centered Message” In *Persuasive Business Proposals: Writing to Win More Customers, Clients, and Contracts*, AMACOM (2004). Available at:

https://books.google.sm/books?id=M5GTFv6LSqwC&printsec=copyright&hl=it&source=gbs_pub_info_r

Veligura N., Chan K., Cufre G. (2020) *COVID-19's Impact on the Global Telecommunications Industry*. Retrieved from:
https://www.ifc.org/wps/wcm/connect/1d490aec-4d57-4cbf-82b3-d6842eecd9b2/IFC-Covid19-Telecommunications_final_web_2.pdf?MOD=AJPERES&CVID=n9nxogP

Kirkland et al. (2020), *The path to the next normal*. Retrieved from:
<https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Navigating%20the%20coronavirus%20crisis%20collected%20works/Path-to-the-next-normal-collection.pdf>

John Favaro (2019), *5G Business Models and Opportunities for SMEs as savvy providers of 5G applications and services*. Retrieved from:
<http://technoeconomics.idlab.ugent.be/output/5gcloudscape.pdf>

Mazor A., Houillier S., Tremblay-Charland M., Zuker J., & Winsor S. (2019), *L'expérience de la transformation numérique : Pour une technologie fonctionnelle au travail*. Retrieved from:
<https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/consulting/ca-fr-the-digital-workforce-experience-aoda.pdf>

Swiss Telecommunications Association (2019), *5G socio-economic impact in Switzerland*. Retrieved from: https://asut.ch/asut/media/id/1465/type/document/Study_Tech4i2_5G_socio-economic_impact_switzerland_February_2019.pdf

Abras C., Maloney-Krichmar D., Preece J (2004), *User-Centered Design*, Retreived from:
<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.94.381&rep=rep1&type=pdf>

ISO. (2018). ISO 9241-210:2019, Ergonomics of human-system interaction-Part 210
<https://www.iso.org/obp/ui/fr/#iso:std:iso:9241:-210:ed-2:v1:en>

Vanessa Hack, “What is prospect research” In *Targeting the Powerful: International Prospect Research*, doi, 1st edition, Routledge (1997), doi: <https://doi.org/10.4324/9781315063294>

PRUITT J., Adlin T.,” Overview of the persona lifecycle “In *The Persona Lifecycle Keeping People in Mind Throughout Product Design A volume in Interactive Technologies*, 1st ed (2006), doi: <https://doi.org/10.1016/B978-0-12-566251-2.X5000-X>

International Institute of Business Analysis (2015), *Babok: A Guide to the Business Analysis Body of Knowledge*, p15-20. Available at: <https://www.iiba.org/career-resources/a-business-analysis-professionals-foundation-for-success/babok/>

Martin C. Maguire, “User Requirements Framework” In *RESPECT User-Centred Requirements Handbook (1998)*, p16-25. Available at:
<https://rauterberg.employee.id.tue.nl/lecturenotes/UserCenteredRequirementsHandbook.pdf>

Swiss Federal Statistical Office (2021), *Petites et moyennes entreprises* availabe at : <https://www.bfs.admin.ch/bfs/fr/home/statistiques/industrie-services/entreprises-emplois/structure-economie-entreprises/pme.html> (accessed November 2021)

Burke R., Felfernig A., Göker M.,(2011), Recommender Systems: An Overviewhttps, *Ai Magazine*,n 32:13-18. Available at: https://www.researchgate.net/publication/220604600_Recommender_Systems_An_Overview

Fui-Hoon F (2007), *A study on tolerable waiting time: how long are Web users willing to wait?* doi: <https://doi.org/10.1080/01449290410001669914>

Federal Communications Commission (2021), *Marketshare*. Available at : <https://www.comcom.admin.ch/comcom/en/Homepage/documentation/facts-and-figures/mobile-telephony/market-share.html> (accessed November 2021)

Deloitte (2016), *Engaging the workforce Getting past once-and-done measurement surveys to achieve always-on listening and meaningful response.* Available at: <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/human-capital/us-cons-engaging-the-workforce.pdf>

Sales Management Association (2013), *Sales Proposal Effectiveness in B2B Sales Organizations.* Available at <https://salesmanagement.org/web/uploads/TinderBox%20PDF.pdf>

Salt press (2021), *Salt mobile PRO the new first-class service and network solution for business customers at economy rates.* Available at: <https://fiber.salt.ch/sites/default/files/2021-11/20211102-PR-MobilePRO-EN.pdf>

UNIL (2010), *Méthodes de recueil de données pour l'évaluation d'un cursus d'études.* Available at https://www.unil.ch/cse/files/live/sites/cse/files/shared/brochures/CSE_Guide_recueil_donnees_cursus_2011.pdf

APPENDIX I

Interview guide

Interviewer	Mariem Guebibia
Presentation of the project	In the context of improving the current process of offer creation. The goal of this interview is to explore and understand more your tasks to help us identify the context of use of the new tool. All exchanged information will remain confidential and will be accessible only to the team working on the project and the teacher supervising my thesis.
Questions	<p>Types of Offers and how they relate to the sales process</p> <ul style="list-style-type: none"> • At which stage from the sales process do you start creating an offer? • À quelle étape du processus du sales commencez-vous à créer une offre ? • What is the information you need to have to be able to start creating the offer? • Quelles sont les informations dont vous devez disposer pour pouvoir commencer à créer l'offre ? • Could you please cite the difference(s) between an acquisition and a retention offer? • Pouvez-vous citer la ou les différences entre une offre d'acquisition et une offre de rétention ? <p>Number of offers and versions created</p> <ul style="list-style-type: none"> • how many offers do you create per week for acquisitions? • Combien d'offres créez-vous par semaine pour les acquisitions ? • how many offers do you create per week for retentions? • Combien d'offres créez-vous par semaine pour les rétentions ? • For an acquisition sales case, how many versions of an offer do you create? • Pour un cas d'acquisition, combien de versions d'offre créer-vous ? • For a retention sales case, how many versions of offer do you create? Pour un cas de rétention, combien de versions d'offre créez-vous ? • Once you create another version of a specific offer, for the precedent versions, do you: <ul style="list-style-type: none"> ○ Delete them? Why? ○ Keep record of them? For how long? Where? • Une fois que vous avez créé une nouvelle version d'une offre spécifique, pour les versions précédentes, est-ce que vous :

- Les supprimez ? Pourquoi ?
- Vous les gardez ? Pendant combien de temps ? Où ?

Offers and discounts

- Could you please explain the impact of the choice of the discount scheme on the offer?
- Pourriez-vous expliquer l'impact du choix du discount scheme sur l'offre ?

Offer validation

- Which are the cases that you need to have Benjamin's or Jonathan's validation for the offer?
- Quels sont les cas où vous avez besoin de la validation de Benjamin ou de Jonathan pour l'offre ?
- How much time does it take until you reach the valid offer?
- Combien de temps faut-il pour avoir une atteindre l'offre valide ?

Remarks	

APPENDIX II

Usability test protocol: Offer tool

Facilitator: Mariem Gueibia

Interviewee:

Introduction:

Thank you for accepting to participate in this usability testing during the development of the offer tool that would allow us to improve its usability and benefits.

The session will be recorded. All information will remain confidential and will not be employed for other projects. The information will be safeguarded and accessible only to the team working on this project in Salt Business and the UNIL professor responsible for supervising my internship.

Goal of the usability study

In the context of improving the creation and management of offers, we are trying to identify the optimal workflow starting from creating an offer until signing the contract.

This usability study aims to identify if there are usability problem areas in the steps defined and potential design concerns.

What we expect from you for this usability study:

- Be honest regarding what you really approved so that we learn about your preferences and most importantly indicate what needs to be enhanced so that we identify improvement opportunities.
- Think out loud while completing tasks. It may help us uncover potential problems.
- Do not hold back your answers. There are no correct or wrong answers. The goal is not to test your performance but to evaluate the tool.

Usability study plan

Based on the group of users you belong to, you will test wireframes representing the sections that you will be able to see and use in the tool.

Tool discovery: At the beginning, the participant will have time to discover the tool on their own. The goal is to get an overview of the tool so that participant gets familiar with it and become more comfortable before starting the test.

Usability testing: The goal of this part is to attempt to complete a set of tasks presented to the participant. Give feedback after completing tasks. Tasks will be presented to you in a different document. We will go through them together for a better explanation.

Debriefing: The goal of this part is to wrap-up the test. General questions about user experience will be asked.

Tasks for User group1: Salesperson

Participant is asked to conduct a usability testing based on the following scenario: Create an acquisition offer. Let's assume that you had successful a meeting your prospect and he contacted you requesting an offer. Follow the mentioned tasks to complete that.

First you should start by completing the sections of your offer.

- TASK1: Complete Company Information section
Remplir la section Company Information
- TASK2: Complete Customer Team Information section
Remplir la section Customer Team Information
- TASK3: Complete Offer Details section
Compléter la section Offer Details
- TASK4: Complete Offer Options section
Compléter la section Offer Options

Short break.

Now that all sections of the offer are completed, you should finish your presentation.

- TASK 5: Edit PPT presentation template
Modifier le template de la présentation PPT

Offer presentation is ready. It is time to send it to the prospect.

- TASK 6: Send offer to prospect.
Envoyer l'offre au prospect

Your offer is validated. You should concrete it by creating the contract.

- TASK 7: Create Contract.

Créer le contrat.

- TASK 8: Send Contract.

Envoyer le contrat.

Now let's have a look on your offers and contracts.

- TASK 9: In offers page, display only acquisition offers

Dans la page des offres, afficher uniquement les offres d'acquisition

- TASK 10: In contracts page, display only contracts with status "Waiting for customer signature"

Dans la page des contrats, afficher uniquement les contrats dont le statut est

"En attente de la signature du client".

Please provide feedback about the previous tasks.

Tasks for User group 2: Head of region

Participant is asked to conduct a usability testing based on the following these tasks.

TASK 1: Display offers with status "Waiting for head of region validation".

Afficher les offres dont le statut est " Waiting for head of region validation ".

TASK 2: Select one and display it.

En sélectionner une et l'afficher.

TASK 3: Validate the selected offer.

TASK 4: Request validation from financial analyst.

Demander la validation de l'analyste financier.

TASK 5: Display contracts with status "Signed contract".

Afficher les contrats avec le statut " Contrat signé ".

TASK 6: Generate a report.

Générer un rapport.

TASK 7: Send report to the board management.

Envoyer le rapport à la direction du conseil d'administration.

Tasks for User group 3: Onboarding team member

Participant is asked to conduct a usability testing based on the following these tasks.

TASK 1: Navigate through the requests for contract creation from the home page then select one to display it.

Naviguer dans les demandes de création de contrat depuis la page d'accueil puis en sélectionner une pour l'afficher.

TASK 2: Create contract.

Créer un contrat.

TASK 4: Edit contract.

Modifier le contrat.

TASK 3: Send contract to salesperson.

Envoyer le contrat au vendeur.

Tasks for User group4: Management board

Participant is asked to conduct a usability testing based on the following these tasks

TASK 1: Navigate through the signed contracts from the home page.

Naviguez dans les contrats signés à partir de la page d'accueil.

TASK 2: Navigate through the reports and select one.

Naviguer dans les rapports et en sélectionner un.

TASK 3: Validate the report.

Valider le rapport.

TASK 4: Reject the report.

Rejeter le rapport.

For all users

Interview: EN

- Overall how did you find the usability testing experience of the tool?
- What did you find most valuable?
- What can you suggest as improvement?
- Do you have other recommendations to give?

Interview: FR

- Dans l'ensemble, comment avez-vous trouvé l'expérience de test de l'outil ?
- Qu'est-ce qui vous a semblé le plus utile ?

- Que pouvez-vous suggérer comme amélioration ?
- Avez-vous d'autres recommandations ?

APPENDIX III

Pamela sales tool

SC-HII Acquisition Offer Version 1

Company Details

Contact person details

Name: [Input Field]

Phone number: [Input Field]

Last name: [Input Field]

Email: [Input Field]

Date of birth: [Input Field]

ID document number: [Input Field]

Job title: [Input Field]

ID document type: [Input Field]

Add

Figure 5.66: Contact person form updated (Last name instead of Family name)

Pamela sales tool

SC-HII Acquisition Offer Version 1

Company Details

Check company information on Moneyhouse

Add Attachment

Overview

Legal name	Email	Industry
Business UID	Phone number	Branches
Trade Registry Number	Web address	Sales turnover
Company segment	Legal address	Employees
Language		Number
		Location

Save

Figure 5.67: Company Overview subsection updated with the addition of link to Moneyhouse

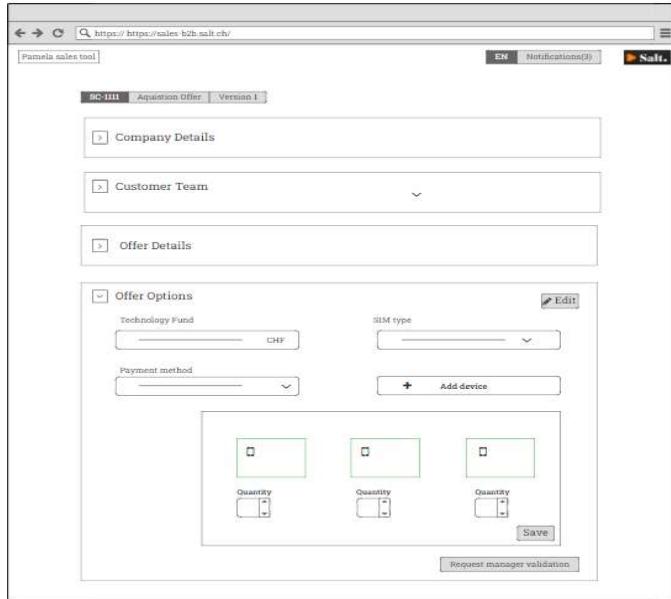


Figure 5.68: *Offer sections view updated with button “Request manager validation”*

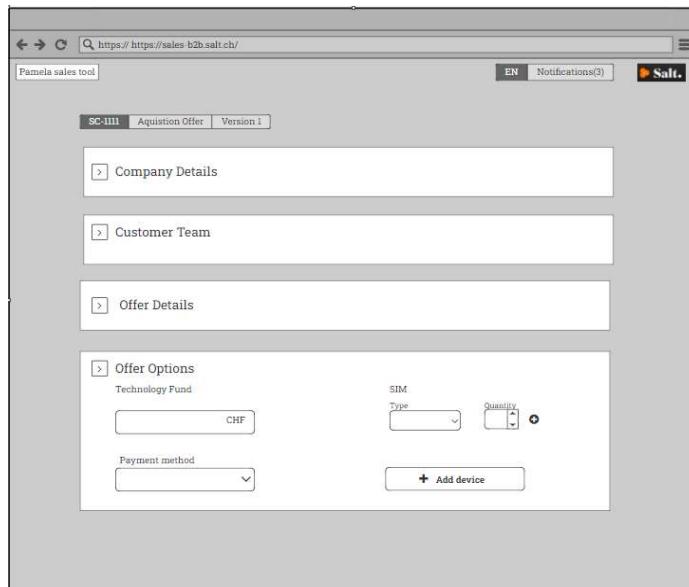


Figure 5.69: *Offer options updated wit a quantity box for SIM*

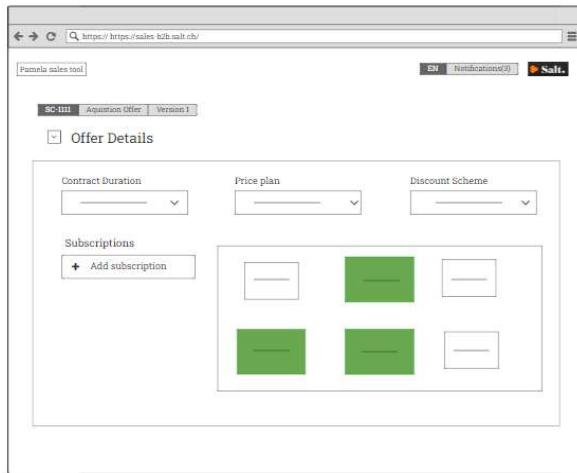


Figure 5.70: Subscription view with updated colour of widgets

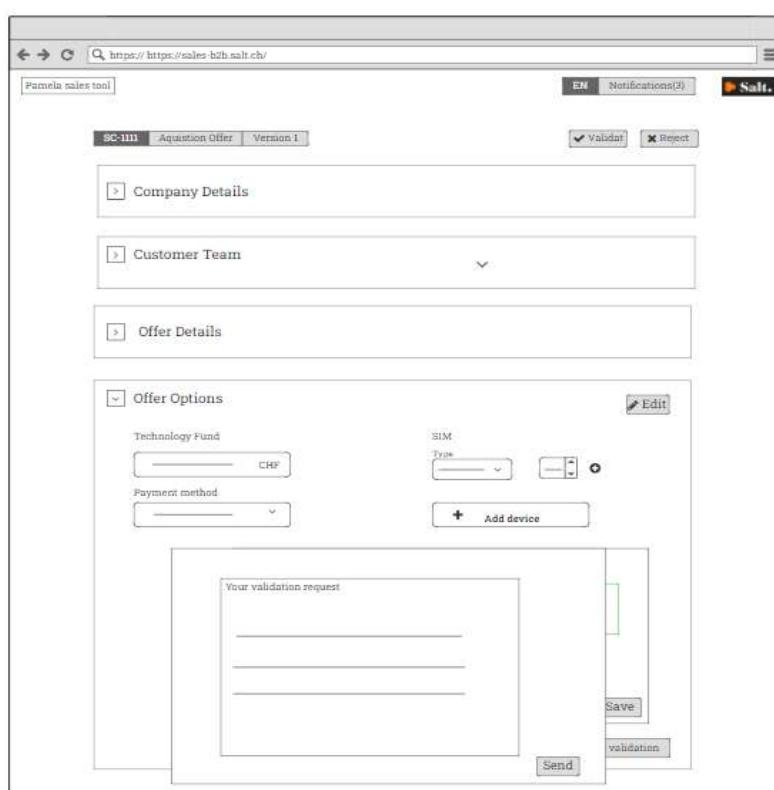


Figure 5.71: Offer request validation view updated with the addition of a text box